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Subject to change.

All dimensions in mm (inches).

All prices in Euro (€) or USD (\$),
 excluding VAT.

All EURO prices are EXW Betzigau,
 all USD prices are EXW Memphis,
 excluding packaging costs.

Valid: From 01.01.2022 until 31.12.2022, unless otherwise agreed.

By publishing this selection list all other lists become invalid.

We assume no liability for typing errors.

Different variations to those specified are possible.
 Please contact our technical consultants.

Overview

Features

Continuous level measurement of solids and interface applications

Process

- Independent of bulk material properties
- Very accurate measurement

Service

- Simple installation and commissioning
- Rope, tape and (optional) motor with increased service life
- Low maintenance

Approvals

- Approval for use in Hazardous Areas
- 2011/65/EU RoHS conform

Mechanics

- Measurement range up to 50 m (164 ft)
- 1½" process connection possible
- Internal tape cleaner for difficult materials
- Window in lid and outside start button (optional)

Electronics

- Micro processor controlled measurement
- Comprehensive diagnostic possibilities
- Output 0/ 4-20 mA/ Modbus/ Profibus DP/ counting pulses
- Programmable Relais (can be used as level limit switch outputs)

Solids measurement



NB 3100
 Rope version
 (fig. with process connection thread and stainless steel weight)

NB 3200
 Tape version
 (fig. with process connection thread and stainless steel weight)

Interface measurement



NB 3300
 Rope version

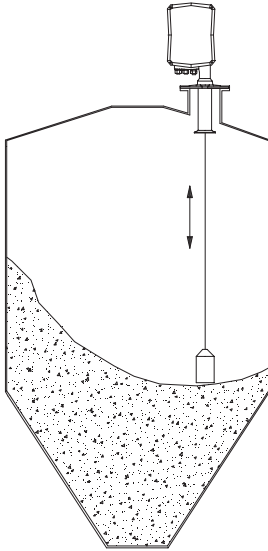
NB 3400
 Tape version

Specifications

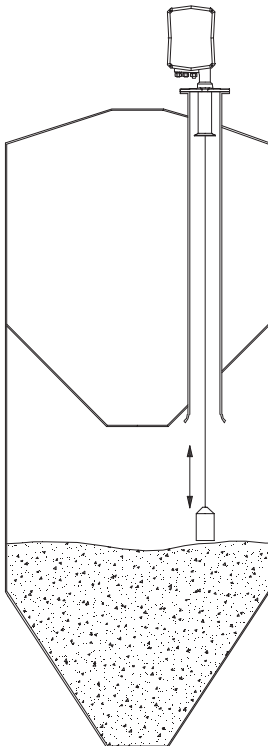
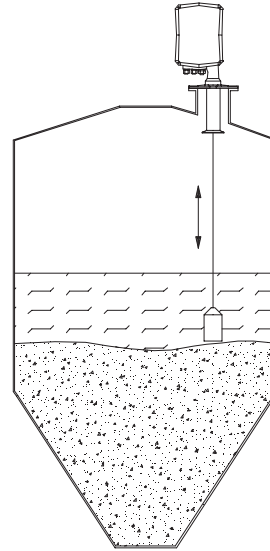
| | | | | NB 3100/ 3200 Solids measurement | NB 3300/ 3400 Interface measurement | |
|----------------------|---------------------|--------------|---|-------------------------------------|--|---|
| Process | Measurement range | Rope version | 30 m (98.4 ft) | • | • | |
| | | Tape version | 40 m (131 ft)/ 50 m (164 ft) | • | • | |
| | Process temperature | | | 80°C (176°F) | • | • |
| | | | 150°C (302°F) | • | | |
| | | | 250°C (482°F) | • | | |
| Process overpressure | | | -0.3 .. +0.3 bar (-4.35 .. + 4.35 psi) | • | • | |
| | | | -0.5 .. +1.1 bar (-7.3 .. +16 psi) | • | • | |
| | | | -0.5 .. +1.7 bar (-7.3 .. +25 psi) | • | • | |
| Electronics | Power supply | AC version | 98 .. 253 V 50 - 60 Hz | • | • | |
| | | DC version | 20 .. 28 V | • | • | |
| | Output | | | 0/ 4-20 mA | • | • |
| | | | | 4 relais | • | • |
| | | | | Modbus RTU | • | • |
| | | | | Profibus DP | • | • |
| Approvals | Dust Ex | | ATEX 1/2D | • | • | |
| | | | FM Cl. II, III Div. 1 | • | • | |
| | | | TR-CU | • | • | |
| | Ordinary Locations | | CE, FM, TR-CU | • | • | |

Applications

Solids measurement



**Interface measurement
(solids in water)**



For measurements through a long pipe in a double chamber silo we recommend the use of NB 3200 (tape version).

