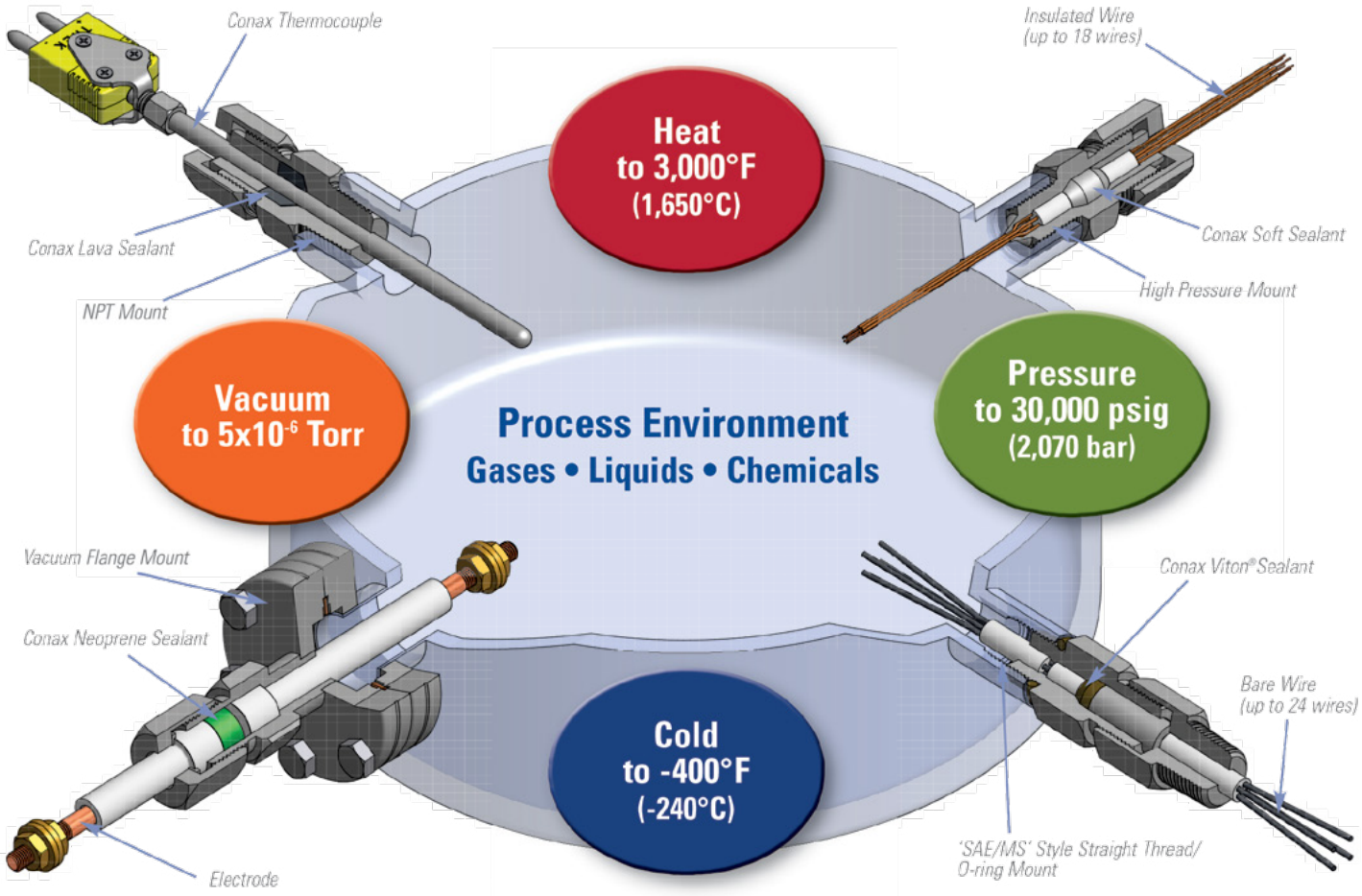
Compression Seal Fittings

The Complete Guide to Vacuum and Pressure Seal Assemblies

Ensure the integrity of your internal process conditions. Provide the highest degree of protection for your external environment.

Single Element—All Purpose
Conax PG
Compression Seal Fitting

High Pressure/Multi-Element
Conax HPPL*/PL/HL
Compression Seal Fitting



Single Element for Conductors
Conax EG*/EGT
Compression Seal Fitting

Multi-Element/Multi-Hole
Conax TG*/MHC/MHM
Compression Seal Fitting

The Quality and Performance Leader

Conax™ TECHNOLOGIES

Ideas. Solutions. Success.

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The Quality and Performance Leader in Compression Seal Fittings

Today, Conax Technologies manufactures more than 600,000 compression seal fitting assemblies in our state-of-the-art production facility. And our sales and engineering staff continue to break new ground with custom designs and problem-solving abilities.

From a simple "off the shelf" assembly to the most complicated design challenge, turn to Conax Technologies for quality, innovation, on-time delivery and commitment to customer satisfaction.

Experience, Knowledge and Creativity

During the past 60 years, Conax has developed a reputation as the company to turn to for quality solutions to pressure and vacuum compression seal fittings. Our knowledgeable, multi-disciplinary sales and engineering staff welcomes the opportunity to discuss challenging applications and present solutions.

We have product specialists in virtually all vertical industrial markets – ex. power generation, semiconductor, petrochemical, aerospace, chemical, automotive and pharmaceutical. Visit conaxtechnologies.com to learn more about our extensive knowledge and capabilities in your market.

Global Presence

We provide professional consultation through our extensive global sales organization. We have sales engineers throughout the world ready to help you when you need it.

If your main business is in one country and your production facilities are in others, our global network can coordinate all aspects of your worldwide supply chain requirements – ordering, shipping, installation and service.

Our customer list includes companies of all sizes, from the largest Fortune 500 companies to the smallest engineering firms. We know how to get the job done no matter how large or small the application.

ISO 9001:2008 CERTIFIED

Our Headquarters

Our fully integrated, modern US facility features some of the most sophisticated manufacturing systems available. Complete in-house capabilities include computer-aided engineering, design and manufacturing. We have state-of-the-art equipment for machining, assembly, welding, calibrating and testing all parameters of performance. All Conax Technologies' products are produced under stringent quality assurance programs.

Tel: ***1.716.684.4500*** • *USA:* ***1.800.223.2389*** • ***ConaxTechnologies.com***

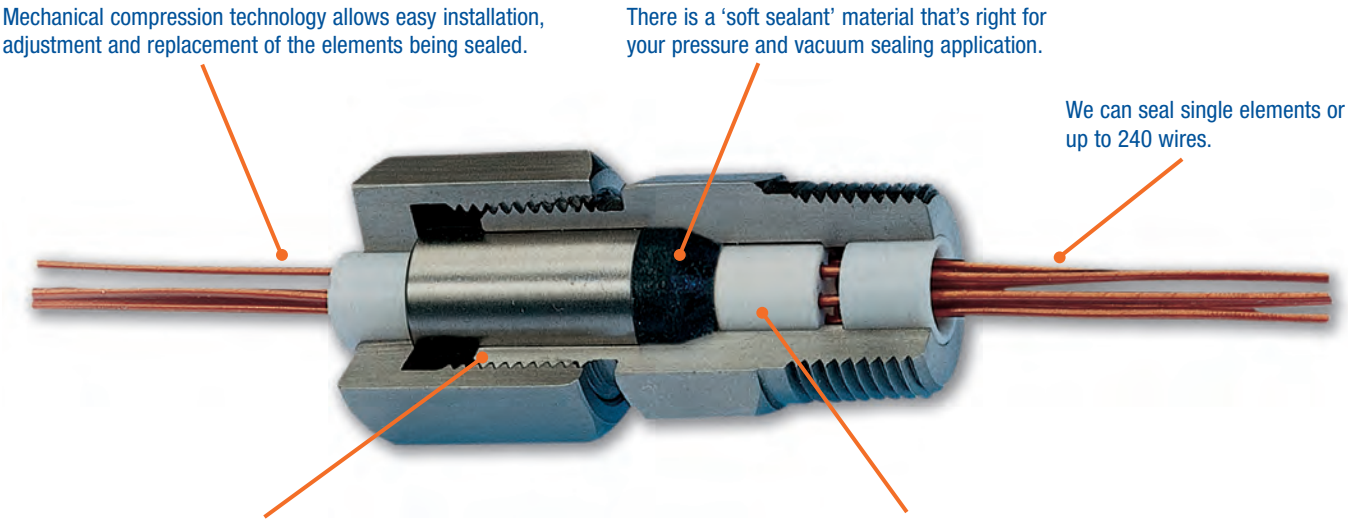
What Makes Our Compression Seals the Finest in the World?

Conax developed the "soft sealant" method of pressure/vacuum sealing in the 1950s and remains the world's leading manufacturer of this type of sealing device. This "soft sealant" technology when combined with mechanical compression results in a remarkably secure seal on wires, probes and electrodes that must pass through a pressure or environmental boundary. This technology is also designed for ease of installation, adjustment and replacement of the elements.

Our sealing glands can seal up to 240 wires, and can withstand pressure in excess of 30,000 psig (2,070 bar).

Conax continues to research and perfect this technology as we expand our capabilities to meet the changing need of the industry worldwide.

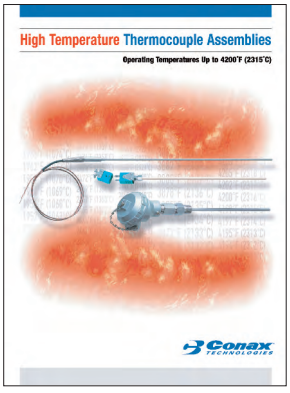
Competitive seals that utilize epoxy fillings are easy to install but all too often are unreliable in protecting your environment because of incorrect bonding of the epoxy to the elements which allows gases or liquids to escape around the elements. With a Conax fitting, this is not likely to happen because of the constant compression that is maintained around the elements throughout the life of seal. In addition, Conax compression seals are field re-buildable.



Ask about our Temperature Sensors!

Conax is a leader in the design and fabrication of temperature sensor assemblies for a variety of industries. We are committed to providing quality temperature sensors at competitive prices with an easy ordering system to speed delivery. In addition to an extensive line of standard thermocouples and RTDs, Conax Technologies' in-house engineering department provides custom design solutions to application-specific needs and special requests. Over the past 60 years many of our custom designs have become industry standards.

General Line Catalog #5005



High Temperature Catalog #6008

We offer an extensive selection of sensor calibrations, sheath materials, termination types and mounting styles to create the ideal assembly for your requirements. Every Conax sensor delivers rugged, reliable service with precision performance.

And our high temperature sensors can tolerate a remarkable upper service temperature of up to 4500°F (2482°C).

We have temperature sensor solutions for virtually every industrial market.

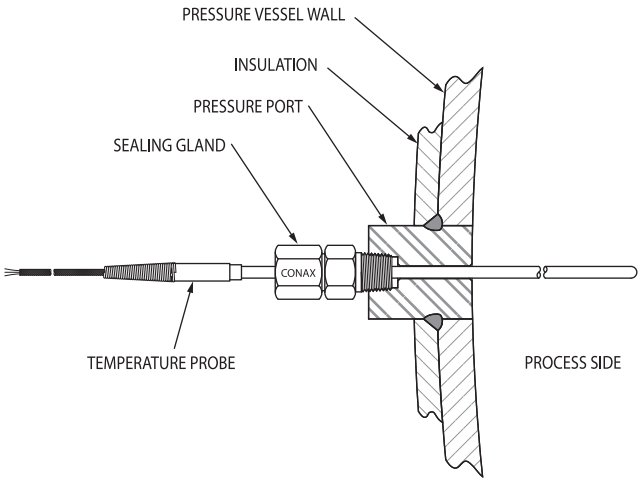
Call our sales engineers to learn more about our quality and performance leading industrial temperature sensors.

What Is a Sealing Gland?

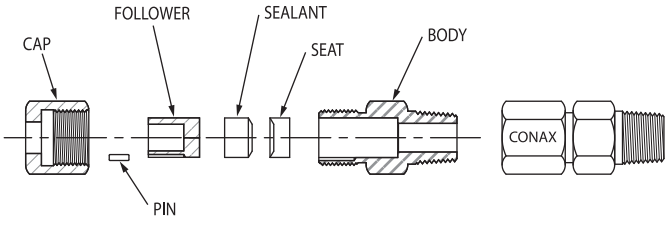
A **sealing gland** seals an element (probe, wire, conductor, pipe, tube, fiber optic cable) when the element must pass through a pressure or environmental boundary. A sealing gland may serve several purposes:

- It restrains the element from moving as a result of a pressure delta.
- It prohibits the leakage of gas/liquid media along the element.
- In some cases, it electrically isolates the element from the mounting device.

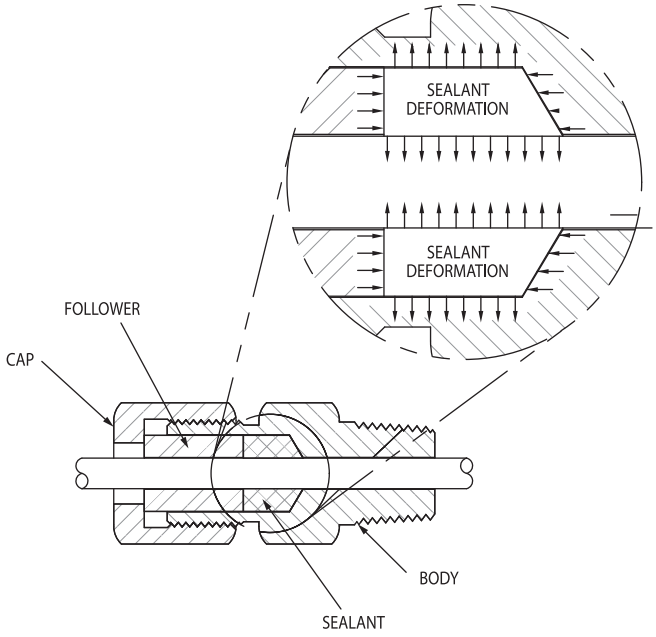
Typical applications include pressure vessels, autoclaves, holding tanks, pipelines, furnaces or anywhere wires or sensors need to pass from inside to outside a vessel or wall where pressure differentials or hazardous environments cause concern.



A single sealing gland assembly may seal on single or multiple elements. Sealing glands designed to seal single elements consist of a body, cap, sealant and follower. When sealing on multiple elements, gland designs also include a seat and an anti-rotation pin to prevent wires/conductors from twisting and shearing. One or more insulators may also be included when electrical isolation is required.



In Conax Technologies soft sealant technology, the element to be sealed passes through the bores in the sealing assembly components. When the cap is torqued to the recommended value, the torque on the cap translates an axial force on the follower. This force compresses the sealant contained within the body housing so that the sealant conforms to the element, creating a seal. The elastic nature of a sealant allows it to flow into any voids between the sealant and the element.



The tension in the torqued body acts as a spring to maintain compression on the element. The static friction force between the sealant and the element restrains the element from moving under pressure.

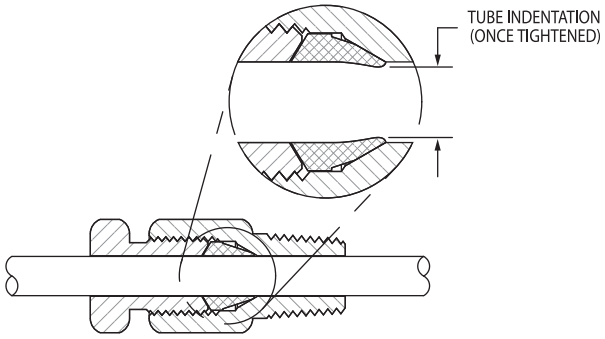
Styles of Soft Sealant Glands

Conax offers numerous styles of sealing glands ranging from single bore glands to multi-hole glands that can accommodate hundreds of wires. We routinely accommodate in a single gland 1 to 18 conductors ranging from 24 AWG to 1000 MCM (1" diameter) to handle a voltage range from the millivolt level to 8000 volts. From 1 to 63 probes, ranging from 0.020" to 1.250" diameter, are also routinely sealed in a single unit. In these catalog pages, you will find further information on the purposes and specifications of all our standard gland styles. For assistance in selecting the right gland model for your needs, see our gland selection guide on pages 14-17.

In addition, custom configurations are never a problem. From process control applications to aerospace, Conax Technologies can provide a gland for your needs.

Metal-To-Metal Sealing Glands

Conax Technologies offers one gland style that features a stainless steel ferrule instead of a soft sealant. The MK gland uses compression to deform the ferrule against the tube/probe without cutting the sheath surface. A slight deformation of the tube/probe surface does occur, however. MK glands are freely adjustable until first tightened. After that, they may be opened and resealed at that fixed immersion depth. The MK gland is designed to form the seal deep within the gland body, allowing the gland to stand up in high vibration applications.



Advantages of Soft Sealant Technology

In an **epoxy seal**, the filled containment is often subjected to cyclical temperature excursions defined by the process in which it is used. The epoxy material, wire/probe and housing have different coefficients of expansion. Rapid excursions in temperature create cracks or voids around the wires and between the housing and the epoxy. With **soft sealant technology**, the continuous tension in the torqued body acts like a spring to maintain compression on the sealant and maintain a positive seal throughout the temperature cycle.

Soft sealant technology allows replacement and adjustment of the sealed element. This is not possible with other technologies such as epoxy and glass-to-metal sealing.

CAUTION – Interchangeability

Conax Technologies sealing assemblies are manufactured to exacting standards. The critical interaction of precision parts as designed is essential to reliability and safety. Using parts of assemblies made by other manufacturers may not result in reliable seals.

Damage or injury may result from interchanging or mixing parts of Conax Technologies sealing gland assemblies with sealing assemblies made by other manufacturers.

Conax Technologies' warranty becomes null and void should the user elect to modify Conax Technologies components or mix them with that of another supplier.

Factors Affecting Sealing Gland Performance

Torque

As a general rule, increased torque increases compression, which in turn improves seal integrity and enables the gland to seal against higher pressures. Torquing has limits, however.

Over-torquing can cause:

- excess sealant extrusion
- material fracture in the body's thread relief
- "mushrooming" of the cap and follower
- damage to the element

Under-torquing may result in reduced sealant compression, causing reduced pressure rating or diminished seal integrity.

Torque ratings are provided for each gland. Best results will be achieved if the gland is torqued to the proper range. Unless otherwise noted, **Conax Technologies torque ranges were determined using solid stainless steel elements at 68˚ F (20˚ C).**

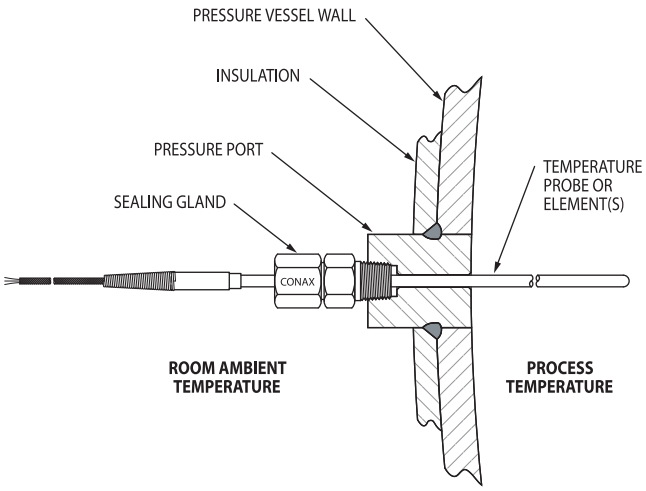
Please note that hollow pipe or tubing, ductile materials such as copper or platinum wire, and fragile materials such as glass or ceramic easily deform or fracture under compression. The torque must be decreased to compensate for these material properties. As a result, the pressure rating will decrease. If elements are sleeved with PTFE or other jacketing materials, pressure ratings may also decrease. Please consult our factory for information on proper torque and pressure information for any of these materials.

The torque and pressure ratings provided in this catalog apply only if the bores are drilled by Conax Technologies. We cannot certify the ratings for bores drilled by the customer or any other outside party.

If you have any questions about proper torque and pressure ratings for your application, our skilled sales engineers would be happy to assist you in the selection of the appropriate gland for your use.

Temperature

Increased temperature also affects the behavior of sealing gland assemblies. Pressure ratings generally decrease as temperature increases. The rate of decrease is a function of the type of sealant material. Please consult our factory if your application temperature is above 68˚ F (20˚ C) **at the location of the gland** (keeping in mind that your process temperature may be considerably higher than the temperature experienced by the gland at the pressure/environment boundary).



For EG and EGT Series glands that seal on electrodes passing current, increased ampacity will increase the temperature of the gland. The maximum ampacities listed in the specification charts for these glands represent the maximum current recommended to maintain the integrity of the seal. Although the electrode may be able to carry a much higher current, the resulting heat rise will increase the temperature of the sealant in contact with the electrode. This may cause the pressure rating to significantly decrease. If a higher current is required, consider using a gland with a larger conductor to offset the heat rise effect. Tables of Derating Values at higher temperatures are provided in the Technical Data section of this catalog, pages 120-123.

Element Surface Finish

The surface finish of the element to be sealed can affect the seal integrity. Soft sealant glands are designed to seal on solid wire or rod. Longitudinal scratches, helical markings and stranded wire can provide leak paths that will not be blocked by the sealant extrusion around the element. Sealing glands can be used to seal on the outside of stranded wire jacket if the wire is already sealed by some other device (accelerometer, bearing sensor).

Lubrication

Improper or inadequate lubrication of the sealing gland threads and load-bearing surfaces of the cap will affect the torque values that can be achieved. This in turn reduces sealant compression and reduces pressure ratings. Inadequate lubrication may also cause galling of the metal parts.

Conax Technologies glands are supplied factory lubricated. Any time a Conax sealing gland assembly is opened for replacement or adjustment of the probe, wires or sealants, the gland must be relubricated to ensure maximum sealing performance of the gland. In addition, if the gland is cleaned prior to installation, it must be relubricated.

On weld mount models, the heat produced while welding the assembly in place will destroy the factory-supplied lubricant. These glands must be disassembled for welding, then relubricated and reassembled prior to use.

Conax Technologies offers a sealing gland thread lubrication kit (P/N 19-0001-001) featuring the same non-hazardous lubricant supplied on new glands. This easy-to-use kit provides our factory-recommended lubricant in a single application package with the applicator included so you do not need to purchase or store large amounts of lubricant.

Improper Sizing

Careful selection and sizing is required for optimum sealing gland performance. Undersized holes in the sealant, follower, seat or insulator may prevent element installation. Oversized holes through a seat, follower or insulator allow excessive sealant extrusion, reducing sealant compression and reducing the pressure rating. Oversized holes in the sealant may also reduce sealant compression and decrease the pressure rating.

Conax Technologies offers a large variety of standard bore and hole sizes, including pipe sizes and metric sizes. Custom sizes and arrangements are also readily available. Conax Technologies' product sales engineers are available to assist you in selecting the optimal configuration for your application.

Leak and Vacuum Ratings

Conax Technologies provides two statistics to measure the ability of our sealing assemblies to seal against gas and liquids in pressure/ vacuum environments.

Helium Leak Rate represents the rate of flow through a leak of a specified gas at a specified pressure on the inlet and outlet sides. Conax Technologies uses a dynamic leak test. In this test, the interior is evacuated while a tracer gas (Helium) is applied to the exterior. Any attempt to draw in the tracer gas can be detected with a leak detector. Our Viton, Neoprene, PTFE and Grafoil sealants all have Helium Leak Ratings of 1 x 10^{-6} scc/sec (mbar l/s) He at 68˚ F (20˚ C) or better with 1 atm. supplied.

Vacuum Rating represents the ability of a unit to achieve and maintain a perfect vacuum (e.g. zero absolute pressure). Vacuum is primarily measured by its absolute pressure, is typically expressed in torr (1/760 atm) and is directly indicative of the amount of matter in a defined volume.

Materials of Construction

Conax Technologies standard gland bodies are constructed from 303SST for thread mounted glands or 316LSST for weld neck mounts. Caps, followers and seats are constructed from 303SST.

Many other materials of construction are available. Some applications may require special construction materials to withstand corrosion or physical attack by the process liquid or gas. When selecting the appropriate material for your application, keep in mind that only the wetted parts (normally the body) actually contact the process media. Caps and followers can usually be constructed of standard materials, although any part of the assembly may be constructed from the material of your choice.

Commonly requested materials include:

Hastelloy® C276 – Excellent in chlorine gas, hypochlorite and chlorine dioxide solutions. Also used in ferric and cupric chlorides, hot contaminated mineral acids, solvents, chlorine and chlorine-contaminated media (inorganic and organic), dry chlorine, formic and acetic acids, acetic anhydride, sea water and brine solutions.

Monel® 405 – Used in steel pickling processes, desalination processes and heat exchangers to resist corrosion by chlorinated hydrocarbons; in reboilers and preheaters used in the production of hydrogen to resist pitting by CO_2, in oil wellhead hardware pumps and valves, and in offshore equipment to resist mussel buildup and marine foul-up.

Inconel® – A nickel-chromium alloy with good oxidation resistance at higher temperatures in the range of 2000˚ F (1093˚ C); very good in corrosive environments, neutral and alkaline salt solutions, and steam; virtually immune to chlorine ion stress corrosion cracking. Typical applications include chemical and food processing, heat treating, phenol condensers, soap manufacture, vegetable and fatty acid vessels, production of caustic alkalis in the presence of sulfur, production of chlorinated and fluorinated hydrocarbons, and reactor vessel components in boiling water nuclear reactors.

Titanium – Provides superior strength-to-weight ratio and continuous service up to 1000˚ F (538˚ C), bridging the gap between aluminum and steel. Immune to corrosive attack by salt water or marine atmospheres; exhibits exceptional resistance to a broad range of acids, alkalis, corrosive gases, chemicals and organic media. Superior resistance to erosion, cavitation or impingement attack makes titanium ideal for use in marine pumps and piping, high-velocity heat exchangers, chemical processing and oil well operations.

If you require some other material of construction, please consult the factory.

How To Order Alternate Materials

Throughout this catalog, you will find examples of how to order our sealing gland assemblies. Construction materials other than the standard materials are indicated by providing a modifier in parentheses immediately after the gland model number.

Example:

Standard PG Gland: *PG2-250-A-T*
PG Gland with Hastelloy Body: *PG2(/HC276)-250-A-T*

Common Material Modifiers:

/HC276 – Hastelloy C276
/M405 – Monel 405
/I600 – Inconel 600
/TI7 – Titanium, Grade 7
/S304 – 304 Stainless Steel
/S310 – 310 Stainless Steel
/S316 – 316 Stainless Steel
/S316L – 316L Stainless Steel

Selection of Sealant Materials

Conax Technologies has examined many sealant materials over the years. The standard sealants presented in this catalog represent the materials that have provided consistent, reliable and predictable performance in the widest range of applications. Other sealant materials are available and may be preferable for certain applications. If you are interested in a sealant material not listed here, please consult a Conax Technologies sales engineer for information on our test results and recommendations.

As a general rule among our standard sealants, Viton, Neoprene and PTFE sealants may be reused when the gland is loosened and retorqued. Grafoil sealants offer limited reusability. Due to its composition, Lava is not reusable.

STANDARD SEALANTS

Common Name (Sealant Code)	Chemical Name	Temperature Range	Vacuum Rating	Electrical Resistivity	Impermeability to Gas	Material Features
Neoprene (N)	Chloroprene	-40˚ F to +200˚ F (-40˚ C to +93˚ C)	0.005 microns (5 x 10^{-6} Torr)	GOOD	GOOD	Has resilience of natural rubber, with better resistance to oil, gasoline, ozone, weather and heat. Excellent memory for temperature cycling applications, moderate electrical resistivity, reusable in most cases.
Viton® (V)	Fluorinated Hydrocarbon	-10˚ F to +450˚ F (-20˚ C to +232˚ C)	0.005 microns (5 x 10^{-6} Torr)	GOOD	EXCELLENT	Retains mechanical properties at high temperature. Resistant to oils, solvents, fuels, corrosive industrial chemicals. Good electrical properties, reusable in most cases.
PTFE (T)	Polytetrafluoroethylene (PTFE)	-300˚ F to +450˚ F (-185˚ C to +232˚ C)	0.005 microns (5 x 10^{-6} Torr)	EXCELLENT	GOOD	Most versatile elastomer material, near inert to almost all industrial chemicals and solvents.
Lava (L)	Magnesium Aluminum Silicate $MgO \cdot Al_2O_3 \cdot SiO_2$	-300˚ F to +1600˚ F (-185˚ C to +870˚ C)	Not recommended for vacuum - consult factory	GOOD	POOR	Excellent in high temperatures, crushes to powdered mass under compression, porous to light gases and steam. NOT RECOMMENDED FOR HIGH VACUUM. Not reusable.
Grafoil® (G)	Graphite (in foil layers)	-400˚ F to +925˚ F (-240˚ C to +495˚ C) to +3000˚ F (+1650˚ C) in non-oxidizing atmosphere	0.005 microns (5 x 10^{-6} Torr)	POOR	EXCELLENT	Low vapor pressure, low gas permeability, excellent for vacuum applications. Natural lubricity, electrically conductive. Superior sealing capabilities at +925˚ F (+495˚ C). Not reusable in most cases.

SPECIAL MATERIAL SEALANTS

Common Name (Sealant Code)	Chemical Name	Abbreviations	Temperature Range	Electrical Resistivity	Material Features
EP Rubber (EPDM)	Ethylene Propylene Rubber	EPDM	-60˚ F to +300˚ F (-51˚ C to +149˚ C)	EXCELLENT	Excellent water and atmospheric resistance. Poor resistance to mineral oils and di-ester based lubricants.
Silicone Rubber (SR)	Polysiloxane	MQ	-75˚ F to +400˚ F (-59˚ C to +200˚ C)	EXCELLENT	Resistant to most solvents, performs well at low temperature, low tear strength
Buna N (NBR)	Acrylonitrile	NBR	-65°F to +250°F	EXCELLENT	Good in oil and fuel, low swell
Boron Nitride (H)	Borazone	BN	+68˚ F to +1800˚ F (+20˚ C to +982˚ C)	GOOD	Processed ceramic material, more homogenous than Lava. NOT RECOMMENDED FOR HIGH VACUUM.
Polysulfone (P)	Amorphous Thermoplastic	PSU	-40˚ F to +350˚ F (-40˚ C to +177˚ C)	EXCELLENT	Resistant to nuclear radiation 2 x 10^8 Rads
Tefzel®	Fluoropolymer	ETFE	-300˚ F to +300˚ F	EXCELLENT (-184˚ C to +150˚ C)	Resistant to most chemicals and solvents
Vespel® (VSP)	Polyimide	PI	-400˚ F to +550˚ F (-240˚ C to +288˚ C)	EXCELLENT	Resistant to most hydraulic, automotive and many industrial fluids
PEEK® (PK)	Polyetheretherketone	PEEK	0˚ F to +480˚ F (-18˚ C to +250˚ C)	EXCELLENT	Resistant to attack by a very wide range of organic and inorganic chemicals. The only common solvent for PEEK is concentrated sulphuric acid. Exceptional hydrolysis resistance.
Arlon® 1000	Polyetheretherketone	PEEK	0˚ F to +480˚ F (-18˚ C to +250˚ C)	EXCELLENT	Compatible with acids, bases, aliphaatic and aromatic hydrocarbons (see PEEK).
Ultem® 1000	Polyetherimide	PEI	0˚ F to +340˚ F (-18˚ C to +171˚ C)	EXCELLENT .	Offers excellent chemical resistance and high dielectric strength

Selection of Conductor Material for EG & EGT Assemblies

EG & EGT assemblies offer three material types for their electrical conductors:

Copper offers excellent electrical properties and resists corrosion quite well under most corrosive conditions. Oxidation does occur, however, at high temperatures.

Nickel is a very hard material with good resistance to oxidation and corrosion. Although its electrical conductivity is not as good as copper, nickel can be an excellent choice for higher temperatures where copper would oxidize.

Stainless steel offers similar hardness as nickel and also offers excellent resistance to oxidation and corrosion at a lower cost. It is one of the most common conductor materials used at higher temperatures and corrosive atmospheres. Its electrical conductivity is significantly reduced, however, as compared to copper and nickel. This reduced electrode ampacity is often offset by the use of a larger diameter electrode.

Comparative Electrode Resistivity

Material	Resistivity @ 20°C in ohm-Cmil/ft.	Ratio to Copper
Copper	10.23	1.00
Nickel	38.50	3.76
Stainless Steel	443.10	42.35

Mounting Methods

Conax Technologies offers all major methods of mounting sealing glands to a vessel or pipe. These include standard NPT threads, straight threads for SAE/MS ports, weld neck and various types of flange mounts. Information on specifications for these mounting types is provided in the following pages with each gland model. A Viton O-ring is provided with SAE/MS thread mounted assemblies.

As a general reference, for any mounting style other than standard NPT threads, the mounting style is indicated in parentheses after the gland model in the catalog number. These modifiers are provided in the specification charts for each gland model.

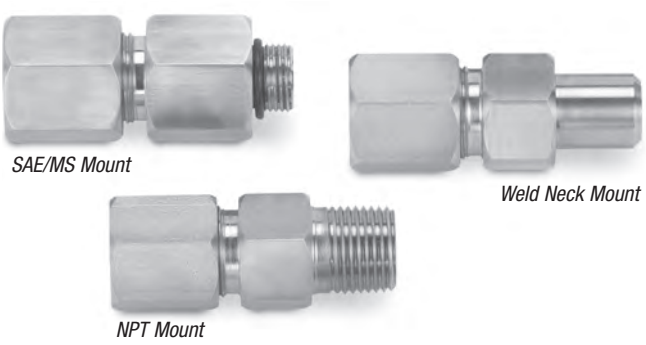
Example:

Standard PG Gland: *PG2-250-A-T*
PG Gland with Weld Mount: *PG2(SWM2/)-250-A-T*

For configurations using a mounting modifier and an alternative body material, both items of information are included in the parentheses:

PG Gland with Weld Mount and Monel Body:
PG2(SWM2/M405)-250-A-T

Catalog products are largely divided by their standard NPT size. In some cases, optional reduced NPT sizes are available on gland bodies normally used for larger NPT sizes. These are noted in the specifications charts. These optional reduced NPTs are machined in our factory. They do not use reducer adapters.



SAE/MS Mount

Weld Neck Mount

NPT Mount

Pressure Ratings on Mounting Styles

Conax Technologies' NPT threaded assemblies up to 1" NPT have been consistently tested to 10,000 psi. The NPT thread pressure rating meets or exceeds the gland rating, which may be less than 10,000 psig depending on the sealant used.

The ASME has published calculated NPT thread pressure ratings (at reduced pressure) for 316 stainless steel. If required, Conax Technologies can provide certification of our assemblies to ASME B31.3 and B31.1.

Conax Technologies' sealing assemblies with SAE thread mounts are compatible with SAE J1926/2 and AS4320.

Weld neck mounted assemblies meet our published catalog pressure specifications. Use of the proper welding protocol in installation of these glands is the responsibility of the customer.

Custom Configurations

Conax Technologies provides a fully staffed engineering department to assist you in creating non-standard assemblies to fit your application. Examples include multi-hole glands using holes of different sizes or non-standard hole patterns, sealants with non-concentric shapes, or custom mounting styles. Our standard components and assemblies can often be easily adapted to meet unique application needs. We welcome the opportunity to discuss your application and apply our sealing expertise to your situation.

Certifications and Special Ordering Requirements

Conax Technologies' sealing glands meet the following standards:

- NACE – National Association for Corrosion Engineers
- CRN – Canadian Registration Number (0H2915.5CR2)
- PED – European Pressure Directive

CRN Registration

Conax Technologies' sealing glands manufactured from 316LSST or optional materials including 316SST, 304SST and 304LSST are registered with all 13 Canadian provinces and territories in accordance with the Canadian Boiler, Pressure Vessel & Pressure Piping Code (CSA B51). For easy identification, registered bodies carry the assigned CRN number on the gland body.

CRN certified glands have maximum pressure ratings per the following chart. Note that the maximum catalog pressure rating of the Conax Technologies' gland may be less than the CRN maximum. Not all catalog configurations are available with CRN registration. Consult your Conax Technologies sales engineer for further information.

CRN Pressure Ratings

	NPT SIZE		
Temperature Range	**1/16, 1/8, 1/4, 1/2, & 3/4**	**1**	**1-1/4 & 1-1/2**
≤ 220° F	2500 psi	2500 psi	2500 psi
220° - 850° F	1500 psi	1200 psi	600 psi
> 850° F	Not Allowed	Not Allowed	Not Allowed

To order a CRN part, specify the material modifier in parentheses after the gland model (see *How To Order Alternate Materials*) followed by the letters "CRN."

Example: ***PG4(/S316LCRN)-250-A-G***

NACE

Conax Technologies manufactures sealing assemblies to the specifications of the National Association for Corrosion Engineers, NACE International Standard MR0175 for Metallic Metals in Contact with Sour Environments. To order these assemblies, specify /NC316 or /NC316L in parentheses after the gland model.

Example: ***PG4(/NC316L)-250-A-G***

European Pressure Directive (PED)

Conax Technologies' sealing gland assemblies up to 1" (25.4 mm) bore conform to the Standard Engineering Practice (SEP) requirements of the European Pressure Equipment Directive (PED) 97/23/EC. Contact Conax Technologies for further information.

How to Select the Correct Sealing Gland Assembly for Your Application

Conax Technologies offers a wide range of sealing gland assemblies. In order to select the right gland series for your application, three basic areas need to be addressed:

Environmental Requirements

- What type of media do you want to seal against? Is it a gas or a liquid? Is it corrosive if it were to come in contact with the gland body? Will it react with the materials in the gland body or sealant? Conax Technologies offers a number of alternative materials to the standard stainless steel body that may be better choices in a highly corrosive or sour environment. You must also consider that the sealant is the most likely material to contact the media. Do you need to worry about out-gassing or chemical reactions with the sealant?

- What pressures do you need to withstand? In some cases, pressure may be very low and the sealing gland assembly will be used primarily as a mounting fitting. In other cases, however, pressure may be the most critical factor in your selection, as the potential damage or harm to workers if the seal is broken could be considerable.

- Finally, what is the temperature range of the process and the ambient temperature experienced by the gland? This may affect your selection of a sealant. Conax Technologies also provides special assemblies to deal with high process temperatures.

Mechanical Requirements

- What will pass through the sealing gland? Will it be a sensor probe? Wires? Will electrical isolation be needed? How many items need to pass through a single port? You will need to know how many elements you need to seal and the diameter of each. You also need to consider how the sealing gland will be mounted to your vessel or wall. Do you need an NPT thread, SAE thread or welded mount? What size? Will you need to attach to a terminal head or conduit? Then you will need our B-cap style with threads on the cap end.

Electrical Requirements

- If you need to run electrical wire through your sealing assembly, will it be bare, solid, stranded or insulated wire? Do you intend to supply the wire or would you prefer that Conax Technologies provides the wire? Keep in mind that the hole diameter must accommodate the wire plus insulation if using insulated wire. How many volts (AC or DC) or amps will the assembly accommodate?

- Do you want an electrode instead of wire? What amperage and voltage do you need?

Special Considerations

- Do you have a particular need beyond the ordinary? For example, do you need to change under pressure? Are you dealing with extremely high pressures? Conax Technologies has developed many specialized assemblies for particular needs. Our multidisciplinary engineering staff offers years of combined experience and knowledge of materials and design considerations for sealing gland assemblies. Conax Technologies' engineers welcome the opportunity to discuss and develop solutions to challenging applications. We also offer testing capabilities, such as pressure and leak testing, to assist in developing these solutions and providing appropriate certifications where needed.

Once you have defined the parameters of your application, the first step is to select the right sealing gland assembly series for your needs. On the next few pages you will find a quick guide to aid you in selection of the right sealing gland series for your needs.

The specifications pages within each section then provides the sizes, amperages, wire gauges, hole configurations and mounting styles for many standard gland choices.

If you need help, have any questions or have custom needs, help is just a phone call away! Contact a Conax Technologies sales engineer at **1.716.684.4500.**

Metal Tubing

Ceramic or Rigid Plastic Tube/Pipe, Temperature Probe or Tubewell

Metal to Metal Seal

TUBE OR PROBE SEALING
MK SERIES
pgs. 26-27

Soft Sealant

Multi Conductor Cable, Wire Feedthrough or Coaxial Cable

TUBE OR PROBE SEALING
PG SERIES
pgs. 18-25

Tip Diameter > Diameter at the Sealing Location

SINGLE PROBE SEALING – WITH SPLIT INTERNAL COMPONENTS
PGS/SPG SERIES
pgs. 64-67

Tip Diameter ≤ Diameter at the Sealing Location

TUBE OR PROBE SEALING
PG SERIES
pgs. 18-25

For High Performance Applications:
High Pressure > 10,000 psi (690 bar) **HP SERIES Page 38**

Tel: ***1.716.684.4500*** *•* *USA:* ***1.800.223.2389*** *•* ***ConaxTechnologies.com***

Low Voltage Instrumentation Wire/Cable

Non Insulated (Bare) Wire (millivolts)

BARE WIRE SEALING AND INSULATED WIRE SEALING
TG SERIES
pgs. 50-53

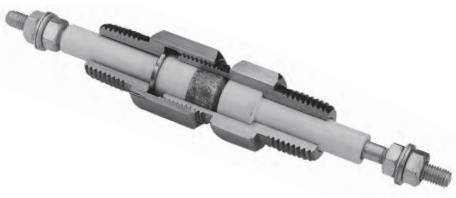
Insulated Wire (600 volt)

INSULATED WIRE SEALING
PL SERIES
pgs. 40-45

Power Supply

Bare Electrode

Voltage Rating ≤ 2000V



ELECTRODE SERIES
EG SERIES
pgs. 28-31

Voltage Rating ≤ 8000V

ELECTRODE SERIES
EGT SERIES
pgs. 32-35

Insulated Wire

INSULATED WIRE SEALING
PL SERIES
pgs. 40-45

For High Performance Applications:
High Density Wire Feedthrough (up to 240 conductors) **HD SERIES Pages 36-37**

Elements of Different Diameter

Tip Diameter > Diameter at Sealing Location

MULTIPLE TUBE OR PROBE SEALING – WITH SPLIT INTERNAL COMPONENTS
SPG/DSPG SERIES
pgs. 64-67

Tip Diameter ≤ Diameter at Sealing Location

CUSTOM MULTIPLE TUBE OR PROBE SEALING
MHM SERIES
pgs. 58-63

Instrument Lead ≤ 50 psi (3.5 bar)

MULTIPLE WIRE OR PROBE SEALING
BSWS SERIES
pgs. 68-69

Coaxial Cable of Instrument Lead > 50 psi (3.5 bar)

CUSTOM MULTIPLE TUBE OR PROBE SEALING
MHM SERIES
pgs. 58-63

Conax Supplied Insulated Wire

Customer Supplied Insulated Wire

INSULATED WIRE SEALING
PL SERIES
pgs. 40-45

24AWG (Solid) PTFE Insulated T/C or Copper Wire
(Process Temp up to 450°F/232°C)

INSULATED WIRE SEALING
TG24T SERIES
pgs. 46-47

Kapton Insulated Solid Wire

INSULATED WIRE SEALING
PL SERIES
pgs. 40-45

20 or 24AWG (Solid) Fiberglass Insulated T/C Wire
(Process Temp up to 900°F/482°C)

INSULATED WIRE SEALING
TGF SERIES
pgs. 48-49

Elements of Same Diameter

- **Low Voltage Instrumentation Wire/Cable**
  - **Bare Wire (T/C or CU)**

BARE WIRE SEALING AND INSULATED WIRE SEALING
TG SERIES
pgs. 50-53

- **Ceramic or Metallic Sheath Probe/Sensor**
  - **Tip Diameter > Diameter at Sealing Location**

MULTIPLE TUBE OR PROBE SEALING – WITH SPLIT INTERNAL COMPONENTS
SPG/DSPG SERIES
pgs. 64-67

  - **Tip Diameter ≤ Diameter at Sealing Location**

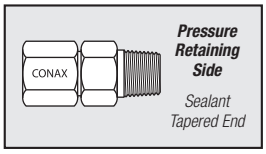
CUSTOM MULTIPLE TUBE OR PROBE SEALING
MHC SERIES
pgs. 54-57

- **Power Supply Wire**

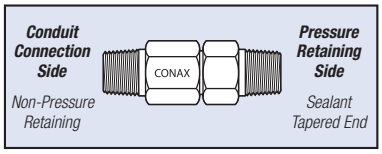
INSULATED WIRE SEALING
PL SERIES
pgs. 40-45

Conax Technologies Model PG Packing Glands provide pressure/vacuum sealing for tubes, probes, pipe, cable or any single element assembly (not electrically isolating), including thermocouples, RTDs, thermometers, thermistor probes, capillary tubes, tubewells, multi-pair cables and analyzer sample tubes. PG glands seal against gases and liquids and resist element movement under pressure.

PG gland bodies with NPT threads or SAE threads are constructed from 303SST standard. Weld-neck style gland bodies are constructed from 316LSST standard. Caps and followers for all styles are constructed from 303SST standard. Many optional materials are also available, including 316LSST, Monel 405, Hastelloy C276, Inconel and more. For information on alternative materials, see page 9. Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

Alternative sealant materials and custom bore sizes are available. Please consult a Conax Technologies sales engineer for custom needs.

- Temperature Range: -400˚ F to +1600˚ F (-240˚ C to +870˚ C), depending on sealant used. See page 8 for details.
- Pressure Range: Vacuum to 10,000 PSIG (690 bar) – see Pressure Ratings in Specifications Chart.

Accessories

The replaceable sealant permits repeated use of the same fitting. Assembly is simple and may be done in the field. Simply insert the element and torque the cap. To replace the sealant and/or element, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. When reused, the glands should be relubricated to maintain published torque and pressure ratings. If glands are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 103 for information on our lubrication kit.

To order Replacement Sealant, order RS - (Gland) - (Diameter) - (Sealant)

Example: ***RS-MPG-125-V***

Catalog Numbering System

PG Gland	Diameter of Tube or Probe			Cap Style	Sealant
	in thousandths of an inch	*in metric bore*	*in pipe size*		
MIC • 0.040 to 0.062 bore sizes	**BLANK**	**039 (1 mm)**	**12P = 1/8" pipe**	**A – has mounting thread only**	**V – Viton**
MPG • 0.039 to 0.187 bore sizes	**040**	**118 (3 mm)**	**25P = 1/4" pipe**	**B – has cap end threaded**	**N – Neoprene**
PG2 • 0.118 to 0.250 bore sizes	**062**	**236 (6 mm)**	**37P = 3/8" pipe**		**T – PTFE**
PG4 • 0.187 to 0.375 bore sizes	**093**				**L – Lava**
PG5 • 0.375 to 0.750 bore sizes	**125**				**G – Grafoil**
	187				
	250				
	312				
	375				
	500				
	625				
	750				

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

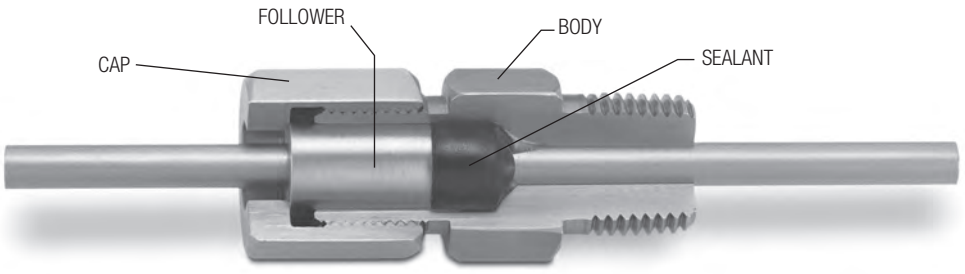
Custom bore sizes also available. Blanks are provided with no hole in the body, follower and sealant.

Other sealant materials also available.

PG Gland / Diameter of Tube or Probe / Cap Style / Sealant

Example: ***PG5-500-A-V***

Note: These glands are available with flanges. See pages 80-101 for flange options.



PG Selection Guide

Model	NPT Size*	Bore Diameter																	
		BLANK	039	040	062	093	118	125	187	236	250	312	375	12P	500	25P	625	37P	750
MIC	1/16			X	X														
MPG	1/8	X	X	X	X	X	X	X	X										
PG2	1/4	X					X	X	X	X	X								
PG4	1/2	X							X	X	X	X	X	X					
PG5	3/4	X											X	X	X	X	X	X	X

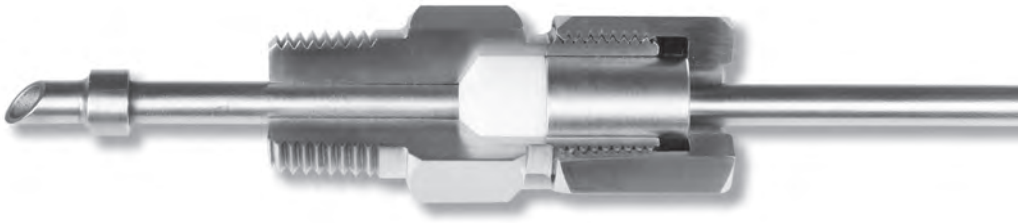
**These are the standard mounting ports for these models. Optional reduced mounting ports may also be available.*
See the Specifications Charts on the subsequent pages for details.

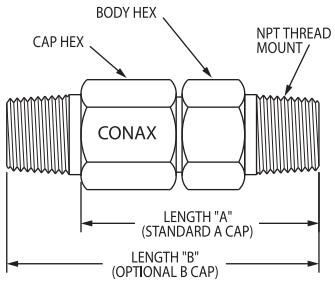
Sealant Selection Guide

Material	Temperature Range
Lava (L)	-300˚ F to +1600˚ F (-185˚ C to +870˚ C)
PTFE (T)	-300˚ F to +450˚ F (-185˚ C to +232˚ C)
Neoprene (N)	-40˚ F to +200˚ F (-40˚ C to +93˚ C)
Viton (V)	-10˚ F to +450˚ F (-23˚ C to +232˚ C)
Grafoil (G)	-400˚ F to +925˚ F in air, +3000˚ F in inert or reducing atm. (-240˚ C to +495˚ C in air, +1650˚ C in inert or reducing atm.)

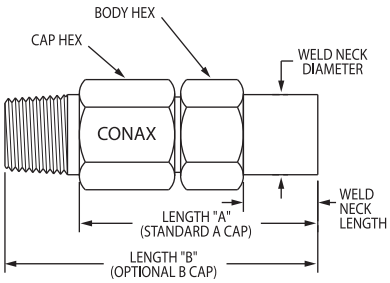
NEW! Process Analyzer Sample Probe Assembly (SPA) with a Conax Packing (PG) Compression Seal Fitting

The Conax Technologies Sample Probe Assembly (SPA) utilizes a Conax PG Gland to hot-tap a probe into a process through a process isolation valve. See page 78 of this catalog for details on this assembly.

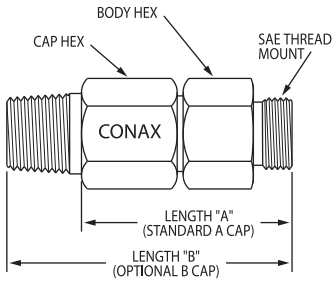




Standard NPT



Weld Neck Mount



SAE Thread Mount

Catalog Number	Tube/Probe Diameter IN	MM	Length 'A' IN	MM	Length 'B' IN	MM	Hex Size Body IN	Cap IN	Body MM	Cap MM	Pressure Rating Neoprene PSIG	BAR	Viton PSIG	BAR	PTFE PSIG	BAR	Lava PSIG	BAR	Grafoil PSIG	BAR
BORE SIZES 0.040 TO 0.062 - MODEL MIC																				
Standard 1/16 NPT																				
MIC-040	0.040	1.02	0.94	23.8	NA	NA	0.375	0.343	9.5	8.7	NA	NA	NA	NA	3,200	220	8,000	551	NA	NA
MIC-062	0.062	1.57	0.94	23.8	NA	NA	0.375	0.343	9.5	8.7	NA	NA	NA	NA	3,200	220	8,000	551	10,000	689
BORE SIZES 0.039 TO 0.187 - MODEL MPG																				
Standard 1/8 NPT																				
MPG-BLANK	NA	NA	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MPG-039	0.039	0.99	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	2,000	138	1,600	110	1,600	110	2,800	193	1,600	110
MPG-040	0.040	1.02	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	2,000	138	1,600	110	1,600	110	2,800	193	1,600	110
MPG-062	0.062	1.57	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,600	110	2,800	193	1,600	110	3,200	220	2,000	138
MPG-093	0.093	2.36	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,200	83	1,200	83	800	55	2,000	138	2,400	165
MPG-118	0.118	3.00	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,200	83	1,200	83	800	55	2,000	138	2,400	165
MPG-125	0.125	3.18	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,200	83	1,200	83	800	55	2,000	138	2,400	165
MPG-187	0.187	4.75	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,200	83	1,500	103	1,500	103	2,000	138	800	55
Weld Neck Mount (Weld Neck Length 0.39", Diameter 0.405")**																				
MPG(SWM1/S316L)-BLANK	NA	NA	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MPG(SWM1/S316L)-039	0.039	0.99	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	2,000	138	1,600	110	1,600	110	2,800	193	1,600	110
MPG(SWM1/S316L)-040	0.040	1.02	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	2,000	138	1,600	110	1,600	110	2,800	193	1,600	110
MPG(SWM1/S316L)-062	0.062	1.57	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,600	110	2,800	193	1,600	110	3,200	220	2,000	138
MPG(SWM1/S316L)-093	0.093	2.36	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,200	83	1,200	83	800	55	2,000	138	2,400	165
MPG(SWM1/S316L)-118	0.118	3.00	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,200	83	1,200	83	800	55	2,000	138	2,400	165
MPG(SWM1/S316L)-125	0.125	3.18	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,200	83	1,200	83	800	55	2,000	138	2,400	165
MPG(SWM1/S316L)-187	0.187	4.75	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	1,200	83	1,500	103	1,500	103	2,000	138	800	55
SAE 3/8-24 Thread Mount (formally MS)																				
MPG(MSE3/)-BLANK	NA	NA	1.19	30.2	1.56	39.7	0.625	0.500	15.9	12.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MPG(MSE3/)-040	0.040	1.02	1.19	30.2	1.56	39.7	0.625	0.500	15.9	12.7	2,000	138	1,600	110	1,600	110	2,800	193	1,600	110
MPG(MSE3/)-062	0.062	1.57	1.19	30.2	1.56	39.7	0.625	0.500	15.9	12.7	1,600	110	2,800	193	1,600	110	3,200	220	2,000	138
SAE 7/16-20 Thread Mount (formerly MS)																				
MPG(MSE4/)-BLANK	NA	NA	1.25	31.8	1.63	41.3	0.688	0.500	17.5	12.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MPG(MSE4/)-093	0.093	2.36	1.25	31.8	1.63	41.3	0.688	0.500	17.5	12.7	1,200	83	1,200	83	800	55	2,000	138	2,400	165
MPG(MSE4/)-125	0.125	3.18	1.25	31.8	1.63	41.3	0.688	0.500	17.5	12.7	1,200	83	1,200	83	800	55	2,000	138	2,400	165
SAE 1/2-20 Thread Mount (formerly MS)																				
MPG(MSE5/)-BLANK	NA	NA	1.25	31.8	1.63	41.3	0.750	0.500	19.1	12.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MPG(MSE5/)-187	0.187	4.75	1.25	31.8	1.63	41.3	0.750	0.500	19.1	12.7	1,200	83	1,500	103	1,500	103	2,000	138	800	55

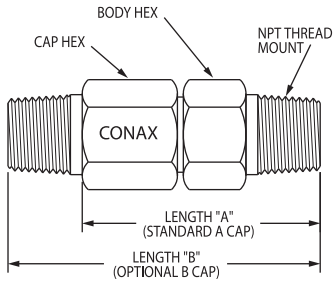
Note: the pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies.
** Hex size for the body and cap are the same unless a cap size is provided in parentheses. Blanks are provided with no hole in the body, follower and sealant.*
*** Weld neck models require lubrication prior to use.*
N/O = Not Offered, NA = Not Applicable

Catalog Number	Tube/Probe Diameter IN	Tube/Probe Diameter MM	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR	Grafoil PSIG	Grafoil BAR
BORE SIZES 0.118 TO 0.250 - MODEL PG2																				
Standard 1/4 NPT																				
PG2-BLANK	NA	NA	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG2-118	0.118	3.00	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
PG2-125	0.125	3.18	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
PG2-187	0.187	4.75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,000	138	4,500	310	1,600	110	8,800	606	4,000	276
PG2-236	0.236	5.99	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,800	124	3,000	207	1,200	83	7,500	517	4,000	276
PG2-250	0.250	6.35	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,600	110	2,000	138	800	55	7,500	517	4,000	276
PG2 with Optional 1/8 NPT																				
PG2(PTM1/)-118	0.118	3.00	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
PG2(PTM1/)-125	0.125	3.18	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
PG2(PTM1/)-187	0.187	4.75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,000	138	4,500	310	1,600	110	8,800	606	4,000	276
PG2(PTM1/)-236	0.236	5.99	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,800	124	3,000	207	1,200	83	7,500	517	4,000	276
PG2(PTM1/)-250	0.250	6.35	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,600	110	2,000	138	800	55	7,500	517	4,000	276
PG2 with Optional 3/8 NPT																				
PG2(PTM3/)-118	0.118	3.00	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
PG2(PTM3/)-125	0.125	3.18	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
PG2(PTM3/)-187	0.187	4.75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,000	138	4,500	310	1,600	110	8,800	606	4,000	276
PG2(PTM3/)-236	0.236	5.99	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,800	124	3,000	207	1,200	83	7,500	517	4,000	276
PG2(PTM3/)-250	0.250	6.35	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,600	110	2,000	138	800	55	7,500	517	4,000	276
Weld Neck Mount (Weld Neck Length 0.59", Diameter 0.540")**																				
PG2(SWM2/S316L)-BLANK	NA	NA	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG2(SWM2/S316L)-118	0.118	3.00	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
PG2(SWM2/S316L)-125	0.125	3.18	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
PG2(SWM2/S316L)-187	0.187	4.75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,000	138	4,500	310	1,600	110	8,800	606	4,000	276
PG2(SWM2/S316L)-236	0.236	5.99	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,800	124	3,000	207	1,200	83	7,500	517	4,000	276
PG2(SWM2/S316L)-250	0.250	6.35	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,600	110	2,000	138	800	55	7,500	517	4,000	276
SAE 7/16-20 Thread Mount (formerly MS)																				
PG2(MSE4/)-BLANK	NA	NA	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG2(MSE4/)-125	0.125	3.18	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	2,800	193	1,600	110	9,000	620	8,000	551
SAE 1/2-20 Thread Mount (formerly MS)																				
PG2(MSE5/)-BLANK	NA	NA	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG2(MSE5/)-187	0.187	4.75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,000	138	4,500	310	1,600	110	8,800	606	4,000	276
SAE 9/16-18 Thread Mount (formerly MS)																				
PG2(MSE6/)-BLANK	NA	NA	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG2(MSE6/)-250	0.250	6.35	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,600	110	2,000	138	800	55	7,500	517	4,000	276
BORE SIZES 0.187 TO 0.375 (1/8 PIPE) - MODEL PG4																				
Standard 1/2 NPT																				
PG4-BLANK	NA	NA	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG4-187	0.187	4.75	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	2,400	165	10,000	689	8,000	551
PG4-236	0.236	5.99	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4-250	0.250	6.35	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4-312	0.312	7.92	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	1,200	83	2,000	138	10,000	689	7,000	482
PG4-375	0.375	9.53	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	500	34	1,400	96	7,500	517	4,500	310
PG4-12P	0.405	10.29	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F

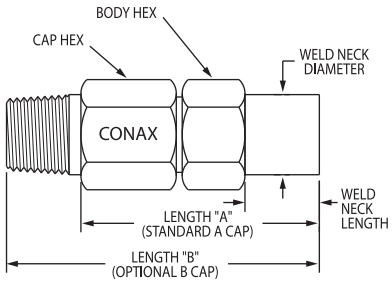
C/F = Consult factory. NA = Not Applicable.