Applications

Sensor weight guide (solids measurement)

| Sensor weight | Application | | | | Note | Fits through mounting hole | | | | |
|-----------------|------------------------------------|----------------------|-----------------|--------------------|---|----------------------------|----|--------|----|------------|
| | * Material density g/l (lb/ft³) | Material consistence | Angle of repose | Max. process temp. | | Thread | | Flange | | |
| | | | | | | 1½" | 3" | 2" | 3" | DN100 / 4" |
| PVC without pin | >300 (18) | granulate | flat | 80°C (176°F) | Standard weight | | | | | • |
| PVC with pin | >300 (18) | granulate, powder | steep | 80°C (176°F) | The pin penetrates into the material and avoids slipping or tilting of the sensor weight on the steep bulk surface. | | | | | • |
| Stainl. steel | >300 (18) | granulate, powder | flat, steep | 250°C (482°F) | The pin penetrates into the material and avoids slipping or tilting of the sensor weight on the steep bulk surface. | • | • | • | • | • |
| Claw | >200 (12) | coarse (e.g. stones) | steep | 250°C (482°F) | Avoids slipping or tilting on the steep bulk surface. | | | | | • |
| Folding cover | >20 (1.2) | light powder | flat, steep | 80°C (176°F) | Big surface prevents the sensor weight from sinking into the material. | • | • | • | • | • |
| Spider | >40 (1.4) | light powder | flat, steep | 250°C (482°F) | Big surface prevents the sensor weight from sinking into the material. | | | | | • |
| Bag | >300 (18) | granulate, powder | flat | 80°C (176°F) | Prevents damage of the conveying screw. To be filled with bulk material. | | | | | • |
| Float | - | liquids only | - | 80°C (176°F) | To be filled with material. | | | | | |

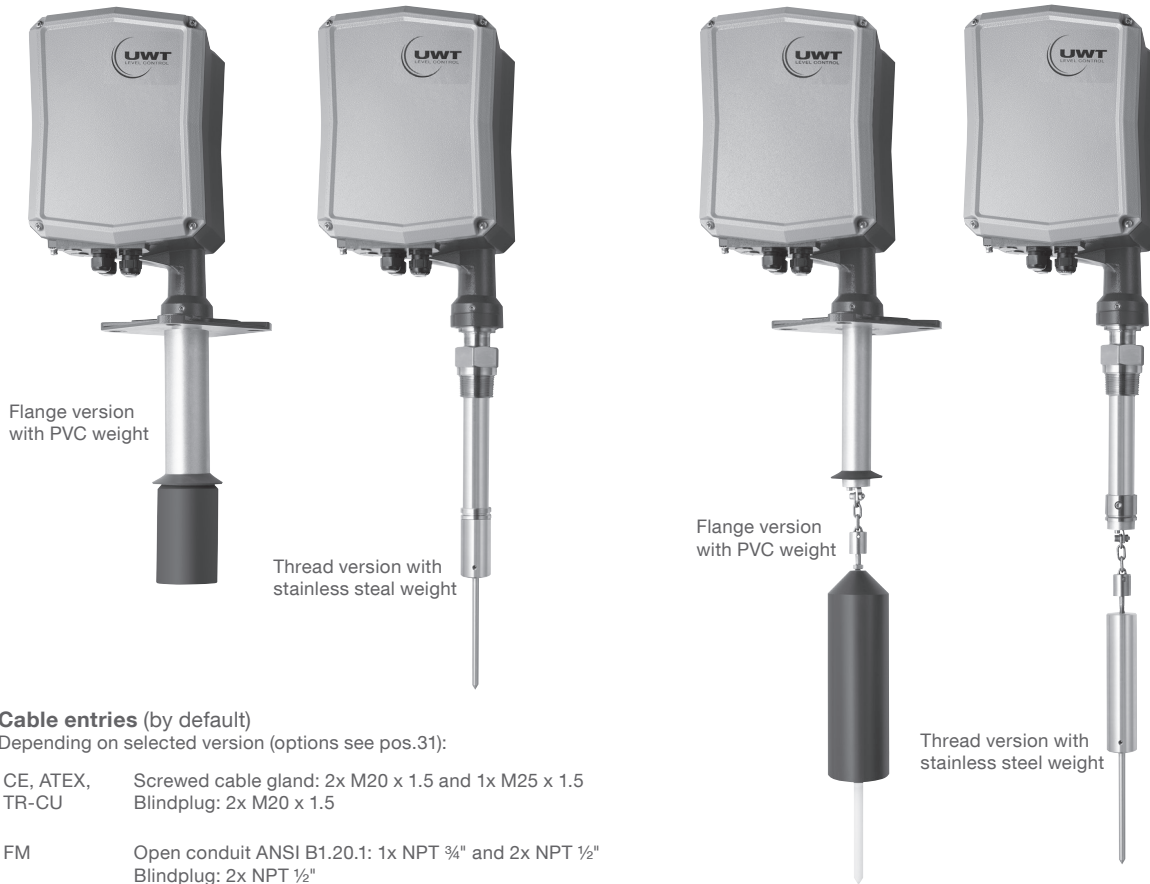
* The above mentioned data is a guideline and is valid for material which has settled after filling. During the filling the bulk density can change (e. g. for fluidised material).