All pressure and torque ratings were determined at 68˚F (20˚C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameter is ±0.005 (±0.003 for diameters ≤0.040). Deviation from the nominal may affect pressure ratings. Standard O.D. tolerance of pipe is +0.015"/-0.031". Consult factory for details.

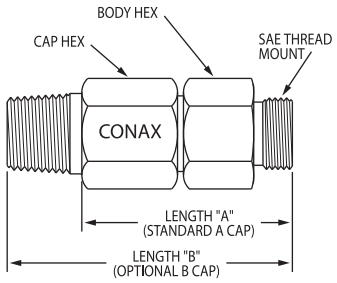
CAUTION: *When sealing on soft, fragile or crushable elements, catalog torques may not apply. When catalog torques are applied, compressed sealants generate considerable forces on the element to be sealed. These forces could result in damaging soft or fragile elements such as coax cables or thin-wall materials. Consult factory for these types of applications.*



Standard NPT



Weld Neck Mount



SAE Thread Mount

Catalog Number	Tube/Probe Diameter IN	MM	Length 'A' IN	MM	Length 'B' IN	MM	Hex Size Body IN	Cap IN	Body MM	Cap MM	Pressure Rating Neoprene PSIG	BAR	Viton PSIG	BAR	PTFE PSIG	BAR	Lava PSIG	BAR	Grafoil PSIG	BAR
BORE SIZES 0.187" TO 0.375" (1/8" PIPE) – MODEL PG4																				
PG4 with Optional 1/4 NPT																				
PG4(PTM2/)-187	0.187	4.75	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	2,400	165	10,000	689	8,000	551
PG4(PTM2/)-236	0.236	5.99	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4(PTM2/)-250	0.250	6.35	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4(PTM2/)-312	0.312	7.92	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	1,200	83	2,000	138	10,000	689	7,000	482
PG4(PTM2/)-375	0.375	9.53	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	500	34	1,400	96	7,500	517	4,500	310
PG4 with Optional 3/8 NPT																				
PG4(PTM3/)-187	0.187	4.75	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	2,400	165	10,000	689	8,000	551
PG4(PTM3/)-236	0.236	5.99	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4(PTM3/)-250	0.250	6.35	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4(PTM3/)-312	0.312	7.92	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	1,200	83	2,000	138	10,000	689	7,000	482
PG4(PTM3/)-375	0.375	9.53	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	500	34	1,400	96	7,500	517	4,500	310
PG4 with Optional 3/4 NPT																				
PG4(PTM5/)-187	0.187	4.75	2.56	65.0	3.31	84.1	1.250	1.000	31.8	25.4	1,500	103	1,500	103	2,400	165	10,000	689	8,000	551
PG4(PTM5/)-236	0.236	5.99	2.56	65.0	3.31	84.1	1.250	1.000	31.8	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4(PTM5/)-250	0.250	6.35	2.56	65.0	3.31	84.1	1.250	1.000	31.8	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4(PTM5/)-312	0.312	7.92	2.56	65.0	3.31	84.1	1.250	1.000	31.8	25.4	1,200	83	1,200	83	2,000	138	10,000	689	7,000	482
PG4(PTM5/)-375	0.375	9.53	2.56	65.0	3.31	84.1	1.250	1.000	31.8	25.4	1,200	83	500	34	1,400	96	7,500	517	4,500	310
Weld Neck Mount (Weld Neck Length 0.78", Diameter 0.84")**																				
PG4(SWM4/S316L)-BLANK	NA	NA	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG4(SWM4/S316L)-187	0.187	4.75	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	2,400	165	10,000	689	8,000	551
PG4(SWM4/S316L)-236	0.236	5.99	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4(SWM4/S316L)-250	0.250	6.35	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	10,000	689	7,500	517
PG4(SWM4/S316L)-312	0.312	7.92	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	1,200	83	2,000	138	10,000	689	7,000	482
PG4(SWM4/S316L)-375	0.375	9.53	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	500	34	1,400	96	7,500	517	4,500	310
PG4(SWM4/S316L)-12P	0.405	10.29	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
SAE 1/2-20 Thread Mount (formerly MS)																				
PG4(MSE5/)-BLANK	NA	NA	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG4(MSE5/)-187	0.187	4.75	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	2,400	165	9,138	630	8,000	551
SAE 9/16-18 Thread Mount (formerly MS)																				
PG4(MSE6/)-BLANK	NA	NA	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG4(MSE6/)-250	0.250	6.35	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,500	103	1,500	103	1,600	110	9,138	630	7,500	517
SAE 3/4-16 Thread Mount (formerly MS)																				
PG4(MSE8/)-BLANK	NA	NA	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG4(MSE8/)-312	0.312	7.92	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	1,200	83	2,000	138	9,138	630	7,000	482
PG4(MSE8/)-375	0.375	9.53	2.56	65.0	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83	500	34	1,400	96	7,500	517	4,500	310

Note: the pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies.
** Hex size for the body and cap are the same unless a cap size is provided in parentheses. Blanks are provided with no hole in the body, follower and sealant.*
*** Weld neck models require lubrication prior to use.*
N/O = Not Offered, NA = Not Applicable

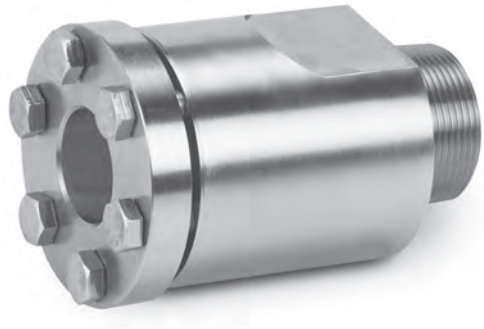
Catalog Number	Tube/Probe Diameter IN	Tube/Probe Diameter MM	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR	Grafoil PSIG	Grafoil BAR
BORE SIZES 0.375" TO 0.75" (1/8" TO 3/8" PIPE) - MODEL PG5																				
Standard 3/4 NPT																				
PG5-BLANK	NA	NA	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG5-250	0.250	6.35	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
PG5-375	0.375	9.53	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
PG5-12P	0.405	10.29	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
PG5-500	0.500	12.70	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	800	55	1,200	83	800	55	2,000	138	1,200	83
PG5-25P	0.540	13.72	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
PG5-625	0.625	15.88	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	400	28	800	55	3,600	248	1,200	83
PG5-37P	0.675	17.15	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
PG5-750	0.750	19.05	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	400	28	400	28	2,800	193	1,200	83
PG5 with Optional 1/2 NPT																				
PG5(PTM4/)-250	0.250	6.35	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
PG5(PTM4/)-375	0.375	9.53	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
PG5(PTM4/)-500	0.500	12.70	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	800	55	1,200	83	800	55	2,000	138	1,200	83
PG5(PTM4/)-625	0.625	15.88	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	400	28	800	55	3,600	248	1,200	83
PG5 with Optional 1 NPT																				
PG5(PTM6/)-250	0.250	6.35	3.12	79.2	3.87	98.3	1.500	1.500	38.1	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
PG5(PTM6/)-375	0.375	9.53	3.12	79.2	3.87	98.3	1.500	1.500	38.1	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
PG5(PTM6/)-500	0.500	12.70	3.12	79.2	3.87	98.3	1.500	1.500	38.1	38.1	800	55	1,200	83	800	55	2,000	138	1,200	83
PG5(PTM6/)-625	0.625	15.88	3.12	79.2	3.87	98.3	1.500	1.500	38.1	38.1	400	28	400	28	800	55	3,600	248	1,200	83
PG5(PTM6/)-750	0.750	19.05	3.12	79.2	3.87	98.3	1.500	1.500	38.1	38.1	400	28	400	28	400	28	2,800	193	1,200	83
Weld Neck Mount (Weld Neck Length 0.79", Diameter 1.050")**																				
PG5(SWM5/S316L)-BLANK	NA	NA	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG5(SWM5/S316L)-250	0.250	6.35	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
PG5(SWM5/S316L)-375	0.375	9.53	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
PG5(SWM5/S316L)-12P	0.405	10.29	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
PG5(SWM5/S316L)-500	0.500	12.70	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	800	55	1,200	83	800	55	2,000	138	1,200	83
PG5(SWM5/S316L)-25P	0.540	13.72	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
PG5(SWM5/S316L)-625	0.625	15.88	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	400	28	800	55	3,600	248	1,200	83
PG5(SWM5/S316L)-37P	0.675	17.15	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F	C/F
PG5(SWM5/S316L)-750	0.750	19.05	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	400	28	400	28	2,800	193	1,200	83
SAE 9/16 -18 Thread Mount (formerly MS)																				
PG5(MSE6/)-BLANK	NA	NA	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG5(MSE6/)-250	0.250	6.35	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
SAE 3/4 -16 Thread Mount (formerly MS)																				
PG5(MSE8/)-BLANK	NA	NA	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG5(MSE8/)-375	0.375	9.53	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	400	28	2,400	165	800	55	2,800	193	1,200	83
SAE 1-1/16 -12 Thread Mount (formerly MS)																				
PG5(MSE12/)-BLANK	NA	NA	2.88	73.0	3.63	92.1	1.375	1.500	34.9	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG5(MSE12/)-500	0.500	12.70	2.88	73.0	3.63	92.1	1.375	1.500	34.9	38.1	800	55	1,200	83	800	55	2,000	138	1,200	83
SAE 1-5/16 -12 Thread Mount (formerly MS)																				
PG5(MSE16/)-BLANK	NA	NA	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
PG5(MSE16/)-625	0.625	15.88	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	400	28	400	28	800	55	3,600	248	1,200	83
PG5(MSE16/)-750	0.750	19.05	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	400	28	400	28	400	28	2,800	193	1,200	83

C/F = Consult factory. NA = Not Applicable

All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameter is ±0.005. Deviation from the nominal may affect pressure ratings. Standard O.D. tolerance of pipe is +0.015"/-0.031". Consult factory for details.

CAUTION: *When sealing on soft, fragile or crushable elements, catalog torques may not apply. When catalog torques are applied, compressed sealants generate considerable forces on the element to be sealed. These forces could result in damaging soft or fragile elements such as coax cables or thin-wall materials. Consult factory for these types of applications.*

Hex Style



Flange Style

Conax Technologies Large Bore PG Glands were designed to seal on pipe, tubes or probes with diameters of 0.750" or greater. Originally designed for applications such as liquid or gas sampling, coupon insertion and securing of commercial pipe, these glands generally operate at lower pressures than other PG glands. Their larger size and rugged design make them ideal for heavy duty industrial applications.

Model PG6 maintains the traditional hex style design. Model PG7 and up feature a flange cap design that provides ease of assembly and reduces the torque requirements that would be encountered with a hex design of that size. Threaded gland bodies, caps and followers are constructed from 303SST standard. Bodies constructed of 316LSST are standard for the weld neck models and available as an option on threaded glands.

Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads.

As always, custom materials, bore sizes and optional mounting configurations are available. Please consult a Conax Technologies' sales engineer for custom needs.

Accessories

The replaceable sealant permits repeated use of the same fitting. Assembly is simple and may be done in the field. Simply insert the element and torque the cap or cap screws. Large bore glands are offered with Viton, PTFE, Lava and Grafoil sealants. The Viton and PTFE sealants may be reused when the gland is loosened and retorqued. Grafoil offers limited reusability. Due to its composition, Lava is not reusable in these applications.

Glands are supplied factory lubricated. When reused, the glands should be relubricated to maintain the published torque and pressure ratings. If glands are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 103 for information on our lubrication kit.

Catalog Numbering System

PG Gland

- **PG6**
  - 0.750 to 1.000 bore sizes
  - 1/2" pipe
- **PG7**
  - 1.000 to 1.250 bore sizes
  - 1/2" to 1" pipe
- **PG8**
  - 1.250 to 1.500 bore sizes
  - 1" pipe
- **PG9**
  - 1.500 to 1.750 bore sizes
  - 1-1/4" to 1-1/2" pipe

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

Diameter of Tube or Probe

in thousandths of an inch

- **750**
- **875**
- **1000**
- **1250**
- **1500**
- **1750**

Custom bore sizes also available.

in pipe size

- **50P = 1/2" pipe**
- **75P = 3/4" pipe**
- **100P = 1" pipe**
- **125P = 1-1/4" pipe**
- **150P = 1-1/2" pipe**

Cap Style

- **A – has mounting thread only**
- **B – has cap end threaded**

Sealant

- **V – Viton**
- **T – PTFE**
- **L – Lava**
- **G – Grafoil**

Lava and Grafoil sealants are not offered with the PG6.

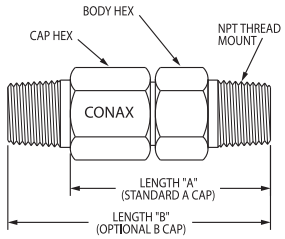
PG Gland / Diameter of Tube or Probe / Cap Style / Sealant

Example: ***PG7-1000-A-V***

Tel: ***1.716.684.4500*** • *USA:* ***1.800.223.2389*** • ***ConaxTechnologies.com***

Hex Style

Catalog Number	Tube/Probe Diameter IN	MM	Length 'A' IN	MM	Length 'B' IN	MM	Hex Size Body IN	Cap IN	Body MM	Cap MM	Pressure Rating Viton PSIG	BAR	PTFE PSIG	BAR	Lava PSIG	BAR	Grafoil PSIG	BAR
MODEL PG6																		
Standard 1 NPT																		
PG6-750	0.750	19.05	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	1,000	69	400	28	NA	NA	NA	NA
PG6-50P	0.840	21.34	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	1,000	69	400	28	NA	NA	NA	NA
PG6-875	0.875	22.23	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	1,000	69	400	28	NA	NA	NA	NA
PG6-1000	1.000	25.40	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	1,000	69	400	28	NA	NA	NA	NA
Weld Neck Mount (Weld Neck Length 0.98", Diameter 1.315")**																		
PG6(SWM6/S316L)-750	0.750	19.05	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	1,000	69	400	28	NA	NA	NA	NA
PG6(SWM6/S316L)-50P	0.840	21.34	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	1,000	69	400	28	NA	NA	NA	NA
PG6(SWM6/S316L)-875	0.875	22.23	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	1,000	69	400	28	NA	NA	NA	NA
PG6(SWM6/S316L)-1000	1.000	25.40	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	1,000	69	400	28	NA	NA	NA	NA

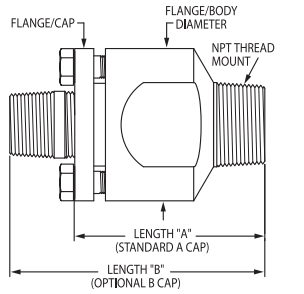


Standard NPT

Flange Style

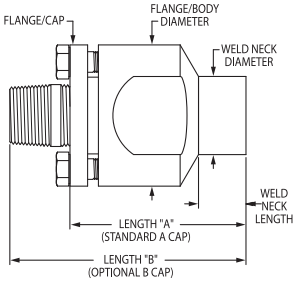
Catalog Number	Tube/Probe Diameter IN	MM	Length 'A' IN	MM	Length 'B' IN	MM	Flange/Body Diameter IN	MM	Pressure Rating Viton PSIG	BAR	PTFE PSIG	BAR	Lava PSIG	BAR	Grafoil PSIG	BAR
MODEL PG7																
Standard 1-1/4 NPT																
PG7-50P	0.840	21.34	3.75	95.3	5.00	127.0	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
PG7-1000	1.000	25.40	3.75	95.3	5.00	127.0	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
PG7-75P	1.050	26.67	3.75	95.3	NA	NA	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
PG7-1250	1.250	31.75	3.75	95.3	NA	NA	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
PG7-100P	1.315	33.40	3.75	95.3	NA	NA	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
Weld Neck Mount (Weld Neck Length 1.01", Diameter 1.660")**																
PG7(SWM7/S316L)-50P	0.840	21.34	3.75	95.3	5.00	127.0	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
PG7(SWM7/S316L)-1000	1.000	25.40	3.75	95.3	5.00	127.0	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
PG7(SWM7/S316L)-75P	1.050	26.67	3.75	95.3	NA	NA	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
PG7(SWM7/S316L)-1250	1.250	31.75	3.75	95.3	NA	NA	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
PG7(SWM7/S316L)-100P	1.315	33.40	3.75	95.3	NA	NA	3.000	76.2	1,000	69	C/F	C/F	500	34	750	52
MODEL PG8																
Standard 1-1/2 NPT																
PG8-1250	1.250	31.75	4.25	108.0	NA	NA	4.000	101.6								
PG8-100P	1.315	33.40	4.25	108.0	NA	NA	4.000	101.6								
PG8-1500	1.500	38.10	4.25	108.0	NA	NA	4.000	101.6								
Weld Neck Mount (Weld Neck Length 1.03", Diameter 1.900")**																
PG8(SWM8/S316L)-1250	1.250	31.75	4.25	108.0	NA	NA	4.000	101.6								
PG8(SWM8/S316L)-100P	1.315	33.40	4.25	108.0	NA	NA	4.000	101.6								
PG8(SWM8/S316L)-1500	1.500	38.10	4.25	108.0	NA	NA	4.000	101.6								
MODEL PG9																
Standard 2 NPT																
PG9-1500	1.500	38.10	5.06	128.6	NA	NA	5.000	127.0								
PG9-125P	1.660	42.16	5.06	128.6	NA	NA	5.000	127.0								
PG9-1750	1.750	44.45	5.06	128.6	NA	NA	5.000	127.0								
PG9-150P	1.900	48.26	5.06	128.6	NA	NA	5.000	127.0								
Weld Neck Mount (Weld Neck Length 1.06", Diameter 2.375")**																
PG9(SWM9/S316L)-1500	1.500	38.10	5.06	128.6	NA	NA	5.000	127.0								
PG9(SWM9/S316L)-125P	1.660	42.16	5.06	128.6	NA	NA	5.000	127.0								
PG9(SWM9/S316L)-1750	1.750	44.45	5.06	128.6	NA	NA	5.000	127.0								
PG9(SWM9/S316L)-150P	1.900	48.26	5.06	128.6	NA	NA	5.000	127.0								

Pressure ratings on large bore models may be influenced by numerous factors and are therefore application specific. Please consult the factory for details.



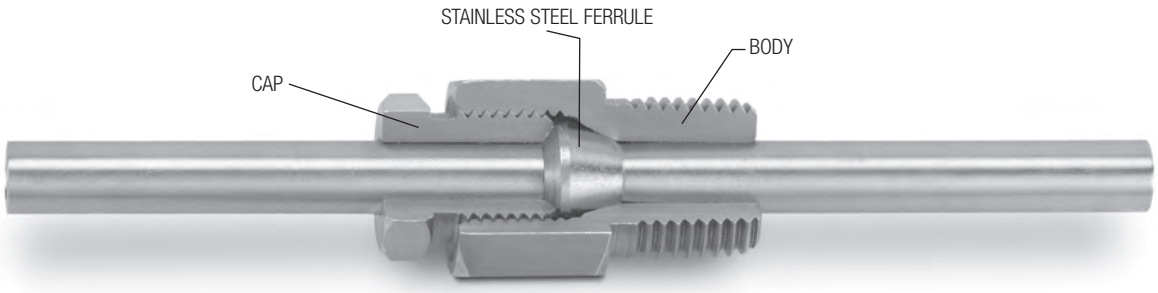
Weld Neck Mount

Flange Style NPT



Flange Style Weld Neck Mount

Note: the pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies.
** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*
*** Weld neck models require lubrication prior to use.*
N/O = Not Offered. C/F = Consult factory. NA = Not Available.
All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameter is ±0.005. Deviation from the nominal may affect pressure ratings. Standard O.D. tolerance of pipe is +0.015"/-0.031". Consult factory for details.
For proper assembly of these sealing glands, see the Assembly Instructions provided on pages 106-119.



Conax Technologies Model MK Midlock Glands seal a single tube or probe. Featuring a metal-to-metal seal rather than our standard soft sealant technology, MK glands are used where a joint must be opened and resealed in the same setting. Their unique design forms the seal well within the body housing to provide superior performance in high vibration applications.

The MK gland uses compression to deform a stainless steel ferrule against the tube/probe without cutting the sheath surface. A slight deformation of the tube/probe surface may occur, however. MK glands are freely adjustable until first tightened. After that, they may be opened and resealed at that fixed immersion depth.

The rugged reusable body and ferrule are constructed from 303SST standard. (For information on body materials, see page 9.) The single ferrule is self-aligning to prevent lost pieces. Standard assemblies use Cap Style A with a mounting thread only. Please consult a Conax Technologies sales engineer for custom needs.

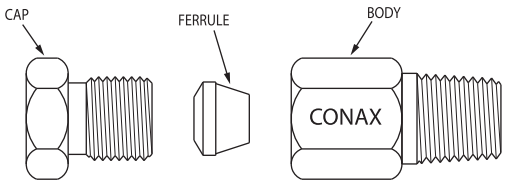
- Temperature Range: Cryogenic to +1600˚ F (+870˚ C)
- Pressure Range: Vacuum to 10,000 PSIG (690 bar) – all models

Catalog Numbering System

Gland Style	*Diameter of Tube or Probe*	*Cap Style*
	in thousandths of an inch	
MK	**062**	**A – has mounting thread only**
	125	
	187	
	250	
	312	
	375	

Accessories

The replaceable ferrule permits repeated use of the same fitting. The ferrule may be replaced in the field.



Glands are supplied factory lubricated. If glands are cleaned prior to assembly or when reused, the glands should be relubricated to maintain the published torque and pressure ratings. See page 103 for information on our lubrication kit.

To order a Replacement Ferrule, order Ferrule, MK – (Diameter)

Example: ***Ferrule, MK-062***

Gland Style / Diameter of Tube or Probe / Cap Style

Example: ***MK-062-A***

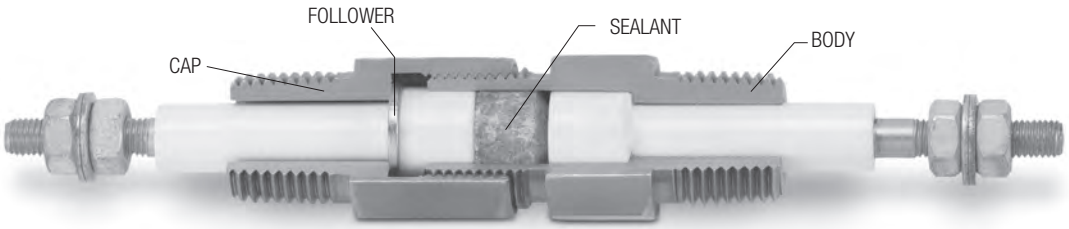
Tel: ***1.716.684.4500*** • *USA:* ***1.800.223.2389*** • ***ConaxTechnologies.com***

Specifications - MK

Catalog Number	Tube/Probe Diameter IN	Tube/Probe Diameter MM	Thread NPT IN	Length 'A' IN	Length 'A' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating PSIG	Pressure Rating BAR
MK-062-A	0.062	1.57	1/8	1.19	30.2	0.500	0.500	12.7	12.7	10,000	689
MK-125-A	0.125	3.18	1/8	1.19	30.2	0.500	0.500	12.7	12.7	10,000	689
MK-187-A	0.187	4.75	1/8	1.19	30.2	0.500	0.500	12.7	12.7	10,000	689
MK-250-A	0.250	6.35	1/4	1.63	41.3	0.625	0.625	15.9	15.9	10,000	689
MK-312-A	0.312	7.92	1/2	2.00	50.8	1.000	0.750	25.4	19.1	10,000	689
MK-375-A	0.375	9.53	1/2	2.00	50.8	1.000	0.750	25.4	19.1	10,000	689

All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameters is ±0.005. Deviation from the nominal may affect the pressure rating.

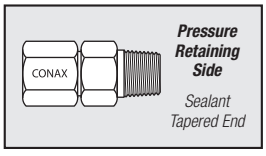
For proper assembly of these sealing glands, see the Assembly Instructions provided on pages 106-119.



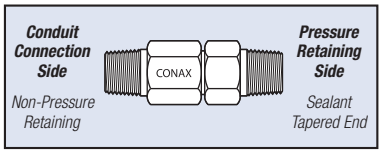
Conax Technologies Model EG (Electrode) Glands are designed to conduct rated amperage through vessel walls for applications such as vacuum furnaces, autoclaves, transformers, power supplies and other vessels requiring a sealed environment. EG glands also electrically and/or thermally isolate single electrodes, tubes, temperature sensors and liquid level probes in pressure/vacuum applications. These bare electrical feedthroughs seal against gases and liquids and resist element movement under pressure.

EG gland bodies with NPT threads or SAE threads are constructed from 303SST standard. Weld-neck style glands are constructed from 316LSST. Caps and followers for all styles are constructed from 303SST. Many optional materials are also available. See page 9 for details. Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads. Alternative sealant materials are available. Please consult a Conax Technologies sales engineer for custom needs.

Conductors are available in Copper, Nickel and 303SST. Use of Nickel rather than Copper is recommended in oxidizing atmospheres. For further information on conductor selection, see page 11. Custom conductors, such as nickel-plated copper, are available. Please consult factory.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

- Temperature Range: -300˚ F to +1600˚ F (-185˚ C to +870˚ C)
- Pressure Range: Vacuum to 8,000 PSIG (551 bar) – see Pressure Ratings in Specifications Chart.
- Voltage to 2000 VDC
- Amperage to 400 amp
- Supplied with or without conductor

Accessories

The replaceable sealant permits repeated use of the same fitting. Electrodes can be easily assembled or replaced in the field. To replace the sealant or element, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. When reused, the glands should be relubricated to maintain the published torque and pressure ratings. If glands are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must be relubricated prior to use. See page 103 for information on our lubrication kit.

Replacement Packing Sets are available. These consist of a sealant and two insulators. Replacement sealants, conductors and insulators may also be ordered separately.

To order a Replacement Packing Set, order
RPS – (Gland) – (Diameter) – (Sealant)

Example: ***RPS-EG-093-V***

To order a Replacement Sealant only, order
RS – (Gland) – (Diameter) – (Sealant)

Example: ***RS-EG-093-V***

For replacement insulators and conductors, see Accessories on page 102.

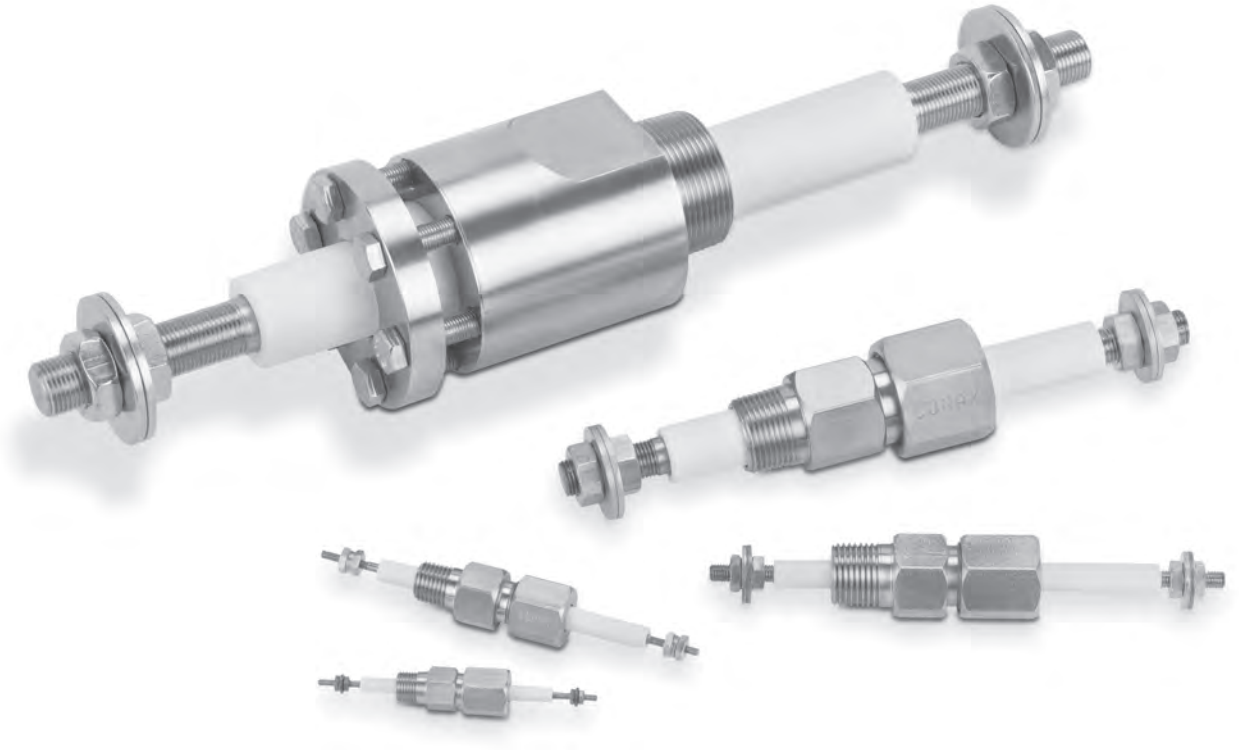
Catalog Numbering System

EG Gland	Diameter of Conductor	Cap Style	Conductor Material	Sealant
EG	*in thousandths of an inch* 093 125 187 250 312 375 500 750 (Flange-Style)	A – has mounting thread only B – has cap end threaded *(not offered on EG-750)*	CU – Copper NI – Nickel SS – 303 Stainless Steel XX – No conductor	V – Viton N – Neoprene T – PTFE L – Lava

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

EG Gland / Diameter of Conductor / Cap Style / Conductor Material / Sealant

Example: ***EG-093-B-SS-N***



Specifications

Catalog Number	Conductor Diam. IN	Conductor Std. Length IN	Conductor Diam. MM	Conductor Std. Length MM	Amperage Rating (@ 30°C, 90°C max) CU	Amperage Rating NI	Amperage Rating SS	Voltage Rating DC	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR
Standard 1/8 NPT																								
EG-093	0.093	3.500	2.36	88.90	20	10	3	2000	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	3,200	220	3,200	220	3,200	220	4,000	276
Weld Neck (Weld Neck Length 0.39", Diameter 0.405")**																								
EG(SWM1/S316L)-093	0.093	3.500	2.36	88.90	20	10	3	2000	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	3,200	220	3,200	220	3,200	220	4,000	276
Standard 1/4 NPT																								
EG-125	0.120	5.000	3.05	127.00	40	15	6	2000	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	5,200	358	3,200	220	5,000	345	8,000	551
EG-187	0.182	5.000	4.62	127.00	60	25	9	2000	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,500	172	3,200	220	2,500	172	4,800	331
Weld Neck (Weld Neck Length 0.59", Diameter 0.54")**																								
EG(SWM2/S316L)-125	0.120	5.000	3.05	127.00	40	15	6	2000	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	5,200	358	3,200	220	5,000	345	8,000	551
EG(SWM2/S316L)-187	0.182	5.000	4.62	127.00	60	25	9	2000	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,500	172	3,200	220	2,500	172	4,800	331
SAE 3/4 -16 Thread Mount (formerly MS)																								
EG(MSE8/)-125	0.120	5.000	3.05	127.00	40	15	6	2000	2.00	50.8	2.63	66.7	1.000	0.750	25.4	19.1	5,200	358	3,200	220	5,000	345	8,000	551
EG(MSE8/)-187	0.182	5.000	4.62	127.00	60	25	9	2000	2.00	50.8	2.63	66.7	1.000	0.750	25.4	19.1	2,500	172	3,200	220	2,500	172	4,800	331
Standard 1/2 NPT																								
EG-250	0.245	6.500	6.22	165.10	95	40	15	2000	2.56	65.1	3.38	85.9	1.000	1.000	25.4	25.4	1,200	83	1,200	83	2,000	138	5,500	379
EG-312	0.307	6.500	7.80	165.10	125	50	20	2000	2.56	65.1	3.38	85.9	1.000	1.000	25.4	25.4	1,600	110	1,200	83	3,200	220	5,500	379
Weld Neck (Weld Neck Length 0.78", Diameter 0.84")**																								
EG(SWM4/S316L)-250	0.245	6.500	6.22	165.10	95	40	15	2000	2.56	65.1	3.38	85.9	1.000	1.000	25.4	25.4	1,200	83	1,200	83	2,000	138	5,500	379
EG(SWM4/S316L)-312	0.307	6.500	7.80	165.10	125	50	20	2000	2.56	65.1	3.38	85.9	1.000	1.000	25.4	25.4	1,600	110	1,200	83	3,200	220	5,500	379
SAE 7/8 -14 Thread Mount (formerly MS)																								
EG(MSE10/)-250	0.245	6.500	6.22	165.10	95	40	15	2000	2.56	65.1	3.38	85.9	1.125	1.000	28.6	25.4	1,200	83	1,200	83	2,000	138	5,500	379
EG(MSE10/)-312	0.307	6.500	7.80	165.10	125	50	20	2000	2.56	65.1	3.38	85.9	1.125	1.000	28.6	25.4	1,600	110	1,200	83	3,200	220	5,500	379
Standard 3/4 NPT																								
EG-375	0.370	8.500	9.40	215.90	160	65	24	2000	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	600	41	800	55	2,500	172	4,000	276
EG-500	0.495	8.500	12.57	215.90	200	80	30	2000	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	600	41	600	41	1,600	110	1,500	103
Weld Neck (Weld Neck Length 0.79", Diameter 1.05")**																								
EG(SWM5/S316L)-375	0.370	8.500	9.40	215.90	160	65	24	2000	3.31	84.1	4.06	103.1	1.375	1.500	34.9	38.1	600	41	800	55	2,500	172	4,000	276
EG(SWM5/S316L)-500	0.495	8.500	12.57	215.90	200	80	30	2000	3.31	84.1	4.06	103.1	1.375	1.500	34.9	38.1	600	41	600	41	1,600	110	1,500	103
SAE 1-5/16 -12 Thread Mount (formerly MS)																								
EG(MSE16/)-375	0.370	8.500	9.40	215.90	160	65	24	2000	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	600	41	800	55	2,500	172	4,000	276
EG(MSE16/)-500	0.495	8.500	12.57	215.90	200	80	30	2000	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	600	41	600	41	1,600	110	1,500	103

Catalog Number	Conductor Diam. IN	Conductor Std. Length IN	Conductor Diam. MM	Conductor Std. Length MM	Amperage Rating (@ 30°C, 90°C max) CU	Amperage Rating NI	Amperage Rating SS	Voltage Rating DC	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Diameter Flange IN	Diameter Flange MM	Diameter Body IN	Diameter Body MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR
Standard 1-1/2 NPT																								
EG-750	0.745	15.500	18.92	393.70	400	165	60	2000	5.00	127.0	NA	NA	3.250	82.6	3.000	76.2	NA	NA	NA	NA	1,800	124	C/F	C/F
Weld Neck (Weld Neck Length 1.03", Diameter 1.90")**																								
EG(SWM8/S316L)-750	0.745	15.500	18.92	393.70	400	165	60	2000	5.00	127.0	NA	NA	3.250	82.6	3.000	76.2	NA	NA	NA	NA	1,800	124	C/F	C/F

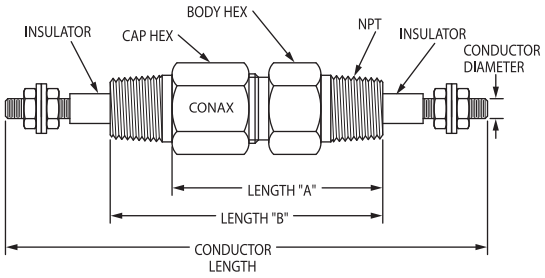
Note: EG-750 is not available with SAE threads.

** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*

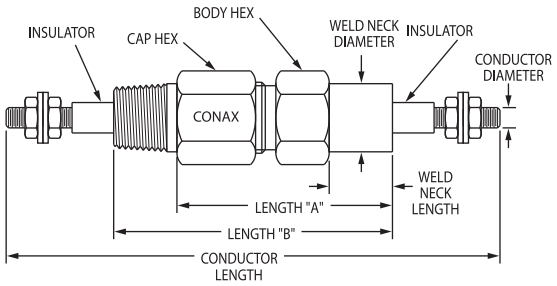
*** Weld neck models require relubrication prior to use.*

NA = Not Applicable. C/F = Consult Factory.

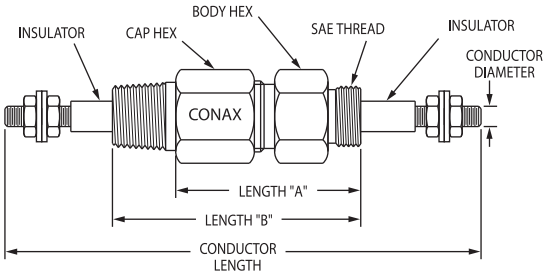
All pressure and torque ratings were determined at 68˚ F (20˚ C) using a solid electrode as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. For proper assembly of these sealing glands, see the Assembly Instructions provided on pages 106-119.



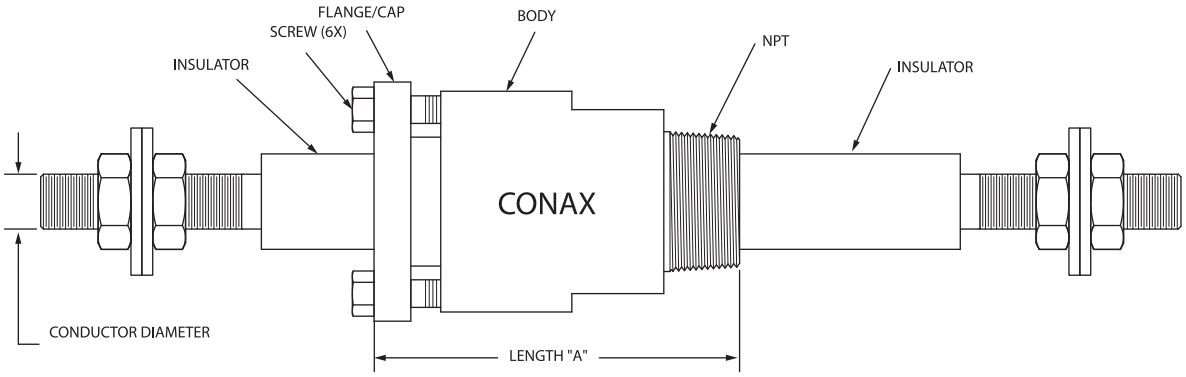
Standard NPT



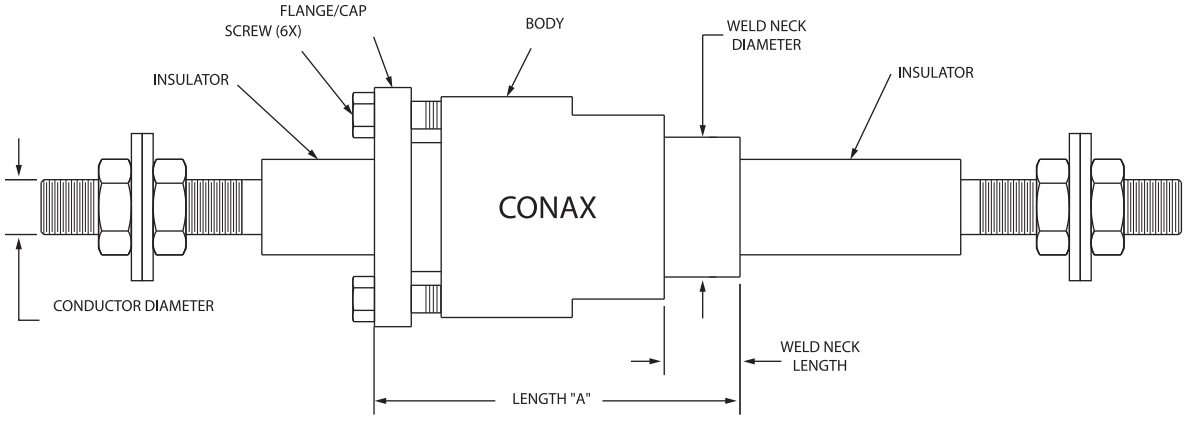
Weld Neck Mount



SAE Thread Mount

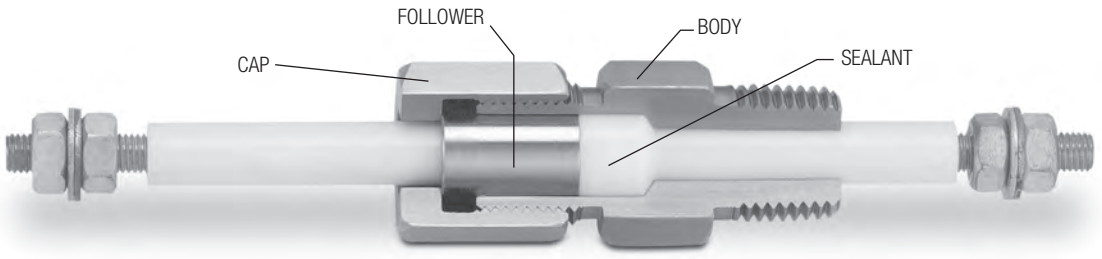


EG-750 NPT



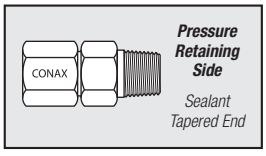
EG-750
Weld Neck Mount

EGT SERIES ■ SINGLE ELECTRODE SEALING (to 8000 Volts)

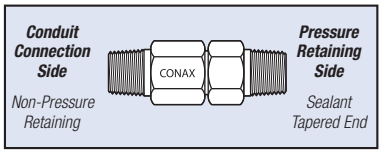


Like the EG Gland, Conax Technologies EGT Glands electrically and/or thermally isolate single electrodes, tubes or temperature sensors for use in vacuum furnaces, liquid level probes, transformers, environmental chambers, power leads and more. These bare electrical feedthroughs also seal against gases and liquids and resist element movements under pressure. The EGT gland differs from the EG gland in that the insulator and sealant are provided as a single continuous PTFE piece to accommodate higher voltage/amperage at lower pressures.

EGT gland bodies with NPT threads or SAE threads are constructed from 303SST standard. Weld-neck style glands are constructed from 316LSST standard. Caps and followers for all styles are constructed from 303SST standard. Many optional materials are also available. See page 9 for details. Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads. Alternative sealant materials are available. Please consult a Conax Technologies sales engineer for custom needs.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

Conductors are available in Copper, Nickel and 303SST. Use of Nickel rather than Copper is recommended in oxidizing atmospheres. For further information on conductor selection, see page 11. Custom conductors, such as nickel-plated copper, are available. Please consult factory.

- Temperature Range: -300˚ F to +450˚ F (-185˚ C to +232˚ C)
- Pressure Range: Vacuum to 2,500 PSIG (170 bar) – see Pressure Ratings in Specifications Chart.
- Voltage to 8000 VDC
- Amperage to 525 amp
- Supplied with or without conductor

Accessories

The replaceable sealant permits repeated use of the same fitting. Electrodes can be easily assembled or replaced in the field. To replace the sealant or element, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. When reused, the glands should be relubricated to maintain the published torque and pressure ratings. If glands are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 103 for information on our lubrication kit.

To order a Replacement Sealant, order RS – (Gland) – (Diameter)

***Example:** RS-EGT-093*

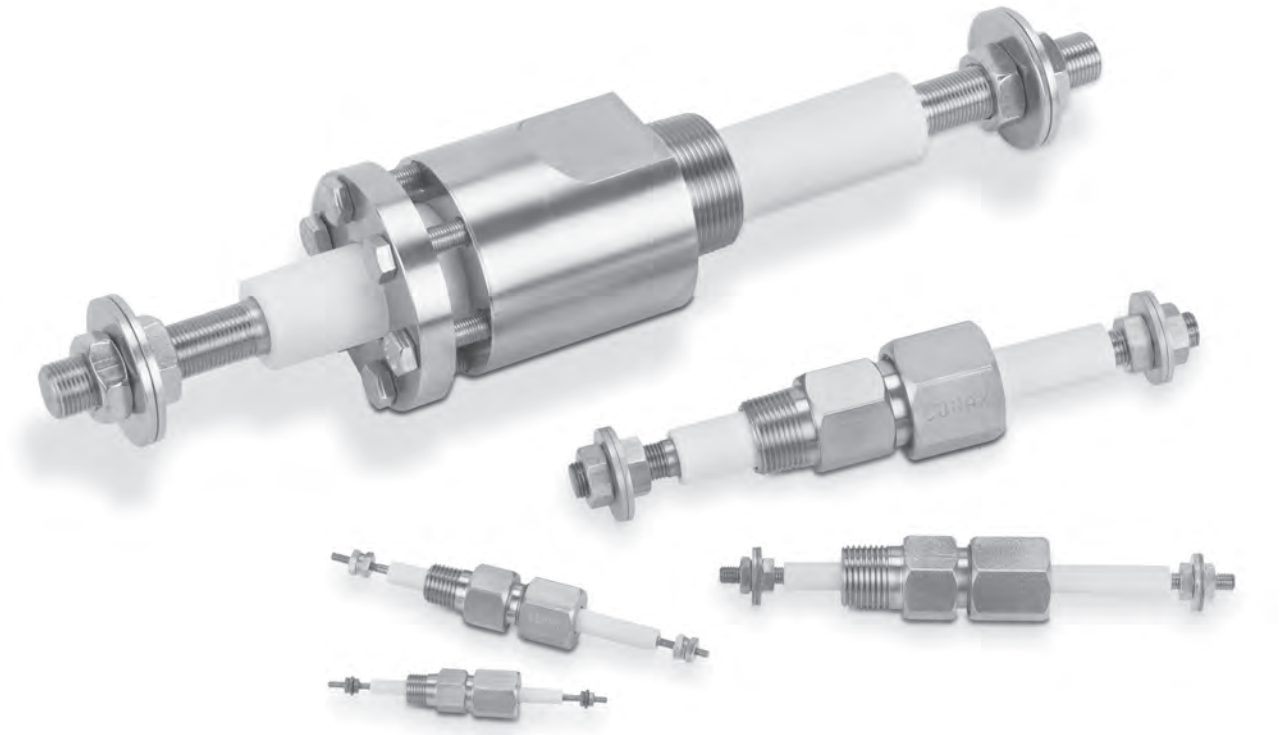
For replacement conductors, see the Accessories section on page 102.

Catalog Numbering System

EGT Gland	Nominal Diameter of Conductor in thousandths of an inch	Cap Style	Conductor Material
EGT	093	A – has mounting thread only	CU – Copper
	125	B – has cap end threaded	NI – Nickel
Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.	187		SS – 303 Stainless Steel
	250		XX – No conductor
	375		
	500		
	750		
	1000 (Flange-Style)		

EGT Gland — Nominal Diameter of Conductor — Cap Style — Conductor Material

Example: ***EGT-093-B-SS***



High Performance Electrode Gland With Single Peak™ Insulator (up to 8,000 volts) for pressures up to 7700 PSI (530 BAR). See Bulletin 6068 for more information.

Specifications

Catalog Number	Conductor Diam. IN	Conductor Std. Length IN	Conductor Diam. MM	Conductor Std. Length MM	Amperage Rating (@ 30°C, 90°C max) CU	NI	SS	Voltage Rating DC	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating PTFE PSIG	BAR
Standard 1/8 NPT																		
EGT-093	0.093	3.188	2.36	80.96	20	10	3	4000	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	2,500	172
Weld Neck (Weld Neck Length 0.39", Diameter 0.405")**																		
EGT(SWM1/S316L)-093	0.093	3.188	2.36	80.96	20	10	3	4000	1.19	30.2	1.56	39.7	0.500	0.500	12.7	12.7	2,500	172
SAE 1/2 -20 Thread Mount (formerly MS)																		
EGT(MSE5/)-093	0.093	3.188	2.36	80.96	20	10	3	4000	1.25	31.8	1.63	41.4	0.750	0.500	19.1	12.7	2,500	172
Standard 1/4 NPT																		
EGT-125	0.120	5.000	3.05	127.00	40	15	6	8000	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,200	83
Weld Neck (Weld Neck Length 0.59", Diameter 0.54")**																		
EGT(SWM2/S316L)-125	0.120	5.000	3.05	127.00	40	15	6	8000	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	1,200	83
SAE 9/16 -18 Thread Mount (formerly MS)																		
EGT(MSE6/)-125	0.120	5.000	3.05	127.00	40	15	6	8000	2.00	50.8	2.63	66.7	0.813	0.750	20.7	19.1	1,200	83
Standard 1/2 NPT																		
EGT-187	0.182	6.500	4.62	165.10	60	25	9	8000	2.56	65.1	3.31	84.1	1.000	1.000	25.4	25.4	1,600	110
EGT-250	0.245	6.500	6.22	165.10	95	40	15	8000	2.56	65.1	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83
Weld Neck (Weld Neck Length 0.78", Diameter 0.84")**																		
EGT(SWM4/S316L)-187	0.182	6.500	4.62	165.10	60	25	9	8000	2.56	65.1	3.31	84.1	1.000	1.000	25.4	25.4	1,600	110
EGT(SWM4/S316L)-250	0.245	6.500	6.22	165.10	95	40	15	8000	2.56	65.1	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83
SAE 3/4-16 Thread Mount (formerly MS)																		
EGT(MSE8/)-187	0.182	6.500	4.62	165.10	60	25	9	8000	2.56	65.1	3.31	84.1	1.000	1.000	25.4	25.4	1,600	110
EGT(MSE8/)-250	0.245	6.500	6.22	165.10	95	40	15	8000	2.56	65.1	3.31	84.1	1.000	1.000	25.4	25.4	1,200	83
Standard 3/4 NPT																		
EGT-375	0.370	8.500	9.40	215.90	160	65	24	8000	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	600	41
EGT-500	0.495	8.500	12.57	215.90	200	80	30	8000	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	600	41
Weld Neck (Weld Neck Length 0.79", Diameter 1.05")**																		
EGT(SWM5/S316L)-375	0.370	8.500	9.40	215.90	160	65	24	8000	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	600	41
EGT(SWM5/S316L)-500	0.495	8.500	12.57	215.90	200	80	30	8000	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	600	41
SAE 1-5/16 -12 Thread Mount (formerly MS)																		
EGT(MSE16/)-375	0.370	8.500	9.53	215.90	160	65	24	8000	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	600	41
EGT(MSE16/)-500	0.495	8.500	12.57	215.90	200	80	30	8000	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	600	41
Standard 1 NPT																		
EGT-750	0.745	9.250	18.92	234.95	400	165	60	8000	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	600	41
Weld Neck (Weld Neck Length .98", Diameter 1.315")**																		
EGT(SWM6/S316L)-750	0.745	9.250	18.92	234.95	400	165	60	8000	3.50	88.9	4.50	114.3	1.750	2.000	44.5	50.8	600	41

CATALOG NUMBER	Conductor Diam. IN	Conductor Std. Length IN	Conductor Diam. MM	Conductor Std. Length MM	Amperage Rating (@ 30°C, 90°C max) CU	NI	SS	Voltage Rating DC	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Flange/Body Diameter IN	Flange/Body Diameter MM	Pressure Rating PTFE PSIG	BAR
STANDARD 1-1/4 NPT																
EGT-1000	0.995	10.000	25.27	254.00	525	240	72	8000	3.75	95.3	NA	NA	3.000	76.2	100	7
WELD NECK (WELD NECK LENGTH .1.01", DIAMETER 1.66")**																
EGT(SWM7/S316L)-1000	0.995	10.000	25.27	254.00	525	240	72	8000	3.75	95.3	NA	NA	3.000	76.2	100	7

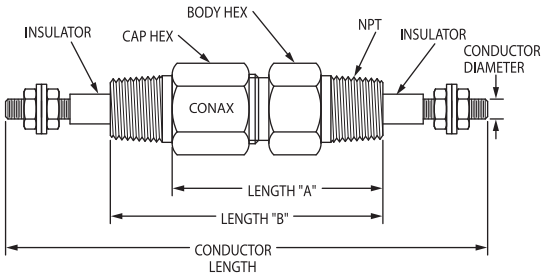
Note: EGT-750 and EGT-1000 are not available with SAE threads.

** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*

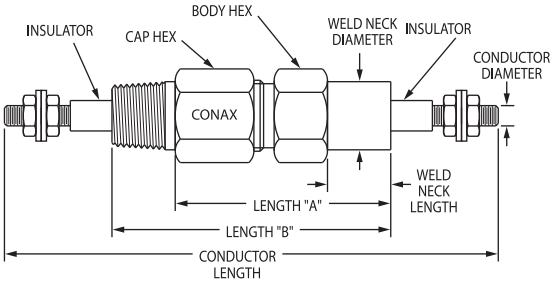
*** Weld neck models require relubrication prior to use.*

NA = Not Applicable

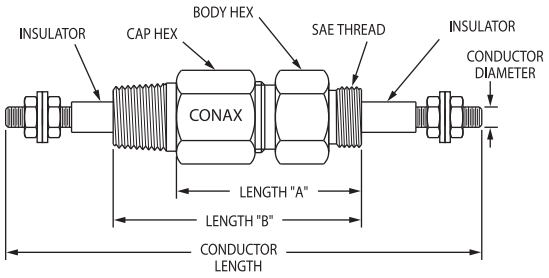
All pressure and torque ratings were determined at 68˚F (20˚C) using a solid electrode as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. For proper assembly of these sealing glands, see the Assembly Instructions provided on pages 106-119.



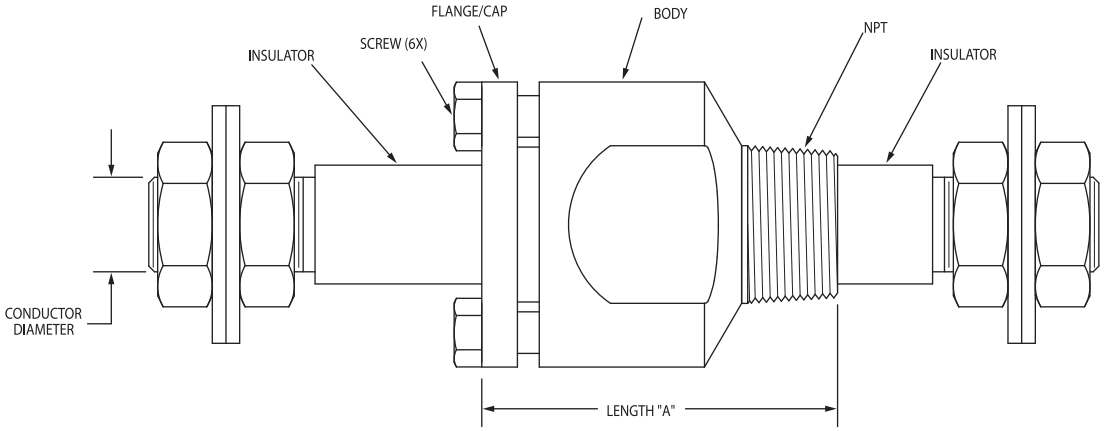
Standard NPT



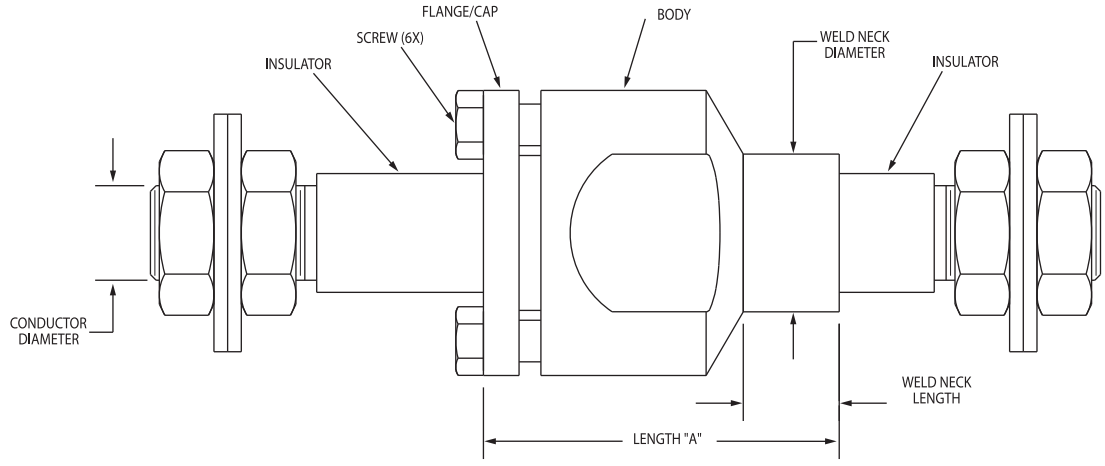
Weld Neck Mount



SAE Thread Mount



EGT-1000 NPT



EGT-1000
Weld Neck Mount

HIGH DENSITY

HD SERIES ■ HIGH DENSITY MULTIPLE WIRE FEEDTHROUGHS

Conax Technologies' HD Series high density mechanically sealed feedthrough assemblies allow multiple insulated wires to be installed through a single port. These assemblies consist of a stainless steel tube swaged over bundled 24 AWG solid PTFE-insulated thermocouple wire or copper wires. The thermocouple pairs are available with or without junctions. HD assemblies provide an excellent means to pass numerous thermocouple, RTD and low voltage instrumentation wires through a vessel wall without breaching the wall in multiple locations.

HD assemblies can be supplied with or without a Conax Technologies' "soft seal" gland for pressure/vacuum sealing. When equipped with a gland, the tube passes through the sealing gland, providing a continuous wire feedthrough. Assemblies configured with a PG gland can accommodate up to 60 conductor wires or 30 thermocouple pairs. An MHM gland can accommodate multiple HD assemblies to seal up to 240 conductors or 120 thermocouple pairs. Assemblies can also be furnished with split glands or MK glands.

The stainless steel tube is provided with a 4-1/2" nominal length standard. These feedthroughs are normally furnished with 24 inches of leadwire on each end. Longer lengths may be furnished as required.

- Temperature Range: -112˚ F to +250˚ F (-80˚ C to +120˚ C)
- Vacuum Rating: 5 x 10^{-6} mmHg @ 68˚ F (20˚ C)
- Leak Rate: 1 x 10^{-9} He scc/sec @ 68˚ F (20˚ C)
- Voltage Rating: 100 Vdc
- Amperage Rating: 500mA
- Feedthrough Pressure Rating @ 68˚ F (20˚ C): 5000 psig (345 bar). For gland pressure ratings, see the applicable gland section. The Assembly Pressure Rating is limited by the lowest element in the assembly (gland or feedthrough).

Conax Technologies can provide numerous options for the management of wires in our sealing assemblies:

- Wire Markers with customer nomenclature for easy wire identification of multiple wires
- Twisting of wires in pairs or other groupings for easier identification and management
- Wire Jackets/Sleeving
- Hot Junctions – exposed or encapsulated

Please consult your Conax Technologies sales engineer for details.

HD Capacities

Model	Feedthrough Diameter IN	MM	Number of Conductors
HD18	0.19	4.7	12
HD25	0.25	6.4	24
HD31	0.31	7.9	40
HD37	0.38	9.5	60

Catalog Numbering System

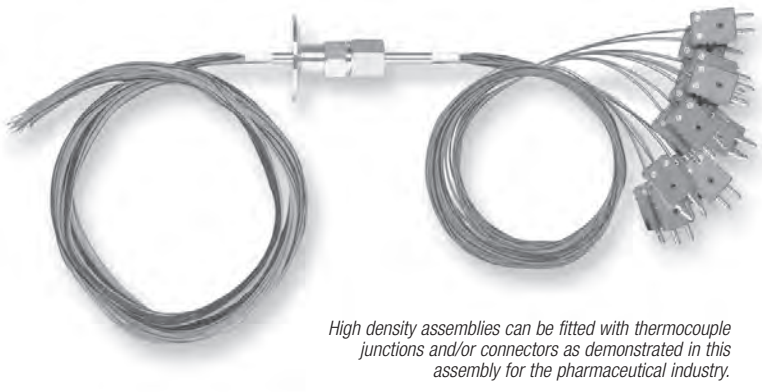
Style	Feedthrough Diameter	Tube Length	Number of Conductors	Wire Type	Gland Type (Optional)	Wire Length Cap Side (in.)	Wire Length Body Side (in.)
HD	18 – 0.187" OD 25 – 0.250" OD 31 – 0.312" OD 37 – 0.375" OD	450 - 4.5" *Custom tube lengths also available.*	12 – for HD18 = 12 total conductors or 6 T/C pairs 24 – for HD25 = 24 total conductors or 12 T/C pairs 40 – for HD31 = 40 total conductors or 20 T/C pairs 60 – for HD37 = 60 total conductors or 30 T/C pairs	J – Iron/Constantan K – Chromel/Alumel T – Copper/Constantan E – Chromel/Constantan CU – Copper Wire N – Nicrosil/Nisil *Consult factory for CX, RX/SX, or other wire type combinations.*	*Select a gland with a bore size that fits the feedthrough diameter. See the appropriate catalog section for proper gland callout. If gland is not required, omit gland callout. Will accept PG, MK, MHM or split gland.*		

Style / Feedthrough Diameter / Tube Length / Number of Conductors / Wire Type / Gland Type / Wire Length, Cap Side / Wire Length, Body Side

Example: HD25-450(12K)PG2AT, 24/24 (with gland)

Example: HD25-450(12K), 24/24 (without gland)

High density assemblies with a PG or MK gland provide a continuous sealed wire feedthrough accommodating up to 60 wires or 30 thermocouple pairs.



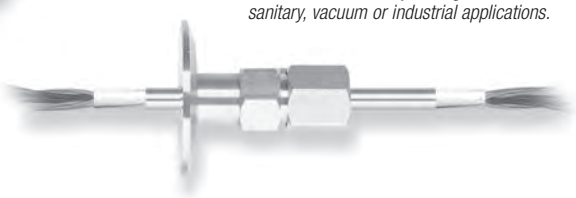
High density assemblies can be fitted with thermocouple junctions and/or connectors as demonstrated in this assembly for the pharmaceutical industry.

Conductor Capacity per Gland

Sealing Gland	Feedthroughs per Gland	HD18	HD25	HD31	HD37
MPG-187	1	12			
PG2-187	1	12			
PG2-250	1		24		
PG4-187	1	12			
PG4-250	1		24		
PG4-312	1			40	
PG4-375	1				60
PG5-375	1				60
MHM5-187	2	24			
	3	36			
	4	48			
	5	60			
	6	72			
MHM5-250	2		48		
	3		72		
	4		96		
MHM6-187	8	96			
	10	120			
	12	144			
	14	168			
MHM6-250	5		120		
	6		144		
	7		168		
MHM6-312	2			80	
	3			120	
	4			160	
MHM6-375	2				120
	3				180
	4				240

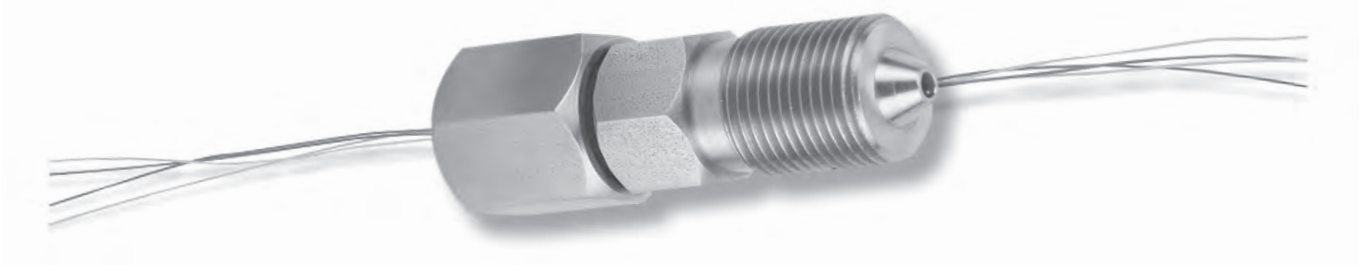
Multiple high density units passing through the multiple holes of an MHM gland produce an assembly capable of accommodating hundreds of wires or thermocouple pairs.

High density gland assemblies can be fitted with KF, CF, SFA and ASME/ANSI style flanges for use in sanitary, vacuum or industrial applications.



HIGH PRESSURE

See page 75 for our High Density (HD) thermocouple feedthrough for thermal validation or mapping of a pharmaceutical freeze dryer, sterilizer or lyophilizer.



High Pressure Sealing Insulated Wire Glands (HPPL)

Conax Technologies manufactures high pressure seals [up to 30,000 psig at 68°F (20°C)] for instrument signal wires. High pressure seals are designed for installation onto the pressure vessel wall using threaded mounting configurations only. High pressure assemblies are factory torqued, so disassembly and reassembly in the field is not recommended.

These assemblies feature body and caps constructed from high strength 316SST and a proprietary sealant. HPPL assemblies are provided with Kapton-insulated 26 gauge solid copper wire or 24 gauge thermocouple wire. Standard assemblies include 24" of wire on each side. To order other wire lengths, indicate the desired lengths after the catalog number.

A 1/2" NPT thread can be added to the assembly cap to allow mounting a terminal box or other type of enclosure. Consult factory for ordering details.

For other types of high pressure applications such as electrode sealing, please consult the factory.

Specifications – High Pressure Assemblies

Catalog Number	Wire Gauge	Number of Wires	Length IN	Length MM	Thread Size	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating PSIG	Pressure Rating BAR
HPPL14(AM3/S316B)-26-A(/S316B)*-CGL	26	2-7	3.00	76.2	3/4-16	1.250	1.000	31.8	25.4	30,000	2067
HPPL8(AM5/S316B)-26-A(/S316B)*-CGL	26	2-10	3.00	76.2	1 1/8-12	1.250	1.250	31.8	31.8	20,000	1378
HPPL14(AM3/S316B)-24-A(/S316B)*-CGL	24	2-6	3.00	76.2	3/4-16	1.250	1.000	31.8	25.4	20,000	1378
HPPL8(AM5/S316B)-24-A(/S316B)*-CGL	24	2-8	3.00	76.2	1 1/8-12	1.250	1.250	31.8	31.8	20,000	1378

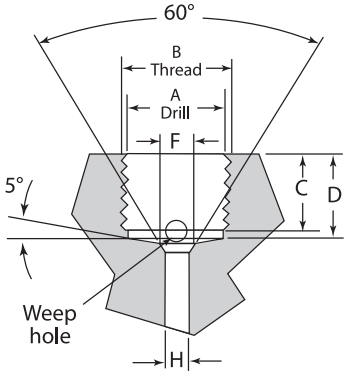
Note: HPPL14 mates with Snap-tite/Autoclave Engineers part type F-375-C. HPPL8 mates with Snap-tite/Autoclave Engineers part type F-562-C.

Tube Connection Dimensions – Autoclave High Pressure FC

Tube Outside	Connection Type	Dimensions inches (mm) A	B	C	D	F	H
1/4	F250C	33/64 (13.1)	9/16 -18	0.38 (9.7)	0.44 (11.1)	0.17 (4.3)	0.094 (2.4)
3/8	F375C	11/16 (17.4)	3/4 -16	0.53 (13.5)	0.62 (15.7)	0.26 (6.6)	0.125 (3.2)
9/16	F562C	1-3/64 (26.6)	1-1/8 -12	0.62 (15.7)	0.75 (19.1)	0.38 (9.7)	0.188 (4.8)
9/16	F562C40	1-3/64 (26.6)	1-1/8 -12	0.62 (15.7)	0.75 (19.1)	.038 (9.7)	0.250 (6.4)
5/16	F312C150	37/64 (14.7)	5/8 -18	0.62 (15.7)	1.06 (26.9)	0.25 (6.4)	0.094 (2.4)

Note: All dimensions are shown for reference only and should not be considered as actual machining dimensions. All threads are manufactured to a class 2A or 2B fit.

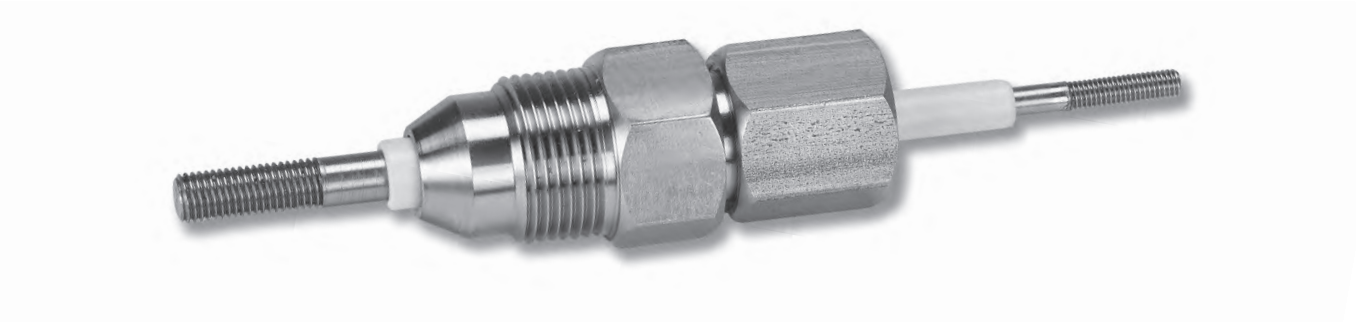
** Body side wire length 80" (203.2 cm) maximum. Consult factory for longer lengths.*



Wire Length, Cap Side
Wire Length, Body Side*

Example: ***HPPL14(AM3/S316B)-26-A(/S316B)2-CGL, 30/45***

HIGH PRESSURE



High Pressure Sealing Electrode Glands (HPEG)

Conax Technologies manufactures high pressure seals [up to 20,000 psig at 68°F (20°C)] for electrode feedthroughs. High pressure seals are designed for installation onto the pressure vessel wall using threaded mounting configurations only. High pressure assemblies are factory torqued, so disassembly and reassembly in the field is not recommended.

These assemblies feature body and caps constructed from high strength 316SST and a proprietary sealant. Each unit has a stepped electrode. The larger diameter electrode is on the body side. SST nuts and washers are used for nickel and stainless steel and brass is used for copper.

The electrode is copper (CU), stainless steel (SS) or nickel (NI).

The voltage rating is 2000VDC. All prices include a pressure test at 68°F (20°C)].

Specifications – High Pressure Assemblies

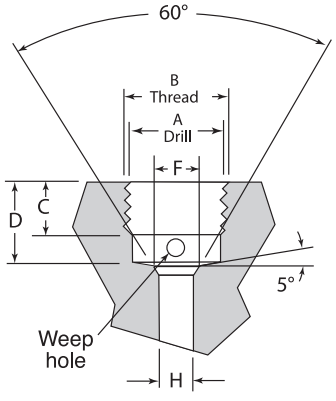
Catalog Number	Thread Size	Max Amperage Rating CU	SS	NI
HPEG(ASM5/S316)-093/187-A-CU-V	.8125-16UNF-2A	20	10	3
HPEG(ASM7/S316)-187/312-A-CU-V	.750-14NPSM	60	25	9

Note: HPEG with ASM5 mates with Snap-tite/Autoclave Engineers part type SF562CX10.
HPEG with ASM7 mates with Snap-tite/Autoclave Engineers part type SF750CX10.

Tube Connection Dimensions – Autoclave Medium Pressure SFCX

Tube Outside	Connection Type	Dimensions inches (mm) A	B	C	D	F	H
1/4	SF250CX20	25/64 (9.9)	7/16 -20	0.28 (7.1)	0.50 (12.7)	0.19 (4.8)	0.109 (2.8)
3/8	SF375CX20	33/64 (13.1)	9/16 -18	0.38 (9.7)	0.62 (15.7)	0.31 (7.9)	0.203 (5.2)
9/16	SF562CX10	3/4 (19.1)	13/16 -16	0.44 (11.1)	0.75 (19.1)	0.50 (12.7)	0.359 (9.1)
3/4	SF750CX10	61/64 (24.2)	3/4 -14	0.50 (12.7)	0.94 (23.9)	.062 (15.7)	0.516 (13.1)
1	SF1000CX10	1-19/64 (32.9)	1-3/8 -12	0.81 (20.5)	1.31 (33.3)	0.88 (22.4)	0.688 (17.5)
1	SF1000CX43	1-19/64 (32.9)	1-3/8 -12	0.81 (20.5)	1.31 (33.3)	0.88 (22.4)	0.438 (11.1)

Note: All dimensions are shown for reference only and should not be considered as actual machining dimensions.
All threads are manufactured to a class 2A or 2B fit.



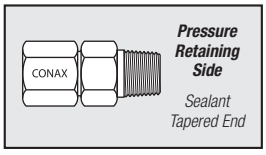
PL SERIES ■ INSULATED LEADWIRE (POWER LEAD) SEALING

Conax Technologies Model PL (Power Lead) Glands seal on insulated leadwire for use in transformers, motors, conduit boxes and pressure/vacuum chambers and as power or instrument feedthroughs. The soft sealant technology seals against gases or liquids and resists element movement under pressure. Immersion length adjustments and easy replacement of elements can be accomplished in the field.

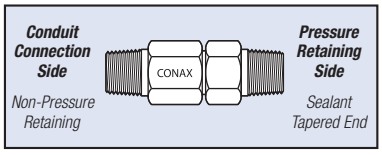
PL glands may be purchased with or without wire. If supplied with wire, solid copper wire with Kapton® insulation is standard. This is provided as 24" total with the gland centered at mid-point. Standard sealants are Grafoil or PTFE. Other materials for wire and sealants can be provided for special applications. Consult your Conax Technologies sales engineer for more information on available options.

Terminals can be furnished on all wire ends if specified, at additional cost. Bulk wire is available from Conax Technologies for field assembly of PL glands. (See the Accessories Section, page 102.)

PL gland bodies with NPT threads and SAE threads are constructed from 303SST standard. Weld-neck style gland bodies are constructed from 316LSST standard. Caps and followers for all styles are constructed from 303SST standard. Many optional materials are also available, including 316LSST, Monel 405, Hastelloy C276, Inconel and more. For information on alternative materials, see page 9.
Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

Alternative sealant materials are available. Please consult a Conax Technologies sales engineer for custom needs.

- Temperature Range: -300˚ F to +450˚ F (-185˚ C to +232˚ C)
- Pressure Range: Vacuum to 10,000 PSIG (690 bar) – see Pressure Ratings in Specifications Chart.
- 600 Volts to 55 amps
- Seals 1-18 Wires
- Easy installation – no "potting"
- Wire Identification Markers applied
- Thermocouple Material conductors available, 18 gauge standard, other wire gauges optional

Accessories

The replaceable sealant permits repeated use of the same fitting. Assembly is simple and may be done in the field. Simply insert the elements and torque the cap. To replace the sealant or elements, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. When reused, the glands should be relubricated to maintain the published torque and pressure ratings. If glands are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must be relubricated prior to use. See page 103 for information on our lubrication kit.

Replacement Packing Sets are available. These consist of a sealant and two insulators. Replacement sealants may also be ordered separately.

To order a Replacement Packing Set, order
RPS – (Gland) – (Wire Gauge) – (Number of Holes) – (Sealant)

Example: ***RPS-PL-12-3-T***

To order a Replacement Sealant only, order
RS – (Gland) – (Wire Gauge) – (Number of Holes) – (Sealant)

Example: ***RS-PL-12-3-T***

Catalog Numbering System

PL Gland	Wire Gauge	Cap Style	Number of Wires Sealed	Sealant
PL	**20**	**A – has mounting thread only**	**1**	**T – PTFE**
Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.	**18**	**B – has cap end threaded**	**2**	**G – Grafoil**
	16		**3**	*Other sealant materials also available.*
	14		**4**	
	12		**6**	
	10		**8**	
	8		**10**	
			12	
			18	

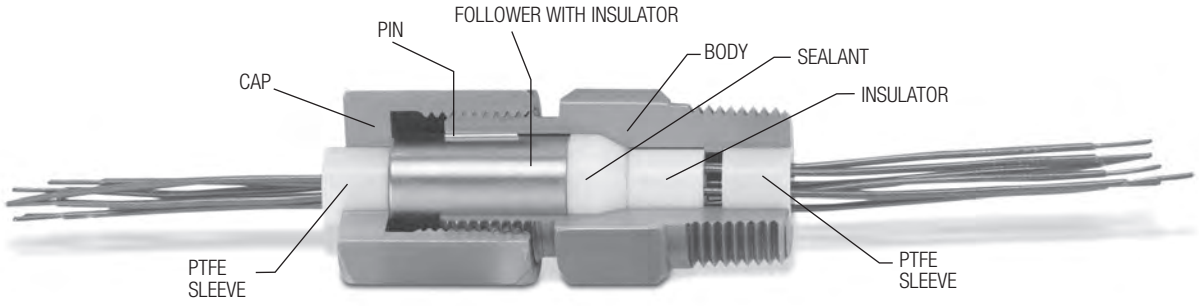
PL Gland / Wire Gauge / Cap Style / Number of Wires Sealed / Sealant / Wire Length Cap Side / Wire Length Body Side

Example: ***PL-12-A3-T, 24/36***
(With Non-Standard Wire Length)

Example: ***PL-12-A3-T***
(With Standard Wire Length)

Example: ***PL-18(J)-A2-T, 24/36***
(With Thermocouple Material Conductors)

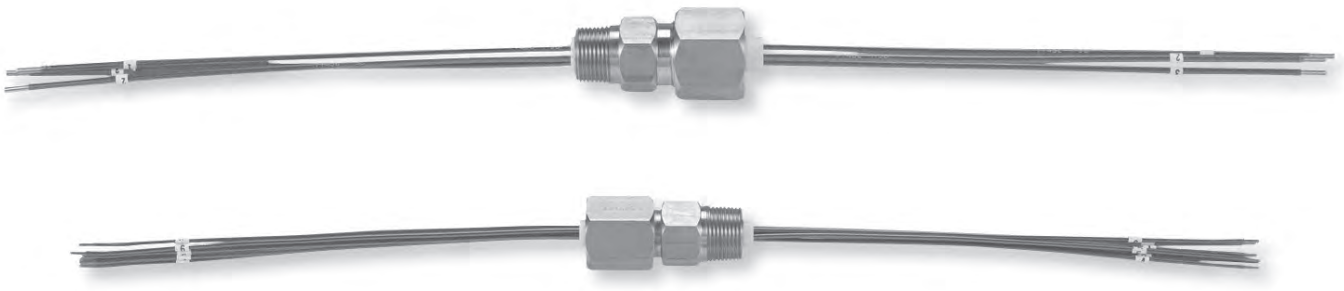
Example: ***PL-12-A3-T-XX***
(Without Conductors)



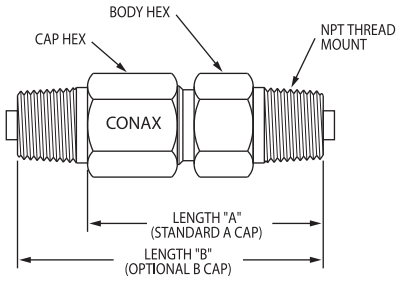
PL Selection Guide

Wire Gauge	Standard Number of Wires Offered								
	1	2	3	4	6	8	10	12	18
20		X	X	X	X	X			X
18	X	X	X	X	X	X	X	X	
16		X	X	X	X	X	X	X	
14	X	X	X	X	X	X	X	X	
12		X	X	X	X				
10		X	X	X					
8		X	X						

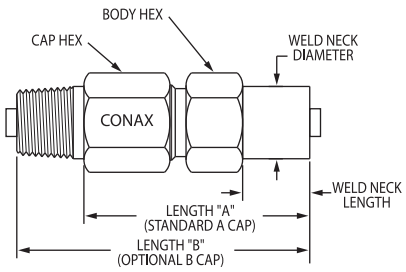
The number of wires offered is dependent on the mounting port size. See the Specifications charts on the subsequent pages for details.



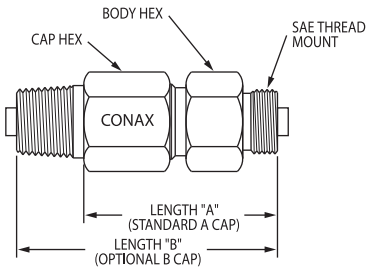
PL SERIES ■ INSULATED LEADWIRE (POWER LEAD) SEALING



Standard NPT



Weld Neck Mount



SAE Thread Mount

Catalog Number	Wire Gauge	Number of Wires	Amperage Rating Per Wire	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Grafoil PSIG	Pressure Rating Grafoil BAR	Pressure Rating PTFE PSIG	Pressure Rating PTFE BAR
Standard 1/8 NPT															
PL-18-1	18	1	13	1.38	35.1	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	1,600	110
PL-14-1	14	1	24	1.38	35.1	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	800	55
Weld Neck (Weld Neck Length 0.39, Diameter 0.405)															
PL(SWM1/S316L)-18-1	18	1	13	1.38	35.1	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	1,600	110
PL(SWM1/S316L)-14-1	14	1	24	1.38	35.1	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	800	55
SAE 7/16 -20 Thread Mount (formerly MS)															
PL(MSE4/)-18-1	18	1	13	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	1,600	110
PL(MSE4/)-14-1	14	1	24	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	800	55
Standard 1/2 NPT															
PL-20-2	20	2	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL-20-3	20	3	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL-20-4	20	4	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL-18-2	18	2	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL-18-3	18	3	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL-18-4	18	4	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL-16-2	16	2	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL-16-3	16	3	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL-16-4	16	4	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL-14-2	14	2	24	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	1,500	103
PL-14-3	14	3	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,000	138
PL-14-4	14	4	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	1,600	110
Optional 1/4 NPT															
PL(PTM2/)-20-2	20	2	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL(PTM2/)-20-3	20	3	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL(PTM2/)-20-4	20	4	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL(PTM2/)-18-2	18	2	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL(PTM2/)-18-3	18	3	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL(PTM2/)-18-4	18	4	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL(PTM2)-16-2	16	2	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL(PTM2)-16-3	16	3	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL(PTM2)-16-4	16	4	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL(PTM2)-14-2	14	2	24	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	1,500	103

Note: the pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies.

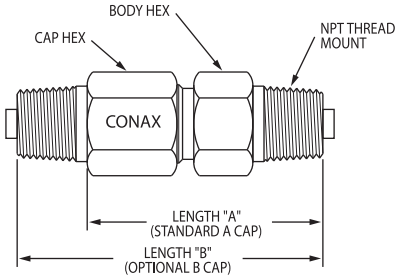
** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*

*** Weld neck models require lubrication prior to use.*

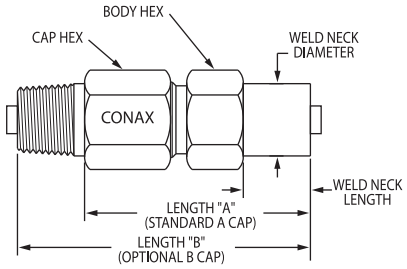
Catalog Number	Wire Gauge	Number of Wires	Amperage Rating Per Wire	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Grafoil PSIG	Pressure Rating Grafoil BAR	Pressure Rating PTFE PSIG	Pressure Rating PTFE BAR
Weld Neck (Weld Neck Length 0.78", Diameter 0.840")															
PL(SWM4/S316L)-20-2	20	2	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL(SWM4/S316L)-20-3	20	3	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL(SWM4/S316L)-20-4	20	4	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	5,000	345
PL(SWM4/S316L)-18-2	18	2	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL(SWM4/S316L)-18-3	18	3	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL(SWM4/S316L)-18-4	18	4	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	4,000	276
PL(SWM4/S316L)-16-2	16	2	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL(SWM4/S316L)-16-3	16	3	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL(SWM4/S316L)-16-4	16	4	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	3,000	207
PL(SWM4/S316L)-14-2	14	2	24	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	1,500	103
PL(SWM4/S316L)-14-3	14	3	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,000	138
PL(SWM4/S316L)-14-4	14	4	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	1,600	110
SAE 3/4-16 Thread Mount (formerly MS)															
PL(MSE8/)-20-2	20	2	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	5,000	345
PL(MSE8/)-20-3	20	3	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	5,000	345
PL(MSE8/)-20-4	20	4	9	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	5,000	345
PL(MSE8/)-18-2	18	2	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	4,000	276
PL(MSE8/)-18-3	18	3	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	4,000	276
PL(MSE8/)-18-4	18	4	13	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	4,000	276
PL(MSE8/)-16-2	16	2	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	3,000	207
PL(MSE8/)-16-3	16	3	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	3,000	207
PL(MSE8/)-16-4	16	4	17	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	3,000	207
PL(MSE8/)-14-2	14	2	24	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	1,500	103
SAE 7/8-14 Thread Mount (formerly MS)															
PL(MSE10/)-14-3	14	3	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	2,000	138
PL(MSE10/)-14-4	14	4	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,600	110
Standard 3/4 NPT															
PL-20-6	20	6	9	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	3,200	220
PL-20-8	20	8	9	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	3,200	220
PL-20-18	20	18	9	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	2,400	165
PL-18-6	18	6	13	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL-18-8	18	8	13	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL-18-10	18	10	13	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	2,100	145
PL-18-12	18	12	13	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	2,100	145
PL-16-6	16	6	17	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL-16-8	16	8	17	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL-16-10	16	10	17	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	1,700	117
PL-16-12	16	12	17	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	1,700	117
PL-14-6	14	6	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	1,600	110
PL-14-8	14	8	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	1,600	110
PL-14-10	14	10	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	1,400	96
PL-14-12	14	12	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	1,400	96
PL-12-2	12	2	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL-12-3	12	3	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL-12-4	12	4	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL-12-6	12	6	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL-10-2	10	2	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL-10-3	10	3	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL-10-4	10	4	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL-8-2	8	2	55	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	800	55
PL-8-3	8	3	55	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	8,000	551	800	55

All pressure and torque ratings were determined at 68˚ F (20˚ C) using solid Kapton-insulated copper conductors as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameter is ±0.005. Deviation from the nominal may affect pressure ratings.

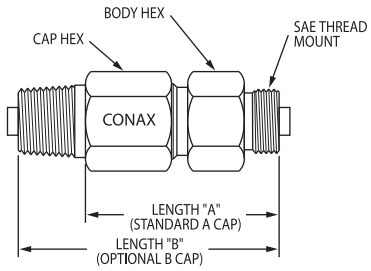
PL SERIES ■ INSULATED LEADWIRE (POWER LEAD) SEALING



Standard NPT



Weld Neck Mount



SAE Thread Mount

Catalog Number	Wire Gauge	Number of Wires	Amperage Rating Per Wire	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Grafoil PSIG	Pressure Rating Grafoil BAR	Pressure Rating PTFE PSIG	Pressure Rating PTFE BAR
Optional 1/2 NPT															
PL(PTM4/)-20-6	20	6	9	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	3,200	220
PL(PTM4/)-20-8	20	8	9	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	3,200	220
PL(PTM4/)-18-6	18	6	13	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL(PTM4/)-18-8	18	8	13	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL(PTM4/)-16-6	16	6	17	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL(PTM4/)-16-8	16	8	17	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL(PTM4/)-14-6	14	6	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	1,600	110
PL(PTM4/)-14-8	14	8	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	1,600	110
PL(PTM4/)-12-2	12	2	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL(PTM4/)-12-3	12	3	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL(PTM4/)-12-4	12	4	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL(PTM4/)-12-6	12	6	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL(PTM4/)-10-2	10	2	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL(PTM4/)-10-3	10	3	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL(PTM4/)-10-4	10	4	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL(PTM4/)-8-2	8	2	55	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	800	55
Weld Neck (Weld Neck Length 0.79", Diameter 1.050")															
PL(SWM5/S316L)-20-6	20	6	9	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	3,200	220
PL(SWM5/S316L)-20-8	20	8	9	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	3,200	220
PL(SWM5/S316L)-20-18	20	18	9	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	2,400	165
PL(SWM5/S316L)-18-6	18	6	13	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL(SWM5/S316L)-18-8	18	8	13	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL(SWM5/S316L)-18-10	18	10	13	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	2,100	145
PL(SWM5/S316L)-18-12	18	12	13	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	2,100	145
PL(SWM5/S316L)-16-6	16	6	17	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL(SWM5/S316L)-16-8	16	8	17	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	2,700	186
PL(SWM5/S316L)-16-10	16	10	17	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	1,700	117
PL(SWM5/S316L)-16-12	16	12	17	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	1,700	117
PL(SWM5/S316L)-14-6	14	6	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	1,600	110
PL(SWM5/S316L)-14-8	14	8	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	1,600	110
PL(SWM5/S316L)-14-10	14	10	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	1,400	96
PL(SWM5/S316L)-14-12	14	12	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	10,000	689	1,400	96
PL(SWM5/S316L)-12-2	12	2	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL(SWM5/S316L)-12-3	12	3	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL(SWM5/S316L)-12-4	12	4	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL(SWM5/S316L)-12-6	12	6	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,800	606	1,200	83
PL(SWM5/S316L)-10-2	10	2	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL(SWM5/S316L)-10-3	10	3	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL(SWM5/S316L)-10-4	10	4	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	1,200	83
PL(SWM5/S316L)-8-2	8	2	55	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	800	55
PL(SWM5/S316L)-8-3	8	3	55	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	8,000	551	800	55

Catalog Number	Wire Gauge	Number of Wires	Amperage Rating Per Wire	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Grafoil PSIG	Pressure Rating Grafoil BAR	Pressure Rating PTFE PSIG	Pressure Rating PTFE BAR
SAE 7/8 -14 Thread Mount (formerly MS)															
PL(MSE10/)-20-6	20	6	9	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	3,200	220
PL(MSE10/)-20-8	20	8	9	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	3,200	220
PL(MSE10/)-18-6	18	6	13	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	2,700	186
PL(MSE10/)-18-8	18	8	13	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	2,700	186
PL(MSE10/)-16-6	16	6	17	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	2,700	186
PL(MSE10/)-16-8	16	8	17	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	2,700	186
PL(MSE10/)-14-6	14	6	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,600	110
PL(MSE10/)-14-8	14	8	24	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,600	110
PL(MSE10/)-12-2	12	2	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,200	83
PL(MSE10/)-12-3	12	3	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,200	83
PL(MSE10/)-12-4	12	4	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,200	83
PL(MSE10/)-12-6	12	6	30	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,200	83
PL(MSE10/)-10-2	10	2	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,200	83
PL(MSE10/)-10-3	10	3	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,200	83
PL(MSE10/)-10-4	10	4	40	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	1,200	83
PL(MSE10/)-8-2	8	2	55	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	800	55

Catalog Number	Wire Gauge	Number of Wires	Amperage Rating Per Wire	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Grafoil PSIG	Pressure Rating Grafoil BAR	Pressure Rating PTFE PSIG	Pressure Rating PTFE BAR
SAE 1-5/16 -12 Thread Mount (formerly MS)															
PL(MSE16/)-20-18	20	18	9	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	5,802	400	2,400	165
PL(MSE16/)-18-10	18	10	13	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	5,802	400	2,100	145
PL(MSE16/)-18-12	18	12	13	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	5,802	400	2,100	145
PL(MSE16/)-16-10	16	10	17	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	5,802	400	1,700	117
PL(MSE16/)-16-12	16	12	17	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	5,802	400	1,700	117
PL(MSE16/)-14-10	14	10	24	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	5,802	400	1,400	96
PL(MSE16/)-14-12	14	12	24	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	5,802	400	1,400	96
PL(MSE16/)-8-3	8	3	55	2.88	73.0	3.63	92.1	1.625	1.500	41.3	38.1	5,802	400	800	55

** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*

*** Weld neck models require lubrication prior to use.*

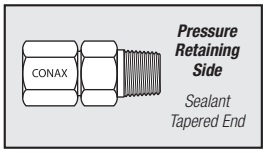
All pressure and torque ratings were determined at 68˚ F (20˚ C) using solid Kapton-insulated copper conductors as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameter is ±0.005. Deviation from the nominal may affect pressure ratings.

TG24T SERIES ■ SEALING FOR INSULATED LEADWIRE

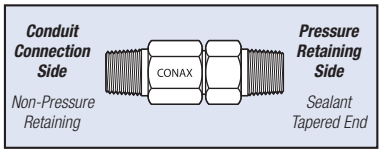
TG24T gland assemblies are provided with a PTFE or Grafoil sealant and 24 AWG solid PTFE insulated thermocouple grade wires or copper wires. These assemblies are ideal for sealing wires exiting compressor bearing housings, pressure vessels, instruments, furnaces and reactors.

- Pressure ratings from vacuum to 8000 psig (551 bar), depending on the gland size.
- Wire Rating: 100 Vdc, 500°F (260°C)

Gland bodies, caps and followers are constructed from 303SST. (For information on alternative body materials, see page 9.) Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads. The gland is furnished with 24 inches of wire on each side. Longer wire lengths can be furnished as needed.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

Conax Technologies can provide numerous options for the management of wires in our sealing assemblies:

- Wire Markers with customer nomenclature for easy wire identification of multiple wires
- Twisting of wires in pairs or other groupings for easier identification and management
- Wire Jackets/Sleeving
- Hot Junctions – exposed or encapsulated

Please consult your Conax Technologies sales engineer for details.

Accessories

The replaceable sealant permits repeated use of the same fitting. Elements can be easily assembled or replaced in the field. To replace the sealant or elements, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. If glands are cleaned prior to assembly or when reused, the glands should be relubricated to maintain the published torque and pressure ratings. On weld neck models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 103 for information on our lubrication kit.

To order a Replacement Sealant, order
RS – (Gland) – (Wire Gauge) – (Number of Holes) – (Sealant)

Example: *RS-TG-24T-2-T*

To order a Replacement Packing set, order
RPS – (Gland) – (Wire Gauge) – (Number of Holes) – (Sealant)

Example: *RPS-TG-24T-2-T*

Catalog Numbering System

Gland Style	Wire Gauge & Insulation	Wire Type	Cap Style	Number of Elements Sealed	Sealant	Wire Length Cap Side (in.)	Wire Length Body Side (in.)
MTG **TG** *Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.*	**24T – 24 AWG solid, PTFE coated**	**J – Iron/Constantan** **K – Chromel®/Alumel®** **T – Copper/Constantan** **E – Chromel/Constantan** **CU – Copper Wires** **CX – Alloy for Tungsten 5% Rhenium/Tungsten 26% Rhenium, 24 AWG only** **RX/SX – Copper/Copper Nickel alloy** **N – Nicrosil/Nisil**	**A – has mounting thread only** **B – has cap end threaded**	**2** **4** **6** **8** **12** **16** **24**	**T – PTFE** **G – Grafoil**		

Gland Style / Wire Gauge / Wire Type / Cap Style / Number of Elements sealed / Sealant / Wire Length, Cap Side / Wire Length, Body Side

Example: *TG-24T(J)-A2-T, 24/36*

Specifications – TG24T

Catalog Number	Number of Wires	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating PTFE PSIG	Pressure Rating PTFE BAR	Pressure Rating Grafoil PSIG	Pressure Rating Grafoil BAR	Torque for PTFE Sealant w/ T/C Wire except Type T (ft-lbs)	Torque for PTFE Sealant w/ T/C Wire except Type T (N-m)	Torque for Grafoil Sealant and PTFE w/ Copper or Type T Wire (ft-lbs)	Torque for Grafoil Sealant and PTFE w/ Copper or Type T Wire (N-m)
MODEL MTG24T																	
Standard 1/8 NPT																	
MTG-24T(X)-2	2	1.38	34.9	1.75	44.5	0.500	0.563	12.70	14.29	3,200	220	4,800	331	20-25	27-34	72-78 in-lbs	8-9
MTG-24T(X)-4	4	1.38	34.9	1.75	44.5	0.500	0.563	12.70	14.29	3,200	220	4,800	331	20-25	27-34	72-78 in-lbs	8-9
Weld Neck Mount (Weld Neck Mount Length 0.39", Diameter 0.405")																	
MTG(SWM1/S316L)-24T(X)-2	2	1.38	34.9	1.75	44.5	0.500	0.563	12.70	14.29	3,200	220	4,800	331	20-25	27-34	72-78 in-lbs	8-9
MTG(SWM1/S316L)-24T(X)-4	4	1.38	34.9	1.75	44.5	0.500	0.563	12.70	14.29	3,200	220	4,800	331	20-25	27-34	72-78 in-lbs	8-9
MODEL TG24T																	
Standard 1/4 NPT																	
TG-24T/(X)-2	2	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
TG-24T/(X)-4	4	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
TG24T(2&4 hole) with Optional 1/8 NPT																	
TG(PTM1/)-24T(X)-2	2	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
TG(PTM1/)-24T(X)-4	4	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
Weld Neck Mount (Weld Neck Mount Length 0.59", Diameter 0.540")																	
TG(SWM2/S316l)-24T(X)-2	2	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
TG(SWM2/S316l)-24T(X)-4	4	2.00	50.8	2.63	66.7	0.750	0.750	19.05	19.05	4,400	303	7,600	524	30-35	40-47	10-12	13-16
Standard 1/2 NPT																	
TG-24T(X)-6	6	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
TG-24T(X)-8	8	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
TG24T (6 & 8 hole) with Optional 1/4 NPT																	
TG(PTM2/)-24T(X)-6	6	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
TG(PTM2/)-24T(X)-8	8	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
Weld Neck Mount (Weld Neck Mount Length 0.78", Diameter 0.840")																	
TG(SWM4/S316L)-24T(X)-6	6	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
TG(SWM4/S316L)-24T(X)-8	8	2.63	66.7	3.38	85.7	1.000	1.000	25.40	25.40	3,200	220	8,000	551	50-55	67-74	25-30	34-40
Standard 3/4 NPT																	
TG-24T(X)-12	12	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
TG-24T(X)-16	16	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
TG-24T(X)-24	24	2.88	73.0	3.63	92.1	1.250	1.500	31.75	38.10	1,200	83	2,800	193	95-100	129-136	70-75	95-102
TG24T (12 & 16 hole) with Optional 1/2 NPT																	
TG(PTM4/)-24T(X)-12	12	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
TG(PTM4/)-24T(X)-16	16	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
Weld Neck Mount (Weld Neck Mount Length 0.79", Diameter 1.050")																	
TG(SWM5/S316L)-24T(X)-12	12	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88
TG(SWM5/S316L)-24T(X)-16	16	2.88	73.0	3.63	92.1	1.125	1.250	28.58	31.75	3,200	220	6,000	413	75-85	102-115	60-65	81-88

Note: (X) refers to the wire calibration/type.

** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*

*** Weld neck models require lubrication prior to use.*

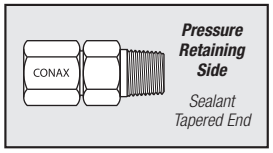
All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures.
Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints.

Transducer gland assemblies with fiberglass-insulated thermocouple wire are specially designed for applications where the sensor wire is exposed to process temperatures reaching up to 900˚ F (482˚ C). This assembly is particularly targeted for use with pressure vessels, autoclaves, vacuum and/or inert gas back-filled furnaces with **vessel wall temperatures up to 200° F (93.3° C) and pressures not exceeding 300 psi.**

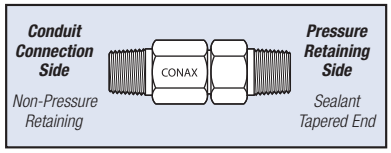
The assembly consists of bonded fiberglass-insulated/silicone impregnated thermocouple grade wires on the body side, with stripped bare wires passing through the Conax-manufactured transducer gland.
An alternative high-temperature fiberglass for Type K wire is also available with temperature capabilities up to 1400° F (760° C).

Sleeved insulation material on the wires exiting the cap side may be fiberglass/silicone impregnated, PTFE or polyolefin.

Gland bodies, caps and followers are constructed from 303SST. (For information on body materials, see page 9.) Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads. These assemblies are offered with Viton or PTFE sealants. Alternative sealants are available. Please consult a Conax Technologies sales engineer for custom needs.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

Catalog Numbering System

Gland Style	Wire Gauge	Insulation, Body Side	Wire Type	Cap Style	# Elements Sealed	Sealant	Wire Length Cap Side (in.)	Exit Wire Insulation	Wire Length Body Side (in.)
MTG	**20 = 20 AWG solid**	**F – Fiberglass/ Silicone Impregnated** – use up to 900˚ F	**J – Iron/Constantan**	**A – has mounting thread only**	**2**	**V – Viton**		**P – Polyolefin**	
TG	**24 = 24 AWG solid**	**M – High Temperature Fiberglass** – Magnesia alumina silicate vitreous fiber braid for Type K, 24 AWG standard – use up to 1400˚ F	**K – Chromel/Alumel**	**B – has cap end threaded**	**4**	**T – PTFE**		**F – Fiberglass**	
			T – Copper/Constantan		**6**			**T – PTFE**	
			E – Chromel/Constantan		**8**				
			BX – Copper Wire		**16**				
			CX – Alloy for Tungsten 5% Rhenium/Tungsten 26% Rhenium, 24 AWG only		**24**				
			RX/SX – Copper/ Copper Nickel alloy						

Gland Style / Wire Gauge / Insulation, Body Side / Wire Type / Cap Style / Number of Elements Sealed / Sealant / Wire Length, Cap Side / Exit Wire Insulation / Wire Length, Body Side

TGF Example: ***TG-24F(J)-A2-T, 24P/36***

TGM Example: ***TG-24M(K)-A2-T, 24P/36***

SEALING FOR PROCESS TEMPERATURES UP TO 1400°F (760°C) ■ TGF/TGM SERIES

Specifications – TGF/TGM (TGM available in Type K wire only for applicable models below.)

Catalog Number	Wire Gauge	Number of Wires	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Viton/PTFE PSIG	Pressure Rating Viton/PTFE BAR
MODEL MTG-F												
Standard 1/8 NPT												
MTG-24F(X)-2	24	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	300	21
MTG-24F(X)-4	24	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	300	21
MTG-20F(X)-2	20	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	300	21
MODEL TG-F												
Standard 1/4 NPT												
TG-24F(X)-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	300	21
TG-24F(X)-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	300	21
TG-20F(X)-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	300	21
Standard 1/2 NPT												
TG-20F(X)-14-2	20	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	300	21
TG-20F(X)-14-4	20	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	300	21
TG-20F(X)-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	300	21
TG-20F(X)-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	300	21
Standard 3/4 NPT												
TG-24F(X)-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	300	21
TG-24F(X)-24	20	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	300	21

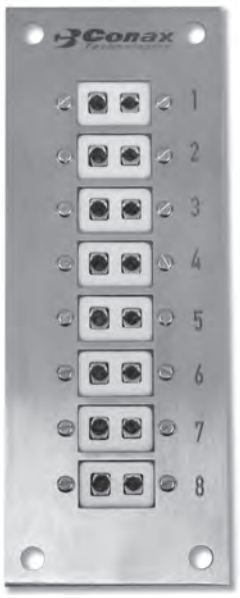
Note: (X) refers to the wire calibration/type.
** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*
*** Weld neck models require lubrication prior to use.*
All pressure and torque ratings were determined at 68˚F (20˚C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures.
Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints.
For proper assembly of these sealing glands, see the Assembly Instructions provided on page 114.
Per ASTM E230-03, the suggested temperature range for BX, CX, and RX/SX extension grade wire is 32°F to 400°F (0°C to 200°C).

High Temperature Jack Panel Assembly (JP) 1200°F (649°C) Maximum Rating

Conax Technologies' High Temperature Jack Panel Assembly (JP) is designed for mounting directly inside virtually any industrial furnace or autoclave.

It provides the ideal complement to our TGF high temperature feedthrough assemblies in that it provides a rugged platform to securely and efficiently connect internally mounted thermocouple plugs when changing out production loads.

The Jack Panel Assembly comes with 2-12 openings. Visit our website **www.conaxtechnologies.com** to learn more about this product.



Features

- Non out-gassing stainless steel and ceramic components
- Vertical or horizontal mounting options
- Laser marked plug locations with your logo
- Supplied unassembled for field assembly of TC wires
- Supplied with brackets and bracket hardware

Application Ideas

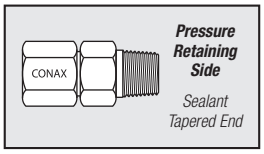
- Composite curing autoclaves
- Heat treating furnaces
- Vacuum furnaces

5001D
TG SERIES ■ BARE WIRE SEALING

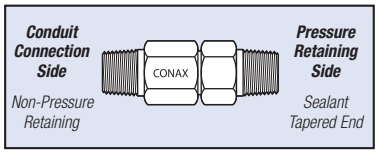
Conax Technologies Model TG (Transducer) Glands provide pressure/vacuum sealing of solid bare wire transducers, including thermocouples, strain gauges, thermistors and RTD leads; or bare solid conductors supplying current **at low voltage (millivolts)** through a pressure vessel to instrumentation within the vessel. Bare wire may be replaced with insulated solid wire with an equivalent outer diameter to provide a higher voltage capability (see TG24T on page 46).

In addition to electrical isolation, the TG gland seals against gases and liquids and resists element movements under pressure.

TG gland bodies with NPT threads or SAE threads are constructed from 303SST standard. Weld-neck style glands are constructed from 316LSST standard. Caps and followers on all styles are constructed from 303SST standard. Many optional materials are also available, including 316LSST, Inconel and more. For information on alternative materials, see page 9. Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads. Alternative sealant materials are available. Please consult a Conax Technologies sales engineer for custom needs.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

- Temperature Range: -300˚ F to +1600˚ F (-185˚ C to +870˚ C)
- Pressure Range: Vacuum to 10,000 PSIG (690 bar) – see Pressure Ratings in Specifications Chart.
- Seals 1 to 16 Elements

Accessories

The replaceable sealant permits repeated use of the same fitting. Wires can be easily assembled or replaced in the field. Simply insert the element and torque the cap. To replace the sealant or wires, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. When reused, the glands should be relubricated to maintain published torque and pressure ratings. If glands are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 103 for information on our lubrication kit.

Replacement Packing Sets are available. These consist of a sealant and four ceramic insulators. Replacement sealants may also be ordered separately (without insulators).

To order a Replacement Packing Set, order
RPS – (Gland) – (Wire Gauge) – (Number of Holes) – (Sealant)

Example: ***RPS-TG-20-2-V***

To order a Replacement Sealant only, order
RS – (Gland) – (Wire Gauge) – (Number of Holes) – (Sealant)

Example: ***RS-TG-20-2-V***

Catalog Numbering System

TG Gland
- **MTG**
- **TG**

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

Wire Gauge
- **24**
- **20**
- **18**
- **14**
- **8**

Cap Style
- **A – has mounting thread only**
- **B – has cap end threaded**

Number of Wires Sealed
- **1**
- **2**
- **3**
- **4**
- **6**
- **8**
- **16**
- **24**

See the TG Selection Guide to determine the number of elements offered with each model.

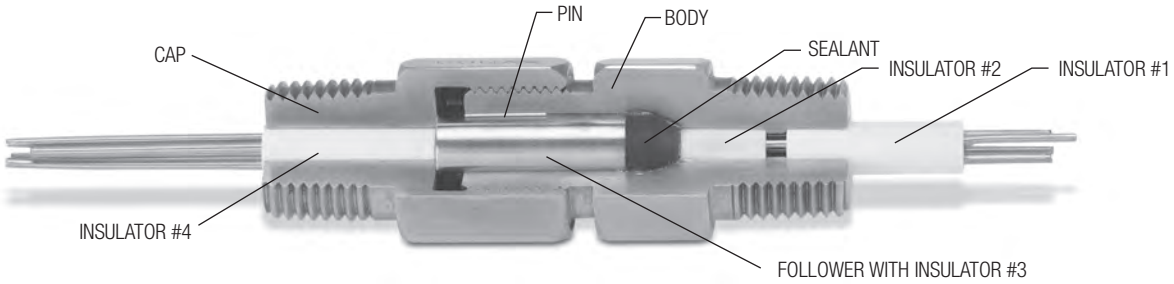
Sealant
- **V – Viton**
- **N – Neoprene**
- **T – PTFE**
- **L – Lava**

Other sealant materials also available.

TG Gland / Wire Gauge / Cap Style / Number of Wires Sealed / Sealant

Example: ***TG-20-B2-N***

Tel: 1.716.684.4500 • USA: 1.800.223.2389 • ConaxTechnologies.com



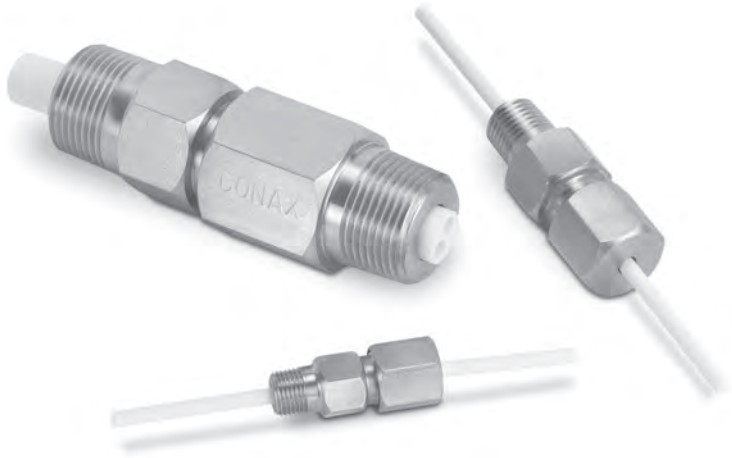
TG Selection Guide

Model	Wire Gauge	Number of Elements Offered 1	2	3	4	6	8	16	24
MTG	24		X		X				
	20		X		X				
	14	X							
TG	24		X		X				
	20		X		X	X	X	X	X
	18					X	X		
	14	X	X	X	X	X	X		
	8		X						

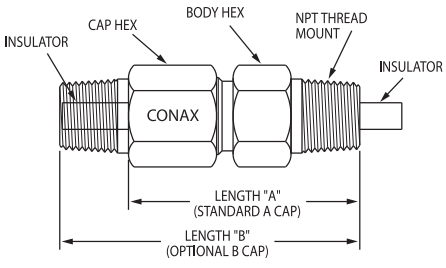
Note: The number of elements offered depends on the mounting port size. See the Specifications Charts on the subsequent pages for details.