Solids measurement

NB 3100
Rope version

NB 3200
Tape version



Cable entries (by default)

Depending on selected version (options see pos.31):

- CE, ATEX, TR-CU Screwed cable gland: 2x M20 x 1.5 and 1x M25 x 1.5
 Blindplug: 2x M20 x 1.5
- FM Open conduit ANSI B1.20.1: 1x NPT 3/4" and 2x NPT 1/2"
 Blindplug: 2x NPT 1/2"

Dimensions see page 12

| | | |
|-------|--|-----------------------|
| pos.1 | Basic type C NB 3100 Rope version (30 m) D NB 3200 Tape version (40 m) | • • |
| pos.2 | Certificate 0 CE ⁽¹⁾ W ATEX II 1/2D Ex ta/tb IIIC T! Da/Db M FM general purpose N FM Class II, III Div.1 Group E-G E TR-CU Ex ta/tb IIIC T130°C...T250°C Da/Db X | • • • • • |
| pos.3 | Process temperature A max. +80°C (176°F) S max. +150°C (302°F) T max. +250°C (482°F) | • • • |
| pos.4 | Power supply 1 98 .. 253 V 50 - 60 Hz 3 20 .. 28 V DC | • • |
| pos.5 | Signal output D 0/ 4-20 mA Modbus Relay counting pulse (5 cm 10 cm 1/6 ft 1/3 ft) B 0/ 4-20 mA Modbus Electronic counting pulse (1 cm 2.5 cm 1/20 ft 1/10 ft) E 0/ 4-20 mA Profibus DP Relay counting pulse (5 cm 10 cm 1/6 ft 1/3 ft) | • • • |
| pos.6 | Process connection X Flange DN100 PN16 (EN 1092-1) and flange 4" 150lbs ANSI B16.5 (unit is fitting to this flange) Y Flange 2" and flange 3" 150 lbs ANSI B16.5 (unit is fitting to this flange) A Thread R 1½" tapered EN 10226-1 B Thread NPT 1½" tapered ANSI B1.20.1 C Thread NPT 3" tapered ANSI B1.20.1 | • • • • • |

Solids measurement

| | | |
|-------|---|---|
| pos.7 | Motor for high measurement frequency ⁽¹⁾ | |
| | 1 Standard | • |
| | 2 Brushless motor ⁽²⁾ | • |
| pos.8 | Sensor weight ^(3,4) | |
| | Y without ⁽⁵⁾ | • |
| | A PVC without pin only with rope version pos.1 C, max. 80°C | • |
| | B PVC with pin max. 80°C | • |
| | C Stainless steel | • |
| | D Claw stainless steel | • |
| | E Folding cover max. 80°C, stainless steel, PA canvas | • |
| | F Spider stainless steel | • |
| | G Bag max. 80°C, PA canvas | • |
| | H Float max. 80°C, PP | • |

| | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---------------------|
| NB 3..00 | | | | | | | | | ← Order code |
| Position | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

All positions are available in special design (use code "Z").