Sealant Selection Guide

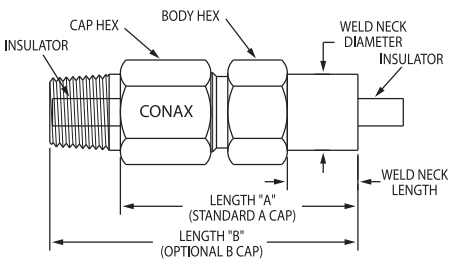
Material	Temperature Range
Lava (L)	-300˚ F to +1600˚ F (-185˚ C to +870˚ C)
PTFE (T)	-300˚ F to +450˚ F (-185˚ C to +232˚ C)
Neoprene (N)	-40˚ F to +200˚ F (-40˚ C to +93˚ C)
Viton (V)	-10˚ F to +450˚ F (-23˚ C to +232˚ C)



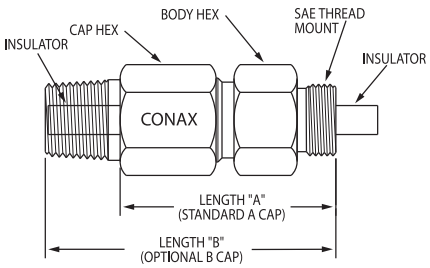
TG SERIES ■ BARE WIRE SEALING



Standard NPT



Weld Neck Mount



SAE Thread Mount

Catalog Number	Wire Gauge	Number of Wires	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR
MODEL MTG																		
Standard 1/8 NPT																		
MTG-24-2	24	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG-24-4	24	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG-20-2	20	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG-20-4	20	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG-14-1	14	1	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	8,000	551	8,000	551	8,000	551	8,000	551
Weld Neck Mount (Weld Mount Length 0.39", Diameter 0.405")																		
MTG(SWM1/S316L)-24-2	24	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG(SWM1/S316L)-24-4	24	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG(SWM1/S316L)-20-2	20	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG(SWM1/S316L)-20-4	20	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689
MTG(SWM1/S316L)-14-1	14	1	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	8,000	551	8,000	551	8,000	551	8,000	551
SAE 7/16 -20 Thread Mount (formerly MS)																		
MTG(MSE4/)-24-2	24	2	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630
MTG(MSE4/)-24-4	24	4	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630
MTG(MSE4/)-20-2	20	2	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630
MTG(MSE4/)-20-4	20	4	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630
MTG(MSE4/)-14-1	14	1	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	8,000	551	8,000	551	8,000	551	8,000	551
MODEL TG																		
Standard 1/4 NPT																		
TG-24-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG-24-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG-20-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG-20-4	20	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG-14-1	14	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG with Optional 1/8 NPT																		
TG(PTM1/)-24-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM1/)-24-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM1/)-20-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM1/)-20-4	20	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM1/)-14-1	14	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
Weld Neck Mount (Weld Mount Length 0.59", Diameter 0.540")																		
TG(SWM2/S316L)-24-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM2/S316L)-24-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM2/S316L)-20-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM2/S316L)-20-4	20	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM2/S316L)-14-1	14	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689
SAE 7/16 -20 Thread Mount (formerly MS)																		
TG(MSE4/)-24-2	24	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE4/)-24-4	24	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE4/)-20-2	20	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE4/)-20-4	20	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE4/)-14-1	14	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630

** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*
*** Weld neck models require lubrication prior to use.*

Catalog Number	Wire Gauge	Number of Wires	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR
Standard 1/2 NPT																		
TG-20-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG-20-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG-18-6	18	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG-18-8	18	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG-14-2	14	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG-14-3	14	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG-14-4	14	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG with Optional 1/4 NPT																		
TG(PTM2/)-20-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM2/)-20-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM2/)-18-6	18	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM2/)-18-8	18	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(PTM2/)-14-2	14	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG(PTM2/)-14-3	14	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG(PTM2/)-14-4	14	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
Weld Neck Mount (Weld Mount Length 0.78", Diameter 0.840")																		
TG(SWM4/S316L)-20-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM4/S316L)-20-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM4/S316L)-18-6	18	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM4/S316L)-18-8	18	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689
TG(SWM4/S316L)-14-2	14	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG(SWM4/S316L)-14-3	14	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
TG(SWM4/S316L)-14-4	14	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689
SAE 3/4-16 Thread Mount (formerly MS)																		
TG(MSE8/)-20-6	20	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE8/)-20-8	20	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE8/)-18-6	18	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE8/)-18-8	18	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630
TG(MSE8/)-14-2	14	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630
TG(MSE8/)-14-3	14	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630
TG(MSE8/)-14-4	14	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630
Standard 3/4 NPT																		
TG-20-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	8,000	551	8,000	551	10,000	689
TG-20-24	20	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	NA	NA	7,200	496	2,800	193	10,000	689
TG-14-6	14	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689
TG-14-8	14	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689
TG-8-2	8	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689
TG with Optional 1/2 NPT																		
TG(PTM4/)-20-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	8,000	551	8,000	551	10,000	689
TG(PTM4/)-14-6	14	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689
TG(PTM4/)-14-8	14	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689
TG(PTM4/)-8-2	8	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689
Weld Neck Mount (Weld Mount Length 0.79", Diameter 1.050")																		
TG(SWM5/S316L)-20-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	10,000	689	8,000	551	8,000	551	10,000	689
TG(SWM5/S316L)-14-6	14	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689
TG(SWM5/S316L)-14-8	14	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689
TG(SWM5/S316L)-8-2	8	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689
SAE 7/8-14 Thread Mount (formerly MS)																		
TG(MSE10/)-20-16	20	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524
TG(MSE10/)-14-6	14	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524
TG(MSE10/)-14-8	14	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524
TG(MSE10/)-8-2	8	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	7,600	524

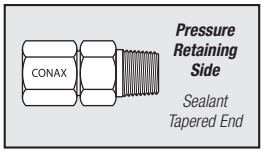
All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element.
Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant.
Higher pressure may be attained with additional element restraints. NA = Not Applicable

CAUTION: *When sealing on soft, fragile or crushable elements, catalog torques may not apply.*
When catalog torques are applied, compressed sealants generate considerable forces on the element to be sealed.
These forces could result in damaging soft or fragile elements such as coax cables or thin-wall materials.
Consult factory for these types of applications.

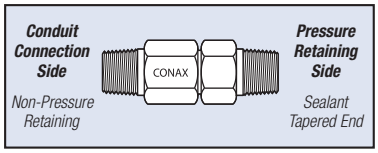
Conax Technologies Model MHC (Multi-Hole Ceramic) Glands seal multiple thermocouple, RTD or thermistor probes, tube bundles and liquid level sensors or a variety of devices within a single fitting. The soft sealant technology seals against gases or liquids and resists element movement under pressure. Immersion lengths can be easily adjusted in the field. Individual elements can be set at different lengths to facilitate monitoring of multiple points. MHC glands also allow easy replacement of elements.

MHC gland bodies with NPT threads or SAE threads are constructed from 303SST standard. Weld-neck style glands are constructed from 316LSST. Caps and followers for all styles are constructed from 303SST standard. Insulators are ceramic. Many optional materials are also available, including 316LSST, Monel 405, Hastelloy C276, Inconel and more. For information on alternative materials, see page 9. Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads. Alternative sealant materials are available. Please consult a Conax Technologies sales engineer for custom needs.

- Temperature Range: -400˚ F to +1600˚ F (-240˚ C to +870˚ C)
- Pressure Range: Vacuum to 10,000 PSIG (690 bar) – see Pressure Ratings in the Specifications Chart on page 56-57.
- Seals 1 to 16 Elements



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

Accessories

The replaceable sealant permits repeated use of the same fitting. Elements can be easily assembled or replaced in the field. Simply insert the element and torque the cap. To replace the sealant or elements, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. When reused, the glands should be relubricated to maintain the published torque and pressure ratings. If glands are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 103 for information on our lubrication kit.

Replacement Packing Sets are available. These consist of a sealant and two ceramic insulators. Replacement sealants may also be ordered separately (without insulators).

To order a Replacement Packing Set, order
RPS – (Gland) – (Diameter) – (Number of Holes) - (Sealant)

Example: ***RPS-MHC4-040-6-T***

To order a Replacement Sealant only, order RS – (Gland) – (Diameter) – (Number of Holes) - (Sealant)

Example: ***RS-MHC4-040-6-T***

Catalog Numbering System

MHC Gland	Diameter of Element Sealed	Cap Style	Number of Elements Sealed	Sealant
MHC1	*in thousandths of an inch*	**A – has mounting thread only**	**1**	**V – Viton**
MHC2	**020**	**B – has cap end threaded**	**2**	**N – Neoprene**
MHC4	**032**		**3**	**T – PTFE**
MHC5	**040**		**4**	**L – Lava**
	062		**6**	**G – Grafoil**
	125		**8**	
			16	
			24	

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

See MHC Selection Guide to determine the number of elements offered with each model.

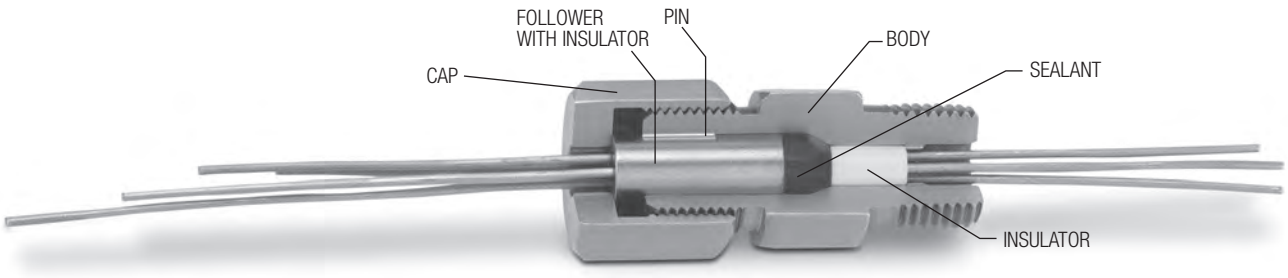
Other sealant materials also available.

MHC Gland – Diameter of Element Sealed – Cap Style – Number of Elements Sealed – Sealant

Example: ***MHC4-040-B6-T***

Tel: 1.716.684.4500 • USA: 1.800.223.2389 • ConaxTechnologies.com

MULTIPLE ELEMENT SEALING (MULTI-HOLE CERAMIC GLANDS) ■ MHC SERIES

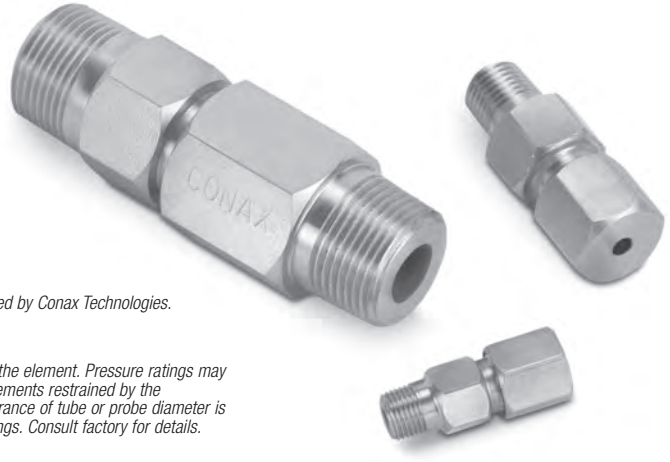


MHC Selection Guide

Model	Diameter	Number of Elements Offered							
		1	2	3	4	6	8	16	24
MHC1	020		X		X				
	032		X		X				
	062	X							
MHC2	020		X		X				
	032		X		X				
	040		X		X				
	062	X							
MHC4	032					X	X		
	040					X	X		
	062		X	X	X				
MHC5	032							X	X
	062					X	X		
	118		X						
	125		X						

Sealant Selection Guide

Material	Temperature Range
Lava (L)	-300˚ F to +1600˚ F (-185˚ C to +870˚ C)
PTFE (T)	-300˚ F to +450˚ F (-185˚ C to +232˚ C)
Neoprene (N)	-40˚ F to +200˚ F (-40˚ C to +93˚ C)
Viton (V)	-10˚ F to +450˚ F (-23˚ C to +232˚ C)
Grafoil (G)	-400˚ F to +925˚ F in air, +3000˚ F in inert or reducing atm. (-240˚ C to +495˚ C in air, +1650˚ C in inert or reducing atm.)



Note: the pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies.

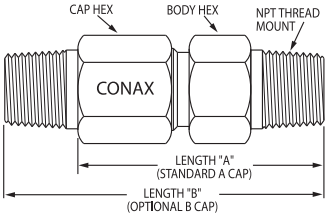
** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*

*** Weld neck models require lubrication prior to use.*

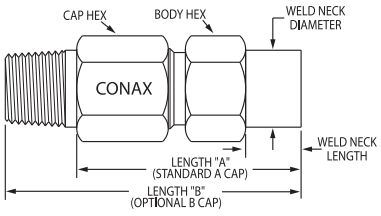
All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameter is ±0.005 (±0.003 for diameters ≤0.040). Deviation from the nominal may affect pressure ratings. Consult factory for details.

CAUTION: *When sealing on soft, fragile or crushable elements, catalog torques may not apply. When catalog torques are applied, compressed sealants generate considerable forces on the element to be sealed. These forces could result in damaging soft or fragile elements such as coax cables or thin-wall materials. Consult factory for these types of applications.*

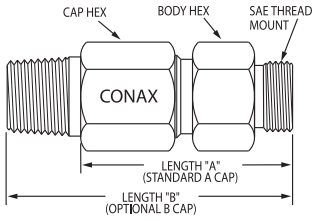
MHC SERIES ■ MULTIPLE ELEMENT SEALING (MULTI-HOLE CERAMIC GLANDS)



Standard NPT



Weld Neck Mount



SAE Thread Mount

Catalog Number	Tube/Probe Diameter IN	MM	Number of Probes	Length 'A' IN	MM	Length 'B' IN	MM	Hex Size Body IN	Cap IN	Body MM	Cap MM	Pressure Rating Neoprene PSIG	BAR	Viton PSIG	BAR	PTFE PSIG	BAR	Lava PSIG	BAR	Grafoil PSIG	BAR
MODEL MHC1																					
Standard 1/8 NPT																					
MHC1-020-2	0.020	0.51	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC1-020-4	0.020	0.51	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC1-032-2	0.032	0.81	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC1-032-4	0.032	0.81	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC1-062-1	0.062	1.57	1	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	8,000	551	8,000	551	8,000	551	8,000	551	10,000	689
Weld Neck Mount (Weld Neck Length 0.39", Diameter 0.405")**																					
MHC1(SWM1/S316L)-020-2	0.020	0.51	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC1(SWM1/S316L)-020-4	0.020	0.51	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC1(SWM1/S316L)-032-2	0.032	0.81	2	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC1(SWM1/S316L)-032-4	0.032	0.81	4	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC1(SWM1/S316L)-062-1	0.062	1.57	1	1.38	34.9	1.75	44.5	0.500	0.563	12.7	14.3	8,000	551	8,000	551	8,000	551	8,000	551	10,000	689
SAE 7/16 -20 Thread Mount (formerly MS)																					
MHC1(MSE4/)-020-2	0.020	0.51	2	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC1(MSE4/)-020-4	0.020	0.51	4	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	689	9,138	630	9,138	630	9,138	630	9,138	630
MHC1(MSE4/)-032-2	0.032	0.81	2	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	689	9,138	630	9,138	630	9,138	630	9,138	630
MHC1(MSE4/)-032-4	0.032	0.81	4	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	9,138	689	9,138	630	9,138	630	9,138	630	9,138	630
MHC1(MSE4/)-062-1	0.062	1.57	1	1.70	43.2	2.06	52.3	0.688	0.563	17.5	14.3	8,000	551	8,000	551	8,000	551	8,000	551	9,138	630
MODEL MHC2																					
Standard 1/4 NPT																					
MHC2-020-2	0.020	0.51	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2-020-4	0.020	0.51	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2-032-2	0.032	0.81	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2-032-4	0.032	0.81	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2-040-2	0.040	1.02	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2-040-4	0.040	1.02	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2-062-1	0.062	1.57	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2 with Optional 1/8 NPT																					
MHC2(PTM1/)-020-2	0.020	0.51	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(PTM1/)-020-4	0.020	0.51	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(PTM1/)-032-2	0.032	0.81	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(PTM1/)-032-4	0.032	0.81	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(PTM1/)-040-2	0.040	1.02	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(PTM1/)-040-4	0.040	1.02	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(PTM1/)-062-1	0.062	1.57	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
Weld Neck Mount (Weld Neck Length 0.59, Diameter 0.540)**																					
MHC2(SWM2/S316L)-020-2	0.020	0.51	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(SWM2/S316L)-020-4	0.020	0.51	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(SWM2/S316L)-032-2	0.032	0.81	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(SWM2/S316L)-032-4	0.032	0.81	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(SWM2/S316L)-040-2	0.040	1.02	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(SWM2/S316L)-040-4	0.040	1.02	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC2(SWM2/S316L)-062-1	0.062	1.57	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
SAE 7/16-20 Thread Mount (formerly MS)																					
MHC2(MSE4/)-020-2	0.020	0.51	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC2(MSE4/)-020-4	0.020	0.51	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC2(MSE4/)-032-2	0.032	0.81	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC2(MSE4/)-032-4	0.032	0.81	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630

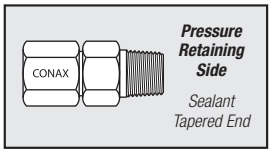
MULTIPLE ELEMENT SEALING (MULTI-HOLE CERAMIC GLANDS) ■ MHC SERIES

Catalog Number	Tube/Probe Diameter IN	Tube/Probe Diameter MM	Number of Probes	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR	Grafoil PSIG	Grafoil BAR
SAE 7/16-20 Thread Mount (formerly MS)																					
MHC2(MSE4/)-040-2	0.040	1.02	2	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC2(MSE4/)-040-4	0.040	1.02	4	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC2(MSE4/)-062-1	0.062	1.57	1	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MODEL MHC4																					
Standard 1/2 NPT																					
MHC4-032-6	0.032	0.81	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4-032-8	0.032	0.81	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4-040-6	0.040	1.02	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4-040-8	0.040	1.02	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4-062-2	0.062	1.57	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC4-062-3	0.062	1.57	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC4-062-4	0.062	1.57	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC4 with Optional 1/4 NPT																					
MHC4(PTM2/)-032-6	0.032	0.81	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4(PTM2/)-032-8	0.032	0.81	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4(PTM2/)-040-6	0.040	1.02	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4(PTM2/)-040-8	0.040	1.02	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4(PTM2/)-062-2	0.062	1.57	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC4(PTM2/)-062-3	0.062	1.57	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC4(PTM2/)-062-4	0.062	1.57	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
Weld Neck Mount (Weld Neck Length 0.78", Diameter 0.840")**																					
MHC4(SWM4/S316L)-032-6	0.032	0.81	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4(SWM4/S316L)-032-8	0.032	0.81	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4(SWM4/S316L)-040-6	0.040	1.02	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4(SWM4/S316L)-040-8	0.040	1.02	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	10,000	689	10,000	689	10,000	689	10,000	689	10,000	689
MHC4(SWM4/S316L)-062-2	0.062	1.57	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC4(SWM4/S316L)-062-3	0.062	1.57	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC4(SWM4/S316L)-062-4	0.062	1.57	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
SAE 3/4-16 Thread Mount (formerly MS)																					
MHC4(MSE8/)-032-6	0.032	0.81	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC4(MSE8/)-032-8	0.032	0.81	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC4(MSE8/)-040-6	0.040	1.02	6	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC4(MSE8/)-040-8	0.040	1.02	8	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	9,138	630	9,138	630	9,138	630	9,138	630	9,138	630
MHC4(MSE8/)-062-2	0.062	1.57	2	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630	9,138	630
MHC4(MSE8/)-062-3	0.062	1.57	3	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630	9,138	630
MHC4(MSE8/)-062-4	0.062	1.57	4	2.63	66.7	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	9,138	630	8,000	551	9,138	630	9,138	630
MODEL MHC5																					
Standard 3/4 NPT																					
MHC5-032-16	0.032	0.81	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	8,000	551	8,000	551	10,000	689	10,000	689
MHC5-032-24	0.032	0.81	24	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	NA	NA	7,200	496	2,800	193	10,000	689	10,000	689
MHC5-062-6	0.062	1.57	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC5-062-8	0.062	1.57	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689	10,000	689
MHC5-118-2	0.118	3.00	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689	10,000	689
MHC5-125-2	0.125	3.18	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689	10,000	689
MHC5 with Optional 1/2 NPT																					
MHC5(PTM4/)-032-16	0.032	0.81	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	8,000	551	8,000	551	10,000	689	10,000	689
MHC5(PTM4/)-062-6	0.062	1.57	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC5(PTM4/)-062-8	0.062	1.57	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689	10,000	689
MHC5(PTM4/)-125-2	0.125	3.18	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689	10,000	689
Weld Neck Mount (Weld Neck Length 0.79", Diameter 1.05")**																					
MHC5(SWM5/S316L)-032-16	0.032	0.81	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	8,000	551	8,000	551	10,000	689	10,000	689
MHC5(SWM5/S316L)-062-6	0.062	1.57	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	8,000	551	10,000	689	10,000	689
MHC5(SWM5/S316L)-062-8	0.062	1.57	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	8,000	551	10,000	689	10,000	689	10,000	689	10,000	689
MHC5(SWM5/S316L)-125-2	0.125	3.18	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	10,000	689	10,000	689
SAE 7/8-14 Thread Mount (formerly MS)																					
MHC5(MSE10/)-032-16	0.032	0.81	16	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524	7,600	524
MHC5(MSE10/)-062-6	0.062	1.57	6	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524	7,600	524
MHC5(MSE10/)-062-8	0.062	1.57	8	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	7,600	524	7,600	524	7,600	524	7,600	524	7,600	524
MHC5(MSE10/)-125-2	0.125	3.18	2	2.88	73.0	3.63	92.1	1.125	1.250	28.6	31.8	3,000	207	4,000	276	6,000	413	7,600	524	7,600	524

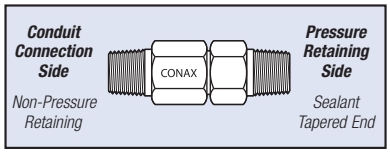
MHM SERIES ■ MULTIPLE ELEMENT SEALING (MULTI-HOLE METAL GLANDS)

Conax Technologies Model MHM (Multi-Hole Metal) Glands can be customized to accommodate special hole patterns, irregular shapes and high density requirements. Like the MHC glands, MHM glands can be used to seal gradient thermocouple, RTD or thermistor probes, tube bundles or a variety of devices within a single fitting. The soft sealant technology seals against gases or liquids and resists element movement under pressure. Immersion lengths can be easily adjusted in the field. Individual elements can be set at different lengths to facilitate monitoring of multiple points. This style gland also allows easy replacement of elements.

MHM gland bodies with NPT threads or SAE threads are constructed from 303SST standard. Weld-neck style gland bodies are constructed from 316LSST standard. Caps, seats and followers for all styles are constructed from 303SST standard. Many optional materials are also available, including 316LSST, Inconel and more. For information on alternative materials, see page 9. Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads. Alternative sealant materials and custom bore sizes are available. Please consult a Conax Technologies sales engineer for custom needs.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

- Temperature Range: -400˚ F to +1600˚ F (-240˚ C to +870˚ C)
- Pressure Range: Vacuum to 10,000 PSIG (690 bar) – see Pressure Ratings in the Specifications Chart.
- Seals 1-27 Elements (standard)

Accessories

The replaceable sealant permits repeated use of the same fitting. Elements can be easily assembled or replaced in the field. To replace the sealant or elements, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. When reused, the glands should be relubricated to maintain the published torque and pressure ratings. If glands are cleaned prior to assembly, they should be relubricated. On weld mount models, the heat from the welding process will destroy the lubricant. These models must also be relubricated prior to use. See page 103 for information on our lubrication kit.

To order a Replacement Packing Set, including sealant, seat and follower, order RPS – (Gland) – (Diameter) – (Number of Holes) – (Sealant)

Example: ***RPS-MHM5-040-16-T***

To order a Replacement Sealant alone, order
RS – (Gland) – (Diameter) – (Number of Holes) – (Sealant)

Example: ***RS-MHM5-040-16-T***

Catalog Numbering System

MHM Gland

- **MHM2**
- **MHM4**
- **MHM5**
- **MHM6 (Flange-Style)**

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

Diameter of Element Sealed

in thousandths of an inch

- **BLANK**
- **040**
- **062**
- **125**
- **187**
- **250**
- **312**
- **375**

in metric bore

- **039 (1 mm)**
- **118 (3 mm)**
- **236 (6 mm)**

Custom bore sizes also available. Blanks are provided with no holes in the seat, follower and sealant.

Cap Style

- **A – has mounting thread only**
- **B – has cap end threaded**

Number of Elements Sealed

- **2**
- **3**
- **4**
- **5**
- **6**
- **7**
- **8**
- **10**
- **12**
- **14**
- **16**
- **18**
- **22**
- **27**

See MHM selection guide to determine the standard number of elements offered with each model. For custom configurations, consult factory.

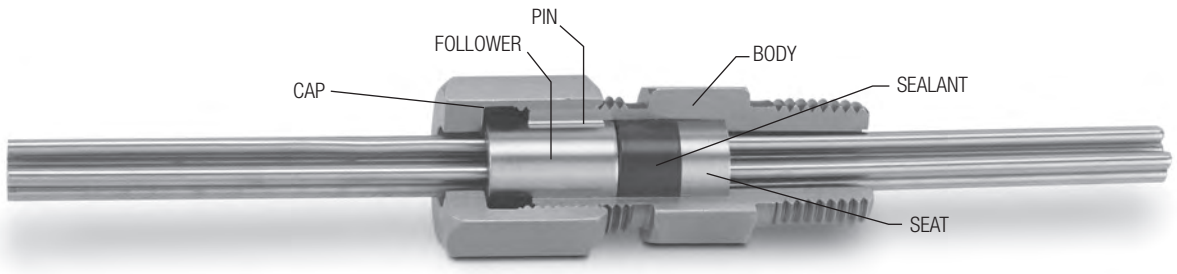
Sealant

- **V – Viton**
- **N – Neoprene** *(not offered with MHM6)*
- **T – PTFE**
- **L – Lava** *(not offered with MHM6)*
- **G – Grafoil**

Other sealant materials also available.

MHM Gland / Diameter of Element Sealed / Cap Style / Number of Elements Sealed / Sealant

Example: ***MHM5-040-B16-T***

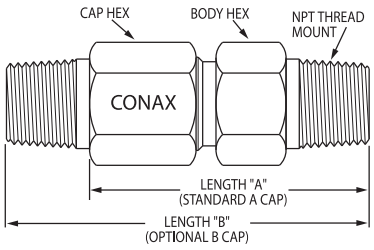


MHM Selection Guide

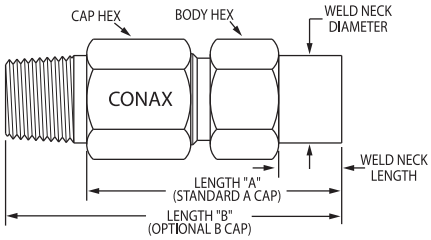
Model	Diameter	Standard Number of Elements Offered														Max Hole Density
		2	3	4	5	6	7	8	10	12	14	16	18	22	27	
MHM2	039				X											8
	040				X											8
	062				X											5
MHM4	118		X	X												5
	125		X	X												4
MHM5	039								X	X		X				60
	040								X	X		X				60
	062								X	X		X				37
	118					X		X								15
	125					X		X								14
	187	X	X	X	X	X										6
	236	X	X	X												4
	250	X	X	X												4
MHM6	118								X				X	X	X	29
	125								X				X	X	X	27
	187							X	X	X	X					14
	236				X	X	X									8
	250				X	X	X									7
	312	X	X	X												5
	375	X	X	X												4

**Consult factory for pressure ratings.*

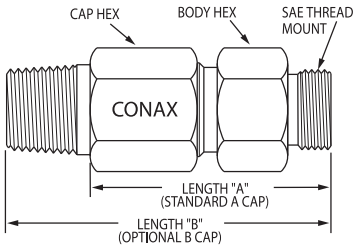
MHM SERIES ■ MULTIPLE ELEMENT SEALING (MULTI-HOLE METAL GLANDS)



Standard NPT



Weld Neck Mount



SAE Thread Mount

Catalog Number	Tube/Probe Diameter IN	MM	Number of Probes	Length 'A' IN	MM	Length 'B' IN	MM	Hex Size Body IN	Cap IN	Body MM	Cap MM	Pressure Rating Neoprene PSIG	BAR	Viton PSIG	BAR	PTFE PSIG	BAR	Lava PSIG	BAR	Grafoil PSIG	BAR
MODEL MHM2																					
Standard 1/4 NPT																					
MHM2-BLANK	NA	NA	0	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM2-039-5	0.039	0.99	5	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	10,000	689	3,200	220	10,000	689	8,000	551
MHM2-040-5	0.040	1.02	5	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	10,000	689	3,200	220	10,000	689	8,000	551
MHM2-062-5	0.062	1.57	5	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	4,000	276	10,000	689	2,400	165	10,000	689	6,400	441
Weld Neck Mount (Weld Neck Mount Length 0.59", Diameter 0.540")																					
MHM2(SWM2/S316L)-BLANK	NA	NA	0	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM2(SWM2/S316L)-039-5	0.039	0.99	5	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	10,000	689	3,200	220	10,000	689	8,000	551
MHM2(SWM2/S316L)-040-5	0.040	1.02	5	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	NA	NA	10,000	689	3,200	220	10,000	689	8,000	551
MHM2(SWM2/S316L)-062-5	0.062	1.57	5	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	4,000	276	10,000	689	2,400	165	10,000	689	6,400	441
SAE 3/4 -16 Thread Mount (formerly MS)																					
MHM2(MSE8/)-BLANK	NA	NA	0	2.00	50.8	2.63	66.7	1.000	0.750	25.4	19.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM2(MSE8/)-039-5	0.039	0.99	5	2.00	50.8	2.63	66.7	1.000	0.750	25.4	19.1	NA	NA	9,138	630	3,200	220	9,138	630	8,000	551
MHM2(MSE8/)-040-5	0.040	1.02	5	2.00	50.8	2.63	66.7	1.000	0.750	25.4	19.1	NA	NA	9,138	630	3,200	220	9,138	630	8,000	551
MHM2(MSE8/)-062-5	0.062	1.57	5	2.00	50.8	2.63	66.7	1.000	0.750	25.4	19.1	4,000	276	9,138	630	2,400	165	9,138	630	6,400	441
MODEL MHM4																					
Standard 1/2 NPT																					
MHM4-BLANK	NA	NA	0	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM4-118-3	0.118	3.00	3	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	5,000	345	8,000	551	10,000	689	10,000	689
MHM4-118-4	0.118	3.00	4	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	5,000	345	8,000	551	10,000	689	10,000	689
MHM4-125-3	0.125	3.18	3	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	5,000	345	8,000	551	10,000	689	10,000	689
MHM4-125-4	0.125	3.18	4	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	5,000	345	8,000	551	10,000	689	10,000	689
Weld Neck Mount (Weld Neck Mount Length 0.78", Diameter 0.840")																					
MHM4(SWM4/S316L)-BLANK	NA	NA	0	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM4(SWM4/S316L)-118-3	0.118	3.00	3	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	5,000	345	8,000	551	10,000	689	10,000	689
MHM4(SWM4/S316L)-118-4	0.118	3.00	4	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	5,000	345	8,000	551	10,000	689	10,000	689
MHM4(SWM4/S316L)-125-3	0.125	3.18	3	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	5,000	345	8,000	551	10,000	689	10,000	689
MHM4(SWM4/S316L)-125-4	0.125	3.18	4	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	8,000	551	5,000	345	8,000	551	10,000	689	10,000	689
SAE 7/8 -14 Thread Mount (formerly MS)																					
MHM4(MSE10/)-Blank	NA	NA	0	2.56	65.1	3.38	85.7	1.375	1.000	34.9	25.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM4(MSE10/)-118-3	0.118	3.00	3	2.56	65.1	3.38	85.7	1.375	1.000	34.9	25.4	8,000	551	5,000	345	8,000	551	9,138	630	9,138	630
MHM4(MSE10/)-118-4	0.118	3.00	4	2.56	65.1	3.38	85.7	1.375	1.000	34.9	25.4	8,000	551	5,000	345	8,000	551	9,138	630	9,138	630
MHM4(MSE10/)-125-3	0.125	3.18	3	2.56	65.1	3.38	85.7	1.375	1.000	34.9	25.4	8,000	551	5,000	345	8,000	551	9,138	630	9,138	630
MHM4(MSE10/)-125-4	0.125	3.18	4	2.56	65.1	3.38	85.7	1.375	1.000	34.9	25.4	8,000	551	5,000	345	8,000	551	9,138	630	9,138	630

Note: the pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies.

** Hex size for the body and cap are the same unless a cap size is provided in parentheses. Blanks are provided with no holes in the body, follower and sealant.*

*** Weld neck models require lubrication prior to use.*

N/O = Not Offered, NA = Not Applicable

Tel: 1.716.684.4500 • USA: 1.800.223.2389 • ConaxTechnologies.com

MULTIPLE ELEMENT SEALING (MULTI-HOLE METAL GLANDS) ■ MHM SERIES

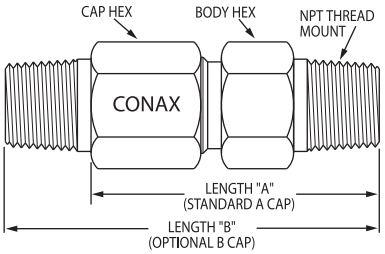
Catalog Number	Tube/Probe Diameter IN	Tube/Probe Diameter MM	Number of Probes	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR	Grafoil PSIG	Grafoil BAR
MODEL MHM5																					
Standard 3/4 NPT																					
MHM5-BLANK	NA	NA	0	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM5-039-10	0.039	0.99	10	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	2,000	138	4,000	276
MHM5-039-12	0.039	0.99	12	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	2,500	172	4,500	310
MHM5-039-16	0.039	0.99	16	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	3,000	207	4,500	310
MHM5-040-10	0.040	1.02	10	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	2,000	138	4,000	276
MHM5-040-12	0.040	1.02	12	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	2,500	172	4,500	310
MHM5-040-16	0.040	1.02	16	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	3,000	207	4,500	310
MHM5-062-10	0.062	1.57	10	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	3,200	220	7,200	496	6,000	413	7,000	482	6,500	448
MHM5-062-12	0.062	1.57	12	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	3,200	220	7,200	496	6,000	413	7,000	482	6,500	448
MHM5-062-16	0.062	1.57	16	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	3,200	220	7,200	496	6,000	413	7,000	482	6,500	448
MHM5-118-6	0.118	3.00	6	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,000	276	4,500	310	4,500	310	6,000	413	4,500	310
MHM5-118-8	0.118	3.00	8	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,000	276	4,500	310	4,500	310	6,000	413	4,500	310
MHM5-125-6	0.125	3.18	6	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,000	276	4,500	310	4,500	310	6,000	413	4,500	310
MHM5-125-8	0.125	3.18	8	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,000	276	4,500	310	4,500	310	6,000	413	4,500	310
MHM5-187-2	0.187	4.75	2	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5-187-3	0.187	4.75	3	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5-187-4	0.187	4.75	4	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5-187-5	0.187	4.75	5	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5-187-6	0.187	4.75	6	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5-236-2	0.236	5.99	2	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5-236-3	0.236	5.99	3	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5-236-4	0.236	5.99	4	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5-250-2	0.250	6.35	2	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5-250-3	0.250	6.35	3	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5-250-4	0.250	6.35	4	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
Weld Neck Mount (Weld Neck Mount Length 0.79", Diameter 1.050"),,,,																					
MHM5(SWM5/S316L)-BLANK	NA	NA		3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM5(SWM5/S316L)-039-10	0.039	0.99	0	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	2,000	138	4,000	276
MHM5(SWM5/S316L)-039-12	0.039	0.99	2	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	2,500	172	4,500	310
MHM5(SWM5/S316L)-039-16	0.039	0.99	6	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	3,000	207	4,500	310
MHM5(SWM5/S316L)-040-10	0.040	1.02	10	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	2,000	138	4,000	276
MHM5(SWM5/S316L)-040-12	0.040	1.02	12	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	2,500	172	4,500	310
MHM5(SWM5/S316L)-040-16	0.040	1.02	16	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	5,200	358	6,800	469	4,500	310	3,000	207	4,500	310
MHM5(SWM5/S316L)-062-10	0.062	1.57	10	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	3,200	220	7,200	496	6,000	413	7,000	482	6,500	448
MHM5(SWM5/S316L)-062-12	0.062	1.57	12	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	3,200	220	7,200	496	6,000	413	7,000	482	6,500	448
MHM5(SWM5/S316L)-062-16	0.062	1.57	16	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	3,200	220	7,200	496	6,000	413	7,000	482	6,500	448
MHM5(SWM5/S316L)-118-6	0.118	3.00	6	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,000	276	4,500	310	4,500	310	6,000	413	4,500	310
MHM5(SWM5/S316L)-118-8	0.118	3.00	8	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,000	276	4,500	310	4,500	310	6,000	413	4,500	310
MHM5(SWM5/S316L)-125-6	0.125	3.18	6	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,000	276	4,500	310	4,500	310	6,000	413	4,500	310
MHM5(SWM5/S316L)-125-8	0.125	3.18	8	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,000	276	4,500	310	4,500	310	6,000	413	4,500	310
MHM5(SWM5/S316L)-187-2	0.187	4.75	2	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551

C/F = Consult factory. NA = Not Applicable

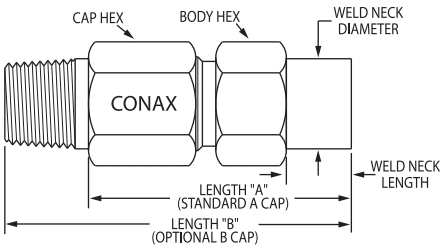
All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameter is ±0.005 (±0.003 for diameters ≤0.040). Deviation from the nominal may affect pressure ratings. Consult factory for details.

CAUTION: *When sealing on soft, fragile or crushable elements, catalog torques may not apply. When catalog torques are applied, compressed sealants generate considerable forces on the element to be sealed. These forces could result in damaging soft or fragile elements such as coax cables or thin-wall materials. Consult factory for these types of applications.*

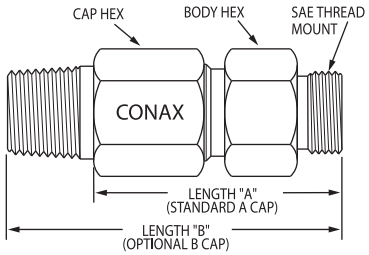
MHM SERIES ■ MULTIPLE ELEMENT SEALING (MULTI-HOLE METAL GLANDS)



Standard NPT



Weld Neck Mount



SAE Thread Mount

Catalog Number	Tube/Probe Diameter IN	Tube/Probe Diameter MM	Number of Probes	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Neoprene PSIG	Neoprene BAR	Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR	Grafoil PSIG	Grafoil BAR
MODEL MHM5																					
Weld Neck Mount (Weld Neck Mount Length 0.79", Diameter 1.050")																					
MHM5(SWM5/S316L)-187-3	0.187	4.75	3	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5(SWM5/S316L)-187-4	0.187	4.75	4	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5(SWM5/S316L)-187-5	0.187	4.75	5	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5(SWM5/S316L)-187-6	0.187	4.75	6	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	1,200	83	6,800	469	1,600	110	8,400	579	8,000	551
MHM5(SWM5/S316L)-236-2	0.236	5.99	2	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5(SWM5/S316L)-236-3	0.236	5.99	3	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5(SWM5/S316L)-236-4	0.236	5.99	4	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5(SWM5/S316L)-250-2	0.250	6.35	2	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5(SWM5/S316L)-250-3	0.250	6.35	3	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
MHM5(SWM5/S316L)-250-4	0.250	6.35	4	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	4,300	296	5,000	345	1,600	110	6,700	462	4,500	310
SAE 1-5/16 -12 Thread Mount (formerly MS)																					
MHM5(MSE16/)-BLANK	NA	NA	0	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MHM5(MSE16/)-039-10	0.039	0.99	10	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	5,200	358	5,802	400	4,500	310	2,000	138	4,000	276
MHM5(MSE16/)-039-12	0.039	0.99	12	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	5,200	358	5,802	400	4,500	310	2,500	172	4,500	310
MHM5(MSE16/)-039-16	0.039	0.99	16	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	5,200	358	5,802	400	4,500	310	3,000	207	4,500	310
MHM5(MSE16/)-040-10	0.040	1.02	10	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	5,200	358	5,802	400	4,500	310	2,000	138	4,000	276
MHM5(MSE16/)-040-12	0.040	1.02	12	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	5,200	358	5,802	400	4,500	310	2,500	172	4,500	310
MHM5(MSE16/)-040-16	0.040	1.02	16	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	5,200	358	5,802	400	4,500	310	3,000	207	4,500	310
MHM5(MSE16/)-062-10	0.062	1.57	10	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	3,200	220	5,802	400	5,802	400	5,802	400	5,802	400
MHM5(MSE16/)-062-12	0.062	1.57	12	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	3,200	220	5,802	400	5,802	400	5,802	400	5,802	400
MHM5(MSE16/)-062-16	0.062	1.57	16	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	3,200	220	5,802	400	5,802	400	5,802	400	5,802	400
MHM5(MSE16/)-118-6	0.118	3.00	6	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,000	276	4,500	310	4,500	310	5,802	400	4,500	310
MHM5(MSE16/)-118-8	0.118	3.00	8	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,000	276	4,500	310	4,500	310	5,802	400	4,500	310
MHM5(MSE16/)-125-6	0.125	3.18	6	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,000	276	4,500	310	4,500	310	5,802	400	4,500	310
MHM5(MSE16/)-125-8	0.125	3.18	8	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,000	276	4,500	310	4,500	310	5,802	400	4,500	310
MHM5(MSE16/)-187-2	0.187	4.75	2	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	1,200	83	5,802	400	1,600	110	5,802	400	5,802	400
MHM5(MSE16/)-187-3	0.187	4.75	3	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	1,200	83	5,802	400	1,600	110	5,802	400	5,802	400
MHM5(MSE16/)-187-4	0.187	4.75	4	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	1,200	83	5,802	400	1,600	110	5,802	400	5,802	400
MHM5(MSE16/)-187-5	0.187	4.75	5	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	1,200	83	5,802	400	1,600	110	5,802	400	5,802	400
MHM5(MSE16/)-187-6	0.187	4.75	6	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	1,200	83	5,802	400	1,600	110	5,802	400	5,802	400
MHM5(MSE16/)-236-2	0.236	5.99	2	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,300	296	5,000	345	1,600	110	5,802	400	4,500	310
MHM5(MSE16/)-236-3	0.236	5.99	3	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,300	296	5,000	345	1,600	110	5,802	400	4,500	310
MHM5(MSE16/)-236-4	0.236	5.99	4	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,300	296	5,000	345	1,600	110	5,802	400	4,500	310
MHM5(MSE16/)-250-2	0.250	6.35	2	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,300	296	5,000	345	1,600	110	5,802	400	4,500	310
MHM5(MSE16/)-250-3	0.250	6.35	3	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,300	296	5,000	345	1,600	110	5,802	400	4,500	310
MHM5(MSE16/)-250-4	0.250	6.35	4	3.31	84.1	4.06	103.1	1.625	1.500	41.3	38.1	4,300	296	5,000	345	1,600	110	5,802	400	4,500	310

Note: the pressure and torque ratings provided in this catalog apply only when bores are drilled by Conax Technologies.

** Hex size for the body and cap are the same unless a cap size is provided in parentheses. Blanks are provided with no holes in the body, follower and sealant.*

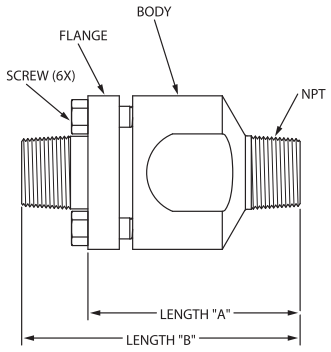
*** Weld neck models require lubrication prior to use.*

N/O = Not Offered, NA = Not Applicable.

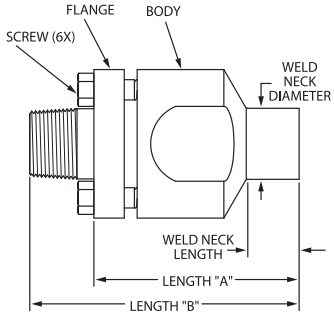
CAUTION: *When sealing on soft, fragile or crushable elements, catalog torques may not apply. When catalog torques are applied, compressed sealants generate considerable forces on the element to be sealed. These forces could result in damaging soft or fragile elements such as coax cables or thin-wall materials. Consult factory for these types of applications.*

MULTIPLE ELEMENT SEALING (MULTI-HOLE METAL GLANDS) ■ MHM SERIES

Catalog Number	Tube/Probe Diameter IN	MM	Number of Probes	Length 'A' IN	MM	Length 'B' IN	MM	Flange/Body Diameter IN	MM	Pressure Rating Viton PSIG	BAR	PTFE PSIG	BAR	Grafoil PSIG	BAR
MODEL MHM6															
Standard 1 NPT															
MHM6-BLANK	NA	NA	0	3.80	96.5	5.00	127.0	2.75	69.9	NA	NA	NA	NA	NA	NA
MHM6-118-10	0.118	3.0	10	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	16
MHM6-118-18	0.118	3.0	18	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6-118-22	0.118	3.0	2	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6-118-27	0.118	3.0	27	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6-125-10	0.125	3.2	10	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6-125-18	0.125	3.2	18	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6-125-22	0.125	3.2	22	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6-125-27	0.125	3.2	27	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6-187-8	0.187	4.7	8	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-187-10	0.187	4.7	10	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-187-12	0.187	4.7	12	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-187-14	0.187	4.7	14	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-236-5	0.236	6.0	5	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-236-6	0.236	6.0	6	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-236-7	0.236	6.0	7	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-250-5	0.250	6.4	5	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-250-6	0.250	6.4	6	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-250-7	0.250	6.4	7	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6-312-2	0.312	7.9	2	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6-312-3	0.312	7.9	3	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6-312-4	0.312	7.9	4	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6-375-2	0.375	9.5	2	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6-375-3	0.375	9.5	3	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6-375-4	0.375	9.5	4	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
Weld Neck Mount (Weld Neck Mount Length 0.98",Diameter 1.315")**															
MHM6-BLANK	NA	NA	0	3.80	96.5	5.00	127.0	2.75	69.9	NA	NA	NA	NA	NA	NA
MHM6(SWM6/S316L)-118-10	0.118	3.0	10	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6(SWM6/S316L)-118-18	0.118	3.0	18	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6(SWM6/S316L)-118-22	0.118	3.0	22	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6(SWM6/S316L)-118-27	0.118	3.0	27	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6(SWM6/S316L)-125-10	0.125	3.2	10	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6(SWM6/S316L)-125-18	0.125	3.2	18	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6(SWM6/S316L)-125-22	0.125	3.2	22	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6(SWM6/S316L)-125-27	0.125	3.2	27	3.80	96.5	5.00	127.0	2.75	69.9	10,000	689	1,500	103	2,400	165
MHM6(SWM6/S316L)-187-8	0.187	4.7	8	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-187-10	0.187	4.7	10	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-187-12	0.187	4.7	12	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-187-14	0.187	4.7	14	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-236-5	0.236	6.0	5	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-236-6	0.236	6.0	6	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-236-7	0.236	6.0	7	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-250-5	0.250	6.4	5	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-250-6	0.250	6.4	6	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-250-7	0.250	6.4	7	3.80	96.5	5.00	127.0	2.75	69.9	6,000	413	1,000	69	1,000	69
MHM6(SWM6/S316L)-312-2	0.312	7.9	2	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6(SWM6/S316L)-312-3	0.312	7.9	3	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6(SWM6/S316L)-312-4	0.312	7.9	4	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6(SWM6/S316L)-375-2	0.375	9.5	2	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6(SWM6/S316L)-375-3	0.375	9.5	3	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69
MHM6(SWM6/S316L)-375-4	0.375	9.5	4	3.80	96.5	5.00	127.0	2.75	69.9	3,000	207	1,000	69	1,000	69



Flange Style NPT



Flange Style Weld Neck Mount

C/F = Consult factory. NA = Not Applicable.

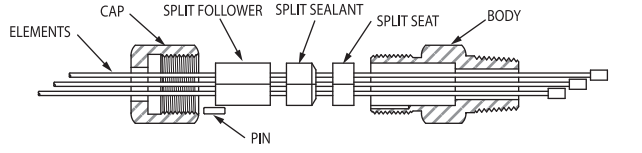
All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameter is ±0.005 (±0.003 for diameters ≤0.040). Deviation from the nominal may affect pressure ratings. Consult factory for details.

PGS, SPG & DSPG SERIES ■ SPLIT SEALS FOR SINGLE & MULTIPLE PROBE SEALING

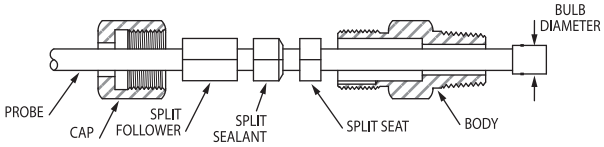
Conax Technologies offers three models of split seals designed to facilitate assembly and sealant replacement when the diameter of the probe tip is larger than the diameter of the element(s) at the location of the seal. Split glands provide split sealants, followers and seats to facilitate easy sealant change without removing the element(s) from the system.

Possible applications include the sealing of analyzer sampling probes with blow-out collars, gas-filled capillary bulb temperature sensors, cable assemblies with factory-installed connectors or to facilitate assembly and disassembly of long cable/sheath lengths.

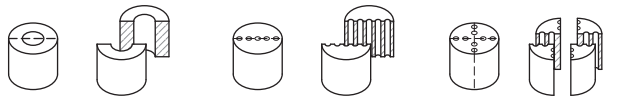
- **PGS Series** assemblies seal on single elements.
- **SPG Series** assemblies seal on multiple elements with a single split.
- **DSPG Series** assemblies seal on multiple elements with a double split.



SPG & DSPG GLAND CONFIGURATION



PGS GLAND CONFIGURATION

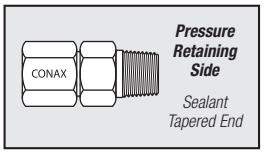


PGS FOLLOWER, SEALANT & SEAT (SINGLE HOLE - ONE SPLIT)

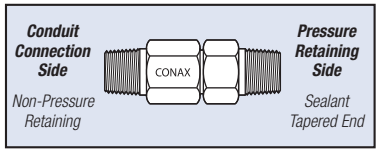
SPG FOLLOWER, SEALANT & SEAT (MULTIPLE HOLES - ONE SPLIT)

DSPG FOLLOWER, SEALANT & SEAT (MULTIPLE HOLES - TWO SPLITS)

Bodies with NPT threads are constructed from 303SST standard. Weld-neck style gland bodies are constructed from 316LSST standard.



Type A has mounting thread only.



Type B has cap end threaded. B Cap NPT matches the standard mounting NPT.

Optional materials are also available. See page 9 for details. Caps, seats and followers for all styles are constructed from 303SST. Cap Style A offers a mounting thread only. Cap Style B provides threading on both ends for attachment to conduit or terminal heads.

Split glands are offered with Viton, PTFE, Lava and Grafoil sealants, however, due to the complexities of construction, not all hole densities are available in all sealant materials. Alternative sealant materials and custom bore sizes are available. Please consult a Conax sales engineer for custom needs.

- Temperature Range: -400˚ F to +1600˚ F (-240˚ C to +870˚ C)
- Pressure Range: Vacuum to 10,000 PSIG (690 bar) for PGS Series. For SPG and DSPG, due to the many variables affecting pressure ratings on these assemblies, no pressure rating guide is provided. Please consult factory for pressure ratings on a given assembly.

Accessories

The replaceable sealant permits repeated use of the same fitting. Elements can be easily assembled or replaced in the field. To replace the sealant or elements, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. If glands are cleaned prior to assembly or when reused, the glands should be relubricated to maintain the published torque and pressure ratings. See page 103 for information on our lubrication kit.

To order a Replacement Sealant for SPG and DSPG models, order RS – (Gland) – (Diameter) – (Number of Holes) – (Sealant)

Example: ***RS-SPG75-062-2-T***

To order a Replacement Packing Set, including sealant, seat and follower, order RPS – (Gland) – (Diameter) – (Number of Holes) – (Sealant)

Example: ***RPS-SPG75-062-2-T***

To order a Replacement Sealant for PGS models, order RS – (Gland) – (Diameter) – (Sealant)

Example: ***RS-PG2S-093-T***

To order a Replacement Packing Set, including sealant, seat and follower, order RPS – (Gland) – (Diameter) – (Sealant)

Example: ***RPS-PG2S-093-T***

SPLIT SEALS FOR SINGLE & MULTIPLE PROBE SEALING ■ PGS, SPG & DSPG SERIES

REFER TO OUR WEBSITE: WWW.CONAXTECHNOLOGIES.COM FOR OUR DEMONSTRATIONAL VIDEO.

Catalog Numbering System – PGS

Gland Style

- **PG2S**
  - 0.062 to 0.250 bore sizes – maximum bulb diameter 0.32"
- **PG4S**
  - 0.093 to 0.375 bore sizes – maximum bulb diameter 0.45"
- **PG5S**
  - 0.187 to 0.500 bore sizes – maximum bulb diameter 0.78"

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

Diameter of Tube or Probe

in thousandths of an inch

- **062**
- **093**
- **125**
- **187**
- **250**
- **312**
- **375**
- **500**

in metric bore

- **039 (1 mm)**
- **118 (3 mm)**
- **236 (6 mm)**

Custom bore sizes also available.

Cap Style

- **A – has mounting thread only**
- **B – has cap end threaded**

Sealant

- **V – Viton**
- **T – PTFE**
- **L – Lava**
- **G – Grafoil**

Other sealant materials also available.

Gland Style / Diameter of Tube or Probe / Cap Style / Sealant

Example: PG2S-093-A-T

Catalog Numbering System – SPG and DSPG

Gland Style

- **SPG75**
  DSPG75
  - 1/4 NPT
  - Max bulb diameter 0.32"
- **SPG100**
  DSPG100
  - 1/2 NPT
  - Max bulb diameter 0.45"
- **SPG150**
  DSPG150
  - 3/4 NPT
  - Max bulb diameter 0.78"

Modifiers are added in parentheses to indicate optional mounting methods. See specifications chart for the proper modifiers.

Diameter of Element

in thousandths of an inch

- **020 (SPG only)**
- **032**
- **040**
- **062**
- **093**
- **125**
- **187**
- **250**

in metric bore

- **039 (1 mm)**
- **118 (3 mm)**
- **236 (6 mm)**

Custom bore sizes also available.

Cap Style

- **A – has mounting thread only**
- **B – has cap end threaded**

Number of Elements Sealed

- **1**
- **2**
- **3**
- **4**
- **5**
- **6**
- **7**
- **9**
- **10**
- **11**
- **13**
- **17**

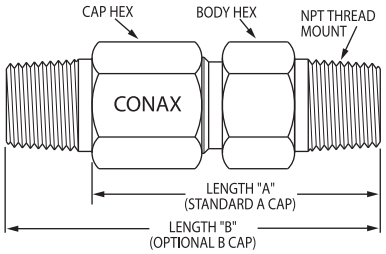
Sealant

- **V – Viton**
- **T – PTFE**
- **L – Lava**
- **G – Grafoil**

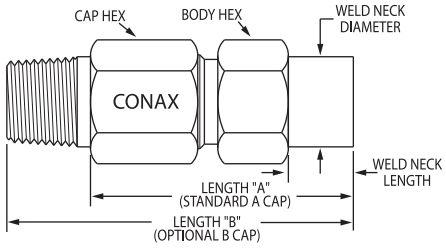
Other sealant materials also available.

Gland Style / Diameter of Tube or Probe / Cap Style / Sealant

Example: SPG75-062-A2-T



Standard NPT



Weld Neck Mount

Maximum Probe Density

Probe Diameter	SPG75	SPG100	SPG150	DSPG75	DSPG100	DSPG150
0.020	5	7	11	N/O	N/O	N/O
0.032	4	5	10	5	9	17
0.040	3	5	9	5	9	17
0.062	2	4	7	4	5	13
0.093	2	3	5	N/O	5	9
0.125	1	2	4	N/O	4	6
0.187	1	1	3	N/O	N/O	5
0.250	1	1	2	N/O	N/O	4

SPG and DSPG assemblies are not available in all gland sealant materials and/or hole densities. Please consult factory for availability.
N/O = Not Offered.