- (1) TR-CU (Ordinary Locations) included
- (2) Motor with increased service life
- (3) For use in Hazardous Locations (Dust Ex): It must be ensured, that no static discharge from the material surface can occur. Sensor weights, which can be used in case of possible static discharge, on request.
- (4) See Sensor weight guide on page 5
- (5) Including mounting set for sensor weight (see page 14: Sensor weights)

Options

| | | | |
|--------|---|---|---|
| pos.11 | x | Guarantee extension to 5 years | • |
| | | Wear and tear parts rope/tape and standard motor pos.7 1 not included | |
| pos.21 | | Weather protection cover | • |
| | | For Ex only approved for Zone 22 or Division 2 | |
| pos.23 | | Measurement range 50 m | • |
| | | Available with tape version pos.1 D, not with sensor weight pos.8 G,H | |
| pos.25 | | Window in lid and external start button | • |
| pos.26 | | Internal heater | • |
| | | Needed for: ambient temp. < -20°C (-4°F) or condense water inside silo or wet process atmosphere (Note: < -20°C (-4°F) with ATEX, FM Class II or TR-CU possible on request) | |
| pos.27 | | Length of socket pipe | |
| | A | 500 mm (19.7") | • |
| | B | 1,000 mm (39.4") | • |
| pos.28 | | Compressed air connector | • |
| | | Quick coupling including counter part, for hose diameter 9 mm (0.35") | |
| pos.29 | | Increased corrosion resistance | • |
| | | All metal parts on process side coated, rope with plastic coating, use of stainless steel bearings Available with: Rope version (pos.1 C), CE or FM gen.purp. (pos.2 0,M), 80°C (pos.3 A), PVC weight (pos.8 A,B) | |
| pos.30 | | Increased process overpressure | • |
| | | -0.5 to 1.7 bar (-7.3 to 25 psi) (for CE, ATEX and TR-CU, pos.2 0,W,E) -0.5 to 1.1 bar (-7.3 to 16 psi) (for FM general purpose, pos.2 M) | |
| pos.31 | | Cable entry | |
| | | Selection of the following options only necessary, if a deviation from the default cable gland/ conduit is required: | |
| | 0 | Screwed cable gland 1x M25 x 1.5 + 2x M20 x 1.5 + blindplug 2x M20 x 1.5 | • |
| | A | Conduit 1x NPT ¾" + 2x NPT ½" + blindplug 2x NPT ½" | • |
| pos.33 | | Preset fieldbus address (Modbus) | • |
| | | Enables easy commissioning with Nivotec Level Monitoring System Preset from address = "1" to "amount of ordered units". Address label on enclosure. Termination resistor set on unit with highest address. Other addresses possible on request. | |

Interface measurement (solids in water)

NB 3300 Rope version

For applications with soft/ muddy or compact material surface



NB 3400 Tape version

For applications with compact material surface



Implemented

- Internal heater
- Rope/ tape roller with rubber coating to avoid slipping
- Plastic coated steel weight (rope version)
- Adjustment possibility for applications with soft/muddy material surface (rope version)

Cable entries (by default)

Depending on selected version (options see pos. 31):

CE, ATEX, Screwed cable gland: 2x M20 x 1.5 and 1x M25 x 1.5
 TR-CU Blindplug: 2x M20 x 1.5

FM Open conduit ANSI B1.20.1: 1x NPT ¾" and 2x NPT ½"
 Blindplug: 2x NPT ½"