Specifications – SPG & DSPG

Catalog Number	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating PSIG	Pressure Rating BAR
Standard 1/4 NPT										
SPG75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	C/F	C/F
DSPG75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	C/F	C/F
Weld Neck Mount (Weld Neck Mount Length 0.59", Diameter 0.540")										
SPG75(SWM2S316L)	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	C/F	C/F
DSPG75(SWM2/S316L)	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	C/F	C/F
Standard 1/2 NPT										
SPG100	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	C/F	C/F
DSPG100	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	C/F	C/F
Weld Neck Mount (Weld Neck Mount Length 0.78", Diameter 0.840")										
SPG100(SWM4/S316L)	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	C/F	C/F
DSPG100(SWM4/S316L)	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	C/F	C/F
Standard 3/4 NPT										
SPG150	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	C/F	C/F
DSPG150	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	C/F	C/F
Weld Neck Mount (Weld Neck Mount Length 0.79", Diameter 1.050")										
SPG150(SWM5/S316L)	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	C/F	C/F
DSPG150(SWM5/316L)	3.31	84.1	4.06	103.1	1.250	1.500	31.8	38.1	C/F	C/F

** Hex size for the body and cap are the same.*

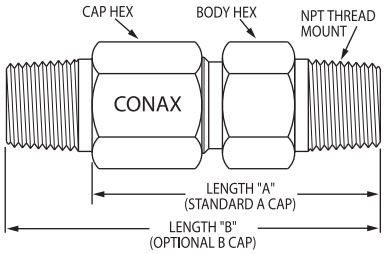
*** When applying torque to SPG150 and DSPG150 models with 0.040" diameters or less containing Grafoil sealants, torque to 200 ft.-lbs., then retorque to 225 ft.-lbs after 24 hours.*

† Weld neck models require lubrication prior to use.

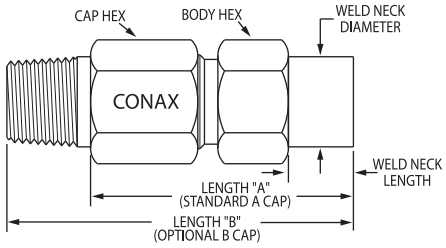
N/O = Not Offered. C/F = Consult Factory.

All pressure and torque ratings were determined at 68˚ F (20˚ C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures. Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints. Tolerance of tube or probe diameters 0.040" and larger is ±0.005; less than 0.040" is ±0.003. Deviation from the nominal may affect the pressure rating.

SPLIT GLANDS FOR SINGLE & MULTIPLE PROBE SEALING ■ PGS, SPG & DSPG SERIES



Standard NPT



Weld Neck Mount

Specifications – PGS

Catalog Number	Tube/Probe Diameter IN	Tube/Probe Diameter MM	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Viton PSIG	Viton BAR	PTFE PSIG	PTFE BAR	Lava PSIG	Lava BAR	Grafoil PSIG	Grafoil BAR
Standard 1/4 NPT																		
PG2S-062	0.062	1.57	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	3,200	220	10,000	689	10,000	689
PG2S-093	0.093	2.36	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	1,900	131	9,000	620	8,000	551
PG2S-125	0.125	3.18	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	1,400	96	9,000	620	7,200	496
PG2S-187	0.187	4.75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	4,500	310	900	62	8,800	606	4,000	276
PG2S-250	0.250	6.35	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,000	138	720	50	7,500	517	3,600	248
Weld Neck Mount (Weld Neck Mount Length 0.59", Diameter 0.540")																		
PG2S(SWM2/S316L)-062	0.062	1.57	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	10,000	689	3,200	220	10,000	689	10,000	689
PG2S(SWM2/S316L)-093	0.093	2.36	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	1,900	131	9,000	620	8,000	551
PG2S(SWM2/S316L)-125	0.125	3.18	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,800	193	1,400	96	9,000	620	7,200	496
PG2S(SWM2/S316L)-187	0.187	4.75	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	4,500	310	900	62	8,800	606	4,000	276
PG2S(SWM2/S316L)-250	0.250	6.35	2.00	50.8	2.63	66.7	0.750	0.750	19.1	19.1	2,000	138	720	50	8,000	517	3,600	248
Standard 1/2 NPT																		
PG4S-093	0.093	2.36	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,500	103	1,600	110	10,000	689	10,000	689
PG4S-125	0.125	3.18	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,500	103	1,600	110	10,000	689	10,000	689
PG4S-187	0.187	4.75	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,500	103	1,600	110	10,000	689	8,000	551
PG4S-250	0.250	6.35	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,500	103	1,600	110	10,000	689	5,000	345
PG4S-312	0.312	7.92	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,200	83	2,000	138	10,000	689	5,000	345
PG4S-375	0.375	9.53	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	500	34	1,400	96	7,500	517	4,500	310
Weld Neck Mount (Weld Neck Mount Length 0.78", Diameter 0.840")																		
PG4S(SWM4/S316L)-093	0.093	2.36	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,500	103	1,600	110	10,000	689	10,000	689
PG4S(SWM4/S316L)-125	0.125	3.18	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,500	103	1,600	110	10,000	689	10,000	689
PG4S(SWM4/S316L)-187	0.187	4.75	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,500	103	1,600	110	10,000	689	8,000	551
PG4S(SWM4/S316L)-250	0.250	6.35	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,500	103	1,600	110	10,000	689	5,000	345
PG4S(SWM4/S316L)-312	0.312	7.92	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	1,200	83	2,000	138	10,000	689	5,000	345
PG4S(SWM4/S316L)-375	0.375	9.53	2.56	65.1	3.38	85.7	1.000	1.000	25.4	25.4	500	34	1,400	96	7,500	517	4,500	310
Standard 3/4 NPT																		
PG5S-187	0.187	4.75	3.31	58.7	4.19	106.4	1.250	1.500	31.8	38.1	2,100	145	800	55	2,000	138	1,200	83
PG5S-250	0.250	6.35	3.31	58.7	4.19	106.4	1.250	1.500	31.8	38.1	1,600	110	800	55	2,000	138	900	62
PG5S-375	0.375	9.53	3.31	58.7	4.19	106.4	1.250	1.500	31.8	38.1	1,000	69	800	55	2,800	193	600	41
PG5S-500	0.500	12.70	3.31	58.7	4.19	106.4	1.250	1.500	31.8	38.1	800	55	800	55	2,000	138	480	33
Weld Neck Mount (Weld Neck Mount Length 0.79", Diameter 1.050")																		
PG5S(SWM5/S316L)-187	0.187	4.75	3.31	58.7	4.19	106.4	1.250	1.500	31.8	38.1	2,100	145	800	55	2,000	138	1,200	83
PG5S(SWM5/S316L)-250	0.250	6.35	3.31	58.7	4.19	106.4	1.250	1.500	31.8	38.1	1,600	110	800	55	2,000	138	900	62
PG5S(SWM5/S316L)-375	0.375	9.53	3.31	58.7	4.19	106.4	1.250	1.500	31.8	38.1	1,000	69	800	55	2,800	193	600	41
PG5S(SWM5/S316L)-500	0.500	12.70	3.31	58.7	4.19	106.4	1.250	1.500	31.8	38.1	800	55	800	55	2,000	138	480	33

CAUTION: *When sealing on soft, fragile or crushable elements, catalog torques may not apply. When catalog torques are applied, compressed sealants generate considerable forces on the element to be sealed. These forces could result in damaging soft or fragile elements such as coax cables or thin-wall materials. Consult factory for these types of applications.*

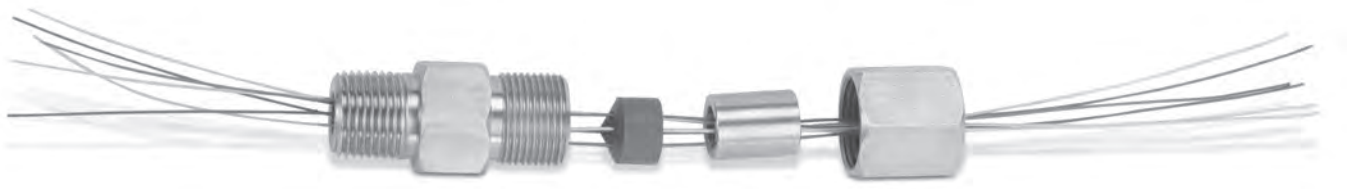
BSWS SERIES ■ SENSOR WIRE SEALS

Conax Technologies Sensor Wire Seals are designed to seal virtually any transducer, sensor or detector elements in a wide range of vacuum or pressure boundaries.

The most common use of these seals is for instrument leads on vibration transducers, proximity probes, pressure sensors, temperature sensors, flow meters, and strain gages. Virtually any sensor lead that passes through a pressure boundary can be sealed using one of our compression seal fitting styles.

Don't hesitate to contact our sales engineers directly with your specific needs.

BEARING WIRE SEALS (BSWS)



Conax Technologies BSWS assemblies were originally designed for use with embedded bearing temperature sensors to prevent oil migrating along the sensor leads. They seal on the individual insulated leads exiting an oil-filled bearing house. They may also be used to seal all types of insulated instrumentation leadwire. These sealing assemblies can be found in large motors, generators, turbines, pumps, compressors and journal bearing pedestals.

Construction consists of 303SST standard bodies, caps and followers with a Viton sealant. Standard assemblies seal 2 to 14 wires in a variety of wire gauges. Please consult Conax Technologies for custom needs.

- Temperature Range: Ambient to +100˚ F (+37.8˚ C)
- Pressure Range: to 50 psig (3.4 bar)

Accessories

The replaceable sealant permits repeated use of the same fitting. Elements can be easily assembled or replaced in the field. To replace the sealant or elements, simply loosen the cap, replace the necessary items, relubricate and retorque the cap.

Glands are supplied factory lubricated. If glands are cleaned prior to assembly or when reused, the glands should be relubricated to maintain the published torque and pressure ratings. See page 103 for information on our lubrication kit.

To order a Replacement Sealant, order
RS – (Gland) – (Element) – (Number of Holes) – (Sealant)

***Example:* RS-BSWS4-20-2-V**

Catalog Numbering System

Gland Style	*Element Size*	*Cap Style*	*Number of Elements Sealed*	*Sealant*
BSWS4 • 1/2 NPT	**20** • 0.044-0.059" dia. over insulation	**A – has mounting thread only**	**2**	**V – Viton**
BSWS5 • 3/4 NPT	**22** • 0.037-0.051" dia. over insulation	**B – has cap end threaded**	**3**	
	24 • 0.032-0.045" dia. over insulation		**4**	
	26 • 0.028-0.041" dia. over insulation		**5**	
	125 • 0.123-0.127" dia. over insulation		**6**	
			7	
			8	
			9	
			10	
			11	
			12	
			13	
			14	

See Specifications Chart for maximum wires accommodated by each model.

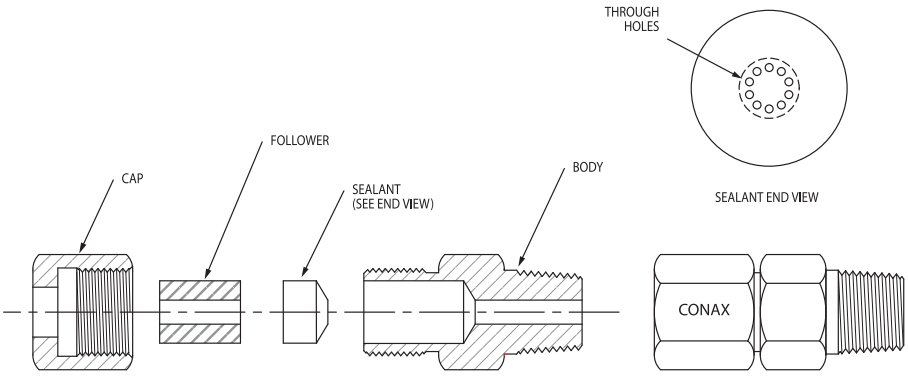
Gland Style / Element Size / Cap Style / Number of Elements Sealed / Sealant

***Example:* BSWS4-20-A3-V**

Specifications – BSWS

Catalog Number	Number of Wires	Diameter Over Insulation IN	Diameter Over Insulation MM	Thread NPT IN	Length 'A' IN	Length 'A' MM	Length 'B' IN	Length 'B' MM	Hex Size Body IN	Hex Size Cap IN	Hex Size Body MM	Hex Size Cap MM	Pressure Rating Viton PSIG	Pressure Rating Viton BAR
BSWS4-20	2-8	0.044-0.059	1.1-1.5	1/2	2.50	63.5	3.25	82.6	1.000	1.000	25.4	25.4	50	3
BSWS4-22	2-8	0.037-0.051	0.9-1.3	1/2	2.50	63.5	3.25	82.6	1.000	1.000	25.4	25.4	50	3
BSWS4-24	2-8	0.032-0.045	0.8-1.1	1/2	2.50	63.5	3.25	82.6	1.000	1.000	25.4	25.4	50	3
BSWS4-26	2-8	0.028-0.041	0.7-1.0	1/2	2.50	63.5	3.25	82.6	1.000	1.000	25.4	25.4	50	3
BSWS5-20	2-14	0.044-0.059	1.1-1.5	3/4	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	50	3
BSWS5-22	2-14	0.037-0.051	0.9-1.3	3/4	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	50	3
BSWS5-24	2-14	0.032-0.045	0.8-1.1	3/4	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	50	3
BSWS5-26	2-14	0.028-0.041	0.7-1.0	3/4	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	50	3
BSWS5-125	2-4	0.123-0.127	3.1-3.2	3/4	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	50	3
BSWS5-120-B2-G	2	0.115-0.130	2.9-3.3	3/4	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	50	3
BSWS5-120-B4-G	4	0.115-0.131	2.9-3.4	3/4	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	50	3
BSWS5-120-B6-G	6	0.115-0.132	2.9-3.5	3/4	2.88	73.0	3.63	92.1	1.250	1.500	31.8	38.1	50	3

BSWS assemblies may be purchased with SAE/MS thread mount, weld neck or flange style mounts. Consult factory for details.
All pressure and torque ratings were determined at 68˚F (20˚C) using stainless steel rod as the element. Pressure ratings may degrade at higher temperatures.
Pressure rating guide values are provided for glands with elements restrained by the compressed sealant. Higher pressure may be attained with additional element restraints.
For proper assembly of these sealing glands, see the Assembly Instructions provided on page 110.
** Hex size for the body and cap are the same unless a cap size is provided in parentheses.*



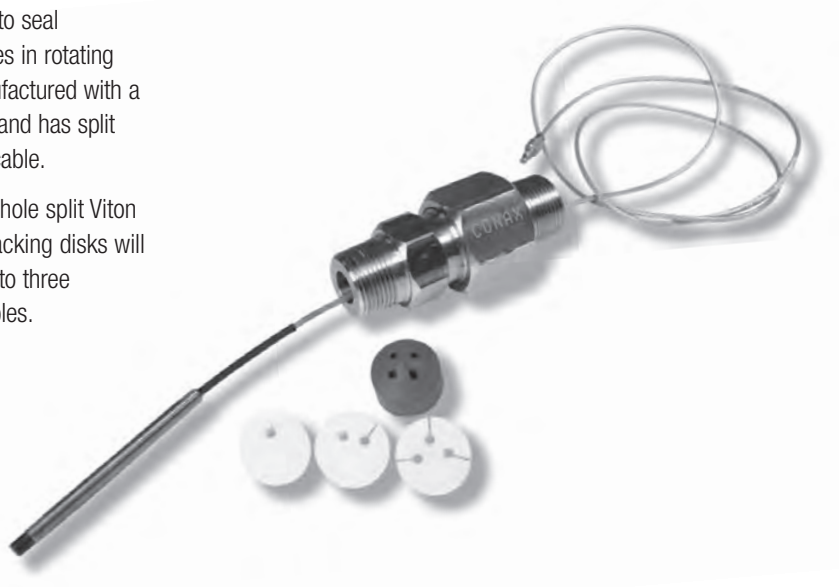
Transducer Wire Seals (TWS)

This version of the Conax sensor wire seal is designed to seal transducer cables entering low-pressure oil-filled cavities in rotating equipment. Since these transducers are typically manufactured with a factory assembled sensor and connector, the sealing gland has split internals to seal the outside jacket of the transducer's cable.

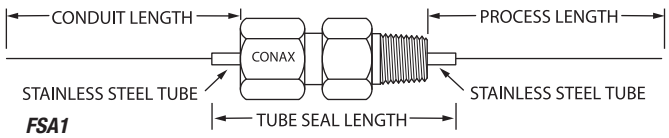
The Transducer Wire Seal comes standard with a four hole split Viton sealant and with four split PTFE backing disks. The backing disks will have 1, 2, or 3 holes so one sealing gland can seal up to three vibration, proximity and pressure transducer sensor cables.

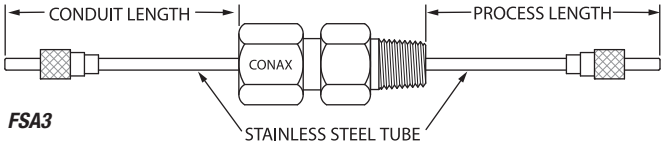
And unlike competitors' designs, the Conax design requires only one PTFE backing disk and does not require the end user to punch out the holes.

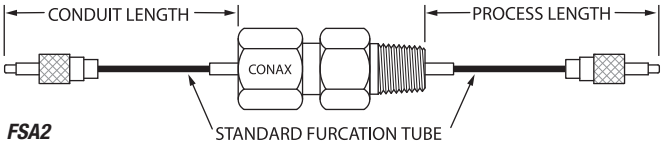
Call Conax today to learn more about complete line of sensor wire seals – and how we can customize a solution for your application.

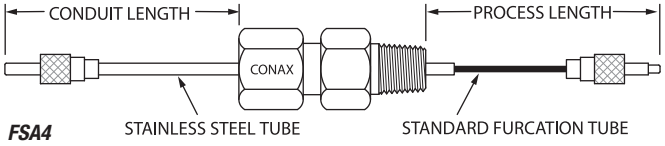


FSA SERIES ■ FIBER OPTIC SEALING ASSEMBLIES









Conax Technologies has adapted our proven soft sealant capability to include the ability to compress a soft sealant material around the outside diameter of a fiber optic cable. The fiber optic cable is encased within a rugged stainless steel sheath that protects the cable from damage during the sealing process. This sheath is then placed through a sealing gland. This process allows the fiber optic cable to be sealed without the use of epoxies and with minimal out-gassing.

The fiber optic feedthrough sub-assembly can be used with various Conax Technologies sealing glands, including multiple hole fittings and can be adapted for special applications.

Features

- Wide range of connector terminations: ST, SMA, FC, FC/APC, FC/PC and SC/APC
- Standard fiber core sizes: 8.3, 62.5, 100, 200, 400, 600, 700 micron & larger
- Adaptable to customer-supplied fiber
- Can seal outside jacket diameters from 400 to 1040 microns
- Protection Tubing: Standard furcation tube (black in color) is constructed of a polypropylene inner tube with a dried Kevlar® Aramid yarn strength member and a 3.0 mm outer polyethylene jacket.
- Models FSA2 and FSA4 are available with a low-outgassing furcation tube. Please specify FSA2B or FSA4B for this feature.

Specifications

- Helium Leak Rate: 1 x 10^{-6} scc/sec typical
- Transmission Loss: Less than 0.3db typical (not including connectors)
- Pressure Rating: 1000 psig (70 bar) standard, up to 3000 (207 bar) psig optional
- Temperature Rating: -4˚ F to +185˚ F (-20˚ C to +85˚ C) Higher temperature models are available in some configurations. Please consult factory.

Catalog Numbering System

Model Type	*Fiber Core Size*	*Tube Seal Length*	*Mounting Gland (Optional)*	*Conduit Length (mm)*	*Process Length (mm)*	*Connector Termination Conduit Side*	*Connector Termination Process Side*
FSA1	**0 – 8.3 µm**	**1 – 55 mm (2.0") not available for Model FSA3**	**XX – No Gland**			**XX – No Connector**	**XX – No Connector**
FSA2	**1 – 62.5 µm**	**2 – 76 mm (3.0")**	*See the appropriate catalog section to determine proper gland call out. Will accept PG, MK, MHM, MHC or PGS style gland*			**905 – SMA 905**	**905 – SMA 905**
FCA2B – low outgassing	**2 – 100 µm**	**3 – 102 mm (4.0")**				**906 – SMA 906**	**906 – SMA 906**
FSA3	**3 – 200 µm**	**4 – 114 mm (4.5")**				**ST – ST**	**ST – ST**
FSA4	**4 – 400 µm**	**5 – 127 mm (5.0")**				**FST – ST with female adapter**	**FST – ST with female adapter**
FCA4B – low outgassing	**6 – 600 µm**	**6 – 152 mm (6.0")**				**FC – FC**	**FC – FC**
	7 – 700 µm					**FC/PC – FC with PC Polish**	**FC/PC – FC with PC Polish**
	9 – Customer supplied fiber					**FC/APC – FC with APC, 8˚ Angle Polish**	**FC/APC – FC with APC, 8˚ Angle Polish**
						SC/APC – SC with APC, 8˚ Angle Polish	**SC/APC – SC with APC, 8˚ Angle Polish**

Model Type / Fiber Core Size / Tube Seal Length / 0.125 Bore Mounting Gland / Conduit Length / Process Length / Connector Termination, Conduit Side / Connector Termination, Process Side

Example: ***FSA2-4-2-PG2AT-2000/1500-906/ST***

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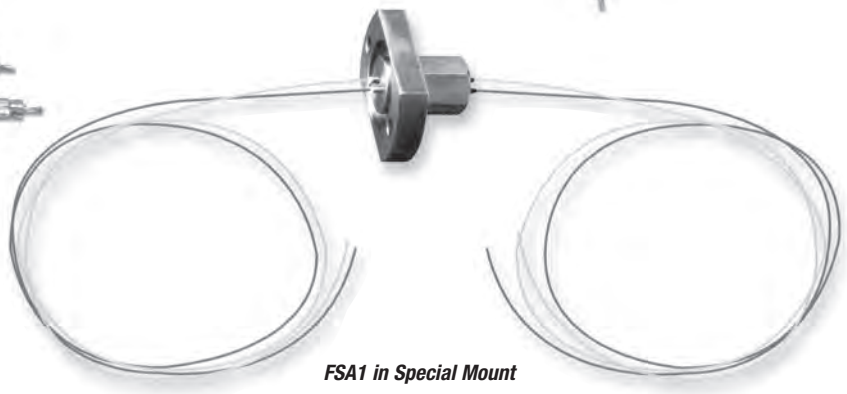
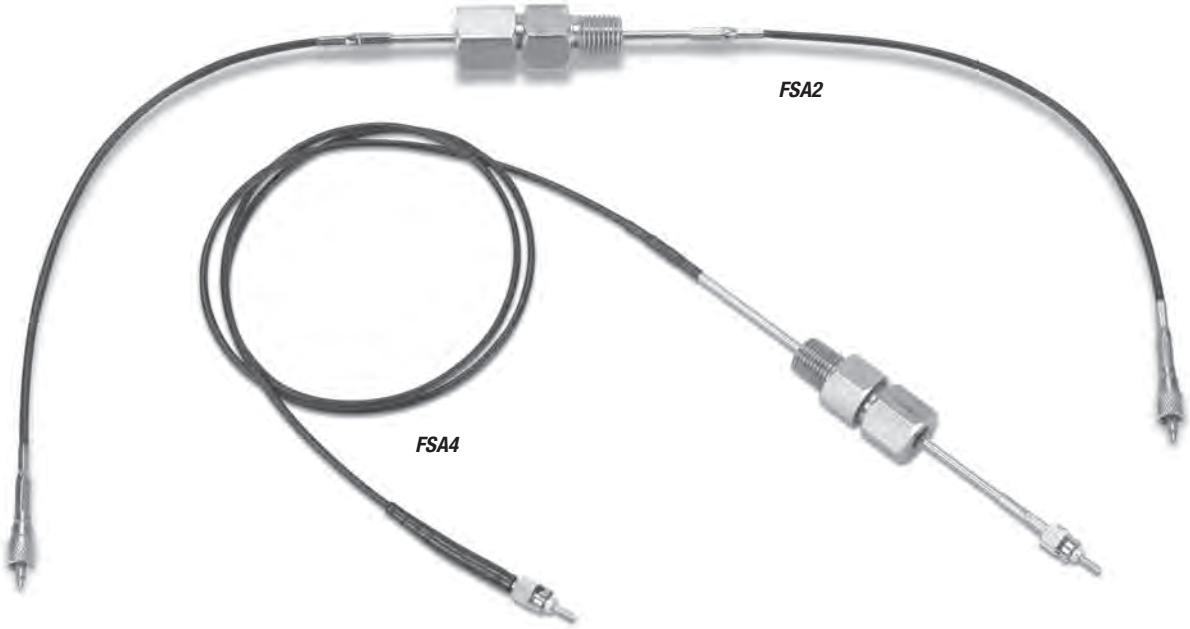
FSA2 in Multi-Hole Gland Arrangement



FSA1 in Special Mount

FSA2



FSA2

FSA4

FCA SERIES ■ HIGH PERFORMANCE FIBER CABLE ASSEMBLIES

Conax Technologies offers high performance cable assemblies for use in applications such as laser delivery systems, telecommunications, fiber-to-fiber connections, test & measurement systems and research. These cable assemblies feature high quality, reliable factory terminations and are available in a variety of lengths, fiber types and connection styles. Each cable assembly can be optically tested for connection losses.

Features

- Available with or without connector terminations
- Standard fiber core sizes available: 8.3, 62.5, 100, 200, 400 micron and larger
- Will provide cable for customer-supplied fiber
- Protection Tubing: FCA1 and FCA2 use a standard furcation tube (black in color) constructed of a polypropylene inner tube with a dried Kevlar® Aramid yarn strength member and a 3.0 mm outer polyethylene jacket. These models are also available with a low outgassing furcation tube (blue in color) constructed of a PVDF inner jacket with a dried Kevlar® Aramid yarn strength member and a 3.0 mm PVDF outer jacket. FCA3 uses the standard furcation tube with a stainless steel overbraid. Please specify FCA1B or FCA2B for this feature.

Specifications

- Transmission Loss: Less than 0.3db typical (not including connectors).
- Temperature Rating: -4º F to +185º F (-20º C to +85º C) Higher temperature models are available in some configurations. Please consult factory.

Benefits

- Rugged construction
- Fiber optic cable is protected inside the sheath
- Uses low outgassing materials

Catalog Numbering System

Model Type	*Fiber Core Size*	*Overall Length (mm)*	*Connector Termination Conduit Side*	*Connector Termination Process Side*
FCA1	**0 – 8.3 µm**		**XX – No Connector**	**XX – No Connector**
FCA1B – low outgassing	**1 – 62.5 µm**		**905 – SMA 905**	**905 – SMA 905**
FCA2	**2 – 100 µm**		**906 – SMA 906**	**906 – SMA 906**
FCA2B – low outgassing	**3 – 200 µm**		**ST – ST**	**ST – ST**
FCA3	**4 – 400 µm**		**FST – ST with female adapter**	**FST – ST with female adapter**
	6 – 600 µm		**FC – FC**	**FC – FC**
	7 – 700 µm		**FC/PC – FC with PC Polish**	**FC/PC – FC with PC Polish**
	9 – Customer supplied fiber		**FC/APC – FC with APC, 8˚ Angle Polish**	**FC/APC – FC with APC, 8˚ Angle Polish**
			SC/APC – SC with APC, 8˚ Angle Polish	**SC/APC – SC with APC, 8˚ Angle Polish**

Model Type / Low Outgassing Tube / Fiber Core Size / Length / Connector Termination, Conduit Side / Connector Termination, Process Side

Example: ***FCA2B-4-1000-ST/ST***

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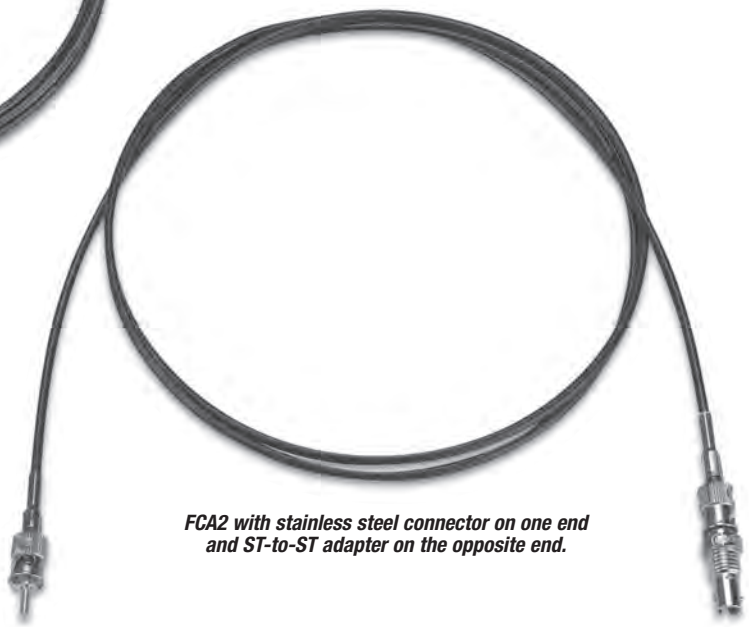
FCA1

FCA3

FCA2



FCA2 with stainless steel connector on one end and ST-to-ST adapter on the opposite end.

Conax Technologies has the in-house capabilities to custom engineer a compression seal fitting solution to meet the exact requirements of your application. Our resources include an integrated product development facility dedicated to expanding pressure and vacuum sealing technology.

Following are a variety of custom engineered solutions that Conax Technologies has produced. These examples are intended to demonstrate our ability to design and manufacture a pressure and vacuum sealing solution for virtually any application in any industry.

Hazardous Location (HL) Gland

Conax Technologies' HL Gland is designed for sealing conduit wires in a wide variety of hazardous environments.

Patent No. 7,288,719

The HL Gland is CSA® certified in the U.S. and Canada for use in hazardous locations defined by the NEC® as Class I, Div.1 and 2, Groups B, C, and D; Class II, Div. 1 and 2, Groups E, F, and G; and Class III.

The HL Gland is superior to Chico® and other similar conduit sealing compound fittings commonly used in hazardous environments.

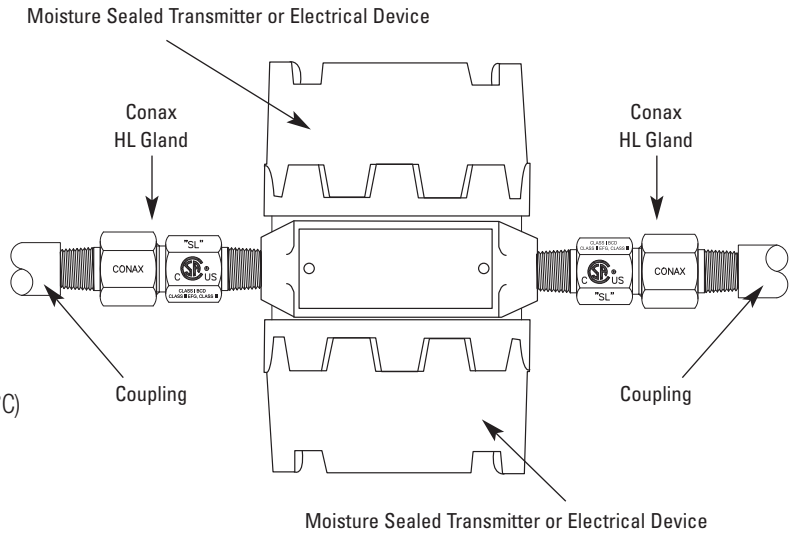
With a mechanically-sealed Conax HL Gland, you will not have to be concerned about:

- cracks in compound sealants or incorrectly installed compound sealant that allow gases or liquids to leak in the conduit system,
- migration of explosive gases through stranded conductors due to a pressure differential in the conduit system.

Features

- CSA® certified in the U.S. and Canada
- Pressure rated to 500 psig
- Suitable for gas or liquid
- Features Grafoil® sealant
- PTFE sleeves are used to protect wires from damage
- Two body styles – small (1/2" NPT) and large (3/4" NPT)
- 303 SST components
- Wire, solid, 14, 16 or 18 AWG supplied by customer or Conax
- Minimum 18" leads on both ends
- Wires can be easily assembled in the field
- Temperature range from -4°F to 130° F (-20°C to + 55°C)

Typical HL Gland Installation



NEC® is a registered trademark of National Electrical Code.
CSA® is a registered trademark of Canadian Standards Association.
Chico® is a registered trademark of Cooper Crouse-Hinds.

SPECIAL ASSEMBLIES

HAST Feedthroughs for the Semiconductor Industry

Conax Semiconductor specializes in high quality wire sealing in demanding applications such as Highly Accelerated Stress Testing (HAST) typically done in the semiconductor industry. Cyclical temperature testing is hard on seals, wire insulation and on the wire itself from a corrosion standpoint.

Each feedthrough is pressure tested upon initial manufacture, or upon being rebuilt, to insure a leak proof seal. They can be supplied with straight threads (bulk head fitting style) or with NPT threads or flanged connection. The glands can be rebuilt. After aging, the wires and sealant can be replaced, allowing the metal components of the fitting to be reused.

For Nickel Plated Copper Wires with Kapton® Insulation for Bias Measurement

This style feedthrough features nickel plated copper wires to minimize corrosion. The Kapton® insulation on the wires stands up to steam and flexing much better than traditional PTFE insulated wires.

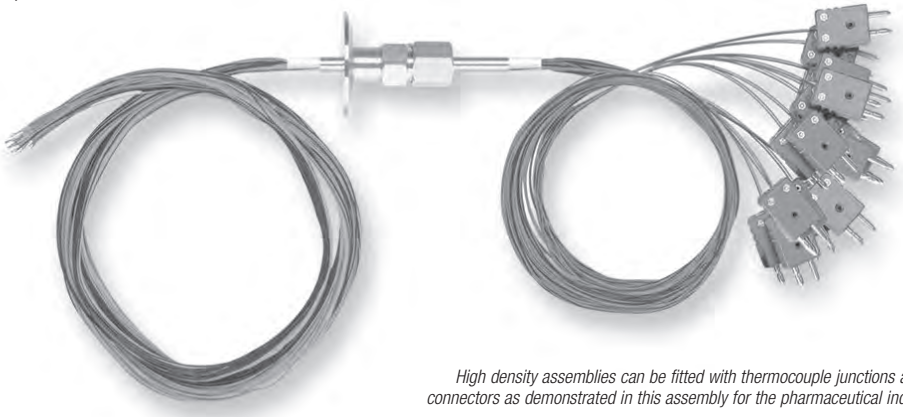
See more Conax Semiconductor products at our website www.ConaxSemiconductor.com.

High Density (HD) Thermocouple Feedthrough for Thermal Validation or Mapping of a Pharmaceutical Freeze Dryer, Sterilizer or Lyophilizer

Conax Technologies' High Density (HD) feedthrough assembly is designed to provide a sealed penetration into Freeze Dryers, Sterilizer or Lyophilizer for thermal mapping and operational / performance qualification of the process.

The High Density Validation Assembly design has been tested for use in pharmaceutical applications where seal integrity is maintained when thermally cycled to -72°C (-97.6°F). It allows multiple insulated thermocouple wires to be installed through a single port. These assemblies consist of a stainless steel tube swaged over bundled 24 AWG solid PTFE-insulated thermocouple or copper wires. Thermocouple pairs are available with or without junctions. The HD design provides an un-equaled means to pass numerous thermocouple, RTD or low voltage instrumentation wires through a vessel wall without breaching the wall in multiple locations.

Smaller 30 AWG wires can be welded to the process side pigtail for enhanced thermal response.



High density assemblies can be fitted with thermocouple junctions and/or connectors as demonstrated in this assembly for the pharmaceutical industry.

HD Assemblies can be supplied with or without a Conax 'soft seal' gland for pressure/vacuum sealing. When equipped with a gland, the tube passes through the compression seal fitting, providing a continuous mechanically sealed wire feedthrough. Assemblies configured with a PG gland can accommodate up to 60 conductors or 30 thermocouple pairs. An MHM gland can accommodate multiple HD assemblies to seal up to 240 conductors or 120 thermocouple pairs.

PG Soft Cable Double Sealant Gland

When your requirement calls for sealing on jacketed cables, Conax Technologies' PG Double Sealant Gland is the ideal solution.

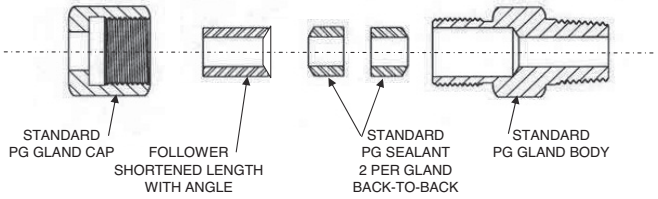
Our PG gland is modified to accept standard PG sealants inserted into the gland back-to-back and compressed with a shortened follower.

Pictured is an actual test fixture. Note the reduced compression on the semi-rigid cable using the double sealant design. The design advantage of this gland is that there is an equal seal capability on an extended length of the cable so that each seal requires less compression while offering equal or greater pressure retaining capabilities.

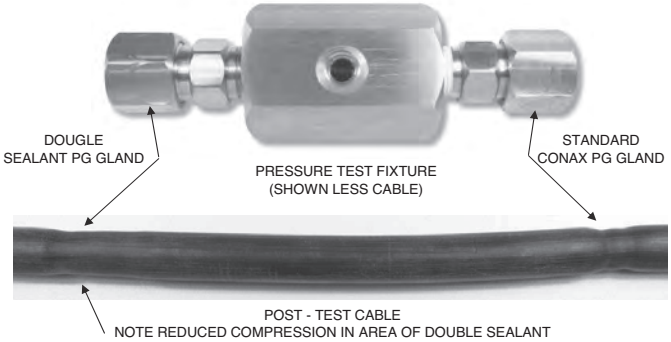
Send us a length of your cable. Conax has the in-house pressure testing capabilities to validate an engineered solution.

The model number example with two viton sealants is PG5-625-A-VV.

CONAX PG DOUBLE SEALANT GLAND
FOR SEALING ON JACKETED CABLES



NOTES:
1. GLAND OVERALL LENGTH EQUAL TO STANDARD PG GLAND WITH "A" OR "B" STYLE CAPS.
2. DESIGN ADVANTAGE: EQUAL SEAL CAPABILTY WITH LESS COMPRESSION ON THE CABLE.



PG9 Gland with Steam Jacket for Sealing Sulfur Analyzer Probes

Conax Technologies designs a PG9 compression seal fitting to seal on an analyzer probe of various thicknesses.

One application example called for a specialized Conax PG9 gland with a steam jacket to seal a 1.25" pipe (1.66" OD) to hot-tap a sulfur analyzer probe into a sulfur recovery unit (SRU) tailgate process. The steam jacket around the gland maintains the temperature at 300°F (149°C) in order to prevent the sulfur from hardening and cementing the probe in place.

Utilizing similar engineering capabilities, Conax can also design a water cooled compression seal fitting for high power electrical feedthroughs.

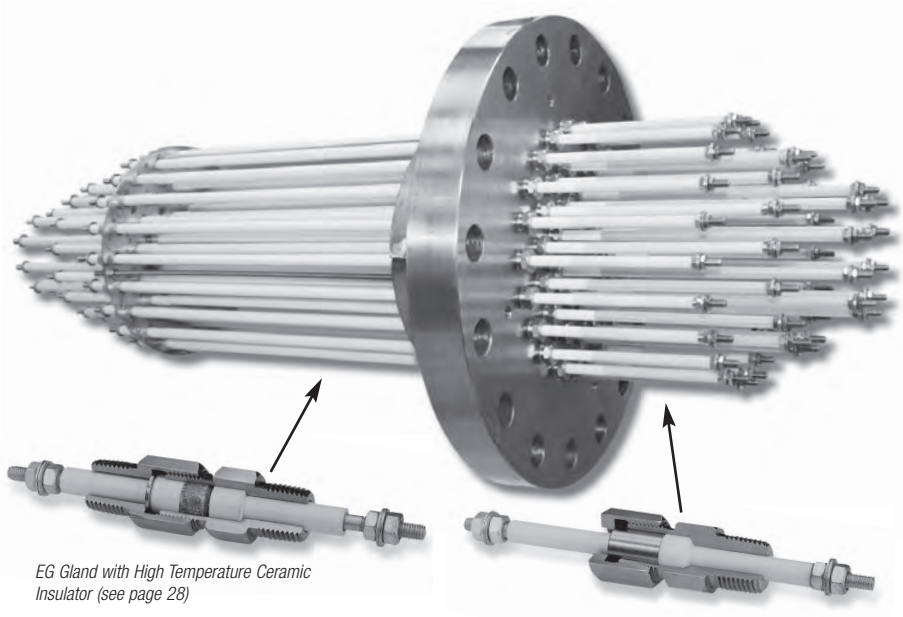
Autoclave Assembly for the Aerospace Industry

Our customer, an aerospace composite parts manufacturer, wanted to replace their heater power feedthrough in an aerospace parts autoclave.

While it was intended to be an exact physical replacement of an existing product, Conax developed a "plug and play" solution offering several key advantages. The most important feature was its ability to be rebuilt in the field.

This product is a custom-designed hybrid of our Electrode Gland (EG) series and our Electrode Gland PTFE (EGP) series designs.
We incorporated and combined positive features of each gland to benefit the customer in this application.

The EG offers high temperature resistance required closer to the heaters. The EGP offers more robust, less costly components for the balance of the assembly located where lower temperatures prevail.



EG Gland with High Temperature Ceramic Insulator (see page 28)

*EGT Gland with **PTFE** Insulator (see page 32)*

The special solid nickel conductors are designed with staggered lengths to ease power cable attachment.

Performance and longevity were improved with this design because the heating elements can function at peak performance at all times, reducing cycle times. The few replacement parts required can be replaced on-site in the time it takes for the unit to cool down and be reloaded with new production material. The old design required a complete offsite rebuild over several months with a significant loss of productivity.

If you have a need to manage power or instrument leads into any type of an autoclave, look to Conax Technologies for your solution.

Brass Feedthrough Fitting for the Automotive Industry

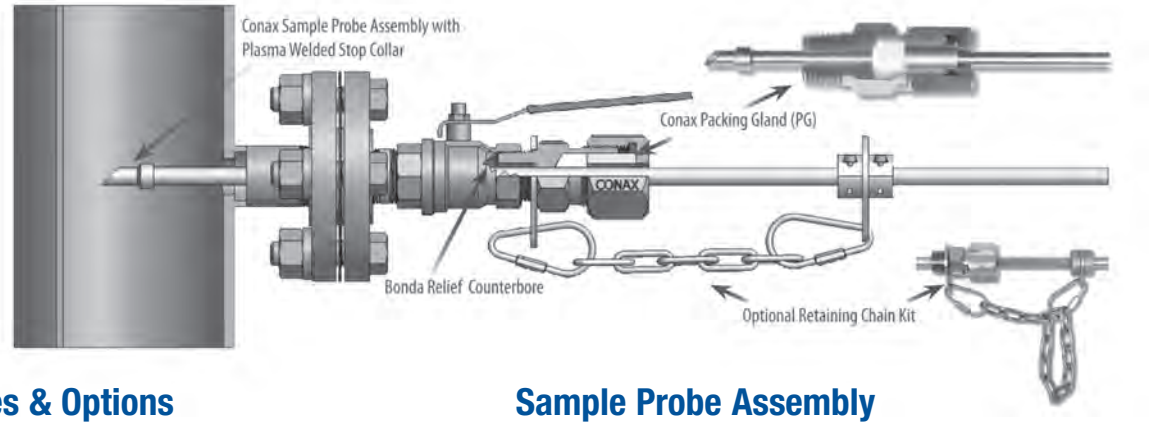
At the opposite end of the product spectrum, Conax Technologies also produces affordable, high integrity sealing solutions where high pressure, temperature or vacuum is not required.

A good example of this type of solution is the brass feedthrough that was developed for the automotive industry.

This feedthrough was designed for use as a wire seal on after market air suspension products for performance automotive use. The unit normally operates at 40 to 60 PSI to a maximum pressure of 100 PSI but is also capable of accepting transient spikes to a maximum of 150 PSI. Ambient temperature operating parameters are from -20°C to 80°C. The unit will accept up to four 18 AWG wires and has a .25" NPT male process connection.

In addition to the automotive industry, other industries such as aerospace, transportation and industrial machinery will find these types of sealing solutions very useful.

Process Analyzer Sample Probe Assembly (SPA) with a Conax Packing (PG) Compression Seal Fitting

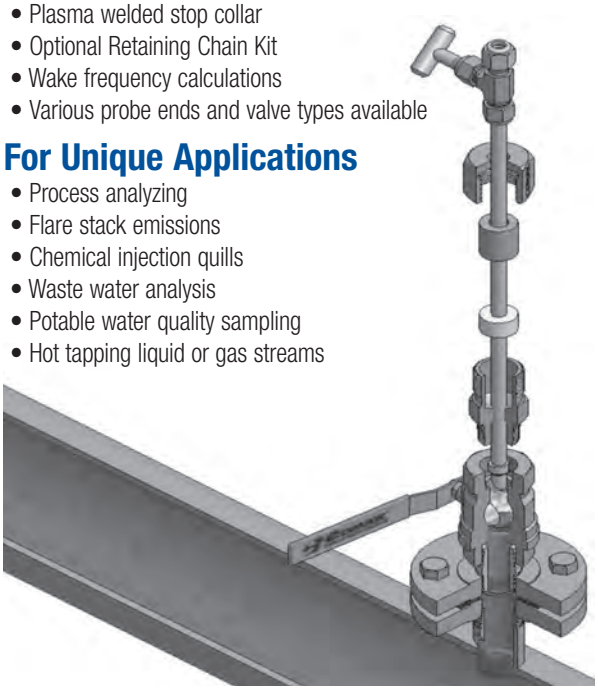


Features & Options

- Plasma welded stop collar
- Optional Retaining Chain Kit
- Wake frequency calculations
- Various probe ends and valve types available

For Unique Applications

- Process analyzing
- Flare stack emissions
- Chemical injection quills
- Waste water analysis
- Potable water quality sampling
- Hot tapping liquid or gas streams



Sample Probe Assembly

The Conax Technologies' Sample Probe Assembly (SPA) is used to hot-tap a probe into a process through a process isolation valve.

Temperature and Pressure Ratings

Refer to the appropriate sections of Conax Catalog 5001C for temperature and pressure ratings for static conditions. Pressure ratings are reduced when the sealing gland cap is loosened to allow for the insertion or extraction of the Sample Probe.

Material Options

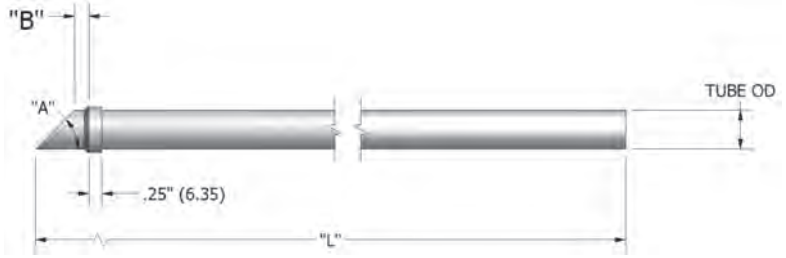
- Optional materials for the Sample Probe Assembly and the Conax Technologies' Packing Gland (PG) body (wetted components) are available. Available options include 316L SST, 316 NACE SST, 316L CRN, Monel 405, Hastelloy C276 and Inconel 600.
- Sample Probe Assemblies and/or PG Gland bodies can be supplied with a Silcolloy™ 1000 (Silcosteel®-CR) or SilcoNert™ 2000 (Siltek®/Sulfinert®)coating.
- Standard Sealants are PTFE, PEEK™, and Grafoil®. Other sealants are available for special applications.

How to Configure the Model Number of an SPA Assembly

Standard Conax Packing (PG) Compression Seal Fitting model numbers and configurations apply. Compression seal fittings are supplied loose unless otherwise indicated. ***Example model number:*** ***SPA/PG5-500-A-T/500X120W(S304)-45-1-36***

Product Name	Compression Seal Fitting Used if none indicate "X"	Tube OD	Tube Wall	Tube Material (S304 or S316, M405, HC276, I600)	"A" Tube End Angle (90°, 60°, 45°, 30°)	"B" Dimension (1/4" increments 1 = 1/4")	"L" Overall Tube Length (inches)
SPA	PG5-500-A-T	500	120W	(S304)	45	1	36

Standard diameter for the welded stop collar is .125" larger than the sample probe. Specials available upon request.



*See next page and page 18 of the Conax Compression Seal Fitting Catalog 5001D for more information.

PLEASE REFER TO BULLETIN 6066.

Standard Tube Sizes*

OD (mm)	WALL (mm)	ID (mm)	MATERIAL
.250" (6.35)	.025" (.64)	.200" (5.08)	S304
	.035" (.89)	.180" (4.57)	S304
	.025" (.64)	.200" (5.08)	S316
	.035" (.89)	.180" (4.57)	S316
	.035" (.89)	.180" (4.57)	MONEL 400
	.035" (.89)	.180" (4.57)	HAST C276
.375" (9.53)	.040" (1.02)	.295" (7.49)	S304
	.065" (1.65)	.245" (6.22)	S304
	.040" (1.02)	.295" (7.49)	S316
	.058" (1.47)	.259" (6.58)	S316
	.065" (1.65)	.245" (6.22)	MONEL 400
	.035" (.89)	.305" (7.75)	HAST C276
	.065" (1.65)	.245" (6.22)	HAST C276

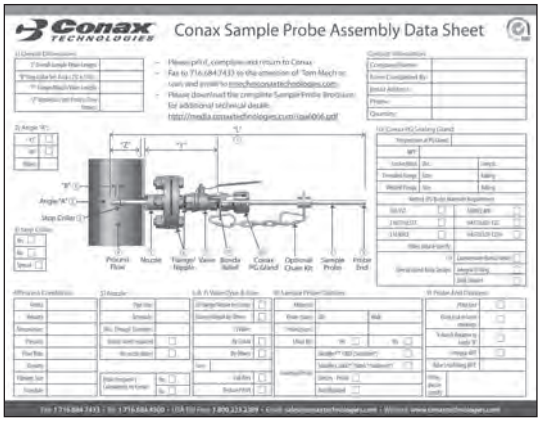
OD (mm)	WALL (mm)	ID (mm)	MATERIAL
.500" (12.70)	.035" (.89)	.430" (10.92)	S304
	.049" (1.25)	.402" (10.21)	S304
	.065" (1.65)	.375" (9.53)	S304
	.120" (3.05)	.260" (6.60)	S304
	.049" (1.25)	.402" (10.21)	S316
	.065" (1.65)	.370" (9.40)	MONEL 400
	.049" (1.25)	.402" (10.21)	HAST C276
.625" (15.88)	.065" (1.65)	.495" (12.53)	S304 S316
.750" (19.05)	.095" (2.41)	.560" (14.22)	S316
	.065" (1.65)	.620" (15.75)	MONEL 400
1.000" (25.40)	.120" (3.05)	.760" (19.30)	S316

**Tubing is seamless or welded and annealed.*

Conax PG Compression Seal Fittings

		SAMPLE PROBE DIA. / TUBING (mm)						SAMPLE PROBE DIA. / PIPE (mm)							
Model	NPT Size	0.250 (6.35)	0.375 (9.53)	0.500 (12.70)	0.625 (15.88)	0.750 (19.05)	1.000 (25.40)	1/8" .405" OD (10.29)	1/4" .54" OD (13.72)	3/8" .675" OD (17.15)	1/2" .84" OD (21.34)	3/4" 1.05" OD (26.67)	1" 1.315" OD (33.40)	1.25" 1.66" OD (42.16)	1.50" 1.90" OD (48.25)
PG2	1/4"	X													
PG4	1/2"	X	X					X							
PG5(PTM4)		X	X	X				X	X						
PG5	3/4"	X	X	X	X	X		X	X	X					
PG5(PTM6)	1"	X	X	X	X	X		X	X	X					
PG6						X	X				X				
PG7	1-1/4"										X	X	X		
PG8	1-1/2"												X		
PG9	2"													X	X

Other sizes and materials available upon request. All Conax PG glands are available with an optional welded or threaded ASME/ANSI Raised Face Flange mount.



Request a quote using the Sample Probe Quote Request Form – Bulletin 6066DS

To request a quote, please email **SPA@conaxtechnologies.com or call 1.800.223.2389.**

Conax Technologies provides four flange styles to accompany its compression seal fittings. All flanges are constructed of 304SST, 316SST or carbon steel. Alternate materials and grades are available – consult with the factory on your requirements.

KF (ISO) Vacuum Flange Mounts

KF Vacuum Flange Mounts offer fast assembly and disassembly. They mate to Varian Klamp-Flange®, MDC Kwik-Flange® and similar vacuum flanges. This mounting style is ideal for roughing and high vacuum applications requiring frequent changeover, including sintering furnaces, vacuum furnaces, and semiconductor and powder metal fabrication processes. See pages 81-85 for details.

CF (NW) Vacuum Flange Mounts

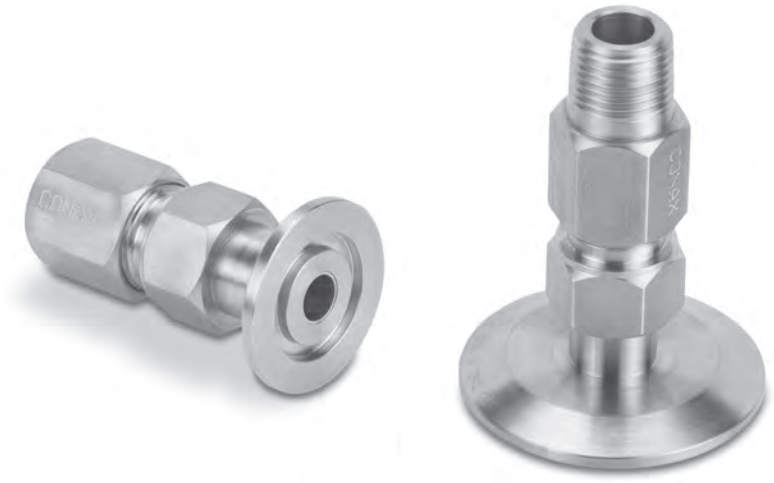
Designed to mate with Varian Con-Flat®, MDC Del-Seal® or similar vacuum flanges, the Conax Technologies CF Vacuum Flange Mount provides high performance and reliable sealing in all types of vacuum applications. See pages 86-90 for details.

SFA Sanitary Flange Mounts

SFA Flange Mounts are designed to mount to Tri-Clover 16 AMP sanitary flanges and equivalent. These mounts provide pressure/vacuum sealing against gases and liquids in pharmaceutical, food and dairy processing. See pages 91-99 for details.

ASME/ANSI Flange Mounts

Conax Technologies sealing glands can be welded or threaded to ASME B16.5 flanges to create a rugged mounting for environmental sealing and/or securing the position of instrumentation sensor probes. Use of flanges eliminates the need to weld mounting adapters to the pipe or vessel. Common applications include petrochemical processing and distribution, industrial furnaces, bulk cargo carriers, gas sampling coupons and gas storage silos. See pages 100-101 for details.



KF Vacuum Flange Mounts offer fast assembly and disassembly. They mate to Varian Klamp-Flange®, MDC Kwik-Flange® and similar vacuum flanges. This mounting style is ideal for roughing and high vacuum applications requiring frequent changeover, including sintering furnaces, vacuum furnaces, and semiconductor and powder metal fabrication processes.

Conax Technologies' KF flanges are constructed from 304SST. The glands use 316LSST bodies with 303SST caps and followers.

For those who would prefer a non-welded assembly, a threaded female adapter is available for mating to a male NPT gland – see below.

Alternative sealant materials and custom bore sizes are available. Please consult a Conax Technologies sales engineer for custom needs.

Available accessories include hinged aluminum clamps, replacement Viton O-rings, centering rings (with Viton O-rings), and replacement sealants.

For accessories, see page 104.

- Vacuum Rating at 68˚ F (20˚ C): 5 x 10^{-6} Torr
- Operating Temperature Range: -10˚ F to +300˚ F (-23˚ C to +150˚ C)
- Helium Leak Rate at 68˚ F (20˚ C): 1 x 10^{-6} scc/sec typical

Catalog Numbering System Incorporating a Flange: PG Gland Example

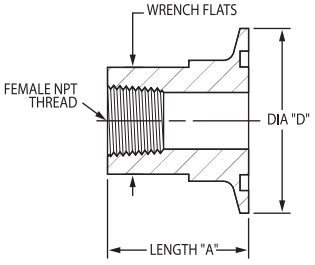
Conax Technologies incorporates a flange into it's catalog numbering system by adding a parenthesis after the gland type. Inside the parenthesis is the information describing the flange (highlighted in grey).

PG5	(	KF8W	/	S316L	)	–	500	–	A	–	V
PG Gland		*Flange Style*		*Gland Body Material of Construction*			*Diameter of Tube or Probe*		*Cap Style*		*Sealant*

Female Pipe Adapter (Thermometer Cap)

For use with male NPT thread mount on compression seal fittings (sold separately).