Dimensions see page 12

Interface measurement (solids in water)

| | | | | | | | | | |
|-------|---|---|---|-------|--|--|--|--|---|
| pos.1 | Basic unit | | | | | | | | |
| | E | NB 3300 | Rope version (30 m) incl. sensor weight | ..... |  |  |  |  | • |
| | F | NB 3400 | Tape version (40 m) incl. sensor weight | ..... |  |  |  |  | • |
| pos.2 | Certificate | | | | | | | | |
| | 0 | CE ⁽¹⁾ | | | | | | | • |
| | W | ATEX II 1/2D Ex ta/tb IIIC T! Da/Db | ..... |  |  |  |  |  | • |
| | M | FM general purpose | ..... |  |  |  |  |  | • |
| | N | FM Class II, III Div.1 Group E-G | ..... |  |  |  |  |  | • |
| | E | TR-CU Ex ta/tb IIIC T130°C...T250°C Da/Db X | ..... |  |  |  |  |  | • |
| pos.4 | Power supply | | | | | | | | |
| | 1 | 98 .. 253 V 50 - 60 Hz | ..... |  |  |  |  |  | • |
| | 3 | 20 .. 28 V DC | ..... |  |  |  |  |  | • |
| pos.5 | Signal output | | | | | | | | |
| | D | 0/ 4-20 mA Modbus Relay counting pulse (5 cm 10 cm 1/6 ft 1/3 ft) | ..... |  |  |  |  |  | • |
| | B | 0/ 4-20 mA Modbus Electronic counting pulse (1 cm 2.5 cm 1/20 ft 1/10 ft) | ..... |  |  |  |  |  | • |
| | E | 0/ 4-20 mA Profibus DP Relay counting pulse (5 cm 10 cm 1/6 ft 1/3 ft) | ..... |  |  |  |  |  | • |
| pos.6 | Process connection | | | | | | | | |
| | X | Flange DN100 PN16, EN 1092-1 and flange 4" 150lbs ANSI B16.5 (unit is fitting to this flange) | ..... |  |  |  |  |  | • |
| pos.7 | Motor for high measurement frequency | | | | | | | | |
| | 1 | Standard | ..... |  |  |  |  |  | • |
| | 2 | Brushless motor ⁽²⁾ | | | | | | | • |

| | | | | | | | | | |
|-----------------|---|---|----------|---|---|----------|---|----------|---------------------|
| NB 3..00 | | | A | | | X | | 1 | ← Order code |
| Basic type | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | |

All positions are available in special design (use code "Z").

⁽¹⁾ TR-CU (Ordinary Locations) included

⁽²⁾ Motor with increased service life

Options

| | | | | | | | | | |
|--------|---|--|-------|--|--|--|--|--|---|
| pos.11 | x | Warranty extension to 5 years | ..... |  |  |  |  |  | • |
| | | Wear and tear parts rope/ tape and standard motor pos.7 1 not included | | | | | | | |
| pos.21 | | Weather protection cover | ..... |  |  |  |  |  | • |
| | | For Ex only approved for Zone 22 or Division 2 | | | | | | | |
| pos.25 | | Window in lid and external start button | ..... |  |  |  |  |  | • |
| pos.27 | | Length of socket pipe | | | | | | | |
| | A | 500 mm (19.7") | ..... |  |  |  |  |  | • |
| | B | 1,000 mm (39.4") | ..... |  |  |  |  |  | • |
| pos.28 | | Compressed air connector | ..... |  |  |  |  |  | • |
| | | Quick coupling including counter part, for hose diameter 9 mm (0.35") | | | | | | | |
| pos.29 | | Increased corrosion resistance | ..... |  |  |  |  |  | • |
| | | All metal parts on process side coated, rope with plastic coating, use of stainless steel bearings | | | | | | | |
| | | Available with rope version (pos.1 E), CE or FM gen.purp. (pos.2 0,M) | | | | | | | |
| pos.30 | | Increased process overpressure | ..... |  |  |  |  |  | • |
| | | -0.5 to 1.7 bar (-7.3 to 25 psi) (for CE, ATEX and TR-CU, pos.2 0,W,E) | | | | | | | |
| | | -0.5 to 1.1 bar (-7.3 to 16 psi) (for FM general purpose, pos.2 M) | | | | | | | |
| pos.31 | | Cable entry | | | | | | | |
| | | Selection of the following options only necessary, if a deviation from the default cable gland/ conduit is required: | | | | | | | |
| | 0 | Screwed cable gland 1x M25 x 1.5 + 2x M20 x 1.5 + blindplug 2x M20 x 1.5 | ..... |  |  |  |  |  | • |
| | A | Conduit 1x NPT ¾" + 2x NPT ½" + blindplug 2x NPT ½" | ..... |  |  |  |  |  | • |
| pos.33 | | Preset fieldbus address (Modbus) | ..... |  |  |  |  |  | • |
| | | Enables easy commissioning with Nivotec Level Monitoring System. | | | | | | | |
| | | Preset from address = "1" to "amount of ordered units". Address label on enclosure. | | | | | | | |
| | | Termination resistor set on unit with highest address. Other addresses possible on request. | | | | | | | |