Part Number	NPT	D Diameter	A Length	Wrench Flats
KF6T-250	1/4	1.58 (40.1)	1.04 (26.4)	0.75 (19.1)
KF8T-250	1/4	2.17 (55.1)	1.04 (26.4)	0.75 (19.1)
KF8T-500	1/2	2.17 (55.1)	1.65 (41.9)	1.13 (28.7)
KF8T-750	3/4	2.17 (55.1)	1.65 (41.9)	1.25 (31.8)
KF9T-250	1/4	2.95 (74.9)	1.04 (26.4)	0.75 (19.1)
KF9T-500	1/2	2.95 (74.9)	1.65 (41.9)	1.13 (28.7)
KF9T-750	3/4	2.95 (74.9)	1.65 (41.9)	1.25 (31.8)
KF9T-1000	1	2.95 (74.9)	1.65 (41.9)	1.56 (39.6)

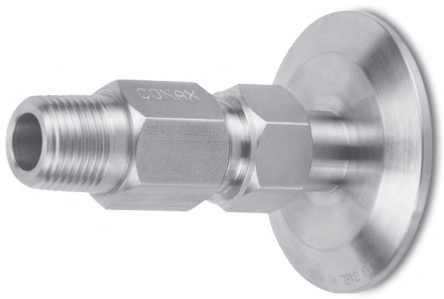


Conax Technologies recommends the use of PTFE tape as a thread sealant during assembly. If you wish to purchase the glands pre-assembled, please contact the factory.

PG GLANDS

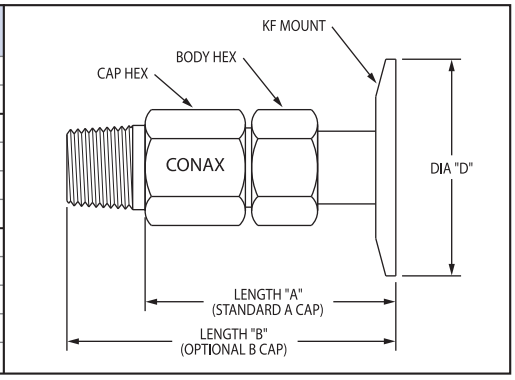
Flange Selection Guide

	Conax Flange Style/ISO Equivalent		
	KF6W/NW25	KF8W/NW40	KF9W/NW50
MPG	X	X	X
PG2	X	X	X
PG4		X	X
PG5		X	X
PG6			X



Dimensions – Inches (mm)

Flange	Gland Type	D Diameter	Overall Length A-Cap	Overall Length B-Cap
KF6W	MPG	1.58 (40.1)	1.19 (30.2)	1.56 (39.7)
	PG2	1.58 (40.1)	2.00 (50.8)	2.63 (66.8)
KF8W	MPG	2.17 (55.1)	1.19 (30.2)	1.56 (39.7)
	PG2	2.17 (55.1)	2.00 (50.8)	2.63 (66.8)
	PG4	2.17 (55.1)	2.50 (63.5)	3.25 (82.6)
	PG5	2.17 (55.1)	2.88 (73.0)	3.63 (92.1)
KF9W	MPG	2.95 (74.9)	1.19 (30.2)	1.56 (39.7)
	PG2	2.95 (74.9)	2.00 (50.8)	2.63 (66.8)
	PG4	2.95 (74.9)	2.50 (63.5)	3.25 (82.6)
	PG5	2.95 (74.9)	2.88 (73.0)	3.63 (92.1)
	PG6	2.95 (74.9)	3.50 (88.9)	4.50 (114.3)



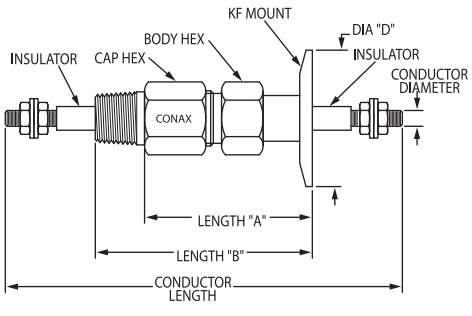
EG GLANDS

Flange Selection Guide

	Conax Flange Style/ISO Equivalent		
	KF6W/NW25	KF8W/NW40	KF9W/NW50
EG-093	X	X	X
EG-125	X	X	X
EG-187	X	X	X
EG-250		X	X
EG-312		X	X
EG-375		X	X
EG-500		X	X
EG-750			X

Dimensions – Inches (mm)

Flange	Gland Type	D Diameter	Overall Length A-Cap	Overall Length B-Cap
KF6W	EG-093	1.58 (40.1)	1.38 (35.1)	1.75 (44.4)
	EG-125/187	1.58 (40.1)	2.00 (50.8)	2.63 (66.8)
KF8W	EG-093	2.17 (55.1)	1.38 (35.1)	1.75 (44.4)
	EG-125/187	2.17 (55.1)	2.00 (50.8)	2.63 (66.8)
	EG-250/312	2.17 (55.1)	2.56 (64.5)	3.38 (85.9)
	EG-375/500	2.17 (55.1)	3.31 (84.1)	4.06 (103.1)
KF9W	EG-093	2.95 (74.9)	1.38 (35.1)	1.75 (44.4)
	EG-125/187	2.95 (74.9)	2.00 (50.8)	2.63 (66.8)
	EG-250/312	2.95 (74.9)	2.56 (64.5)	3.38 (85.9)
	EG-375/500	2.95 (74.9)	3.31 (84.1)	4.06 (103.1)
	EG-750	2.95 (74.9)	5.00 (127.0)	Not Offered



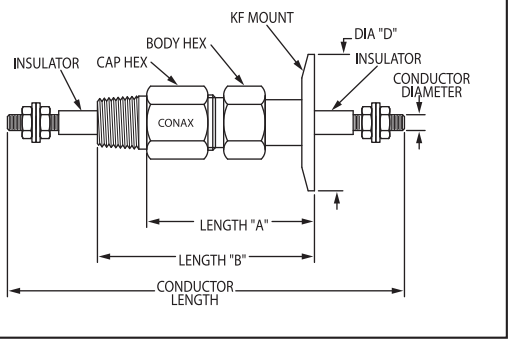
EGT GLANDS

Flange Selection Guide

	Conax Flange Style/ISO Equivalent		
	KF6W/NW25	KF8W/NW40	KF9W/NW50
EGT-093	X	X	X
EGT-125	X	X	X
EGT-187		X	X
EGT-250		X	X
EGT-375		X	X
EGT-500		X	X
EGT-750			X

Dimensions – Inches (mm)

Flange	Gland Type	D Diameter	Overall Length A-Cap	Overall Length B-Cap
KF6W	EGT-093	1.58 (40.1)	1.19 (30.2)	1.56 (39.7)
	EGT-125	1.58 (40.1)	2.00 (50.8)	2.63 (66.8)
KF8W	EGT-093	2.17 (55.1)	1.19 (30.2)	1.56 (39.7)
	EGT-125	2.17 (55.1)	2.00 (50.8)	2.63 (66.8)
	EGT-187/250	2.17 (55.1)	2.50 (63.5)	3.25 (82.6)
	EGT-375/500	2.17 (55.1)	2.88 (73.0)	3.63 (92.1)
KF9W	EGT-093	2.95 (74.9)	1.19 (30.2)	1.56 (39.7)
	EGT-125	2.95 (74.9)	2.00 (50.8)	2.63 (66.8)
	EGT-187/250	2.95 (74.9)	2.50 (63.5)	3.25 (82.6)
	EGT-375/500	2.95 (74.9)	2.88 (73.0)	3.63 (92.1)
	EGT-750	2.95 (74.9)	3.50 (88.9)	4.50 (114.3)



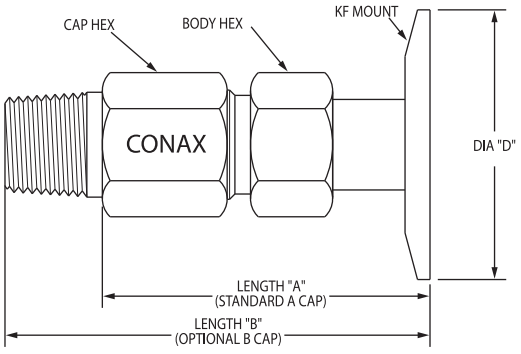
MHC GLANDS

Flange Selection Guide

	Conax Flange Style/ISO Equivalent		
	KF6W/NW25	KF8W/NW40	KF9W/NW50
MHC1	X	X	X
MHC2	X	X	X
MHC4		X	X
MHC5		X	X

Dimensions – Inches (mm)

Flange	Gland Type Type	Number of Holes	D Diameter	Overall Length A-Cap	Overall Length B-Cap
KF6W	MHC1-020/032	2,4	1.58 (40.1)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	1.58 (40.1)	1.38 (35.1)	1.75 (44.4)
	MHC2-020/032	2,4	1.58 (40.1)	2.00 (50.8)	2.63 (66.8)
	MHC2-062	1	1.58 (40.1)	2.00 (50.8)	2.63 (66.8)
KF8W	MHC1-020/032	2,4	2.17 (55.1)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	2.17 (55.1)	1.38 (35.1)	1.75 (44.4)
	MHC2-020/032	2,4	2.17 (55.1)	2.00 (50.8)	2.63 (66.8)
	MHC2-062	1	2.17 (55.1)	2.00 (50.8)	2.63 (66.8)
	MHC4-032/040	6,8	2.17 (55.1)	2.63 (66.8)	3.38 (85.9)
	MHC4-062	2,3,4	2.17 (55.1)	2.63 (66.8)	3.38 (85.9)
	MHC5-032	16	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	MHC5-062	6,8	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	MHC5-125	2	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
KF9W	MHC1-020/032	2,4	2.95 (74.9)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	2.95 (74.9)	1.38 (35.1)	1.75 (44.4)
	MHC2-020/032	2,4	2.95 (74.9)	2.00 (50.8)	2.63 (66.8)
	MHC2-062	1	2.95 (74.9)	2.00 (50.8)	2.63 (66.8)
	MHC4-032/040	6,8	2.95 (74.9)	2.63 (66.8)	3.38 (85.9)
	MHC4-062	2,3,4	2.95 (74.9)	2.63 (66.8)	3.38 (85.9)
	MHC5-032	16	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	MHC5-062	6,8	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	MHC5-125	2	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)



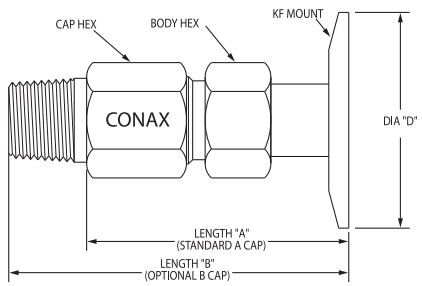
MHM GLANDS

Flange Selection Guide

	Conax Flange Style/ISO Equivalent		
	KF6W/NW25	KF8W/NW40	KF9W/NW50
MHM2	X	X	X
MHM4		X	X
MHM5		X	X
MHM6			X

Dimensions – Inches (mm)

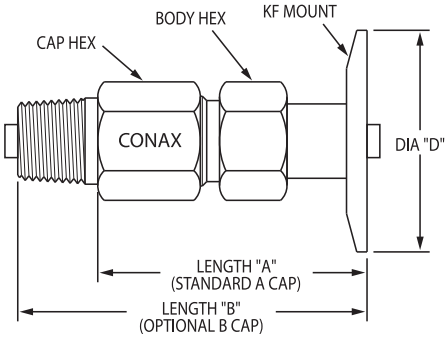
Flange	Gland Type	D Diameter	Overall Length A-Cap	Overall Length B-Cap
KF6W	MHM2	1.58 (40.1)	2.00 (50.8)	2.63 (66.8)
KF8W	MHM2	2.17 (55.1)	2.00 (50.8)	2.63 (66.8)
	MHM4	2.17 (55.1)	2.56 (65.0)	3.38 (85.9)
	MHM5	2.17 (55.1)	3.31 (84.1)	4.06 (103.1)
KF9W	MHM2	2.95 (74.9)	2.00 (50.8)	2.63 (66.8)
	MHM4	2.95 (74.9)	2.56 (65.0)	3.38 (85.9)
	MHM5	2.95 (74.9)	3.31 (84.1)	4.06 (103.1)
	MHM6	2.95 (74.9)	3.80 (96.5)	5.00 (127.0)



PL GLANDS

Flange Selection Guide

	Number of Holes	Conax Flange Style/ISO Equivalent		
		KF6W/NW25	KF8W/NW40	KF9W/NW50
PL-20	2-18		X	X
PL-18	1	X	X	X
PL-18	2-12		X	X
PL-16	2-12		X	X
PL-14	1	X	X	X
PL-14	2-12		X	X
PL-12	2-6		X	X
PL-10	2-4		X	X
PL-8	2,3		X	X



Dimensions – Inches (mm)

Flange	Gland Type	Number of Holes	D Diameter	Overall Length A-Cap	Overall Length B-Cap
KF6W	PL-18/14	1	1.58 (40.1)	1.38 (35.1)	1.75 (44.5)
KF8W	PL-18/14	1	2.17 (55.1)	1.38 (35.1)	1.75 (44.5)
	PL-20/18/16	2,3,4	2.17 (55.1)	2.63 (66.8)	3.38 (85.9)
	PL-14	2	2.17 (55.1)	2.63 (66.8)	3.38 (85.9)
	PL-14	3,4	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	PL-20/18/16/14	6,8	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	PL-20	18	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	PL-18/16/14	10,12	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	PL-12	2,3,4,6	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	PL-10	2,3,4	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	PL-8	2	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	PL-8	3	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
KF9W	PL-18/14	1	2.95 (74.9)	1.47 (37.3)	1.84 (46.7)
	PL-20/18/16	2,3,4	2.17 (55.1)	2.63 (66.8)	3.38 (85.9)
	PL-14	2	2.95 (74.9)	2.63 (66.8)	3.38 (85.9)
	PL-14	3,4	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	PL-20/18/16/14	6,8	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	PL-20	18	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	PL-18/16/14	10,12	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	PL-12	2,3,4,6	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	PL-10	2,3,4	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	PL-8	2	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	PL-8	3	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)

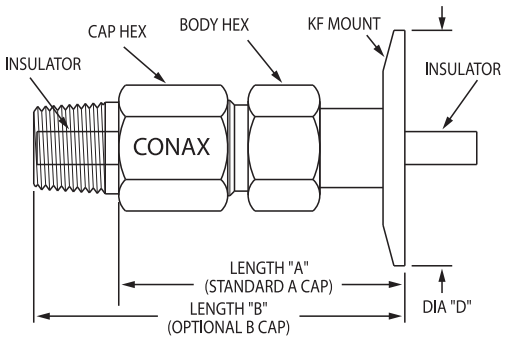
TG GLANDS

Flange Selection Guide

	Number of Holes	Conax Flange Style/ISO Equivalent KF6W/NW25	KF8W/NW40	KF9W/NW50
MTG-24	2,4	X	X	X
MTG-20	2,4	X	X	X
MTG-14	1	X	X	X
TG-24	2,4	X	X	X
TG-20	2,4	X	X	X
TG-20	6,8		X	X
TG-20	16		X	X
TG-18	6,8		X	X
TG-14	1	X	X	X
TG-14	2,3,4		X	X
TG-14	6,8		X	X
TG-8	2		X	X

Dimensions – Inches (mm)

Flange	Gland Type	Number of Holes	D Diameter	Overall Length A-Cap	Overall Length B-Cap
KF6W	MTG-24/20	2,4	1.58 (40.1)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	1.58 (40.1)	1.38 (35.1)	1.75 (44.4)
	TG-24/20	2,4	1.58 (40.1)	2.00 (50.8)	2.63 (66.8)
	TG-14	1	1.58 (40.1)	2.00 (50.8)	2.63 (66.8)
KF8W	MTG-24/20	2,4	2.17 (55.1)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	2.17 (55.1)	1.38 (35.1)	1.75 (44.4)
	TG-24/20	2,4	2.17 (55.1)	2.00 (50.8)	2.63 (66.8)
	TG-14	1	2.17 (55.1)	2.00 (50.8)	2.63 (66.8)
	TG-20/18	6,8	2.17 (55.1)	2.63 (66.8)	3.38 (85.9)
	TG-14	2,3,4	2.17 (55.1)	2.63 (66.8)	3.38 (85.9)
	TG-20	16	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	TG-14	6,8	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
	TG-8	2	2.17 (55.1)	2.88 (73.2)	3.63 (92.2)
KF9W	MTG-24/20	2,4	2.95 (74.9)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	2.95 (74.9)	1.38 (35.1)	1.75 (44.4)
	TG-24/20	2,4	2.95 (74.9)	2.00 (50.8)	2.63 (66.8)
	TG-14	1	2.95 (74.9)	2.00 (50.8)	2.63 (66.8)
	TG-20/18	6,8	2.95 (74.9)	2.63 (66.8)	3.38 (85.9)
	TG-14	2,3,4	2.95 (74.9)	2.63 (66.8)	3.38 (85.9)
	TG-20	16	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	TG-14	6,8	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)
	TG-8	2	2.95 (74.9)	2.88 (73.2)	3.63 (92.2)



FLANGES ■ CF (NW) VACUUM FLANGE MOUNT

Designed to mate with Varian Con-Flat®, MDC Del-Seal® or similar vacuum flanges, the Conax Technologies Gland with CF Vacuum Flange Mount provides high performance and reliable sealing in all types of vacuum applications.

A non-rotatable 304LSST flange with non-tapped throughholes is welded to a 316LSST gland body. Caps and followers are 303SST. The flange is available with an oxygen-free copper gasket or a Viton gasket for unbaked applications. The gland is available with a Viton or Grafoil sealant.

Alternative sealant materials and custom bore sizes are available. Please consult a Conax Technologies sales engineer for custom needs.

- Vacuum Rating at 68˚ F (20˚ C): 5 x 10^{-6} Torr
- Temperature Range: -328˚ F to +842˚ F (-200˚ C to +450˚ C) with metal gasket
- Temperature Range: -4˚ F to +302˚ F (-20˚ C to +150˚ C) with Viton gasket
- Helium Leak Rate at 68˚ F (20˚ C): 1 x 10^{-6} scc/sec typical

See pages 102-105 for accessories.

Catalog Numbering System Incorporating a Flange: PG Gland Example

Conax Technologies incorporates a flange into it's catalog numbering system by adding a parenthesis after the gland type. Inside the parenthesis is the information describing the flange (highlighted in grey).

PG5	(	CFNC4W	/	S316L	)	–	500	–	A	–	V
PG Gland		*Flange Style*		*Gland Body Material of Construction*			*Diameter of Tube or Probe*		*Cap Style*		*Sealant*

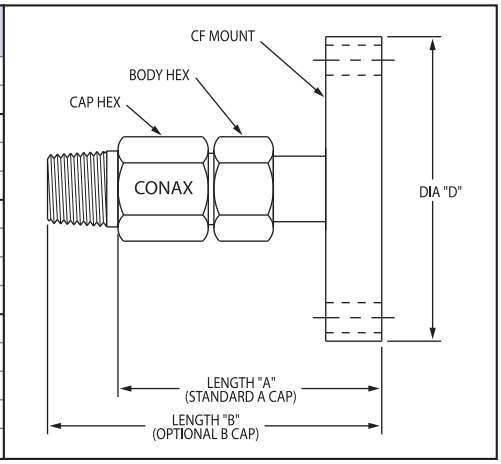
PG GLANDS

Flange Selection Guide

	Conax Flange Style/Comparable to			
	CFNC1/NW16CF	CFNC2/NW25CF	CFNC3/NW35CF	CFNC4/NW50CF
MPG	X	X	X	X
PG2	X	X	X	X
PG4		X	X	X
PG5			X	X
PG6				X

Dimensions – Inches (mm)

Flange	Gland Type	D Diameter	Overall Length A-Cap	Overall Length B-Cap
CFNC1W	MPG	1.33 (33.8)	1.27 (32.3)	1.64 (41.7)
	PG2	1.33 (33.8)	2.08 (52.8)	2.71 (68.8)
CFNC2W	MPG	2.13 (56.3)	1.40 (35.6)	1.77 (45.0)
	PG2	2.13 (56.3)	2.21 (56.1)	2.84 (72.1)
	PG4	2.13 (56.3)	2.77 (70.4)	3.52 (89.4)
CFNC3W	MPG	2.75 (69.9)	1.40 (35.6)	1.77 (45.0)
	PG2	2.75 (69.9)	2.21 (56.1)	2.84 (72.1)
	PG4	2.75 (69.9)	2.77 (70.4)	3.52 (89.4)
	PG5	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
CFNC4W	MPG	3.38 (85.7)	1.42 (36.1)	1.79 (45.5)
	PG2	3.38 (85.7)	2.23 (56.6)	2.86 (72.6)
	PG4	3.38 (85.7)	2.79 (70.9)	3.55 (90.2)
	PG5	3.38 (85.7)	3.11 (80.0)	3.86 (98.0)
	PG6	3.38 (85.7)	3.73 (94.7)	4.73 (120.1)



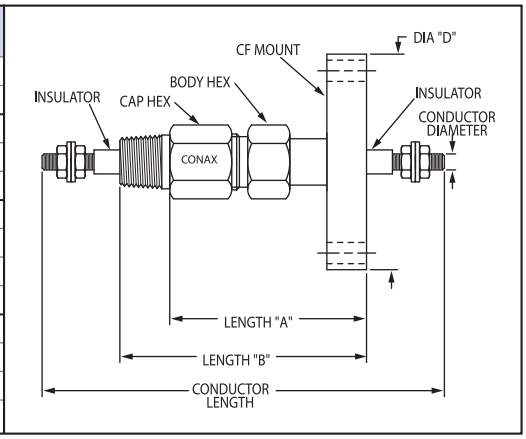
EG GLANDS

Flange Selection Guide

	Conax Flange Style/Comparable to			
	CFNC1/NW16CF	CFNC2/NW25CF	CFNC3/NW35CF	CFNC4/NW50CF
EG-093	X	X	X	X
EG-125	X	X	X	X
EG-187	X	X	X	X
EG-250		X	X	X
EG-312		X	X	X
EG-375			X	X
EG-500			X	X

Dimensions – Inches (mm)

Flange	Gland Type	D Diameter	Overall Length A-Cap	Overall Length B-Cap
CFNC1	EG-093	1.33 (33.8)	1.46 (37.1)	1.83 (46.5)
	EG-125/187	1.33 (33.8)	2.08 (52.8)	2.71 (68.8)
CFNC2	EG-093	2.13 (56.3)	1.59 (40.4)	1.96 (49.8)
	EG-125/187	2.13 (56.3)	2.21 (56.1)	2.84 (72.1)
	EG-250/312	2.13 (56.3)	2.77 (70.4)	3.51 (89.2)
CFNC3	EG-093	2.75 (69.9)	1.59 (40.4)	1.96 (49.8)
	EG-125/187	2.75 (69.9)	2.21 (56.1)	2.84 (72.1)
	EG-250/312	2.75 (69.9)	2.77 (70.4)	3.51 (89.2)
	EG-375/500	2.75 (69.9)	3.52 (89.4)	4.27 (108.5)
CFNC4	EG-093	3.38 (85.7)	1.61 (40.9)	1.98 (50.3)
	EG-125/187	3.38 (85.7)	2.21 (56.1)	2.86 (72.6)
	EG-250/312	3.38 (85.7)	2.79 (70.9)	3.61 (91.7)
	EG-375/500	3.38 (85.7)	3.55 (90.2)	4.29 (109.0)



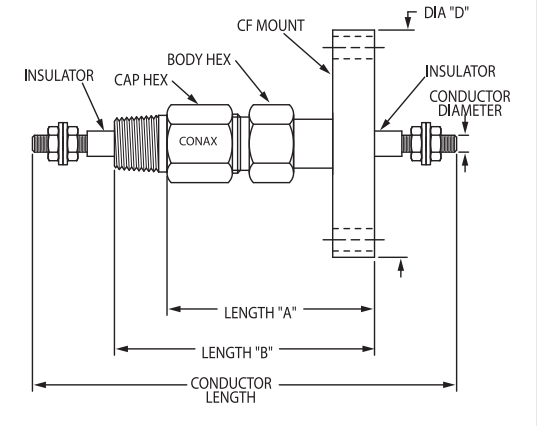
EGT GLANDS

Flange Selection Guide

	Conax Flange Style/Comparable to			
	CFNC1/NW16CF	CFNC2/NW25CF	CFNC3/NW35CF	CFNC4/NW50CF
EGT-093	X	X	X	X
EGT-125	X	X	X	X
EGT-187		X	X	X
EGT-250		X	X	X
EGT-375			X	X
EGT-500			X	X
EGT-750				X

Dimensions – Inches (mm)

Flange	Gland Type	D Diameter	Overall Length A-Cap	Overall Length B-Cap
CFNC1	EGT-093	1.33 (33.8)	1.27 (32.3)	1.64 (41.7)
	EGT-125	1.33 (33.8)	2.08 (52.8)	2.71 (68.8)
CFNC2	EGT-093	2.13 (56.3)	1.40 (35.6)	1.77 (45.0)
	EGT-125	2.13 (56.3)	2.21 (56.1)	2.84 (72.1)
	EGT-187/250	2.13 (56.3)	2.77 (70.4)	3.52 (89.4)
CFNC3	EGT-093	2.75 (69.9)	1.40 (35.6)	1.77 (45.0)
	EGT-125	2.75 (69.9)	2.21 (56.1)	2.84 (72.1)
	EGT-187/250	2.75 (69.9)	2.77 (70.4)	3.52 (89.4)
	EGT-375/500	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
CFNC4	EGT-093	3.38 (85.7)	1.42 (36.1)	1.79 (45.5)
	EGT-125	3.38 (85.7)	2.23 (56.6)	2.86 (72.6)
	EGT-187/250	3.38 (85.7)	2.79 (70.9)	3.55 (90.2)
	EGT-375/500	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	EGT-750	3.38 (85.7)	3.73 (94.7)	4.73 (120.1)



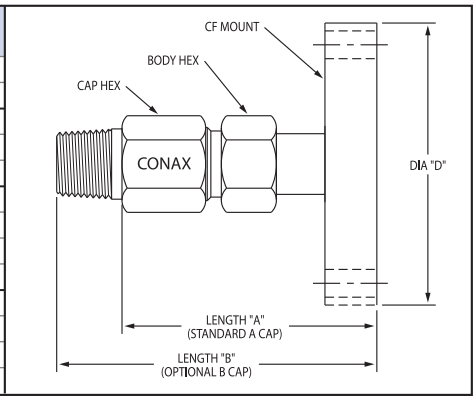
MHC GLANDS

Flange Selection Guide

	Number of Holes	Conax Flange Style/Comparable To CFNC1/NW16CF	CFNC2/NW25CF	CFNC3/NW35CF	CFNC4/NW50CF
MHC1	2,4	X	X	X	X
MHC2	2,4	X	X	X	X
MHC4	6,8		X	X	X
MHC5	16			X	X

Dimensions – Inches (mm)

Flange	Gland Type	Number of Holes	D Diameter	Overall Length A-Cap	Overall Length B-Cap
CFNC1	MHC1	2,4	1.33 (33.8)	1.46 (37.1)	1.83 (46.5)
	MHC2	2,4	1.33 (33.8)	2.08 (52.8)	2.71 (68.8)
CFNC2	MHC1	2,4	2.13 (56.3)	1.59 (40.4)	1.96 (49.8)
	MHC2	2,4	2.13 (56.3)	2.21 (56.1)	2.84 (72.1)
	MHC4	6,8	2.13 (56.3)	2.84 (72.1)	3.59 (91.2)
CFNC3	MHC1	2,4	2.75 (69.9)	1.59 (40.4)	1.96 (49.8)
	MHC2	2,4	2.75 (69.9)	2.21 (56.1)	2.84 (72.1)
	MHC4	6,8	2.75 (69.9)	2.84 (72.1)	3.59 (91.2)
	MHC5	16	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
CFNC4	MHC1	2,4	3.38 (85.7)	1.71 (43.4)	2.08 (52.8)
	MHC2	2,4	3.38 (85.7)	2.23 (56.6)	2.86 (72.6)
	MHC4	6,8	3.38 (85.7)	2.86 (72.6)	3.61 (91.7)
	MHC5	16	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)



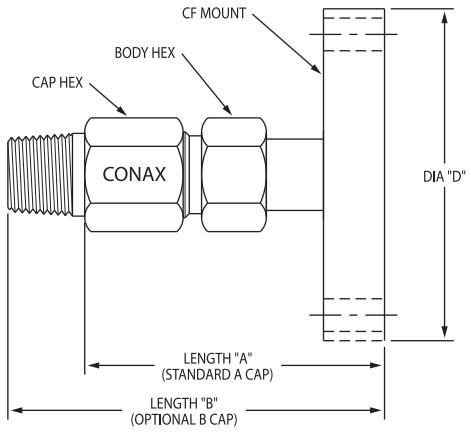
MHM GLANDS

Flange Selection Guide

	Conax Flange Style/Comparable to CFNC1/NW16CF	CFNC2/NW25CF	CFNC3/NW35CF	CFNC4/NW50CF	CFNC5/NW63CF
MHM2	X	X	X	X	
MHM4		X	X	X	
MHM5			X	X	
MHM6					X

Dimensions – Inches (mm)

Flange	Gland Type	D Diameter	Overall Length A-Cap	Overall Length B-Cap
CFNC1	MHM2	1.33 (33.8)	2.08 (52.8)	2.71 (68.8)
CFNC2	MHM2	2.13 (56.3)	2.21 (56.1)	2.84 (72.1)
	MHM4	2.13 (56.3)	2.77 (70.4)	3.59 (91.2)
CFNC3	MHM2	2.75 (69.9)	2.21 (56.1)	2.84 (72.1)
	MHM4	2.75 (69.9)	2.77 (70.4)	3.59 (91.2)
	MHM5	2.75 (69.9)	3.52 (89.4)	4.27 (108.5)
CFNC4	MHM2	3.38 (85.7)	2.23 (56.6)	2.86 (72.6)
	MHM4	3.38 (85.7)	2.79 (70.1)	3.61 (91.7)
	MHM5	3.38 (85.7)	3.55 (90.2)	4.29 (109.0)
CFNC5	MHM6	4.47 (113.5)	4.03 (102.4)	5.25 (133.0)



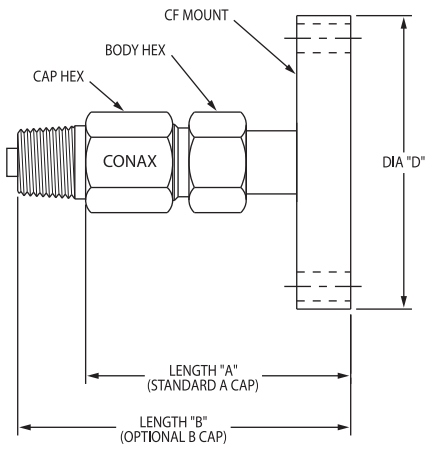
PL GLANDS

Flange Selection Guide

	Number of Holes	Conax Flange Style/Comparable To CFNC1/NW16CF	CFNC2/NW25CF	CFNC3/NW35CF	CFNC4/NW50CF
PL-18	1	X	X	X	X
PL-14	1	X	X	X	X
PL-20	2,3,4		X	X	X
PL-18	2,3,4		X	X	X
PL-16	2,3,4		X	X	X
PL-14	2		X	X	X
PL-14	3,4			X	X
PL-20	6-18			X	X
PL-18	6-12			X	X
PL-16	6-12			X	X
PL-14	6-12			X	X
PL-12	2,3,4,6			X	X
PL-10	2,3,4			X	X
PL-8	2,3			X	X

Dimensions – Inches (mm)

Flange	Gland Type	Number of Holes	D Diameter	Overall Length A-Cap	Overall Length B-Cap
CFNC1	PL-18/14	1	1.33 (33.8)	1.46 (37.1)	1.83 (46.5)
CFNC2	PL-18/14	1	2.13 (56.3)	1.59 (40.4)	1.96 (49.8)
	PL-20/18/16	2,3,4	2.13 (56.3)	2.84 (72.1)	3.59 (91.2)
	PL-14	2	2.13 (56.3)	2.84 (72.1)	3.59 (91.2)
CFNC3	PL-18/14	1	2.75 (69.9)	1.59 (40.4)	1.96 (49.8)
	PL-20/18/16	2,3,4	2.75 (69.9)	2.84 (72.1)	3.59 (91.2)
	PL-14	2	2.75 (69.9)	2.84 (72.1)	3.59 (91.2)
	PL-14	3,4	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	PL-20/18/16	6,8	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	PL-20	18	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	PL-18/16/14	10,12	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	PL-12	2,3,4,6	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	PL-10	2,3,4	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	PL-8	2	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	PL-8	3	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
CFNC4	PL-18/14	1	3.38 (85.7)	1.71 (43.4)	2.08 (52.8)
	PL-20/18/16	2,3,4	3.38 (85.7)	2.86 (72.6)	3.61 (91.7)
	PL-14	2	3.38 (85.7)	2.86 (72.6)	3.61 (91.7)
	PL-14	3,4	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	PL-20/18/16/14	6,8	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	PL-20	18	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	PL-18/16/14	10,12	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	PL-12	2,3,4,6	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	PL-10	2,3,4	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	PL-8	2	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	PL-8	3	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)



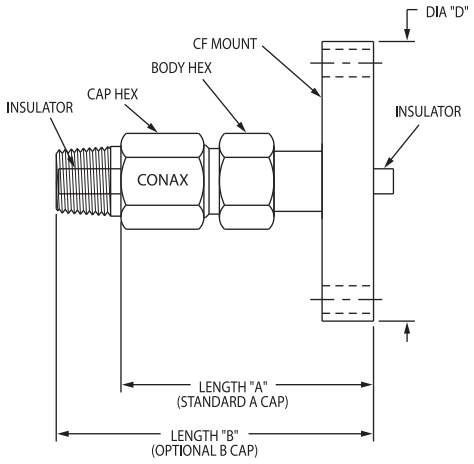
TG GLANDS

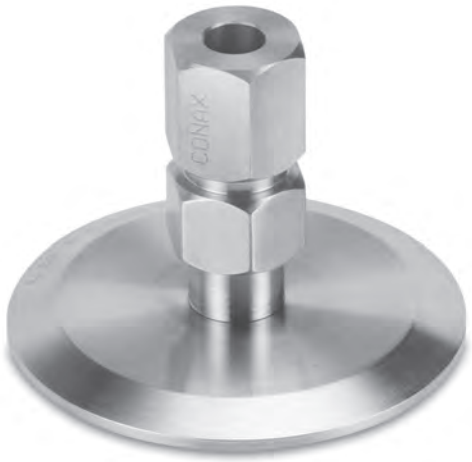
Flange Selection Guide

	Number of Holes	Conax Flange Style/Comparable To CFNC1/NW16CF	CFNC2/NW25CF	CFNC3/NW35CF	CFNC4/NW50CF
MTG-24	2,4	X	X	X	X
MTG-20	2,4	X	X	X	X
MTG-14	1	X	X	X	X
TG-24	2,4	X	X	X	X
TG-20	2,4	X	X	X	X
TG-20	6,8		X	X	X
TG-20	16			X	X
TG-18	6,8		X	X	X
TG-14	1	X	X	X	X
TG-14	2,3,4		X	X	X
TG-14	6,8			X	X
TG-8	2			X	X

Dimensions – Inches (mm)

Flange	Gland Type	Number of Holes	D Diameter	Overall Length A-Cap	Overall Length B-Cap
CFNC1	MTG-24/20	2,4	1.33 (33.8)	1.46 (37.1)	1.83 (46.5)
	MTG-14	1	1.33 (33.8)	1.46 (37.1)	1.83 (46.5)
	TG-24/20	2,4	1.33 (33.8)	2.08 (52.8)	2.71 (68.8)
	TG-14	1	1.33 (33.8)	2.08 (52.8)	2.71 (68.8)
CFNC2	MTG-24/20	2,4	2.13 (56.3)	1.59 (40.4)	1.96 (49.8)
	MTG-14	1	2.13 (56.3)	1.59 (40.4)	1.96 (49.8)
	TG-24/20	2,4	2.13 (56.3)	2.21 (56.1)	2.84 (72.1)
	TG-14	1	2.13 (56.3)	2.21 (56.1)	2.84 (72.1)
	TG-20/18	6,8	2.13 (56.3)	2.84 (72.1)	3.59 (91.2)
	TG-14	2,3,4	2.13 (56.3)	2.84 (72.1)	3.59 (91.2)
CFNC3	MTG-24/20	2,4	2.75 (69.9)	1.59 (40.4)	1.96 (49.8)
	MTG-14	1	2.75 (69.9)	1.59 (40.4)	1.96 (49.8)
	TG-24/20	2,4	2.75 (69.9)	2.21 (56.1)	2.84 (72.1)
	TG-14	1	2.75 (69.9)	2.21 (56.1)	2.84 (72.1)
	TG-20/18	6,8	2.75 (69.9)	2.84 (72.1)	3.59 (91.2)
	TG-14	2,3,4	2.75 (69.9)	2.84 (72.1)	3.59 (91.2)
	TG-20	16	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	TG-14	6,8	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
	TG-8	2	2.75 (69.9)	3.09 (78.5)	3.84 (97.5)
CFNC4	MTG-24/20	2,4	3.38 (85.7)	1.71 (43.4)	2.08 (52.8)
	MTG-14	1	3.38 (85.7)	1.71 (43.4)	2.08 (52.8)
	TG-24/20	2,4	3.38 (85.7)	2.23 (56.6)	2.86 (72.6)
	TG-14	1	3.38 (85.7)	2.23 (56.6)	2.86 (72.6)
	TG-20/18	6,8	3.38 (85.7)	2.86 (72.6)	3.61 (91.7)
	TG-14	2,3,4	3.38 (85.7)	2.86 (72.6)	3.61 (91.7)
	TG-20	16	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	TG-14	6,8	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)
	TG-8	2	3.38 (85.7)	3.11 (79.0)	3.86 (98.0)





SFA Flange Mounts are designed to mount to Tri-Clover® 16 AMP sanitary flanges and equivalent. These mounts provide pressure/vacuum sealing against gases and liquids in pharmaceutical, food and dairy processing.

Conax Technologies SFA flanges are constructed from 316LSST. The glands use 316LSST bodies with 303SST caps and followers. Standard finish on the flange face is 32 Ra. Optional 16 Ra finish is also available. Viton and PTFE sealants are offered.

For those who would prefer a non-welded assembly, a threaded female adapter is available for mating to a male NPT PG gland (see below). PTFE tape is standard as the thread sealant.

Alternative sealant materials and custom bore sizes are available. Please consult a Conax Technologies sales engineer for custom needs.

- Vacuum Rating at 68˚ F (20˚ C): 5 x 10^{-6} Torr
- Assembly Pressure Rating is determined by the lowest of the following: clamp rating, gland rating or 500 psig
- Operating Temperature Range: -10˚ F to +400˚ F (+23˚ C to +204˚ C)
- Helium Leak Rate at 68˚ F (20˚ C): 1 x 10^{-6} scc/sec typical

See pages 102-105 for accessories.

Catalog Numbering System Incorporating a Flange: PG Gland Example

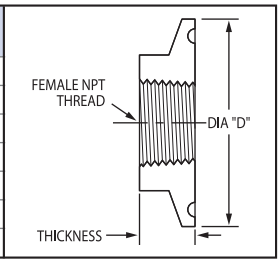
Conax Technologies incorporates a flange into it's catalog numbering system by adding a parenthesis after the gland type. Inside the parenthesis is the information describing the flange (highlighted in grey).

PG5	(	SFA20W	/	S316L	)	-	500	-	A	-	V
PG Gland		*Flange Style*		*Gland Body Material of Construction*			*Diameter of Tube or Probe*		*Cap Style*		*Sealant*

Female Pipe Adapter (Thermometer Cap)

For use with male NPT thread mounts on compression seal fittings (sold separately)

Part Number	Tube O.D.	Thickness	D Diameter	Female NPT
318820-007	1/2 & 3/4	0.63 (16.0)	0.98 (25.4)	1/4
318820-006	1	0.63 (16.0)	1.98 (50.3)	1/2
318820-001	1-1/2	0.63 (16.0)	1.98 (50.3)	3/4
318820-002	2	0.63 (16.0)	2.52 (64.0)	3/4
318820-003	2-1/2	0.63 (16.0)	3.05 (77.5)	3/4
318820-004	3	0.63 (16.0)	3.58 (90.0)	3/4
318820-005	4	0.63 (16.0)	4.68 (119.0)	3/4



Conax Technologies recommends the use of PTFE tape as a thread sealant during assembly. If you wish to purchase the glands pre-assembled, please contact the factory.

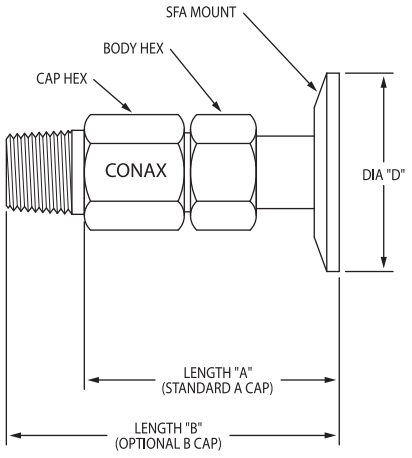
PG GLANDS

Flange Selection Guide

Conax Flange Style: Tube O.D.	SFA05 1/2 & 3/4	SFA10 1 & 1-1/2	SFA20 2	SFA25 2-1/2	SFA30 3	SFA40 4
MPG	X	X	X	X	X	X
PG2		X	X	X	X	X
PG4		X	X	X	X	X
PG5		X	X	X	X	X
PG6			X	X	X	X

Dimensions – Inches (mm)

Flange	Gland Type	Tube O.D.	Diameter "D"	Overall Length A-Cap	Overall Length B-Cap
SFA05W	MPG	1/2 & 3/4	0.98 (24.9)	1.19 (30.2)	1.56 (39.7)
SFA10W	MPG	1 & 1-1/2	1.98 (50.3)	1.19 (30.2)	1.56 (39.7)
	PG2	1 & 1-1/2	1.98 (50.3)	2.00 (50.8)	2.63 (66.8)
	PG4	1 & 1-1/2	1.98 (50.3)	2.50 (63.5)	3.25 (82.6)
	PG5	1 & 1-1/2	1.98 (50.3)	2.88 (73.0)	3.63 (92.1)
SFA20W	MPG	2	2.52 (64.0)	1.19 (30.2)	1.56 (39.7)
	PG2	2	2.52 (64.0)	2.00 (50.8)	2.63 (66.8)
	PG4	2	2.52 (64.0)	2.56 (65.0)	3.31 (84.1)
	PG5	2	2.52 (64.0)	2.88 (73.0)	3.63 (92.1)
	PG6	2	2.52 (64.0)	3.50 (88.9)	4.50 (114.3)
SFA25W	MPG	2-1/2	3.05 (77.5)	1.19 (30.2)	1.56 (39.7)
	PG2	2-1/2	3.05 (77.5)	2.00 (50.8)	2.63 (66.8)
	PG4	2-1/2	3.05 (77.5)	2.56 (65.0)	3.31 (84.1)
	PG5	2-1/2	3.05 (77.5)	2.88 (73.0)	3.63 (92.1)
	PG6	2-1/2	3.05 (77.5)	3.50 (88.9)	4.50 (114.3)
SFA30W	MPG	3	3.58 (90.9)	1.19 (30.2)	1.56 (39.7)
	PG2	3	3.58 (90.9)	2.00 (50.8)	2.63 (66.8)
	PG4	3	3.58 (90.9)	2.56 (65.0)	3.31 (84.1)
	PG5	3	3.58 (90.9)	2.88 (73.0)	3.63 (92.1)
	PG6	3	3.58 (90.9)	3.50 (88.9)	4.50 (114.3)
SFA40W	MPG	4	4.68 (119.0)	1.19 (30.2)	1.56 (39.7)
	PG2	4	4.68 (119.0)	2.00 (50.8)	2.63 (66.8)
	PG4	4	4.68 (119.0)	2.56 (65.0)	3.31 (84.1)
	PG5	4	4.68 (119.0)	2.88 (73.0)	3.63 (92.1)
	PG6	4	4.68 (119.0)	3.50 (88.9)	4.50 (114.3)



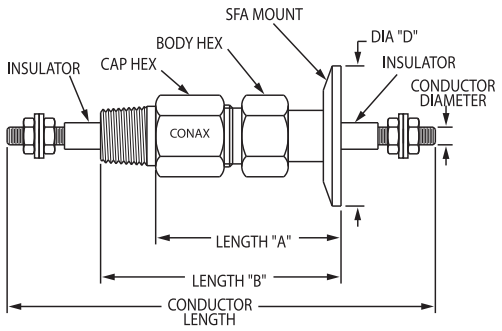
EG GLANDS

Flange Selection Guide

Part Number: Tube O.D.	SFA05 1/2 & 3/4	SFA10 1 & 1-1/2	SFA20 2	SFA25 2-1/2	SFA30 3	SFA40 4
EG-093	X	X	X	X	X	X
EG-125		X	X	X	X	X
EG-187		X	X	X	X	X
EG-250		X	X	X	X	X
EG-312		X	X	X	X	X
EG-375		X	X	X	X	X
EG-500		X	X	X	X	X
EG-750			X	X	X	X

Dimensions – Inches (mm)

iFlange	Gland Type	Tube O.D.	Thickness	D Diameter	Overall Length A-Cap	Overall Length B-Cap
SFA05	EG-093	1/2 & 3/4	0.19 (4.7)	0.98 (24.9)	1.38 (35.1)	1.75 (44.4)
SFA10	EG-093	1 & 1-1/2	0.25 (6.4)	1.98 (50.3)	1.38 (35.1)	1.75 (44.4)
	EG-125/187	1 & 1-1/2	0.25 (6.4)	1.98 (50.3)	2.00 (50.8)	2.63 (66.8)
	EG-250/312	1 & 1-1/2	0.25 (6.4)	1.98 (50.3)	2.56 (64.5)	3.38 (85.9)
	EG-375/500	1 & 1-1/2	0.25 (6.4)	1.98 (50.3)	3.31 (84.1)	4.06 (103.1)
SFA20	EG-093	2	0.25 (6.4)	2.52 (64.0)	1.38 (35.1)	1.75 (44.4)
	EG-125/187	2	0.25 (6.4)	2.52 (64.0)	2.00 (50.8)	2.63 (66.8)
	EG-250/312	2	0.25 (6.4)	2.52 (64.0)	2.56 (64.5)	3.38 (85.9)
	EG-375/500	2	0.25 (6.4)	2.52 (64.0)	3.31 (84.1)	4.06 (103.1)
	EG-750	2	0.25 (6.4)	2.52 (64.0)	5.00 (127.0)	N/O
SFA25	EG-093	2-1/2	0.25 (6.4)	3.05 (77.5)	1.38 (35.1)	1.75 (44.4)
	EG-125/187	2-1/2	0.25 (6.4)	3.05 (77.5)	2.00 (50.8)	2.63 (66.8)
	EG-250/312	2-1/2	0.25 (6.4)	3.05 (77.5)	2.56 (64.5)	3.38 (85.9)
	EG-375/500	2-1/2	0.25 (6.4)	3.05 (77.5)	3.31 (84.1)	4.06 (103.1)
	EG-750	2-1/2	0.25 (6.4)	3.05 (77.5)	5.00 (127.0)	N/O
SFA30	EG-093	3	0.25 (6.4)	3.58 (90.9)	1.38 (35.1)	1.75 (44.4)
	EG-125/187	3	0.25 (6.4)	3.58 (90.9)	2.00 (50.8)	2.63 (66.8)
	EG-250/312	3	0.25 (6.4)	3.58 (90.9)	2.56 (64.5)	3.38 (85.9)
	EG-375/500	3	0.25 (6.4)	3.58 (90.9)	3.31 (84.1)	4.06 (103.1)
	EG-750	3	0.25 (6.4)	3.58 (90.9)	5.00 (127.0)	N/O
SFA40	EG-093	4	0.25 (6.4)	4.68 (119.0)	1.38 (35.1)	1.75 (44.4)
	EG-125/187	4	0.25 (6.4)	4.68 (119.0)	2.00 (50.8)	2.63 (66.8)
	EG-250/312	4	0.25 (6.4)	4.68 (119.0)	2.56 (64.5)	3.38 (85.9)
	EG-375/500	4	0.25 (6.4)	4.68 (119.0)	3.31 (84.1)	4.06 (103.1)
	EG-750	4	0.25 (6.4)	4.68 (119.0)	5.00 (127.0)	N/O



EGT GLANDS

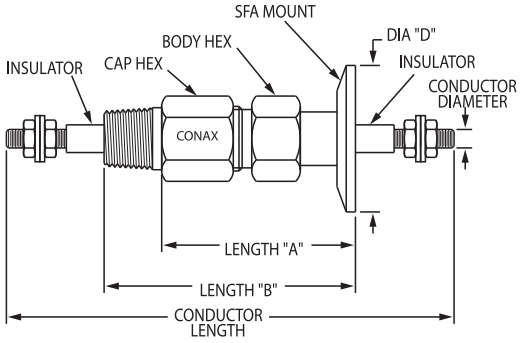
Flange Selection Guide

Flange Style: Tube O.D.	SFA05 1/2 & 3/4	SFA10 1 & 1-1/2	SFA20 2	SFA25 2-1/2	SFA30 3	SFA40 4
EGT-093	X	X	X	X	X	X
EGT-125		X	X	X	X	X
EGT-187		X	X	X	X	X
EGT-250		X	X	X	X	X
EGT-375		X	X	X	X	X
EGT-500		X	X	X	X	X
EGT-750			X	X	X	X

Note: EGT-1000 is not offered with SFA flange mount.