Accessories

Minimum order value for separate orders of spare parts or accessories is 75 €.

Mounting Kit

Bolts, washers and nuts for mounting the unit on a flange

| | material | bolts | washers | nuts |
|----------|---------------------|-------------------|----------|----------------|
| zu107000 | stainless steel/ A2 | 4 pieces M16 x 60 | 8 pieces | 4 pieces |

Flange sealings

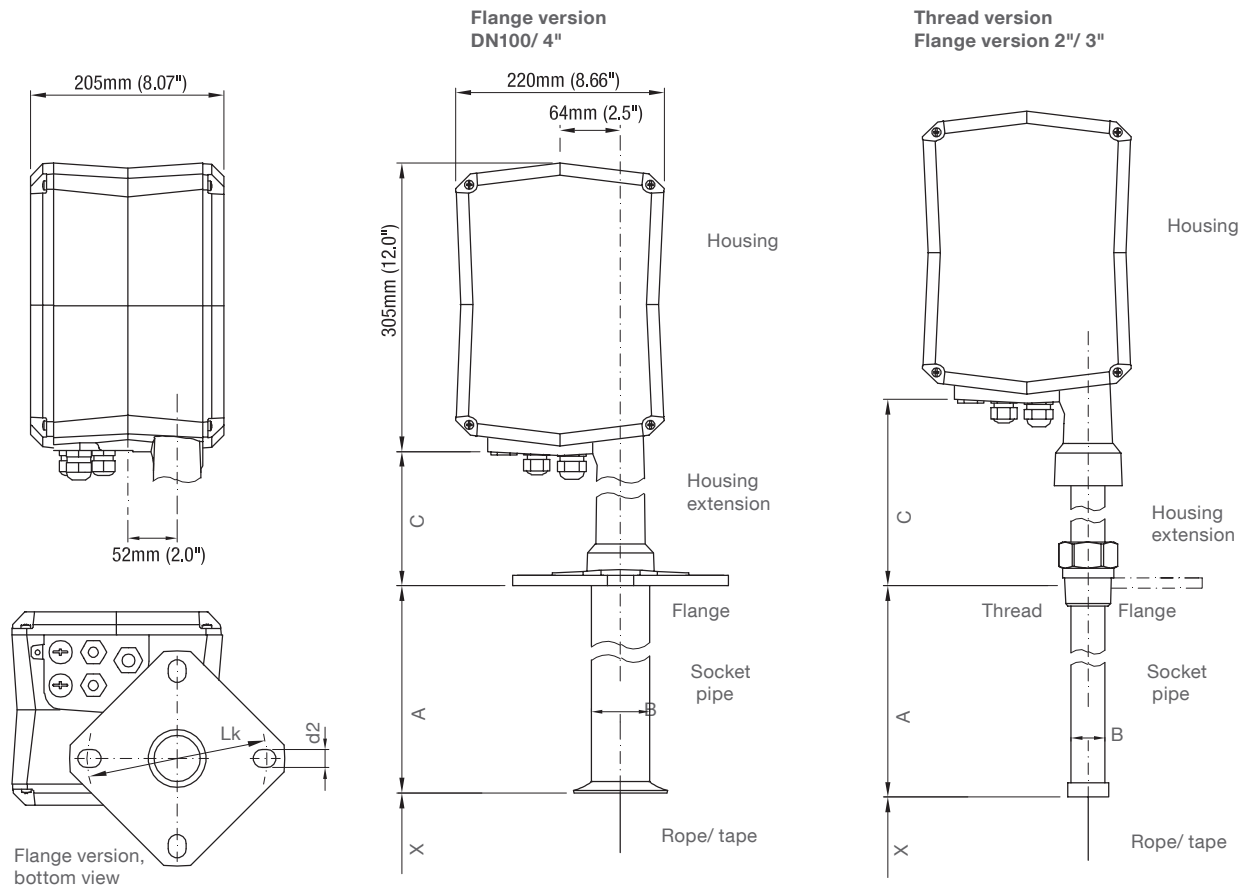
Sealings for mounting the unit on a flange.