Dimensions – Inches

Flange	Gland Type	Tube O.D.	D Diameter	Overall Length A-Cap	Overall Length B-Cap
SFA05	EGT-093	1/2 & 3/4	0.98 (24.9)	1.19 (30.2)	1.56 (39.7)
SFA10	EGT-093	1 & 1-1/2	1.98 (50.3)	1.19 (30.2)	1.56 (39.7)
	EGT-125	1 & 1-1/2	1.98 (50.3)	2.00 (50.8)	2.63 (66.8)
	EGT-187/250	1 & 1-1/2	1.98 (50.3)	2.56 (64.5)	3.31 (84.1)
	EGT-375/500	1 & 1-1/2	1.98 (50.3)	2.88 (73.0)	3.63 (92.1)
SFA20	EGT-093	2	2.52 (64.0)	1.19 (30.2)	1.56 (39.7)
	EGT-125	2	2.52 (64.0)	2.00 (50.8)	2.63 (66.8)
	EGT-187/250	2	2.52 (64.0)	2.56 (64.5)	3.31 (84.1)
	EGT-375/500	2	2.52 (64.0)	2.88 (73.0)	3.63 (92.1)
	EGT-750	2	2.52 (64.0)	3.50 (88.9)	4.50 (114.3)
SFA25	EGT-093	2-1/2	3.05 (77.5)	1.19 (30.2)	1.56 (39.7)
	EGT-125	2-1/2	3.05 (77.5)	2.00 (50.8)	2.63 (66.8)
	EGT-187/250	2-1/2	3.05 (77.5)	2.56 (64.5)	3.31 (84.1)
	EGT-375/500	2-1/2	3.05 (77.5)	2.88 (73.0)	3.63 (92.1)
	EGT-750	2-1/2	3.05 (77.5)	3.50 (88.9)	4.50 (114.3)
SFA30	EGT-093	3	3.58 (90.9)	1.19 (30.2)	1.56 (39.7)
	EGT-125	3	3.58 (90.9)	2.00 (50.8)	2.63 (66.8)
	EGT-187/250	3	3.58 (90.9)	2.56 (64.5)	3.31 (84.1)
	EGT-375/500	3	3.58 (90.9)	2.88 (73.0)	3.63 (92.1)
	EGT-750	3	3.58 (90.9)	3.50 (88.9)	4.50 (114.3)
SFA40	EGT-093	4	4.68 (119.0)	1.19 (30.2)	1.56 (39.7)
	EGT-125	4	4.68 (119.0)	2.00 (50.8)	2.63 (66.8)
	EGT-187/250	4	4.68 (119.0)	2.56 (64.5)	3.31 (84.1)
	EGT-375/500	4	4.68 (119.0)	2.88 (73.0)	3.63 (92.1)
	EGT-750	4	4.68 (119.0)	3.50 (88.9)	4.50 (114.3)



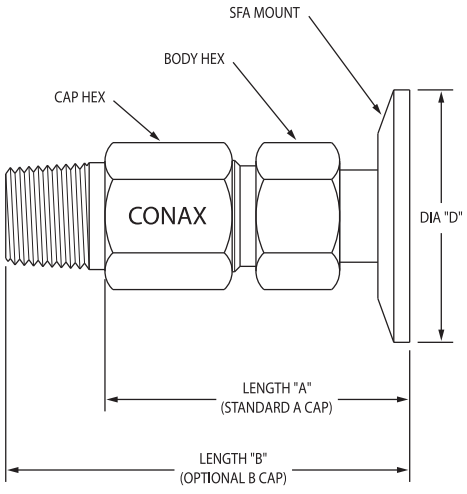
MHC GLANDS

Flange Selection Guide

Conax Flange Style: Tube O.D.:	SFA05 1/2 & 3/4	SFA10 1 & 1-1/2	SFA20 2	SFA25 2-1/2	SFA30 3	SFA40 4
MHC1	X	X	X	X	X	X
MHC2		X	X	X	X	X
MHC4		X	X	X	X	X
MHC5		X	X	X	X	X

Dimensions – Inches (mm)

Flange	Gland Type	Number of Holes	Size Tube O.D.	D Diameter	Overall Length A-Cap	Overall Length B-Cap
SFA05	MHC1-020/032	2,4	1/2 & 3/4	0.98 (24.9)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	1/2 & 3/4	0.98 (24.9)	1.38 (35.1)	1.75 (44.4)
SFA10	MHC1-020/032	2,4	1 & 1-1/2	1.98 (50.3)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	1 & 1-1/2	1.98 (50.3)	1.38 (35.1)	1.75 (44.4)
	MHC2-020/032	2,4	1 & 1-1/2	1.98 (50.3)	2.00 (50.8)	2.63 (66.8)
	MHC2-062	1	1 & 1-1/2	1.98 (50.3)	2.00 (50.8)	2.63 (66.8)
	MHC4-032/040	6,8	1 & 1-1/2	1.98 (50.3)	2.63 (66.8)	3.38 (85.9)
	MHC4-062	2,3,4	1 & 1-1/2	1.98 (50.3)	2.63 (66.8)	3.38 (85.9)
	MHC5-032	16	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	MHC5-062	6,8	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	MHC5-125	2	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
SFA20	MHC1-020/032	2,4	2	2.52 (64.0)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	2	2.52 (64.0)	1.38 (35.1)	1.75 (44.4)
	MHC2-020/032	2,4	2	2.52 (64.0)	2.00 (50.8)	2.63 (66.8)
	MHC2-062	1	2	2.52 (64.0)	2.00 (50.8)	2.63 (66.8)
	MHC4-032/040	6,8	2	2.52 (64.0)	2.63 (66.8)	3.38 (85.9)
	MHC4-062	2,3,4	2	2.52 (64.0)	2.63 (66.8)	3.38 (85.9)
	MHC5-032	16	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	MHC5-062	6,8	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	MHC5-125	2	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
SFA25	MHC1-020/032	2,4	2-1/2	3.05 (77.5)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	2-1/2	3.05 (77.5)	1.38 (35.1)	1.75 (44.4)
	MHC2-020/032	2,4	2-1/2	3.05 (77.5)	2.00 (50.8)	2.63 (66.8)
	MHC2-062	1	2-1/2	3.05 (77.5)	2.00 (50.8)	2.63 (66.8)
	MHC4-032/040	6,8	2-1/2	3.05 (77.5)	2.63 (66.8)	3.38 (85.9)
	MHC4-062	2,3,4	2-1/2	3.05 (77.5)	2.63 (66.8)	3.38 (85.9)
	MHC5-032	16	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	MHC5-062	6,8	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	MHC5-125	2	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
SFA30	MHC1-020/032	2,4	3	3.58 (90.9)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	3	3.58 (90.9)	1.38 (35.1)	1.75 (44.4)
	MHC2-020/032	2,4	3	3.58 (90.9)	2.00 (50.8)	2.63 (66.8)
	MHC2-062	1	3	3.58 (90.9)	2.00 (50.8)	2.63 (66.8)
	MHC4-032/040	6,8	3	3.58 (90.9)	2.63 (66.8)	3.38 (85.9)
	MHC4-062	2,3,4	3	3.58 (90.9)	2.63 (66.8)	3.38 (85.9)
	MHC5-032	16	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	MHC5-062	6,8	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	MHC5-125	2	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
SFA40	MHC1-020/032	2,4	4	4.68 (119.0)	1.38 (35.1)	1.75 (44.4)
	MHC1-062	1	4	4.68 (119.0)	1.38 (35.1)	1.75 (44.4)
	MHC2-020/032	2,4	4	4.68 (119.0)	2.00 (50.8)	2.63 (66.8)
	MHC2-062	1	4	4.68 (119.0)	2.00 (50.8)	2.63 (66.8)
	MHC4-032/040	6,8	4	4.68 (119.0)	2.63 (66.8)	3.38 (85.9)
	MHC4-062	2,3,4	4	4.68 (119.0)	2.63 (66.8)	3.38 (85.9)
	MHC5-032	16	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	MHC5-062	6,8	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	MHC5-125	2	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)



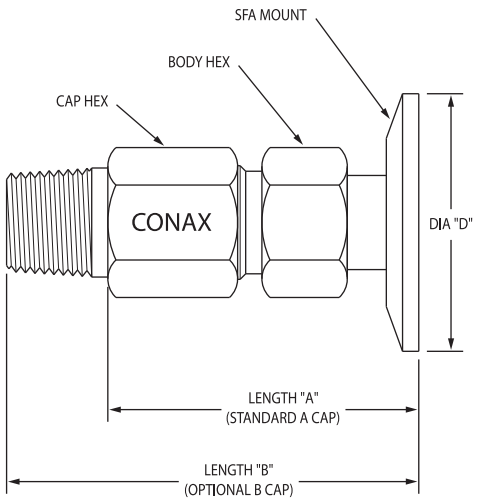
MHM GLANDS

Flange Selection Guide

Flange Style Tube O.D.	SFA10 1 & 1-1/2	SFA20 2	SFA25 2-1/2	SFA30 3	SFA40 4
MHM2	X	X	X	X	X
MHM4	X	X	X	X	X
MHM5	X	X	X	X	X
MHM6		X	X	X	X

Dimensions – Inches (mm)

Flange	Gland Type	Tube O.D.	Diameter "D"	Length A-Cap	Overall Length B-Cap
SFA10	MHM2	1 & 1-1/2	1.98 (50.3)	2.00 (50.8)	2.63 (66.8)
	MHM4	1 & 1-1/2	1.98 (50.3)	2.56 (65.0)	3.38 (85.6)
	MHM5	1 & 1-1/2	1.98 (50.3)	3.31 (84.1)	4.19 (106.0)
SFA20	MHM2	2	2.52 (64.0)	2.00 (50.8)	2.63 (66.8)
	MHM4	2	2.52 (64.0)	2.56 (65.0)	3.38 (85.6)
	MHM5	2	2.52 (64.0)	3.31 (84.1)	4.19 (106.0)
	MHM6	2	2.52 (64.0)	3.75 (95.3)	5.00 (127.0)
SFA25	MHM2	2-1/2	3.05 (77.5)	2.00 (50.8)	2.63 (66.8)
	MHM4	2-1/2	3.05 (77.5)	2.56 (65.0)	3.38 (85.6)
	MHM5	2-1/2	3.05 (77.5)	3.31 (84.1)	4.19 (106.0)
	MHM6	2-1/2	3.05 (77.5)	3.75 (95.3)	5.00 (127.0)
SFA30	MHM2	3	3.58 (90.9)	2.00 (50.8)	2.63 (66.8)
	MHM4	3	3.58 (90.9)	2.56 (65.0)	3.38 (85.6)
	MHM5	3	3.58 (90.9)	3.31 (84.1)	4.19 (106.0)
	MHM6	3	3.58 (90.9)	3.75 (95.3)	5.00 (127.0)
SFA40	MHM2	4	4.68 (119.0)	2.00 (50.8)	2.63 (66.8)
	MHM4	4	4.68 (119.0)	2.56 (65.0)	3.38 (85.6)
	MHM5	4	4.68 (119.0)	3.31 (84.1)	4.19 (106.0)
	MHM6	4	4.68 (119.0)	3.75 (95.3)	5.00 (127.0)



PL GLANDS

Flange Selection Guide

Conax Flange Style: Tube O.D.:	Number of Wires	SFA05 1/2 & 3/4	SFA10 1 & 1-1/2	SFA20 2	SFA25 2-1/2	SFA30 3	SFA40 4
PL-20	2-18		X	X	X	X	X
PL-18	1	X	X	X	X	X	X
PL-18	2-12		X	X	X	X	X
PL-16	2-12		X	X	X	X	X
PL-14	1	X	X	X	X	X	X
PL-14	2-12		X	X	X	X	X
PL-12	2-6		X	X	X	X	X
PL-10	2-4		X	X	X	X	X
PL-8	2,3		X	X	X	X	X

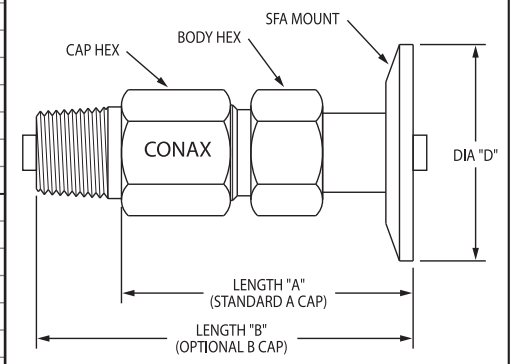
Dimensions – Inches (mm)

Flange	Gland Type	Number of Holes	Size Tube O.D.	D Diameter	Overall Length A-Cap	Overall Length B-Cap
SFA05	PL-18/14	1	1/2 & 3/4	0.98 (24.9)	1.38 (35.1)	1.75 (44.5)
SFA10	PL-18/14	1	1 & 1-1/2	1.98 (50.3)	1.38 (35.1)	1.75 (44.5)
	PL-20/18/16	2,3,4	1 & 1-1/2	1.98 (50.3)	2.63 (66.8)	3.38 (85.9)
	PL-14	2	1 & 1-1/2	1.98 (50.3)	2.63 (66.8)	3.38 (85.9)
	PL-14	3,4	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	PL-20/18/16/14	6,8	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	PL-20	18	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	PL-18/16/14	10,12	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	PL-12	2,3,4,6	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	PL-10	2,3,4	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	PL-8	2	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	PL-8	3	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
SFA20	PL-18/14	1	2	2.52 (64.0)	1.38 (35.1)	1.75 (44.5)
	PL-20/18/16	2,3,4	2	2.52 (64.0)	2.63 (66.8)	3.38 (85.9)
	PL-14	2	2	2.52 (64.0)	2.63 (66.8)	3.38 (85.9)
	PL-14	3,4	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	PL-20/18/16/14	6,8	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	PL-20	18	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	PL-18/16/14	10,12	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	PL-12	2,3,4,6	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	PL-10	2,3,4	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	PL-8	2	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	PL-8	3	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
SFA25	PL-18/14	1	2-1/2	3.05 (77.5)	1.38 (35.1)	1.75 (44.5)
	PL-20/18/16	2,3,4	2-1/2	3.05 (77.5)	2.63 (66.8)	3.38 (85.9)
	PL-14	2	2-1/2	3.05 (77.5)	2.63 (66.8)	3.38 (85.9)
	PL-14	3,4	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	PL-20/18/16/14	6,8	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	PL-20	18	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	PL-18/16/14	10,12	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	PL-12	2,3,4,6	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	PL-10	2,3,4	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	PL-8	2	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	PL-8	3	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)

PL GLANDS (cont.)

Dimensions – Inches (mm)

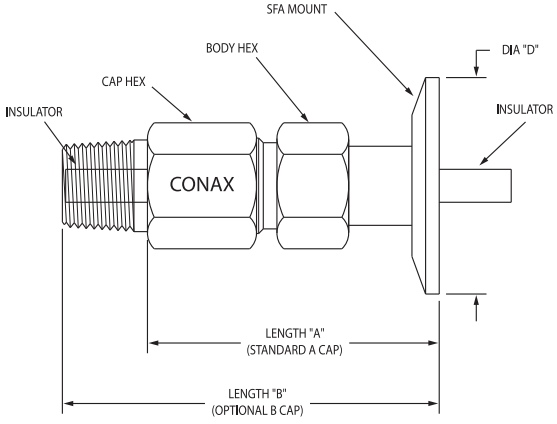
Flange	Gland Type	Number of Holes	Size Tube O.D.	D Diameter	Overall Length A-Cap	Overall Length B-Cap
SFA30	PL-18/14	1	3	3.58 (90.9)	1.38 (35.1)	1.75 (44.5)
	PL-20/18/16	2,3,4	3	3.58 (90.9)	2.63 (66.8)	3.38 (85.9)
	PL-14	2	3	3.58 (90.9)	2.63 (66.8)	3.38 (85.9)
	PL-14	3,4	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	PL-20/18/16/14	6,8	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	PL-20	18	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	PL-18/16/14	10,12	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	PL-12	2,3,4,6	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	PL-10	2,3,4	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	PL-8	2	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	PL-8	3	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
SFA40	PL-18/14	1	4	4.68 (119.0)	1.38 (35.1)	1.75 (44.5)
	PL-20/18/16	2,3,4	4	4.68 (119.0)	2.63 (66.8)	3.38 (85.9)
	PL-14	2	4	4.68 (119.0)	2.63 (66.8)	3.38 (85.9)
	PL-14	3,4	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	PL-20/18/16/14	6,8	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	PL-20	18	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	PL-18/16/14	10,12	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	PL-12	2,3,4,6	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	PL-10	2,3,4	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	PL-8	2	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	PL-8	3	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)



TG GLANDS

Flange Selection Guide

Flange Style: Tube O.D.:	Number of Holes	SFA05 1/2 & 3/4	SFA10 1 & 1-1/2	SFA20 2	SFA25 2-1/2	SFA30 3	SFA40 4
MTG-24	2,4	X	X	X	X	X	X
MTG-20	2,4	X	X	X	X	X	X
MTG-14	1	X	X	X	X	X	X
TG-24	2,4		X	X	X	X	X
TG-20	2,4		X	X	X	X	X
TG-20	6,8		X	X	X	X	X
TG-20	16		X	X	X	X	X
TG-18	6,8		X	X	X	X	X
TG-14	1		X	X	X	X	X
TG-14	2,3,4		X	X	X	X	X
TG-14	6,8		X	X	X	X	X
TG-8	2		X	X	X	X	X



TG GLANDS (cont.)

Dimensions – Inches (mm)

Flange	Gland Type	Number of Holes	Size Tube O.D.	D Diameter	Overall Length A-Cap	Overall Length B-Cap
SFA05	MTG-24/20	2,4	1/2 & 3/4	0.98 (24.9)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	1/2 & 3/4	0.98 (24.9)	1.38 (35.1)	1.75 (44.4)
SFA10	MTG-24/20	2,4	1 & 1-1/2	1.98 (50.3)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	1 & 1-1/2	1.98 (50.3)	1.38 (35.1)	1.75 (44.4)
	TG-24/20	2,4	1 & 1-1/2	1.98 (50.3)	2.00 (50.8)	2.63 (66.8)
	TG-14	1	1 & 1-1/2	1.98 (50.3)	2.00 (50.8)	2.63 (66.8)
	TG-20/18	6,8	1 & 1-1/2	1.98 (50.3)	2.63 (66.8)	3.38 (85.9)
	TG-14	2,3,4	1 & 1-1/2	1.98 (50.3)	2.63 (66.8)	3.38 (85.9)
	TG-20	16	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	TG-14	6,8	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
	TG-8	2	1 & 1-1/2	1.98 (50.3)	2.88 (73.2)	3.63 (92.2)
SFA20	MTG-24/20	2,4	2	2.52 (64.0)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	2	2.52 (64.0)	1.38 (35.1)	1.75 (44.4)
	TG-24/20	2,4	2	2.52 (64.0)	2.00 (50.8)	2.63 (66.8)
	TG-14	1	2	2.52 (64.0)	2.00 (50.8)	2.63 (66.8)
	TG-20/18	6,8	2	2.52 (64.0)	2.63 (66.8)	3.38 (85.9)
	TG-14	2,3,4	2	2.52 (64.0)	2.63 (66.8)	3.38 (85.9)
	TG-20	16	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	TG-14	6,8	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
	TG-8	2	2	2.52 (64.0)	2.88 (73.2)	3.63 (92.2)
SFA25	MTG-24/20	2,4	2-1/2	3.05 (77.5)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	2-1/2	3.05 (77.5)	1.38 (35.1)	1.75 (44.4)
	TG-24/20	2,4	2-1/2	3.05 (77.5)	2.00 (50.8)	2.63 (66.8)
	TG-14	1	2-1/2	3.05 (77.5)	2.00 (50.8)	2.63 (66.8)
	TG-20/18	6,8	2-1/2	3.05 (77.5)	2.63 (66.8)	3.38 (85.9)
	TG-14	2,3,4	2-1/2	3.05 (77.5)	2.63 (66.8)	3.38 (85.9)
	TG-20	16	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	TG-14	6,8	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
	TG-8	2	2-1/2	3.05 (77.5)	2.88 (73.2)	3.63 (92.2)
SFA30	MTG-24/20	2,4	3	3.58 (90.9)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	3	3.58 (90.9)	1.38 (35.1)	1.75 (44.4)
	TG-24/20	2,4	3	3.58 (90.9)	2.00 (50.8)	2.63 (66.8)
	TG-14	1	3	3.58 (90.9)	2.00 (50.8)	2.63 (66.8)
	TG-20/18	6,8	3	3.58 (90.9)	2.63 (66.8)	3.38 (85.9)
	TG-14	2,3,4	3	3.58 (90.9)	2.63 (66.8)	3.38 (85.9)
	TG-20	16	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	TG-14	6,8	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
	TG-8	2	3	3.58 (90.9)	2.88 (73.2)	3.63 (92.2)
SFA40	MTG-24/20	2,4	4	4.68 (119.0)	1.38 (35.1)	1.75 (44.4)
	MTG-14	1	4	4.68 (119.0)	1.38 (35.1)	1.75 (44.4)
	TG-24/20	2,4	4	4.68 (119.0)	2.00 (50.8)	2.63 (66.8)
	TG-14	1	4	4.68 (119.0)	2.00 (50.8)	2.63 (66.8)
	TG-20/18	6,8	4	4.68 (119.0)	2.63 (66.8)	3.38 (85.9)
	TG-14	2,3,4	4	4.68 (119.0)	2.63 (66.8)	3.38 (85.9)
	TG-20	16	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	TG-14	6,8	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)
	TG-8	2	4	4.68 (119.0)	2.88 (73.2)	3.63 (92.2)

FLANGES ■ ASME/ANSI RAISED FACE FLANGE MOUNT

Conax Technologies' sealing glands can be welded or threaded to ASME B16.5 flanges to create a rugged mounting for environmental sealing and/or securing the position of instrumentation sensor probes. Use of flanges eliminates the need to weld mounting adapters to the pipe or vessel. Common applications include petrochemical processing and distribution, industrial furnaces, bulk cargo carriers, gas sampling coupons and gas storage silos.

Conax Technologies' ASME/ANSI flanges are constructed from 304SST, 316SST or carbon steel. Alternate materials and grades are available. Consult factory. Bodies are constructed from 316LSST standard for welded assemblies or 303SST standard for threaded glands (316LSST is available as an option on threaded assemblies). Caps and followers are constructed from 303SST standard. Optional materials are available. See page 9 for details.

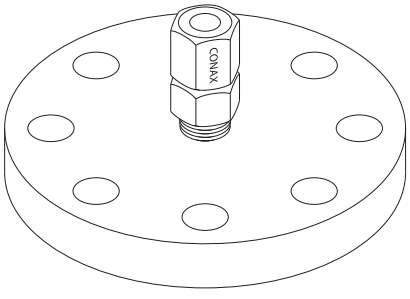
Single or multiple glands may be attached to the flange. Multiple glands may consist of multiple glands of the same type or a combination of various Conax Technologies sealing gland types.

- Specifications are shown here for Class 150 and Class 300 flanges. Class 600 – Class 2500 flanges are also available. Please consult factory.
- Pressure ratings for flange/gland combinations are determined by the lowest-rated element in the assembly (flange or gland). Flange pressure ratings may decrease when assembled with multiple sealing assemblies.
- Flat faced flanges are also available. Please consult factory.

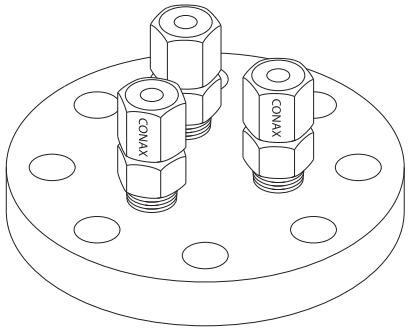
Catalog Numbering System Incorporating a Flange: PG Gland Example

Conax Technologies incorporates a flange into it's catalog numbering system by adding a parenthesis after the gland type. Inside the parenthesis is the information describing the flange (highlighted in grey).

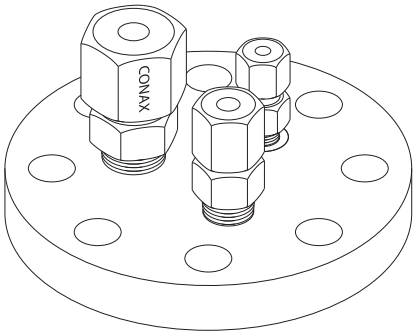
PG5	(	RF	1	15	T	CS	/	S303	)	500	A	V
PG Gland		Flange Designator	Flange Class	Flange Pipe Size	Attachment Style	Flange Material of Construction		Gland Material of Construction		Diameter of Tube or Probe	Cap Style	Sealant



ASME/ANSI Flange with Single Gland



ASME/ANSI Flange with Multiple Glands (Same Size)



ASME/ANSI Flange with Multiple Glands (Different Sizes)

Note: Flange pressure ratings may decrease when assembled with multiple sealing assemblies.

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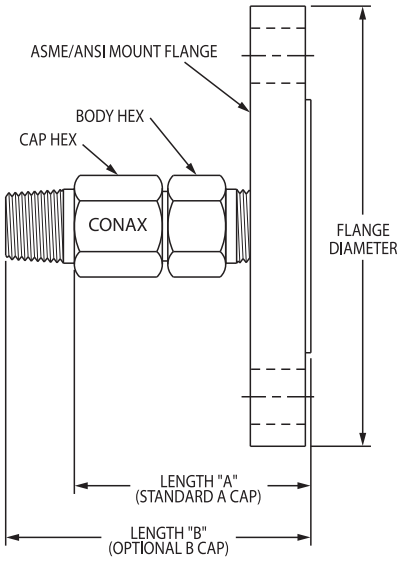
Threaded Flange Selection Guide

		FLANGE THICKNESS		FLANGE DIAMETER									
PART NUMBER	FLANGE SIZE	IN	MM	IN	MM	1/8 NPT	1/4 NPT	1/2 NPT	3/4 NPT	1 NPT	1-1/4 NPT	1-1/2 NPT	2 NPT
RF14	1/2 - 150#	0.438	11.1	3.500	88.9	X		X					
RF15	3/4 - 150#	0.500	12.7	3.875	98.4	X			X				
RF16	1 - 150#	0.563	14.3	4.250	108.0	X	X			X			
RF18	1-1/2 - 150#	0.688	17.5	5.000	127.0	X	X	X	X			X	
RF19	2 - 150#	0.750	19.1	6.000	152.4	X	X	X	X				X
RF111	3 - 150#	0.938	23.8	7.500	190.5	X	X	X	X	X			
RF113	4 - 150#	0.938	23.8	9.000	228.6	X	X	X	X	X	X		
RF114	5 - 150#	0.938	23.8	10.000	254.0	X	X	X	X	X	X	X	
RF115	6 - 150#	1.000	25.4	11.000	279.4	X	X	X	X	X	X	X	X
RF24	1/2 - 300#	0.563	14.3	3.750	95.3	X	X	X					
RF25	3/4 - 300#	0.625	15.9	4.625	117.5	X	X		X				
RF26	1 - 300#	0.688	17.5	4.875	123.8	X	X	X	X	X			
RF28	1-1/2 - 300#	0.813	20.7	6.125	155.6	X	X	X	X	X		X	
RF29	2 - 300#	0.875	22.2	6.500	165.1	X	X	X	X	X			X
RF211	3 - 300#	1.125	28.6	8.250	209.6	X	X	X	X	X			
RF213	4 - 300#	1.250	31.8	10.000	254.0	X	X	X	X	X	X		
RF214	5 - 300#	1.375	34.9	11.000	279.4	X	X	X	X	X	X	X	
RF215	6 - 300#	1.438	36.5	12.500	317.5	X	X	X	X	X	X	X	X

Important! Determining the Length of an Assembly

Calculate the overall length of a compression seal joined to a flange by using this formula and the length of the thread engagement from the chart below.

Length 'A' or 'B' = Gland Length + Flange Thickness – Thread Engagement



Example: PG Gland with ASME/ANSI Raised Flange

Thread Engagement Chart

NPT	IN	MM
1/16"	0.27	6.4
1/8"	0.27	6.4
1/4"	0.39	9.9
1/2"	0.53	13.5
3/4"	0.55	14.0
1"	0.66	16.8
1-1/4"	0.68	17.3
1-1/2"	0.68	17.3
2"	0.70	17.8

Replacement Sealants

The replaceable sealant used in Conax Technologies sealing assemblies allows repeated use of the same fitting. Replacement sealants are available in Neoprene, Viton, PTFE, Lava or Grafoil, depending on the sealing assembly type. Instructions on how to order replacement sealants are provided in the catalog section for the appropriate gland series.

Replacement Packing Sets

Replacement Packing Sets for MHC, TG, PL and EG series assemblies consist of one replacement sealant with the appropriate number of ceramic insulators for that specific assembly.

Replacement Packing Sets for MHM, SPG, DSPG and PGS series assemblies consist of one replacement sealant with a seat and follower.

Replacement sealants provided in the packing sets are available in Neoprene, Viton, PTFE, Lava or Grafoil, depending on the sealing assembly type. Instructions on how to order replacement packing sets are provided in the catalog section for the appropriate gland series.

Replacement Insulators

In addition to Replacement Packing Sets, Conax Technologies can supply individual Alumina (AL_2O_3) Ceramic Insulators appropriate for use with copper wire, thermocouple wire for thermocouple calibrations J, K E, T, R, S, B and C, or electrodes.

To order replacement insulators, order
Insulator, (Gland) – (Wire Gauge) – (Number of Holes)

Example: ***Insulator, TG-20-2***

Please specify if the insulators are to be used with Grafoil sealants.

Replacement Conductors/Electrodes

Conax Technologies supplies conductors/electrodes for Conax EG and EGT assemblies in stainless steel, copper or nickel and in sizes from 0.093" to 1.00". Each set is supplied with 4 nuts and 4 washers.

To order replacement electrode, order Conductor,
(Gland) – (Diameter) – (Material)

Example: ***Conductor, EGT-093-CU***

Electrode	Amperage Rating	Nuts/Washers
Copper	20 to 525 amps	Brass
Nickel	8 to 240 amps	Stainless Steel
Stainless Steel	3 to 72 amps	Stainless Steel

Power Lead/Insulated Wire

Conax Technologies can supply bulk Kapton-insulated, solid conductor power lead wire, rated to 600 volts, in wire gauges from 20 to 8. Minimum order is 50 ft.

Part Number	Gauge
44-0098-020-CU	20
44-0098-018-CU	18
44-0098-016-CU	16
44-0098-014-CU	14
44-0098-012-CU	12
44-0098-010-CU	10
44-0098-008-CU	8

Thread Seal Materials

Use of mounting thread environmental seal materials maximizes the efficiency of the NPT seal. Conax Technologies recommends PTFE tape for use up to 450˚ F (232˚ C) and Grafoil tape for use between 450˚ F (232˚ C) and 900˚ F (482˚ C).

Part Number	Material	Width	Length of Roll	Temperature Range
44-0135-001	PTFE	0.5"	40 ft.	-300˚ F to +450˚ F (-184˚ C to +232˚ C)
47-0040-001	Grafoil	0.5"	25 ft.	-400˚ F to +925˚ F (-240˚ C to +496˚ C)

Torque Wrenches and Adaptors

For the convenience of our customers, Conax Technologies offers Stanley® PROTO® Micrometer Ratchet Head "Click" Style Torque Wrenches and associated socket adaptors. When the desired torque is reached, the wrench produces an audible click and a "feel impulse" and the wrench automatically resets.

- Retains calibration for 30,000 cycles under normal use
- Clockwise and counter-clockwise torque capability
- Ratchet wheels are made from tool steel for strength and durability
- Bimaterial grip handles for non-slip grip
- Positive locking mechanism – dial and lock in the desired torque
- Dual scale
- Calibrated to ±3% of torque reading clockwise and ±6% counter-clockwise at 20% to 100% of full scale.

Wrenches

Part Number	Torque Range English	Torque Range Metric	Drive Size	Length (inches)
CV-0105-1	40-200 in.-lbs.	58-242 cmkg	1/4	11-3/8
CV-0105-2	20-100 ft.-lbs.	3.5-14.5 mkg	3/8	16-7/16
CV-0105-3	30-150 ft.-lbs.	4.8-21.4 mkg	1/2	20-3/4
CV-0105-4	60-300 ft.-lbs.	10.4-43.6 mkg	3/4	32-11/16
CV-0105-5	90-600 ft.-lbs.	14.5-85.0 mkg	3/4	41-1/2

Socket Adaptors

Part Number	Female to Male Drive
CV-0106-1	1/4F to 3/8M
CV-0106-2	1/2F to 3/8M

Standard offering 150 PSI (10 BAR).
Higher pressures available, consult the factory.

Hex Reducer Bushings

Conax Technologies supplies stainless steel reducer bushings used to reduce large NPT sizes to smaller NPT sizes.

Part Number	Size
6812-01	1/8 NPT x 1/4 NPT
6812-02	1/8 NPT x 1/2 NPT
6812-03	1/8 NPT x 3/4 NPT
6812-04	1/4 NPT x 1/2 NPT
6812-05	1/4 NPT x 3/4 NPT
6812-06	1/2 NPT x 3/4 NPT
6812-07	1/2 NPT x 1" NPT
6812-08	3/4 NPT x 1" NPT

Hex Reducer Adaptors

Conax Technologies supplies stainless steel reducer adaptors used to reduce large NPT sizes to smaller NPT sizes.

Part Number	Size
319006-001	1/4 NPT x 1/16 NPT
319006-005	1/2 NPT x 1/8 NPT
319006-006	1/2 NPT x 1/4 NPT
319006-007	1/2 NPT x 3/8 NPT
319006-009	3/4 NPT x 3/8 NPT
319006-010	3/4 NPT x 1/2 NPT

Sealing Gland Lubrication Kit

Conax Technologies sealing assemblies are supplied factory lubricated. This lubricant is used on the internal cap threads and followers to reduce friction at metal-to-metal contact points and to ensure maximum transfer of torque for sealant compression when screwing the assembly together. If cleaned before assembly or any time the gland is loosened and retorqued, the assembly should be relubricated. The same lubricant used by the factory can be purchased in small, one-application disposable packages with the applicator included. The use of this convenient kit ensures consistent sealing performance without the need to purchase and store large quantities of lubricant.

Part Number 19-0001-001

KF Flange Accessories

Blank Flange

Stainless steel blanks (304SST) are provided to cap off KF flange mounts when not in use.

Flange Style	ISO Equivalent	Part Number
KF6W	NW25	318921-002
KF8W	NW40	318921-003
KF9W	NW50	318921-004

O-Rings

Conax Technologies offers Viton replacement O-rings for KF Flanges. Buna-N O-rings are also available. Please consult factory.

Flange Style	ISO Equivalent	Part Number
KF6W	NW25	47-0067-003-VTN
KF8W	NW40	47-0067-004-VTN
KF9W	NW50	47-0067-005-VTN

Centering Ring/O-Ring Assemblies

Conax Technologies offers stainless steel centering ring assemblies with Viton O-ring included. Buna-N O-rings are also available. Please consult factory.

Flange Style	ISO Equivalent	Part Number
KF6W	NW25	47-0066-003-VTN
KF8W	NW40	47-0066-004-VTN
KF9W	NW50	47-0066-005-VTN

Clamps

KF Quick Clamps feature all-aluminum construction and wing nut closure.

Flange Style	ISO Equivalent	Part Number
KF6W	NW25	48-0071-002
KF8W	NW40	48-0071-003
KF9W	NW50	48-0071-004

CF Flange Accessories

Blank Flange

Conax Technologies provides non-rotatable blanks with clearance holes to cap off CF flange mounts when not in use.

Flange Style	Equivalent	Part Number
CFNC1	NW16F	318743-001
CFNC2	NW25F	318744-001
CFNC3	NW35F	310218-001
CFNC4	NW50F	41-0019-001
CFNC5	NW63F	41-0020-001

Gaskets

Oxygen-free copper and Viton gaskets are available for use with CF flanges.

Gasket Material	Flange Style	Equivalent	Part Number
Copper	CFNC1	NW16F	47-0068-001-CU
Copper	CFNC2	NW25F	47-0068-002-CU
Copper	CFNC3	NW35F	47-0068-003-CU
Copper	CFNC4	NW50F	47-0068-004-CU
Copper	CFNC5	NW63F	47-0068-005-CU
Viton	CFNC1	NW16F	47-0068-001-VTN
Viton	CFNC2	NW25F	47-0068-002-VTN
Viton	CFNC3	NW35F	47-0068-003-VTN
Viton	CFNC4	NW50F	47-0068-004-VTN
Viton	CFNC5	NW63F	47-0068-005-VTN

Sanitary Flange Assemblies

Blank Flange

Conax Technologies offers 16AMP solid end caps in 316LSST or 304SST to cap off SFA flange mounts when not in use.

Flange Style	Tube O.D IN	Tube O.D MM	Part Number (316LSST)	Part Number (304SST)
SFA05	1/2 & 3/4	12.7 & 19.5	313131-003	313131-012
SFA10	1 & 1-1/2	25.4 & 19.1	313131-004	313131-013
SFA20	2	50.80	313131-001	313131-010
SFA25	2-1/2	63.50	313131-005	313131-014
SFA30	3	76.20	313131-002	313131-011
SFA40	4	101.60	313131-006	313131-015

Clamps for Sanitary (SFA) Flanges

Conax Technologies offers two types of clamps for sanitary flange assemblies. The high pressure clamp is constructed from 304SST and incorporates a twin bolt design. A heavy weight clamp for lower pressures is also available.

High Pressure Clamp

Flange Style	Tube OD IN	Tube OD MM	Pressure Rating at 70° F (21° C) PSIG	at 70° F (21° C) BAR	at 250° F (121°C) PSIG	at 250° F (121°C) BAR	Part Number
SFA10	1 & 1.5	25.4 & 38.1	1,500	103	1,200	83	48-0069-001
SFA20	2.00	50.8	1,000	69	800	55	48-0069-002
SFA25	2.50	63.5	1,000	69	800	55	48-0069-003
SFA30	3.00	76.2	1,000	69	800	55	48-0069-004
SFA40	4.00	101.6	800	55	600	41	48-0069-005

**Bolts tightened to 20 ft-lbs torque.*

Heavy Weight Clamp

Flange Style	Tube OD IN	Tube OD MM	Pressure Rating at 70° F (21° C) PSIG	at 70° F (21° C) BAR	at 250° F (121°C) PSIG	at 250° F (121°C) BAR	Part Number
SFA10	1 & 1.5	25.4 & 38.1	500	34	300	21	48-0070-001
SFA20	2.00	50.8	450	31	300	21	48-0070-002
SFA25	2.50	63.5	400	28	200	14	48-0070-003
SFA30	3.00	76.2	350	24	195	13	48-0070-004
SFA40	4.00	101.6	250	17	150	10	48-0070-005

**Wing nut tightened to 25-in-lbs.*

Clamp Gaskets for Sanitary Flange Clamps

Clamp gaskets for high pressure sanitary flange clamps are offered in Viton and Buna-N. Other available materials include PTFE, silicone rubber and EP rubber (EPDM). Please consult the factory for information on gaskets made from these materials.

Flange Style	Tube O.D. IN	Tube O.D. MM	Part Number (Buna-N)	Part Number (Viton)
SFA10	1 & 1-1/2	25.4 & 38.1	47-0065-001-NBR	47-0065-001-VTN
SFA20	2	50.80	47-0065-002-NBR	47-0065-002-VTN
SFA25	2-1/2	63.50	47-0065-003-NBR	47-0065-003-VTN
SFA30	3	76.20	47-0065-004-NBR	47-0065-004-VTN
SFA40	4	101.60	47-0065-005-NBR	47-0065-005-VTN

ASSEMBLY INSTRUCTIONS

5001D ■ SEALING GLAND ASSEMBLY INSTRUCTIONS

CAUTION: *Conax Technologies sealing glands should be installed by suitably qualified personnel in accordance with relevant safety rules and with proper regard to safe working practices.*

Conax Technologies sealing glands have lubricant applied at the factory. Substitution of factory-supplied lubricant will affect seal integrity. Lubrication prevents thread galling and minimizes friction between mating metallic components to maximize sealing gland performance when a catalog-specified torque is applied. Weld mount models should be relubricated after the body is welded in place. If the gland has been cleaned before assembly, it should also be relubricated prior to assembly.

Lubricant should be used any time a sealing gland assembly is opened for replacement or adjustment of the probe(s), wires or sealant. By re-lubricating the gland body threads and load bearing surface of the cap, proper load transfer (sealant compression) can be achieved. See page 119 for lubrication instructions.

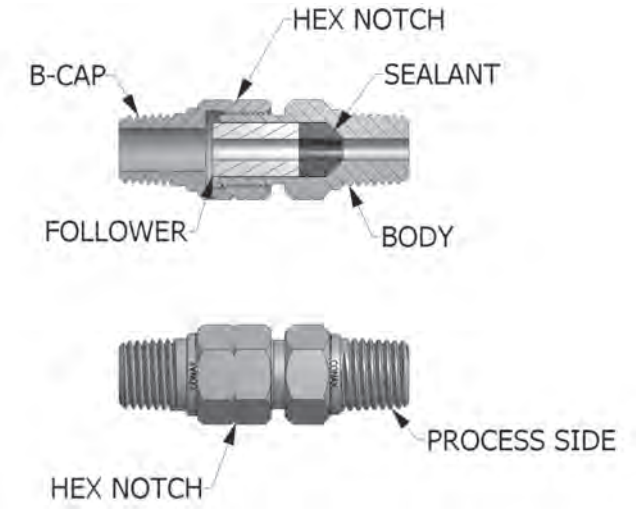
Conax Technologies recommends the use of thread sealant tape or dopant on NPT threads during installation of the gland to the vessel.

Flange mounted glands should be assembled prior to mounting to the vessel.

A Note on B Caps:

When using a sealing gland assembly with a B Cap, it is sometimes easy to confuse which NPT thread screws into the process side. If installed backwards, leakage will occur between the cap and body straight thread.

A hex notch (as shown below) has been added to the cap to simplify identification. When properly installed, the hex notch will appear on the non-process side of the assembly.



Please Note: Glands previously purchased may have "Conax" engraved on a cap hex surface in lieu of the hex notch. When properly installed the lettering will appear on the non-process side of the assembly (the cap). Please consult the factory with any questions before installing.

Guidelines for Sealant Replacement

Conax Technologies recommends the following procedures to facilitate sealant replacement:

1. Ensure that all system pressurization has been removed before beginning sealant replacement.
2. Untorque and remove the sealing gland cap.
3. Remove the follower and sealant. Depending on the application, the element may also need to be removed.
   Follower Removal: Tight manufacturing tolerances are used between the follower OD and the bore of the sealing gland body. As the follower is extracted, a vacuum can be created between the follower and sealant, making it difficult to remove the follower by hand. It may be necessary to clamp the exposed portion of the follower with pliers or a similar tool to gain the additional clamping force needed to remove the follower. If this is necessary, take care to avoid damage to the follower.
   Sealant Removal: PTFE, Neoprene, and Viton sealants can generally be removed in one piece. Grafoil and Lava Sealants must be removed in multiple pieces, using a rigid "picking" instrument to break apart the sealant. During this process, be careful to avoid damage to the sealing gland body. Deep scratches or gouges may result in potential leak paths during future use of the gland assembly.
4. Thoroughly clean the internal configuration of the sealing gland body with de-ionized water or cleaning alcohol (depending on the application) to remove any sealant residue.
5. Reassemble per applicable assembly instructions.

For Hex-Style PG Series Glands

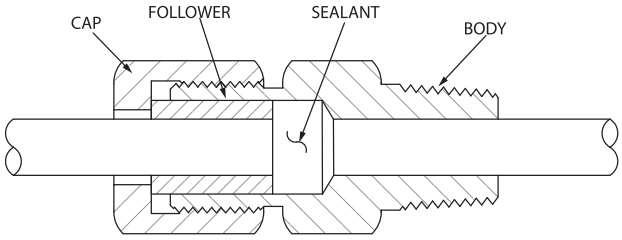
For assembly separate from the vessel:

1. Verify that the total probe length is sufficient for your desired immersion.
2. Thread the cap over the probe with the female thread facing the process (see diagram).
3. Thread the follower over the probe. For MPG and PG2 assemblies with bores smaller than 0.093", the follower may have a larger bore on one side. The larger bore diameter must be adjacent to the cap and the smaller bore diameter adjacent to the sealant.
4. Be sure you are using the correct sealant for your working pressure and temperature. Thread the sealant over the probe with the cone facing the process.
5. Thread the gland body over the probe.
6. Slide the sealant into the gland body.
7. Slide the follower after the sealant.
8. Push on the follower until the sealant is firmly seated.
9. Thread the cap on finger tight.
10. Secure the gland body into a vice.
11. Make the final adjustment of immersion length.
12. Using a torque wrench, tighten the cap to the specified torque (see chart).
13. The assembly is now ready for use. Apply a wrench to the gland body flats – not the cap – for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the total probe length is sufficient for your desired immersion.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread the cap over the probe with the female thread facing the process (see diagram).
4. Thread the follower over the probe so that the follower is between the cap and the process. For MPG and PG2 assemblies with bores smaller than 0.093", the follower may have a larger bore on one side. The larger bore diameter must be adjacent to the cap and the smaller bore diameter adjacent to the sealant.

5. Be sure you are using the correct sealant for your working pressure and temperature. Thread the sealant over the probe so that the sealant is between the follower and the process, and the cone of the sealant faces the process.
6. Insert the probe through the body into the process.
7. Slide the sealant into the gland body.
8. Slide the follower after the sealant.
9. Push on the follower until the sealant is firmly seated.
10. Thread the cap on finger tight.
11. Make the final adjustment of immersion length.
12. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
13. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
14. The assembly is now ready for use.



PG Series Torque Requirements

	Neoprene/Viton		PTFE		Lava		Grafoil	
	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
MIC	N/O	N/O	7-9 in-lbs	0.8-1	45-50 in-lbs	5-5.6	45-50 in-lbs	5-5.6
MPG	55-60 in-lbs	6.2-6.7	55-60 in-lbs	6.2-6.7	75-80 in-lbs	8-9	55-60 in-lbs	6.2-6.7
PG2	30-35	40-47	15-20	20-27	40-45	54-61	35-40	47.6-54.4
PG4	55-60	74-81	55-60	74-81	125-140	170-190	90-100	122-136
PG5	55-60	74-82	90-100	122-136	200-220	272-299	90-100	122-136
PG6	165-170	224-231	300-325	408-442	N/O	N/O	N/O	N/O

N/O = Not Offered

For Large Bore, Flange-Cap PG Series Glands

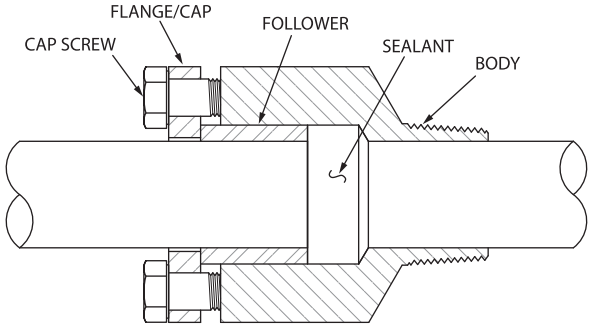
For assembly separate from the vessel:

1. Verify that the total length of the cable/probe provides sufficient length for your desired immersion and leads.
2. Thread the flange/cap over the probe (see diagram).
3. Thread the follower over the probe.
4. Be sure you are using the correct sealant for your working pressure and temperature. Thread the sealant over the probe with the cone facing the process. (Sealant may be in more than one layer.)
5. Thread the gland body over the probe.
6. Slide the sealant into the gland body.
7. Slide the follower after the sealant.
8. Push on the follower until the sealant is firmly seated.
9. Slide the flange/cap into place after the follower.
10. Insert the 6 cap screws in place and finger tighten.
11. Secure the gland body into a vice.
12. Make the final adjustment of immersion length.
13. Using a torque wrench, tighten the cap screws to the specified torque (see chart). The cap screws should be progressively tightened in the order 1-4-2-5-3-6.
14. The assembly is now ready for use. Apply a wrench to the gland body flats for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the total length of the cable/probe provides sufficient length for your desired immersion and leads.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread the flange/cap over the probe (see diagram).
4. Thread the follower over the probe so that the follower is between the cap and the process.
5. Be sure you are using the correct sealant for your working pressure and temperature. Thread the sealant over the probe so that the sealant is between the follower and the process, and the cone of the sealant faces the process. (Sealant may be in more than one layer.)
6. Insert the probe through the body into the process.
7. Slide the sealant into the gland body.
8. Slide the follower after the sealant.
9. Push on the follower until the sealant is firmly seated.
10. Slide the flange/cap into place after the follower.
11. Insert the 6 cap screws in place and finger tighten.
12. Make the final adjustment of immersion length.
13. Use a torque wrench to tighten the cap screws to the specified torque (see chart). The cap screws should be progressively tightened in the order 1-4-2-5-3-6.
14. The assembly is now ready for use.

Large Bore PG Series Torque Requirements



	Viton		Lava		Grafoil		PTFE
	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	
Standard 1-1/4 NPT							
PG7-50	35	48	35	48	35	48	CF
PG7-1000	14	19	35	48	35	48	CF
PG7-75P	35	48	35	48	35	48	CF
PG7-1250	14	19	35	48	35	48	CF
PG7-100P	35	48	35	48	35	48	CF
Weld Neck Mount (Weld Neck Length 1.01")							
PG7(SWM7/S316L)-50P	35	48	35	48	35	48	CF
PG7(SWM7/S316L)-1000	14	19	35	48	35	48	CF
PG7(SWM7/S316L)-75P	35	48	35	48	35	48	CF
PG7(SWM7/S316L)-1250	14	19	35	48	35	48	CF
PG7(SWM7/S316L)-100P	35	48	35	48	35	48	CF

C/F = Consult Factory. For PG8 and PG9 torques, consult factory.

For Hex-Style EG Series

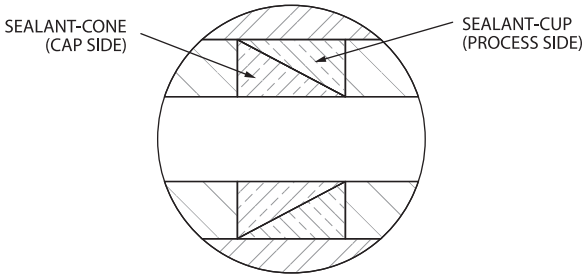
EG series sealing glands are shipped from the factory already torqued to the correct value and ready for installation. These instructions are provided in the event you choose to disassemble and need to reassemble the gland or if you provide your own electrode. Weld mount styles are shipped untorqued, as the gland must be disassembled prior to welding to protect the sealant.

For assembly separate from the vessel:

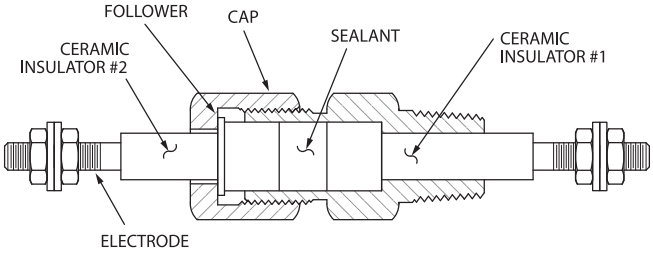
1. Be sure you are using the correct sealant for your working pressure and temperature.
2. Thread one ceramic insulator over the electrode (see diagram).
3. Thread the sealant over the electrode. The tapered end of the sealant should face the process. Note: EG-375 and EG-500 Lava sealants use a two-piece cone and cup design. Insert the cup first with the tapered end facing away from the process. Then insert the cone so that the tapered end fits inside the cup. The cone must face the process.
4. Thread the second ceramic insulator over the electrode.
5. Insert the insulators, sealant and electrode as assembled into the gland body until the ceramic insulator is stopped by the shoulder in the gland. Hold the electrode to prevent it from dropping through.
6. Thread the follower over the insulator. Seat the undercut edge onto the insulator shoulder.
7. Thread the cap onto the body until finger tight.
8. Secure the gland body into a vice.
9. Adjust the electrode to the correct position ensuring that the ceramic insulators are firmly seated and aligned.
10. Using a torque wrench, tighten the cap to the specified torque (see chart).
11. Install the nuts and washers on the non-process side of the assembly.
12. Mount the assembly to the vessel. Apply a wrench to the gland body flats – not the cap – when mounting to the vessel.
13. Install the nuts and washers on the process side of the assembly.
14. Make the appropriate electrical connections to the electrode using ring-tongue, lug-type or spade terminals. These are positioned between the washers. The nuts should be tightened securely.
15. The assembly is now ready for use.

For assembly directly into a vessel:

1. Be sure you are using the correct sealant for your working pressure and temperature.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread one ceramic insulator over the electrode (see diagram).
4. Thread the sealant over the electrode. The tapered end of the sealant should face the process. Note: EG-375 and EG-500 Lava sealants use two-piece cone and cup designs. Insert the cup first with the tapered end facing away from the process. Then insert the cone so that the tapered end fits inside the cup. The cone must face the process.
5. Thread the second ceramic insulator over the electrode.
6. Insert the insulators, sealant and electrode as assembled into the cap thread end of the gland body until the ceramic insulator is stopped by the shoulder in the gland. Hold the electrode to prevent it from dropping through.
7. Thread the follower over the insulator. Seat the undercut edge onto the insulator shoulder.
8. Thread the cap onto the body until finger tight.
9. Adjust the electrode to the correct position ensuring that the ceramic insulators are firmly seated and aligned.
10. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
11. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
12. Install the nuts and washers on the non-process side of the assembly.
13. Install the nuts and washers on the process side of the assembly.
14. Make the appropriate electrical connections to the electrode using ring-tongue, lug-type or spade terminals. These are positioned between the washers. The nuts should be tightened securely.
15. The assembly is now ready for use.



CONE AND CUP SEALANT



EG Series Torque Requirements

	Neoprene/PTFE/Viton		Lava	
	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
EG-093	17-20	23-27	10-12	13-16
EG-125	25-30	34-40	25-30	34-40
EG-187	25-30	34-40	25-30	34-40
EG-250	40-45	54-61	60-65	81-88
EG-312	35-40	47-54	50-55	68-74
EG-375	50-55	68-74	180-200	244-272
EG-500	50-55	68-74	180-200	244-272

For EG-750 (Flange-Cap)

EG series sealing glands are shipped from the factory already torqued to the correct value and ready for installation. These instructions are provided in the event you choose to disassemble and need to reassemble the gland or if you provide your own electrode. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.

For assembly separate from the vessel:

1. Be sure you are using the correct sealant for your working pressure and temperature.
2. Thread one ceramic insulator over the electrode (see diagram). Note: the longer insulator must be used on the body side (toward the process).
3. Thread the sealant over the electrode. The tapered end of the sealant should face the process. Note: Lava sealants use two-piece cone and cup designs. Insert the cup first with the tapered end facing the process. Then insert the cone so that the tapered end fits inside the cup. The cone must face the process.
4. Thread the short ceramic insulator over the electrode.
5. Insert the insulators, sealant and electrode as assembled into the gland body until the ceramic insulator is stopped by the shoulder in the gland. Hold the electrode to prevent it from dropping through.
6. Slide the flange/cap into place after the insulator.
7. Insert the 6 cap screws in place and finger tighten.
8. Secure the gland body into a vice.
9. Adjust the electrode to the correct position ensuring that the ceramic insulators are firmly seated and aligned.
10. Use a torque wrench to tighten the cap screws to 10-12 ft-lbs (13-16 N-m) per bolt for PTFE or 25-30 ft-lbs (34-40 N-m) per bolt for Lava. The cap screws should be progressively tightened in the order 1-4-2-5-3-6.
11. Install the nuts and washers on the non-process side of the assembly.
12. Mount the assembly to the vessel. Apply a wrench to the gland body flats when mounting to the vessel.
13. Install the nuts and washers on the process side of the assembly.
14. Make the appropriate electrical connections to the electrode using ring-tongue, lug-type or spade terminals. These are positioned between the washers. The nuts should be tightened securely.
15. The assembly is now ready for use.

For assembly directly into a vessel:

1. Be sure you are using the correct sealant for your working pressure and temperature.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread one ceramic insulator over the electrode (see diagram). Note: the longer insulator must be used on the body side (toward the process).
4. Thread the sealant over the electrode. The tapered end of the sealant should face the process. Note: Lava sealants use two-piece cone and cup designs. Insert the cup first with the flat side facing the process. Then insert the cone so that the tapered end fits inside the cup. The cone must face the process.
5. Thread the short ceramic insulator over the electrode.
6. Insert the insulators, sealant and electrode as assembled into the cap thread end of the gland body until the ceramic insulator is stopped by the shoulder in the gland. Hold the electrode to prevent it from dropping through.
7. Slide the flange/cap into place after the insulator.
8. Insert the 6 cap screws in place and finger tighten.
9. Adjust the electrode to the correct position ensuring that the ceramic insulators are firmly seated and aligned.
10. Use a torque wrench to tighten the cap screws to 10-12 ft-lbs (13-16 N-m) per bolt for PTFE or 25-30 ft-lbs (34-40 N-m) per bolt for Lava. The cap screws should be progressively tightened in the order 1-4-2-5-3-6.
11. Install the nuts and washers on the non-process side of the assembly.
12. Install the nuts and washers on the process side of the assembly.
13. Make the appropriate electrical connections to the electrode using ring-tongue, lug-type or spade terminals. These are positioned between the washers. The nuts should be tightened securely.
14. The assembly is now ready for use.

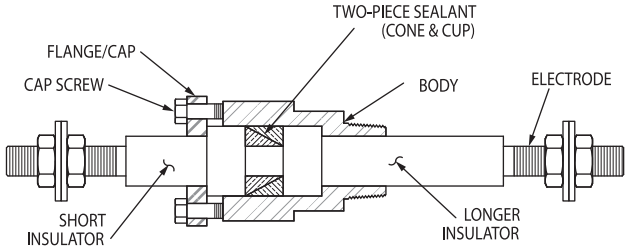


Figure 3

For Hex-Style EGT/HEGPK Series:

EGT and HEGPK series sealing glands are shipped from the factory already torqued to the correct value and ready for installation. These instructions are provided in the event you choose to disassemble and need to reassemble the gland or if you provide your own electrode. When using a weld mount, the gland must be disassembled prior to welding to protect the PTFE sealant.

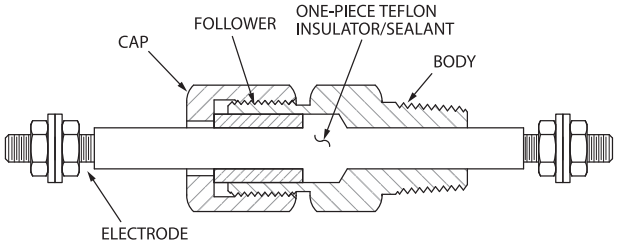
For assembly separate from the vessel:

1. Thread the PTFE/PEEK sealant/insulator over the electrode. The tapered end must face the process (see diagram)..
2. Insert the sealant/insulator and electrode as assembled into the gland body until the sealant/insulator is stopped by the shoulder in the gland. Hold the electrode to prevent it from dropping through the body.
3. Insert the follower.
4. Thread the cap onto the body until finger tight.
5. Secure the gland body into a vice.
6. Adjust the electrode to the correct position ensuring that the sealant/insulator is firmly seated.
7. Using a torque wrench, tighten the cap to the specified torque (see chart).
8. Install the nuts and washers on the non-process side of the assembly.
9. Mount the assembly to the vessel. Apply a wrench to the gland body flats – not the cap – when mounting to the vessel.
10. Install the nuts and washers on the process side of the assembly.
11. Make the appropriate electrical connections to the electrode using ring-tongue, lug-type or spade terminals. These are positioned between the washers. The nuts should be tightened securely.
12. The assembly is now ready for use.

5001D ■ SEALING GLAND ASSEMBLY INSTRUCTIONS

For assembly directly into a vessel:

1. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
2. Thread the PTFE sealant/insulator over the electrode. The tapered end must face the process (see diagram).
3. Insert the sealant/insulator and electrode as assembled into the cap thread end of the gland body until the sealant/insulator is stopped by the shoulder in the gland. Hold the electrode to prevent it from dropping through the body.
4. Insert the follower.
5. Thread the cap onto the body until finger tight.
6. Adjust the electrode to the correct position ensuring that the sealant/insulator is firmly seated and aligned.
7. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
8. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
9. Install the nuts and washers on the non-process side of the assembly.
10. Install the nuts and washers on the process side of the assembly.
11. Make the appropriate electrical connections to the electrode using ring-tongue, lug-type or spade terminals. These are positioned between the washers. The nuts should be tightened securely.
12. The assembly is now ready for use.



EGT/HEGPK Series Torque Requirements

	PTFE		PEEK	
	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
EGT-093	5-6	6-8	–	–
EGT/HEGPK-125	10-15	13-20	30	40
EGT/HEGPK-187	25-30	34-40	75	102
EGT/HEGPK-250	25-30	34-41	75	102
EGT/HEGPK-375	35-40	47-54	180	244
EGT/HEGPK-500	35-40	47-54	180	244
EGT-750	75-80	102-108	–	–

For EGT-1000 (Flange-Cap)

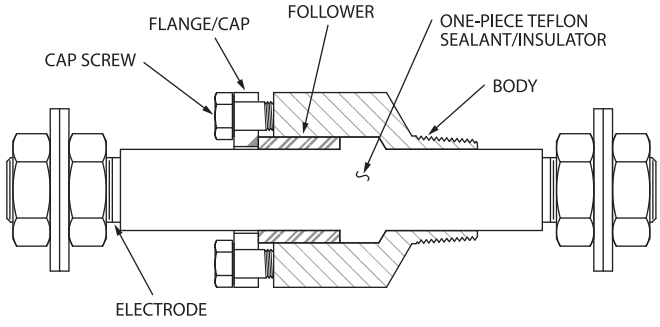
EGT series sealing glands are shipped from the factory already torqued to the correct value and ready for installation. These instructions are provided in the event you choose to disassemble and need to reassemble the gland or if you provide your own electrode. When using a weld mount, the gland must be disassembled prior to welding to protect the PTFE sealant.

For assembly separate from the vessel:

1. Thread the PTFE sealant/insulator over the electrode. The tapered end must face the process (see diagram).
2. Insert the sealant/insulator and electrode as assembled into the gland body until the sealant/insulator is stopped by the shoulder in the gland. Hold the electrode to prevent it from dropping through the body.
3. Insert the follower.
4. Slide the flange/cap into place after the follower.
5. Thread the 6 cap screws in place and finger tighten.
6. Secure the gland body into a vice.
7. Adjust the electrode to the correct position ensuring that the sealant/insulator is firmly seated.
8. Use a torque wrench to tighten the cap screws to 54-60 in-lbs (6-7 N-m) per bolt. The cap screws should be progressively tightened in the order 1-4-2-5-3-6.
9. Install the nuts and washers on the non-process side of the assembly.
10. Mount the assembly to the vessel. Apply a wrench to the gland body flats when mounting to the vessel.
11. Install the nuts and washers on the process side of the assembly.
12. Make the appropriate electrical connections to the electrode using ring-tongue, lug-type or spade terminals. These are positioned between the washers. The nuts should be tightened securely.
13. The assembly is now ready for use.