Material: neoprene (85°C), temperature resistive plastic AFM30 (250°C)

| | suitable for flanges | max. temp. | suitable mounting kit |
|----------|----------------------|----------------|-----------------------|
| di300125 | DN100 PN16/ 4" | +85°C (185°F) | zu107000 |
| di300108 | DN100 PN16/ 4" | +250°C (482°F) | zu107000 |
| di300127 | 2" / 3" 150lbs | +85°C (185°F) | zu107000 |
| di300128 | 2" / 3" 150lbs | +250°C (482°F) | zu107000 |

Dimensions

Basic type



Dimensions

| |
|---|
| X = Length to bottom of sensor weight (in upper stop position): see next page |
|---|

| |
|--|
| A = Length of socket pipe |
| 200 mm (7.9") Optional 500 mm (19.7")/ 1,000 mm (39.4") |

| | |
|------------------------------------|-----------------|
| B = Diameter of socket pipe | |
| Rope version with Flange DN100/ 4" | ø60 mm (ø2.36") |
| All other versions | ø40 mm (ø1.57") |

| | | |
|------------------------------|-------------|----------------|
| C = Housing extension | | |
| Flange version DN 100/4" | 80°C/ 150°C | 95 mm (3.74") |
| | 250°C | 340 mm (13.4") |
| Other Versions | 80°C/ 150°C | 160 mm (6.3") |
| | 250°C | 340 mm (13.4") |

| | |
|-------------|-----------------------------|
| Rope | ø1.0 mm (ø0.04") |
| Tape | 12 x 0.2 mm (0.47 x 0.008") |

| Flanges | |
|--------------------------------------|--|
| fitting to: DN100 PN16/ 4" 150lbs | Lk = ø180 - 190.5 mm (ø7.1 - 7.5") slot d2 = ø19 mm (ø0.75") |
| fitting to: 2" / 3" 150lbs | Lk = ø120.7 - 152.4 mm (ø4.75 - 6.0") slot d2 = ø19 mm (ø0.75") |

Materials

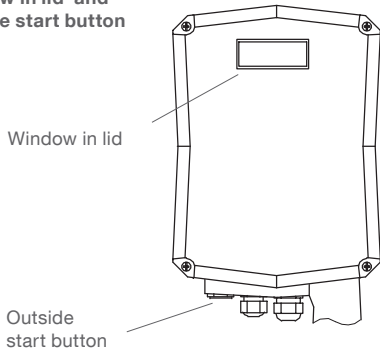
| | |
|--------------------------|---|
| Housing outside | Aluminium, powder coated |
| Housing inside | Aluminium |
| Housing extension | Aluminium, powder coated or 1.4305 (303) |
| Flange | 80°C/ 150°C: Aluminium, powder coated 250°C: 1.4305 (303) |
| Thread | 1.4301 (304) |
| Socket pipe | Flange version DN100/ 4", 80°C/ 150°C: Aluminium All other versions: 1.4301 (304) |
| Rope | 1.4401 (316) |
| Tape | 1.4310 (301) |

With option "Increased corrosion resistance":
 All metal parts in contact with the process are coated.
 The rope is plastic coated with PA.
 The internal bearings are made of stainless steel.