For assembly directly into a vessel:

1. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
2. Thread the PTFE sealant/insulator over the electrode. The tapered end must face the process (see diagram).
3. Insert the sealant/insulator and electrode as assembled into the gland body until the sealant/insulator is stopped by the shoulder in the gland. Hold the electrode to prevent it from dropping through the body.
4. Insert the follower.
5. Slide the flange/cap into place after the follower.
6. Insert the 6 cap screws in place and finger tighten.
7. Adjust the electrode to the correct position ensuring that the sealant/insulator is firmly seated and aligned.
8. Use a torque wrench to tighten the cap screws to 54-60 in-lbs (6-7 N-m) per bolt. The cap screws should be progressively tightened in the order 1-4-2-5-3-6.
9. Install the nuts and washers on the non-process side of the assembly.
10. Install the nuts and washers on the process side of the assembly.
11. Make the appropriate electrical connections to the electrode using ring-tongue, lug-type or spade terminals. These are positioned between the washers. The nuts should be tightened securely.
12. The assembly is now ready for use.



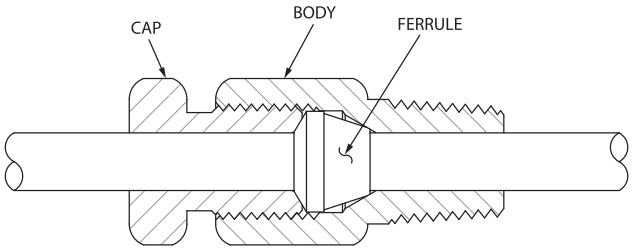
For MK Series

For assembly separate from the vessel:

1. Verify that the total length of the wire/probe provides sufficient length for your desired immersion and leads.
2. Thread the cap over the probe with the male thread facing the process (see diagram).
3. Thread the ferrule over the probe with the cone facing the process.
4. Thread the gland body over the probe.
5. Slide the ferrule into the gland body.
6. Thread the cap on finger tight.
7. Secure the gland body into a vice.
8. Make the final adjustment of immersion length.
9. Using a torque wrench, tighten the cap to the specified torque (see chart).
10. The assembly is now ready for use. Apply a wrench to the gland body flats for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the total length of the wire/probe provides sufficient length for your desired immersion and leads.
2. Mount the gland body into the vessel wall.
3. Thread the cap over the probe with the male thread facing the process (see diagram).
4. Thread the ferrule over the probe with the cone facing the process.
5. Insert the probe through the body into the process.
6. Insert the ferrule into the gland body.
7. Thread the cap on finger tight.
8. Make the final adjustment of immersion length.
9. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
10. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
11. The assembly is now ready for use.



MK Series Torque Requirements

Catalog Number	Torque (ft-lbs)	Torque (N-m)
MK-062-A	10	14
MK-125-A	12	16
MK-187-A	18	24
MK-250-A	30	41
MK-375-A	50	68

TG Series:

For Models TG-14-1; TG-20, 2 & 4 hole; TG-24, 2 & 4 hole, all MTGs

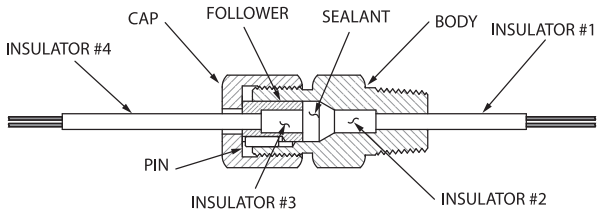
For assembly separate from the vessel:

1. Verify that the total length of wire provides a sufficient length for your desired immersion and leads.
2. Thread the cap over the wires.
3. Thread the follower over the wires so that keyway faces the cap.
4. Thread on insulator #4 (see diagram).
5. Thread on insulator #3.
6. Be sure you are using the correct sealant for your working pressure and temperature. Thread on the sealant so that the cone of the sealant faces the process.
7. Thread on insulator #2.
8. Thread insulator #1 over the wire.
9. Pass the process side of the wires through the body.
10. Slide the insulators and sealant into the body.
11. Slide the follower on over insulator #4 and insulator #3 until it completely covers insulator #3.
12. Push on the follower until the sealant and insulators are firmly seated. Be careful not to crimp the wires between the insulators and sealant.
13. Align the follower and body to create a full keyway.
14. Place the pin in the keyway.
15. Thread the cap on finger tight.
16. Secure the gland body into a vice.
17. Adjust the wires to the correct position.
18. Using a torque wrench, tighten the cap to the specified torque (see chart).
19. The assembly is now ready for use. Apply a wrench to the gland body flats – not the cap – for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the total length of wire provides a sufficient length for your desired immersion and leads.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread the cap over the wires.
4. Thread the follower over the wires so that keyway faces the cap.
5. Thread on insulator #4 (see diagram).
6. Thread on insulator #3.
7. Be sure you are using the correct sealant for your working pressure and temperature. Thread on the sealant so that the cone of the sealant faces the process.
8. Thread on insulator #2.
9. Thread insulator #1 over the wire.
10. Pass the process side of the wires through the body.
11. Slide the insulators and sealant into the body.
12. Slide the follower on over insulator #4 and insulator #3 until it completely covers insulator #3.
13. Push on the follower until the sealant and insulators are firmly seated. Be careful not to crimp the wires between the insulators and sealant.
14. Align the follower and body to create a full keyway.
15. Place the pin in the keyway.
16. Thread the cap on finger tight.
17. Adjust the wires to the correct position.
18. Apply a backer wrench to the gland body wrench flats to prevent rotation during torquing.
19. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
20. The assembly is now ready for use.

5001D ■ SEALING GLAND ASSEMBLY INSTRUCTIONS



TG Series:

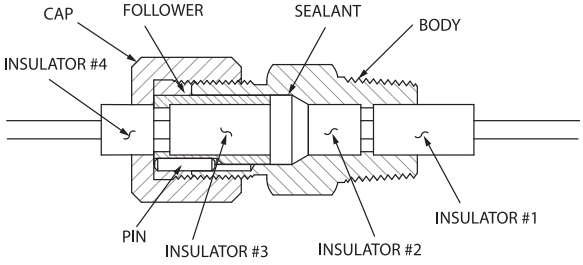
For Models TG-8-2; TG-14, 2-8 hole; TG-18, 6 & 8 hole; TG-20, 6-16 hole

For assembly separate from the vessel:

1. Verify that the total length of wire provides a sufficient length for your desired immersion and leads.
2. Thread insulator #4 (see diagram) over the wire.
3. Thread the cap over the wire.
4. Thread the follower over the wires so that the keyway faces the cap.
5. Thread on insulator #3.
6. Be sure you are using the correct sealant for your working pressure and temperature. Thread on the sealant with the cone facing the process.
7. Thread on insulator #2.
8. Insert the wires and insulator assembly through the process end of the gland body.
9. Thread insulator #1 over the wire until the insulator is stopped by the body shoulder.
10. Slide insulator #2 into the body until the insulator is stopped by the body shoulder.
11. Slide the sealant, followed by the follower, into the body.
12. Push on the follower until the sealant and insulators are firmly seated. Be careful not to crimp the wires between the insulators and sealant.
13. Slide insulator #4 so that it butts against the follower.
14. Align the follower and body to create a full keyway.
15. Place the pin in the keyway.
16. Thread the cap on finger tight.
17. Secure the gland body into a vice.
18. Adjust the wires to the correct position.
19. Using a torque wrench, tighten the cap to the specified torque (see chart).
20. The assembly is now ready for use. Apply a wrench to the gland body flats – not the cap – for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the total length of wire provides a sufficient length for your desired immersion and leads.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread insulator #4 (see diagram) over the wire.
4. Thread the cap over the wire.
5. Thread the follower over the wires so that the keyway faces the cap.
6. Thread on insulator #3.
7. Be sure you are using the correct sealant for your working pressure and temperature. Thread on the sealant with the cone facing the process.
8. Thread on insulator #2.
9. Insert the wires and insulator assembly through the process end of the gland body.
10. Thread insulator #1 over the wire from the inside of the vessel and through the process side of the gland body until the insulator is stopped by the body shoulder.
11. Slide insulator #2 into the body until the insulator is stopped by the body shoulder.
12. Slide the sealant, followed by the follower, into the body.
13. Push on the follower until the sealant and insulators are firmly seated. Be careful not to crimp the wires between the insulators and sealant.
14. Slide insulator #4 so that it butts against the follower.
15. Align the follower and body to create a full keyway.
16. Place the pin in the keyway.
17. Thread the cap on finger tight.
18. Adjust the wires to the correct position.
19. Apply a backer wrench to the gland body wrench flats to prevent rotation during torquing.
20. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
21. The assembly is now ready for use.



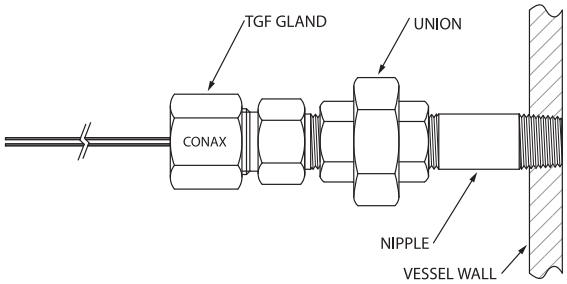
TG Series Torque Requirements

Gland	Number of Holes	Neoprene (ft-lbs)	Neoprene (N-m)	Viton (ft-lbs)	Viton (N-m)	PTFE (ft-lbs)	PTFE (N-m)	Lava (ft-lbs)	Lava (N-m)
MTG-24	2,4	20-25	27-34	20-25	27-34	20-25	27-34	30-35	40-47
MTG-20	2,4	20-25	27-34	20-25	27-34	20-25	27-34	30-35	40-48
MTG-14	1	20-25	27-34	20-25	27-34	20-25	27-34	30-35	40-49
TG-24	2,4	25-30	34-40	25-30	34-40	30-35	40-48	40-45	54-61
TG-20	2,4	25-30	34-40	25-30	34-40	30-35	40-48	40-45	54-61
TG-20	6,8	45-50	61-68	45-50	61-68	50-55	68-74	125-140	170-190
TG-20	16	75-85	102-115	75-85	102-115	75-85	102-115	200-220	272-299
TG-18	6,8	45-50	61-68	45-50	61-68	50-55	68-74	125-140	170-190
TG-14	1	25-30	34-40	25-30	34-40	30-35	40-48	40-45	54-61
TG-14	2,3,4	45-50	61-68	45-50	61-68	50-55	68-74	125-140	170-190
TG-14	6,8	75-85	102-115	75-85	102-115	75-85	102-115	200-220	272-299
TG-8	2	75-85	102-115	75-85	102-115	75-85	102-115	200-220	272-299
TG-20	24	NA	NA	95-100	129-136	95-100	129-136	300-310	408-422

Model TGF – TG Assembly with High Temperature Wire
Model TG24T – TG Assembly with 24AWG PTFE Insulated Wire

Model TGF and TG24T series sealing glands are shipped from the factory already torqued to the correct value and ready for installation. These instructions are provided for installation of the assembled gland. In the event you choose to disassemble and need to reassemble the gland, see the instructions for the MHC Series.

When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.



TGF Series Torque Requirements

Catalog Number	Number of Holes	Viton/PTFE (ft-lbs)	(N-m)
MTG-F	2,4	72-78 in-lbs	8-9
TG-24F	2,4	10-12	13-16
TG-20F	2,4	10-12	13-16
TG-20F-14	2,4	25-30	34-40
TG-20F	6,8	25-30	34-40
TG-20F	16	60-65	81-88
TG-20F	24	70-75	95-102

TG24T Series Torque Requirements

Catalog Number	Number of Holes	Torque for PTFE Sealant w/ T/C Wire Except Type T (ft-lbs)	(N-m)	Torque for Grafoil Sealant and PTFE w/ Copper or Type T Wire (ft-lbs)	(N-m)
MTG-24T	2,4	20-25	24-34	72-78 in-lbs	8-9
TG-24T	2,4	30-35	40-47	10-12	13-16
TG-24T	6,8	50-55	67-74	25-30	34-40
TG-24T	12,16	75-85	102-115	60-65	81-88
TG-24T	24	95-100	129-136	70-75	95-102

Recommended Method Using a Nipple-Union

Required Materials: Pipe Nipple, Schedule 40, Carbon Steel or Stainless Steel Union, 150 lb., Carbon Steel or Stainless Steel

For longer length lead wires, this mounting method eliminates additional stress and potential wire entanglement caused by the rotation of the wires during the mounting operation.

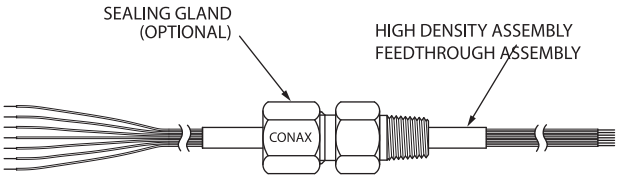
1. Install the nipple and half union assembly into the vessel wall.
2. Uncoil and straighten the leads on the pressure side of the gland.
3. Thread the mating half of the union over the leads.
4. Assemble the union onto the mounting thread of the sealing gland. Use the gland body flats to hold/secure the gland while mating the gland with the union.
5. Pass the leads through the nipple-union assembly mounted on the vessel wall.
6. Position the two parts of the union and assemble the nipple-union assembly.
7. Remove wire markers on the process side after installation, as the adhesive-backed material could contaminate the process (depending on the application).

Optional Method for TG24T

1. Uncoil and straighten the leads on the pressure side.
2. Pass the leads through the mounting thread port on the vessel.
3. Screw/tighten the gland into the vessel. Apply the wrench to the gland body flats, not the cap.
4. Remove wire markers on the process side after installation, as the adhesive-backed material could contaminate the process (depending on the application).

For High Density Assemblies – HD Series

1. High Density assemblies use a number of different gland types. Select the appropriate gland for your application.
2. Secure the gland body into the vessel wall. The remaining gland parts are best assembled on a flat surface such as a work table or a clean floor.
3. Install the seat and insulators if applicable, depending on the gland type (see instructions for that gland type).
4. Install the sealant.
5. Install the follower and pin if applicable.
6. Insert the leads through the gland body and insert the high density assembly (as now assembled) into the body until the seat or insulator is firmly seated. Position the stainless steel sheath so that an approximately equal amount extends on each side of the gland.
7. Thread the cap on finger tight.
8. Apply a backer wrench to the gland body flats. Using a torque wrench, apply the appropriate torque for that gland style.
9. The assembly is now ready for use.



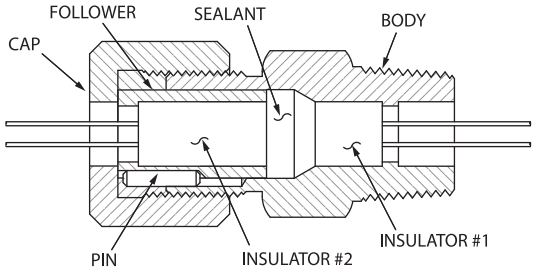
MHC Series:

For assembly separate from the vessel:

1. Verify that the total length of wire/probes provides a sufficient length for your desired immersion and leads.
2. Thread the cap over the wires.
3. Thread the follower over the wires so that the keyway faces the cap.
4. Thread on insulator #2 (see diagram).
5. Be sure you are using the correct sealant for your working pressure and temperature. Thread on the sealant with the cone facing the process.
6. Thread on insulator #1.
7. Pass the process side of the wires/probes through the body.
8. Slide the insulators, sealant and follower into the body.
9. Push on the follower until the sealant and insulators are firmly seated. For wire assemblies, be careful not to crimp the wires between the insulators and sealant.
10. Align the follower and body to create a full keyway.
11. Place the pin in the keyway.
12. Thread the cap on finger tight.
13. Secure the gland body into a vice.
14. Adjust the wires to the correct position.
15. Using a torque wrench, tighten the cap to the specified torque (see chart).
16. The assembly is now ready for use. Apply a wrench to the gland body flats – not the cap – for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the total length of wire/probes provides a sufficient length for your desired immersion and leads.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread the cap over the wires.
4. Thread the follower over the wires so that the keyway faces the cap.
5. Thread on insulator #2 (see diagram).
6. Be sure you are using the correct sealant for your working pressure and temperature. Thread on the sealant with the cone facing the process.
7. Thread on insulator #1.
8. Pass the process side of the wires/probes through the body.
9. Slide the insulators, sealant and follower into the body.
10. Push on the follower until the sealant and insulators are firmly seated. For wire assemblies, be careful not to crimp the wires between the insulators and sealant.
11. Align the follower and body to create a full keyway.
12. Place the pin in the keyway.
13. Thread the cap on finger tight.
14. Adjust the wires to the correct position.
15. Apply a backer wrench to the gland body wrench flats to prevent rotation during torquing.
16. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
17. The assembly is now ready for use.



MHC Series Torque Requirements

	Neoprene		Viton		PTFE		Lava		Grafoil	
Catalog Number	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
MHC1	20-25	27-34	20-25	27-34	20-25	27-34	30-35	40-47	25-30	27-34
MHC2-020	25-30	34-40	25-30	34-40	30-35	40-47	40-45	61-68	35-40	47-54
MCH2-032	25-30	34-40	25-30	34-40	30-35	40-47	40-45	61-68	35-40	47-54
MHC2-040	25-30	34-40	25-30	34-40	30-35	40-47	40-45	61-68	40-45	61-68
MHC2-062	25-30	34-40	25-30	34-40	30-35	40-47	40-45	61-68	40-45	61-68
MCH4	45-50	61-68	45-50	61-68	50-55	68-74	125-140	170-190	90-100	122-136
MHC5	75-85	102-115	75-85	102-115	75-85	102-115	200-220	272-299	150-165	204-224
MHC5-032-24	N/O	N/O	95-100	129-136	95-100	129-136	300-310	408-422	250-265	340-360

PL Series:

PL glands are shipped from the factory already torqued to the correct value and ready for installation. These instructions are provided in the event you choose to disassemble and reassemble the gland. Weld mount styles are shipped untorqued as the gland must be diassembled prior to welding to protect the sealant. PL glands are provided with PTFE sleeves on the body and cap to protect against wire chafing. Do not remove these sleeves.

When using a Grafoil sealant, the insulators on PL glands are chamfered around the holes. Insulators for other sealants are not chamfered. Do **not** interchange.

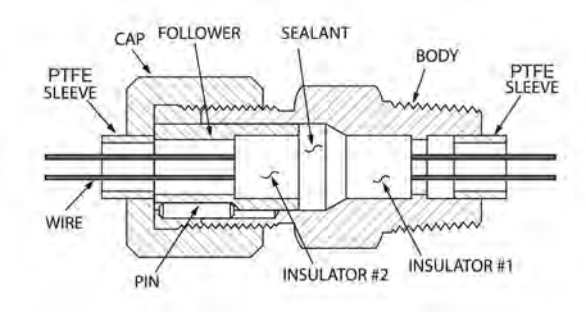
For assembly separate from the vessel:

1. Verify that the total length of wire provides a sufficient length for your desired immersion and leads.
2. Thread on insulator #1 (see diagram).
3. Be sure you are using the correct sealant for your working pressure and temperature. Thread on the sealant with the cone facing the process.
4. Thread on insulator #2.
5. Slide on the follower, so that the keyway faces the cap.
6. Pass the process side of the wires through the body.
7. Push on the follower until the sealant and insulators are firmly seated. Be careful not to crimp the wires between the insulators and sealant.
8. Align the follower and body to create a full keyway.
9. Place the pin in the keyway.
10. Thread the cap on finger tight.
11. Secure the gland body into a vice.

12. Adjust the wires to the correct position.
13. Using a torque wrench, tighten the cap to the specified torque (see chart).
14. The assembly is now ready for use. Apply a wrench to the gland body flats – not the cap – for mounting to the vessel.

For assembly directly into a vessel:

2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread on insulator #1 (see diagram).
4. Be sure you are using the correct sealant for your working pressure and temperature. Thread on the sealant with the cone facing the process.
5. Thread on insulator #2.
6. Slide on the follower, so that the keyway faces the cap.
7. Pass the process side of the wires through the body.
8. Push on the follower until the sealant and insulators are firmly seated. Be careful not to crimp the wires between the insulators and sealant.
9. Align the follower and body to create a full keyway.
10. Place the pin in the keyway.
11. Thread the cap on finger tight.
12. Adjust the wires to the correct position.
13. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
14. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
15. The assembly is now ready for use.



PL Series Torque Requirements

	Number of Holes	Grafoil (ft-lbs)	Grafoil (N-m)	PTFE (ft-lbs)	PTFE (N-m)
PL-20	2,3,4	90-100	122-136	60-70	81-95
PL-20	6,8	150-165	204-224	90-100	122-136
PL-20	18	250-265	340-360	125-140	170-190
PL-18	1	20-30	27-40	12-15	16-20
PL-18	2,3,4	90-100	122-136	60-70	81-95
PL-18	6,8	150-165	204-224	90-100	122-136
PL-18	10,12	250-265	340-360	125-140	170-190
PL-16	2,3,4	90-100	122-136	60-70	81-95
PL-16	6,8	150-165	204-224	90-100	122-136
PL-16	10,12	250-265	340-360	125-140	170-190
PL-14	1	25-30	34-40	12-15	16-20
PL-14	2	90-100	122-136	60-70	81-95
PL-14	3,4,6,8	150-165	204-224	90-100	122-136
PL-14	10,12	250-265	340-360	125-140	170-190
PL-12	2,3,4,6	150-165	204-224	90-100	122-136
PL-10	2,3,4	150-165	204-224	80-90	108-122
PL-8	2	150-165	204-224	75-85	102-115
PL-8	3	250-265	340-360	125-140	170-190

MHM Series

For Hex-Style Models MHM2-MHM5

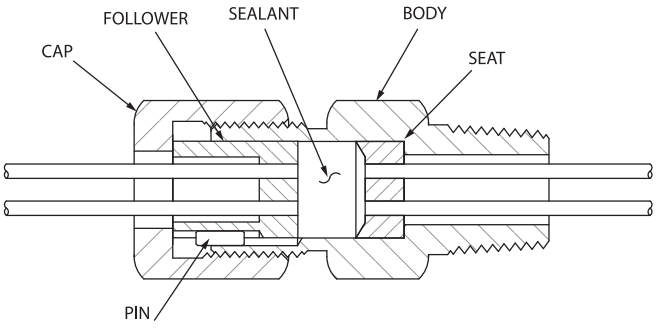
1. Verify that the probe length is sufficient for your desired immersion.

For assembly separate from the vessel:

2. Thread the cap over the probes with the female thread facing the process (see diagram).
3. Thread the follower over the probes with the keyway towards the cap.
4. Be sure you are using the correct sealant for your working pressure and temperature. Thread the sealant over the probes with the cone facing the process.
5. Thread the seat over the probes with the concave side facing the sealant.
6. Thread the gland body over the probes.
7. Push on the follower until the sealant and seat are firmly positioned in the gland body.
8. Align the follower and body to create a full keyway.
9. Place the pin in the keyway.
10. Thread the cap on finger tight.
11. Secure the gland body into a vice.
12. Make the final adjustment of immersion length.
13. Using a torque wrench, tighten the cap to the specified torque (see chart).
14. The assembly is now ready for use. Apply a wrench to the gland body flats – not the cap – for mounting to the vessel.

For assembly directly into a vessel:

2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread the cap over the probes with the female thread facing the process (see diagram).
4. Thread the follower over the probes with the keyway towards the cap.
5. Be sure you are using the correct sealant for your working pressure and temperature. Thread the sealant over the probes with the cone facing the process.
6. Thread the seat over the probes with the concave side facing the sealant.
7. Insert the probes through the body into the process.
8. Push on the follower until the sealant and seat are firmly positioned in the gland body.
9. Align the follower and body to create a full keyway.
10. Place the pin in the keyway.
11. Thread the cap on finger tight.
12. Make the final adjustment of immersion length.
13. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
14. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
15. The assembly is now ready for use.



MHM Series

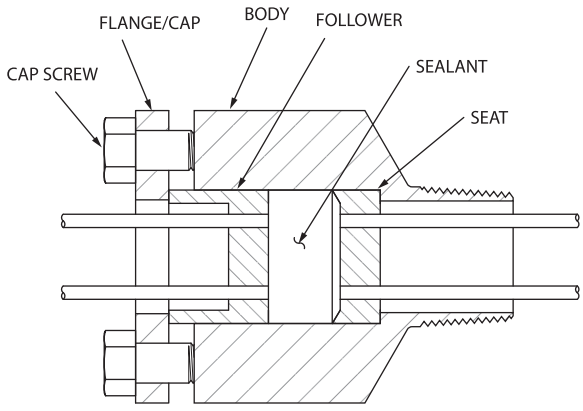
For Flange-Cap Model MHM6

For assembly separate from the vessel:

1. Verify that the probe length is sufficient for your desired immersion.
2. Thread the flange/cap over the probes (see diagram).
3. Thread the follower over the probes with the counterbore towards the cap.
4. Be sure you are using the correct sealant for your working pressure and temperature. Thread the sealant over the probes with the cone facing the process. (Sealant may be in more than one layer.)
5. Thread the seat over the probes with the concave side facing the sealant.
6. Thread the gland body over the probes.
7. Push on the follower until the sealant and seat are firmly positioned in the gland body.
8. Slide the flange/cap into place after the follower.
9. Thread the 6 cap screws in place and finger tighten.
10. Secure the gland body into a vice.
11. Make the final adjustment of immersion length.
12. Using a torque wrench, tighten the cap screws to 30-35 ft.-lbs. (40-47 N-m) per bolt. The cap screws should be progressively tightened in the order 1-4-2-5-3-6.
13. The assembly is now ready for use. Apply a wrench to the gland body flats for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the probe length is sufficient for your desired immersion.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread the flange/cap over the probes (see diagram).
4. Thread the follower over the probes with the counterbore towards the flange/cap.
5. Be sure you are using the correct sealant for your working pressure and temperature. Thread the sealant over the probes with the cone facing the process. (Sealant may be in more than one layer.)
6. Thread the seat over the probes with the concave side facing the sealant.
7. Insert the assembly through the body.
8. Push on the follower until the sealant and seat are firmly positioned in the gland body.
9. Slide the flange/cap into place to contact the follower.
10. Thread the 6 cap screws in place and finger tighten.
11. Make the final adjustment of immersion length.
12. Use a torque wrench to tighten the cap screws to 30-35 ft-lbs (40-47 N-m) per bolt. The cap screws should be progressively tightened in the order 1-4-2-5-3-6.
13. The assembly is now ready for use.



MHM Series Torque Requirements

	Neoprene		Viton		PTFE		Lava		Grafoil	
Catalog Number	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
MHM2	25-30	34-40	25-30	34-40	25-30	34-40	25-30	34-40	25-30	34-40
MHM4	80-90	108-123	80-90	108-123	80-90	108-123	125-140	170-190	110-120	150-163
MHM5	120-130	163-176	120-130	163-176	150-165	204-224	200-220	272-299	175-190	238-258

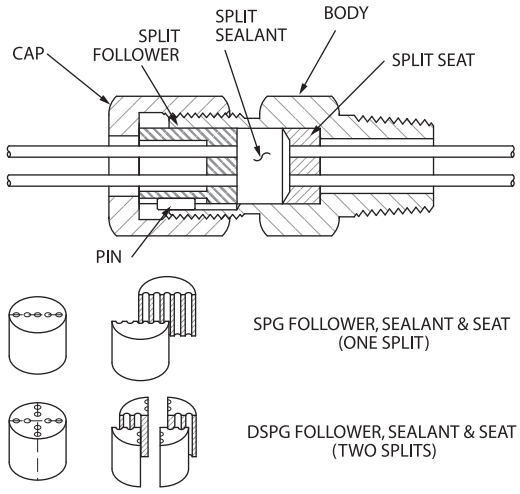
For Split Glands – SPG and DSPG Series

For assembly separate from the vessel:

1. Verify that the probe length is sufficient for your desired immersion.
2. Secure the gland body into a vice.
3. Thread the cap over the probes/wires with the female thread facing the process (see diagram).
4. Insert the probes/wires through the body.
5. Assemble the mating halves or quarters of the seat around the probes/wires with the concave side facing away from the process.
6. Slide the assembled seat into the body.
7. Be sure you are using the correct sealant for your working pressure and temperature. Assemble the mating halves or quarters of the sealant around the probes/wires with the cone facing the process. Grafoil sealants are numbered sequentially and must be assembled in sequence.
8. Slide the assembled sealant into the body.
9. Assemble the mating halves or quarters of the follower around the probes/wires with the keyway facing the cap.
10. Slide the assembled follower into the body.
11. Push on the follower until the sealant and seat are firmly positioned in the gland body.
12. Align the follower and body to create a full keyway.
13. Place the pin in the keyway.
14. Thread the cap on finger tight.
15. Make the final adjustment of immersion length.
16. Using a torque wrench, tighten the cap to the specified torque (see chart).
17. The assembly is now ready for use. Apply a wrench to the gland body flats – not the cap – for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the probe length is sufficient for your desired immersion.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread the cap over the probes/wires with the female thread facing the process (see diagram).
4. Insert the probes/wires through the body.
5. Assemble the mating halves or quarters of the seat around the probes/wires with the concave side facing away from the process.
6. Slide the assembled seat into the body.
7. Be sure you are using the correct sealant for your working pressure and temperature. Assemble the mating halves or quarters of the sealant around the probes/wires with the cone facing the process.
8. Slide the assembled sealant into the body.
9. Assemble the mating halves or quarters of the follower around the probes/wires with the keyway facing the cap.
10. Slide the assembled follower into the body.
11. Push on the follower until the sealant and seat are firmly positioned in the gland body.
12. Align the follower and body to create a full keyway.
13. Place the pin in the keyway.
14. Thread the cap on finger tight.
15. Make the final adjustment of immersion length.
16. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
17. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
18. The assembly is now ready for use.



SPG/DSPG Series Torque Requirements

	Viton		PTFE		Lava		Grafoil	
Catalog Number	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
SPG75	25-30	34-40	25-30	34-40	25-30	34-40	N/O	N/O
DSPG75	25-30	34-40	25-30	34-40	25-30	34-40	N/O	N/O
SPG100	80-90	108-122	80-90	108-122	125-140	170-190	110-120	150-163
DSPG100	80-90	108-123	80-90	108-123	125-140	170-190	110-120	150-163
SPG150	120-130	163-176	150-165	204-224	200-220	272-299	175-225*	238-306
DSPG150	120-130	163-176	150-165	204-224	200-220	272-299	175-225*	238-306

**When applying torque to SPG150 and DSPG150 models with 0.40" diameters or less containing Grafoil Sealants, torque to 200 ft.-lbs., then retorque to 225 ft.-lbs. after 24 hours.*

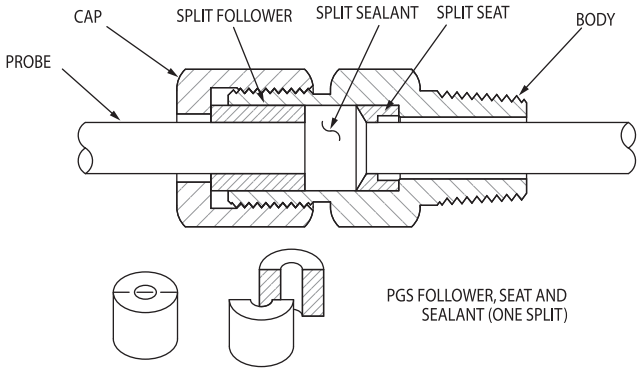
For Split Glands – PGS Series

For assembly separate from the vessel:

1. Verify that the probe length is sufficient for your desired immersion.
2. Secure the gland body into a vice.
3. Thread the cap over the probe with the female thread facing the process (see diagram).
4. Insert the probe through the body.
5. Assemble the mating halves of the seat around the probe with the concave side facing away from the process.
6. Slide the assembled seat into the body.
7. Be sure you are using the correct sealant for your working pressure and temperature. Assemble the mating halves of the sealant around the probe with the cone facing the process.
8. Slide the assembled sealant into the body.
9. Assemble the mating halves of the follower around the probe with the counterbore facing the cap.
10. Slide the assembled follower into the body.
11. Push on the follower until the sealant and seat are firmly positioned in the gland body.
12. Thread the cap on finger tight.
13. Make the final adjustment of immersion length.
14. Using a torque wrench, tighten the cap to the specified torque (see chart).
15. The assembly is now ready for use. Apply a wrench to the gland body flats – not the cap – for mounting to the vessel.

For assembly directly into a vessel:

1. Verify that the probe length is sufficient for your desired immersion.
2. Mount the gland body into the vessel wall. This may be done by threading or welding, depending on the mounting style. When using a weld mount, the gland must be disassembled prior to welding to protect the sealant.
3. Thread the cap over the probe with the female thread facing the process (see diagram).
4. Insert the probe through the body.
5. Assemble the mating halves of the seat around the probe with the concave side facing away from the process.
6. Slide the assembled seat into the body.
7. Be sure you are using the correct sealant for your working pressure and temperature. Assemble the mating halves of the sealant around the probe with the cone facing the process.
8. Slide the assembled sealant into the body.
9. Assemble the mating halves of the follower around the probe with the counterbore facing the cap.
10. Slide the assembled follower into the body.
11. Push on the follower until the sealant and seat are firmly positioned in the gland body.
12. Thread the cap on finger tight.
13. Make the final adjustment of immersion length.
14. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
15. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
16. The assembly is now ready for use.

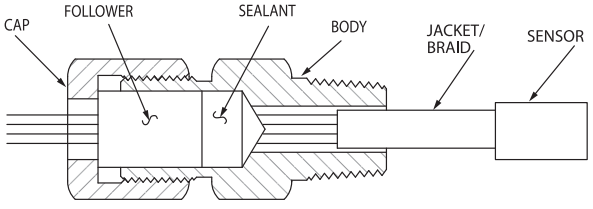


PGS Series Torque Requirements

	Viton		PTFE		Lava		Grafoil	
Gland Series	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)	(ft-lbs)	(N-m)
PG2S	30-35	40-47	15-20	20-27	40-45	54-61	35-40	47-54
PG4S	55-60	74-81	55-60	74-81	125-140	170-190	90-100	122-136
PG5S	55-60	74-82	90-100	122-136	200-220	272-299	90-100	122-137

For BSWS Series

1. Identify the type of gland to be assembled. If the sensor leads have an outer jacket or braid, trim this back to the point where it will enter the gland body when installed (see diagram). This will expose the individual insulated leads.
2. Install the sensor securely in its housing. Place the gland body over the leads and mount it in the enclosure or bearing housing mounting thread.
3. Slide the sealant with the cone facing the process over the leads into the gland body until seated. Individual holes are provided for each lead.
4. Slide the follower over the leads and insert it into the gland body. Ensure that the wires are correctly positioned.
5. Place the cap over the leads and finger tighten.
6. Make the final adjustment of lead length.
7. Apply a backer wrench to the gland body flats to prevent rotation during torquing.
8. While holding the backer wrench firmly in place, use a torque wrench to tighten the cap to the specified torque (see chart).
9. The assembly is now ready for use.



BSWS Series Torque Requirements

	Viton	
Catalog Number	(ft-lbs)	(N-m)
BSWS4	3-5	4-6
BSWS5	12-15	16-20

Lubricant Application Instructions

Conax Technologies sealing glands have lubricant applied at the factory. Substitution of factory-supplied lubricant will affect seal integrity. Lubrication prevents thread galling and minimizes friction between mating metallic components to maximize sealing gland performance when a catalog-specified torque is applied. Lubrication should be used any time a sealing gland assembly is opened for replacement or adjustment of the probe(s), wires or sealant. By re-lubricating the gland body threads and load bearing surface of the cap, proper load transfer (sealant compression) can be achieved.

Lubricant kits are available from Conax Technologies in convenient, single application, disposable packages with the applicator included. Conax Technologies recommends use of this lubricant to ensure gland performance.

Hex-Style Sealing Glands

MK Series

1. Apply a small amount of lubricant, a tear drop equivalent, in two to three places, equally spaced, to the ferrule top. Refer to Figure 1.
2. Apply a single line of lubricant to the full length of the straight thread on the cap. Refer to Figure 1.
3. Assemble the sealing gland per MK sealing gland instructions.

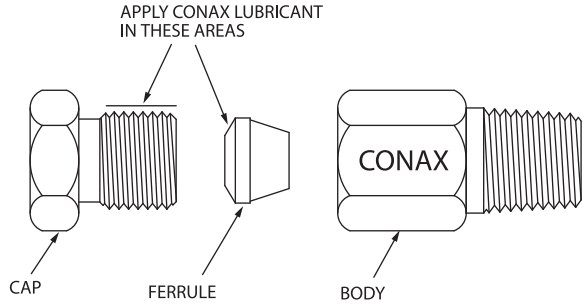


Figure 1

PG, MHM, MHC, TG, PL, EG, EGT, SPG, DSPG, PGS and BSWS Series

1. Apply a small amount of lubricant, tear drop equivalent, in two to three places, equally spaced, to the top of the follower. Do not allow the lubricant to directly contact the sealant or the elements you are sealing. Refer to Figure 2.
2. Apply a single line of lubricant to the full length of the straight thread on the gland body. Refer to Figure 2.
3. Assemble the sealing gland per applicable sealing gland instructions.

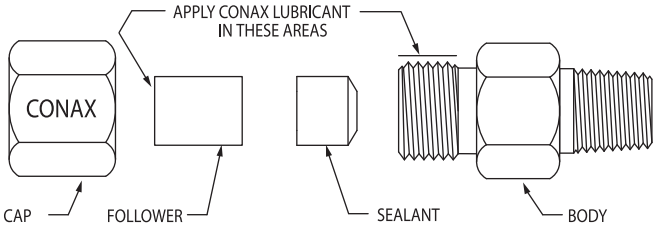


Figure 2

Flange-Cap Style Sealing Glands

PG, MHM, EG and EGT Series

1. Apply a small amount of lubricant, tear drop equivalent, in two to three places, equally spaced, to the underside of the hex cap screw on each of the six (6) hex cap screws. Do not allow the lubricant to directly contact the sealant or the elements you are sealing. Refer to Figure 3.
2. Apply a single line of lubricant to the full thread length on each of the six (6) hex head screws. Refer to Figure 3.
3. Assemble the sealing gland. Apply torque per applicable gland chart.

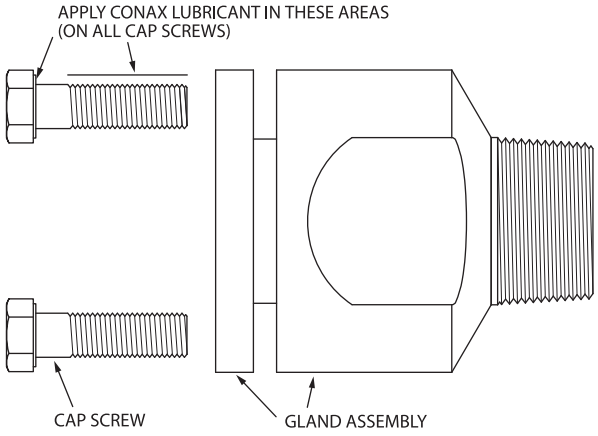
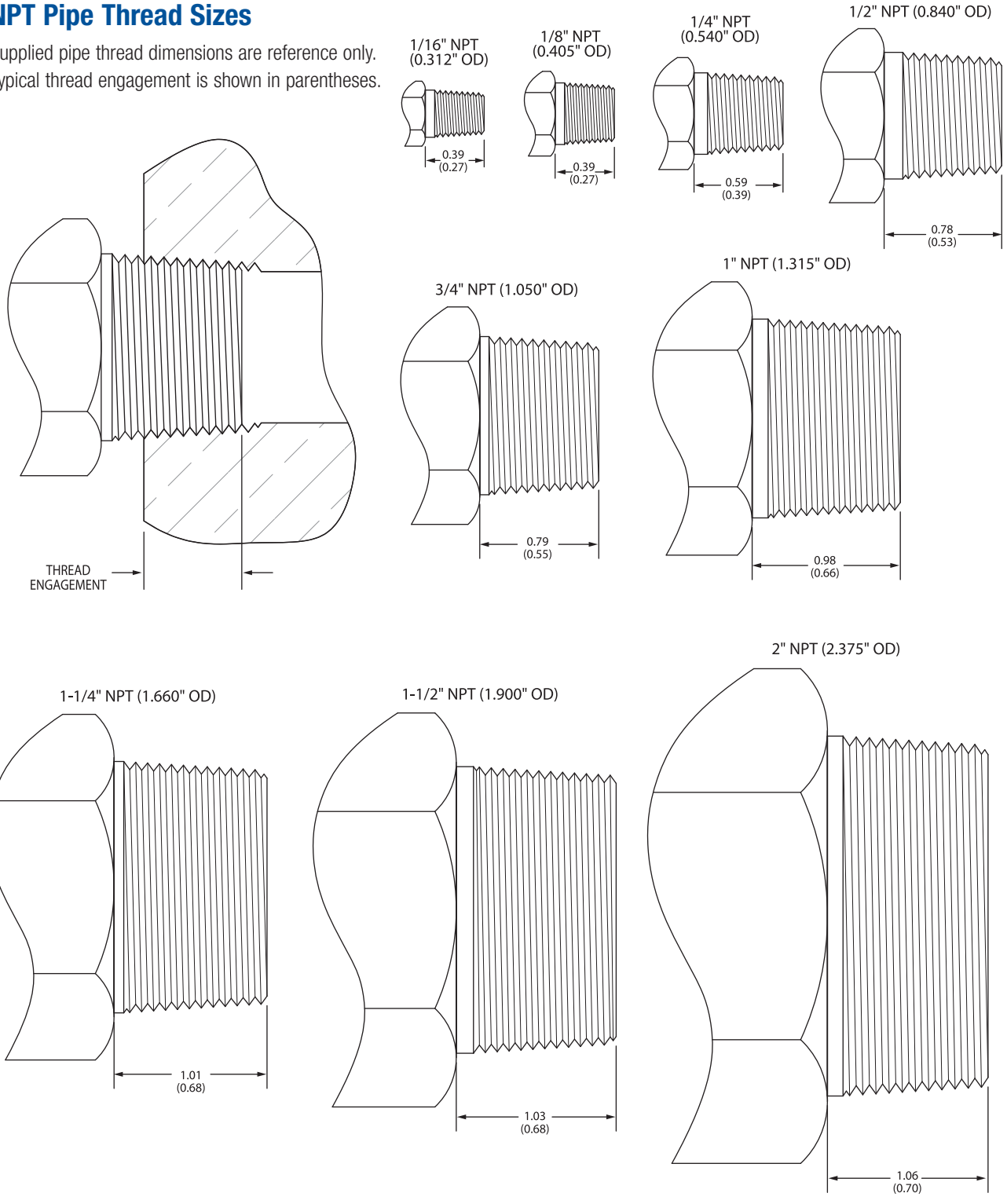


Figure 3

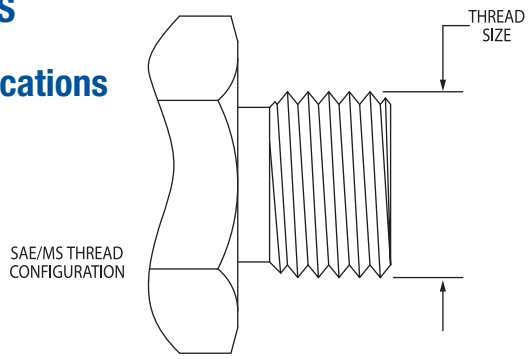
CAUTION: Lubricant may cause mild eye irritation.
Do not use for lubrication of aluminum or magnesium parts.
This product is not an OSHA hazardous material, as defined in 29 CFR1910.120. This product contains CAS# 9002839, Ethene, chlorotrifluoro-homopolymer. 24-Hour Emergency Phone 1-800-733-3665. HMIS Rating System: Health 0, Flammability 0, Reactivity 1. For industrial use only.

NPT Pipe Thread Sizes

Supplied pipe thread dimensions are reference only.
Typical thread engagement is shown in parentheses.



SAE/MS Thread Specifications



Thread Callout	Thread Size	Pressure Rating* psig [MPa]
MSE3	3/8-24	9138 [63]
MSE4	7/16-20	9138 [63]
MSE5	1/2-20	9138 [63]
MSE6	9/16-18	9138 [63]
MSE8	3/4-16	9138 [63]
MSE10	7/8-14	9138 [63]
MSE12	1-1/16-12	5802 [40]
MSE14	1-3/16-12	5802 [40]
MSE16	1-5/16-12	5802 [40]

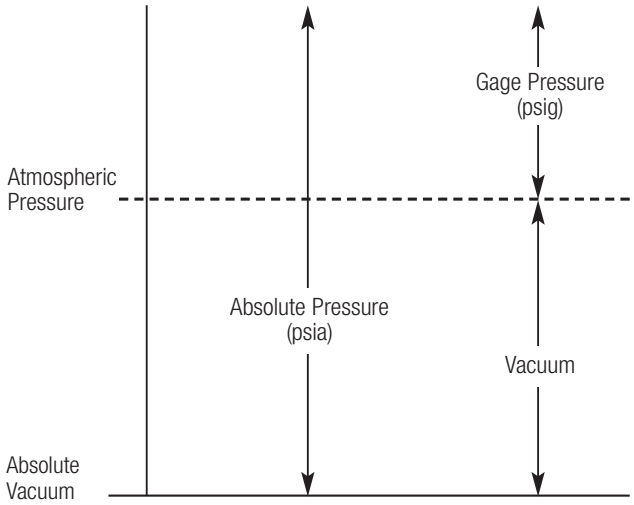
**Thread pressure ratings per SAE J1926/2*

Vacuum Units of Measure

	Absolute Pressure			
	psia	Torr (mm Hg)	mtorr (micron)	Pa (N/m²)
Atmospheric Pressure	14.696	760	760,000	101,292
Low Vacuum	↓	↓	↓	↓
Medium Vacuum	0.193 ↓	1 ↓	1000 ↓	133.28 ↓
High Vacuum	$1.93x10^{-5}$ ↓	$1.00x10^{-3}$ ↓	1 ↓	0.133 ↓
Very High Vacuum	$1.93x10^{-8}$ ↓	$1.00x10^{-6}$ ↓	$1.00x10^{-3}$ ↓	$0.133x10^{-4}$ ↓
Ultra High Vacuum	$1.93x10^{-11}$ ↓	$1.00x10^{-9}$ ↓	$1.00x10^{-6}$ ↓	$0.133x10^{-7}$ ↓
Absolute Vacuum	0	0	0	0

Conax Technologies Sealing Gland Vacuum Rating (Neoprene, Viton, PTFE & Grafoil) $5x10^{-6}$ Torr

Relative Magnitude of Pressure Differential



ASME/ANSI Flange Pressure Ratings (PSIG)

	304 Stainless		316 Stainless		Carbon Steel	
Temperature (°F)/Class	150	300	150	300	150	300
-20 to 100	275	720	275	720	285	740
200	230	600	235	620	260	675
300	205	540	215	560	230	655
400	190	495	195	515	200	635
500	170	465	170	480	170	600
600	140	435	140	450	140	550
700	110	425	110	430	110	535
800	80	405	80	420	80	410
900	50	390	50	415	50	170
1000	20	320	20	350	20	50

Information per ANSI B16.5

Conax Technologies Uses Kapton® Film for Our Insulated Conductors

Conax Technologies uses only DuPont Kapton® film type FN in the construction of our insulated conductors. Underwriters Laboratories has approved this film up to 464°F (240°C) under UL Card No. E39505. Conax can provide a copy of this card upon request. Or visit the DuPont website for more information - **www.dupont.com/kapton.**

The insulated conductors are fabricated to a Conax Technologies' proprietary specification that was originally developed for the nuclear power generation industry. The construction of these Kapton insulators consists of 1 mil thick layer of Kapton sandwiched between 1/2 mil layers of FEP PTFE. The resultant 2 mil thick film is then spirally wrapped in one direction around the conductor with a 50% minimum overlap, and then repeated in the opposite direction, again with a 50% minimum overlap, yielding a minimum of 4 layers (or 8-10 mils total thickness). The layers are then fused together to form a cohesive, leak-tight bond.

Electrode/Conductor Ampacities (@26° C, 90° C Max)

Conductor Size	Nominal Diameter	Copper	Nickel	303SST
093	0.093	20	10	3
125	0.120	40	15	6
187	0.182	60	25	9
250	0.245	95	40	15
312	0.307	125	50	20
375	0.370	160	65	24
500	0.495	200	80	30
750	0.745	400	165	60
1000	0.995	525	240	72

Electrode/Conductor Derating Values for Ambient Temperatures Other Than 26° C

Ambient Temperature Range (°C)	Delta from Ambient Temperature (°C)	Derating for Electrode (NEC)
21 – 25	-5	1.04
26 – 30	0	1
31 – 35	5	0.96
36 – 40	10	0.91
41 – 45	15	0.87
46 – 50	20	0.82
51 – 55	25	0.76
56 – 60	30	0.71
61 – 70	35	0.58
71 – 80	45	0.41

American Wire Gauge Size To Inches

American Wire Gauge (AWG)	Size O.D Inches
6/0	0.5800
5/0	0.5165
4/0	0.4600
3/0	0.4096
2/0	0.3648
1/0	0.3249
1	0.2893
2	0.2576
3	0.2294
4	0.2043
5	0.1819
6	0.1620
7	0.1443
8	0.1285
9	0.1144
10	0.1019
11	0.0907
12	0.0808
13	0.0720
14	0.0641
15	0.0571
16	0.0508
17	0.0453
18	0.0403
19	0.0359
20	0.0320
21	0.0285
22	0.0253

American Wire Gauge (AWG)	Size O.D Inches
23	0.0226
24	0.0201
25	0.0179
26	0.0159
27	0.0142
28	0.0126
29	0.0113
30	0.0100
31	0.00893
32	0.00795
33	0.00708
34	0.00630
35	0.00561
36	0.00500
37	0.00445
38	0.00396
39	0.00353
40	0.00314
41	0.00280
42	0.00249
43	0.00222
44	0.00198
45	0.00176
46	0.00157
47	0.00140
48	0.00124
49	0.00111
50	0.00099

Helpful Conversion Factors

	To Convert	Multiply By	To Obtain
Length	inches (in)	25.4	millimeters (mm)
	inches (in)	2.54	centimeters (cm)
	inches (in)	2.54×10^{-2}	meters (m)
	feet (ft)	304.8	millimeters (mm)
	feet (ft)	30.48	centimeters (cm)
	feet (ft)	0.3048	meters (m)
	millimeters (mm)	3.94×10^{-2}	inches (in)
	millimeters (mm)	3.28×10^{-3}	feet (ft)
	centimeters (cm)	0.394	inches (in)
	centimeters (cm)	3.28×10^{-2}	feet (ft)
	meters (m)	39.37	inches (in)
	meters (m)	3.28	feet (ft)
Torque	inch-pounds (in-lbs)	8.33×10^{-2}	foot-pounds (ft-lbs)
	inch-pounds (in-lbs)	0.113	newton-meters (N-m)
	foot-pounds (ft-lbs)	12	inch-pounds (in-lbs)
	foot-pounds (ft-lbs)	1.36	newton-meters (N-m)
	newton-meters (N-m)	8.85	inch-pounds (in-lbs)
	newton-meters (N-m)	0.738	foot-pounds (ft-lbs)
Pressure	psi or lbs/in^2	144	psf or lbs/ft^2
	psi or lbs/in^2	6894.8	pascals (Pa) or N/m^2
	psi or lbs/in^2	51.715	torr or mm Hg
	psi or lbs/in^2	51715	mtorr or micron Hg
	psi or lbs/in^2	6.893×10^{-2}	bars
	psi or lbs/in^2	68.93	millibars
	psi or lbs/in^2	6.805×10^{-2}	atmospheres (atm)
	psf or lbs/ft^2	6.94×10^{-3}	psi or lbs/in^2
	psf or lbs/ft^2	47.9	pascals (Pa)
	pascals (Pa) or N/m^2	1.4504×10^{-4}	psi or lbs/in^2
	pascals (Pa) or N/m^2	2.09×10^{-2}	psf or lbs/ft^2
	pascals (Pa) or N/m^2	1.00×10^{-3}	kilo-pascals (KPa)
	pascals (Pa) or N/m^2	1.00×10^{-6}	mega-pascals (MPa)
	pascals (Pa) or N/m^2	7.5028×10^{-3}	torr or mm Hg
	pascals (Pa) or N/m^2	7.5028×10^{-6}	mtorr or micron Hg
	pascals (Pa) or N/m^2	1.0×10^{-5}	bars
	pascals (Pa) or N/m^2	1.0×10^{-2}	millibars
	pascals (Pa) or N/m^2	9.87×10^{-6}	atmospheres (atm)
	kilo-pascals (KPa)	1000	pascals (Pa) or N/m^2
	mega-pascals (MPa)	1,000,000	pascals (Pa) or N/m^2
	torr or mm Hg	1.934×10^{-2}	psi or lbs/in^2
	torr or mm Hg	1000	mtorr or micron Hg
	torr or mm Hg	133.28	pascals (Pa)
	torr or mm Hg	1.3328×10^{-3}	bars
	torr or mm Hg	1.3328	millibars
	torr or mm Hg	1.32×10^{-3}	atmospheres (atm)
	mtorr or micron Hg	1×10^{-3}	torr or mm Hg
	mtorr or micron Hg	1.93×10^{-5}	psi or lbs/in^2
	mtorr or micron Hg	0.133	pascals (Pa) or N/m^2
	mtorr or micron Hg	1.33×10^{-6}	bars
	mtorr or micron Hg	1.33×10^{-3}	millibars
	mtorr or micron Hg	1.32×10^{-6}	atmospheres (atm)
	bar	750.2838	torr or mm Hg
	bar	7.5028×10^{5}	mtorr or micron Hg
	bar	14.508	psi or lbs/in^2
	bar	1×10^{5}	pascals (Pa) or N/m^2
	bar	1000	millibars
	bar	0.9872	atmospheres (atm)

Compression Seal Fittings

Case Studies

Very High Density Feedthrough

Customer Requirement:

A pump assembly facility needed a compression seal fitting capable of sealing 80 PTFE-insulated, 24 AWG, Type J thermocouple wires (40 pairs) in nitrogen gas at 3750 psi and 205°C. The customer required the performance of hydrostatic pressure test at 3750 psi and 21°C for 10 minutes with no visible leakage or wire movement permitted. A certificate of conformance was also required.

See pages 58-63

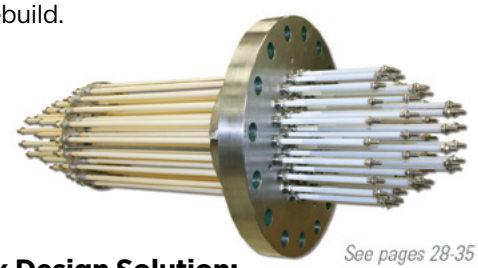
Conax Design Solution:

Conax used its new MHM6 sealing gland with a Grafoil® sealant. The assembly contained 120" leads on the body side. The Conax description is MHM6-24T(J)-A80-G, 120"/24". The customer said that Conax was the only vendor capable of sealing 80 wires for this high pressure application.

Large Scale Field Rebuildable

Customer Requirement:

An aerospace composite parts manufacturer, wanted to replace their heater power feedthrough in an aerospace parts autoclave that incorporated a design to allow a field rebuild.



See pages 28-35

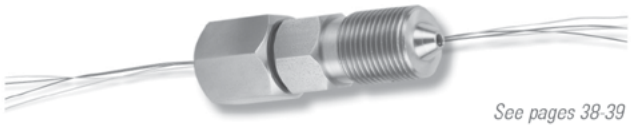
Conax Design Solution:

This product is a custom-designed large-scale hybrid of our Electrode Gland (EG) series and our Electrode Gland PTFE (EGT) series designs. We combined positive features of each fitting to benefit the customer in this application. The EG offers high temperature resistance required closer to the heaters. The EGT offers more robust, less costly components for the balance of the assembly located where lower temperatures prevail.

Very High Pressure Feedthrough

Customer Requirement:

A manufacturer of fluid ends (pump suction and discharge components) for high-pressure oil field pump service applications required a compression seal fitting that could seal the strain gauge leads exiting the fluid ends and hold up under pressures in the 30,000 psi range.



See pages 38-39

Conax Design Solution:

Our Conax Oil & Gas team accelerated an engineering program to develop a new high pressure gland (HPPL). The HPPL gland incorporates a body manufactured from high strength stainless steel, a high pressure mounting thread and our soft sealant technology to seal up to 10 Kapton®- insulated 26 AWG solid copper conductors. Conax is one of the few companies with the capability to seal wires at ultra-high pressure and provide a connector that can be rebuilt with new wires.

Durability in a Corrosive Environment

Customer Requirement:

A semiconductor customer required high quality wire sealing in a demanding highly accelerated stress testing (HAST) application that included corrosive materials attacking the seal, insulation and wires.

See page 75

Conax Design Solution:

Our Conax Semiconductor team developed this high density (HD) style feedthrough featuring 24AWG, PTFE insulated wires – and may come in copper, or as J, T, K or E thermocouple calibrations – mixed or matched. Multiple high density tubes in 12, 24, 40 and 60 wire densities may be grouped together in a common sealing gland to minimize penetrations. Other design options are available for feedthroughs and connections.

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Made in U.S.A.

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