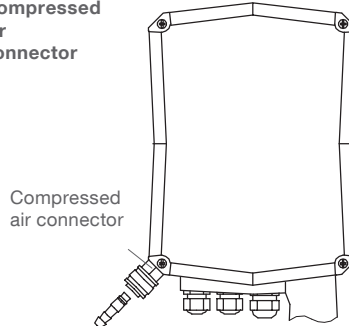
Dimensions

Options and Accessories

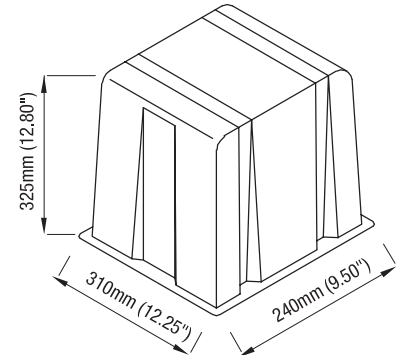
pos.25
 Window in lid and
 outside start button



pos.28
 Compressed
 air
 connector



pos.21
 Weather protection cover

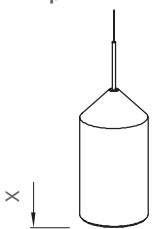


Sensor weights

Solids measurement: Rope version

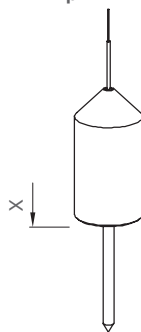
All weights ca. 1,0 kg (2.2 lbs)

PVC without
 pin



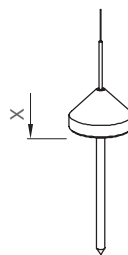
ø81 mm (ø3.2")
 X = 137 mm (5.4")
 Material: PVC

PVC with
 pin

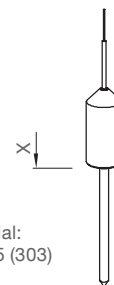


ø81 mm (ø3.2")
 X = 137 mm (5.4")
 Pin: 130 mm (5.1")
 Material: PVC (pin POM)

Stainless steel



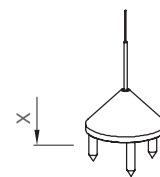
Version with
 Flange DN100/ 4"
 ø75 mm (ø3.0")
 X = 25 mm (1.0")
 Pin: 130 mm (5.1")



Material:
 1.4305 (303)

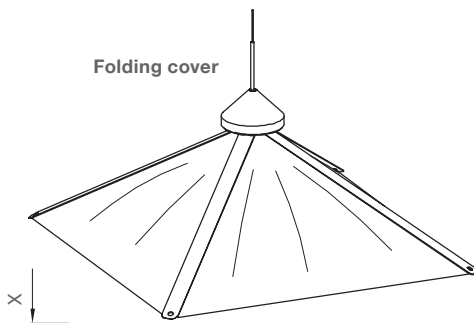
All other versions
 ø42 mm (ø1.65")
 X = 81 mm (3.19")
 Pin: 130 mm (5.1")

Claw



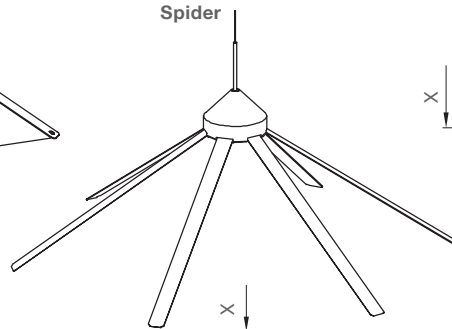
ø95 mm (ø3.7")
 X = 71 mm (2.8")
 Material: 1.4305 (303)

Folding cover



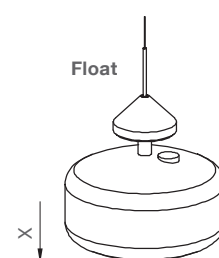
380 x 380 mm (15 x 15")
 X = 150 mm (5.9")
 Material: 1.4310 (301)/ 1.4305 (303)
 PA canvas

Spider



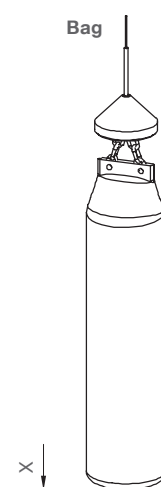
ø600 mm (ø23.6")
 X = 160 mm (6.3")
 Material: 1.4301 (304)/ 1.4305 (303)
 1.4310 (301)

Float



ø190 mm (ø7.5")
 X = 175 mm (6.9")
 Material: Float PP,
 Cone: aluminium

Bag

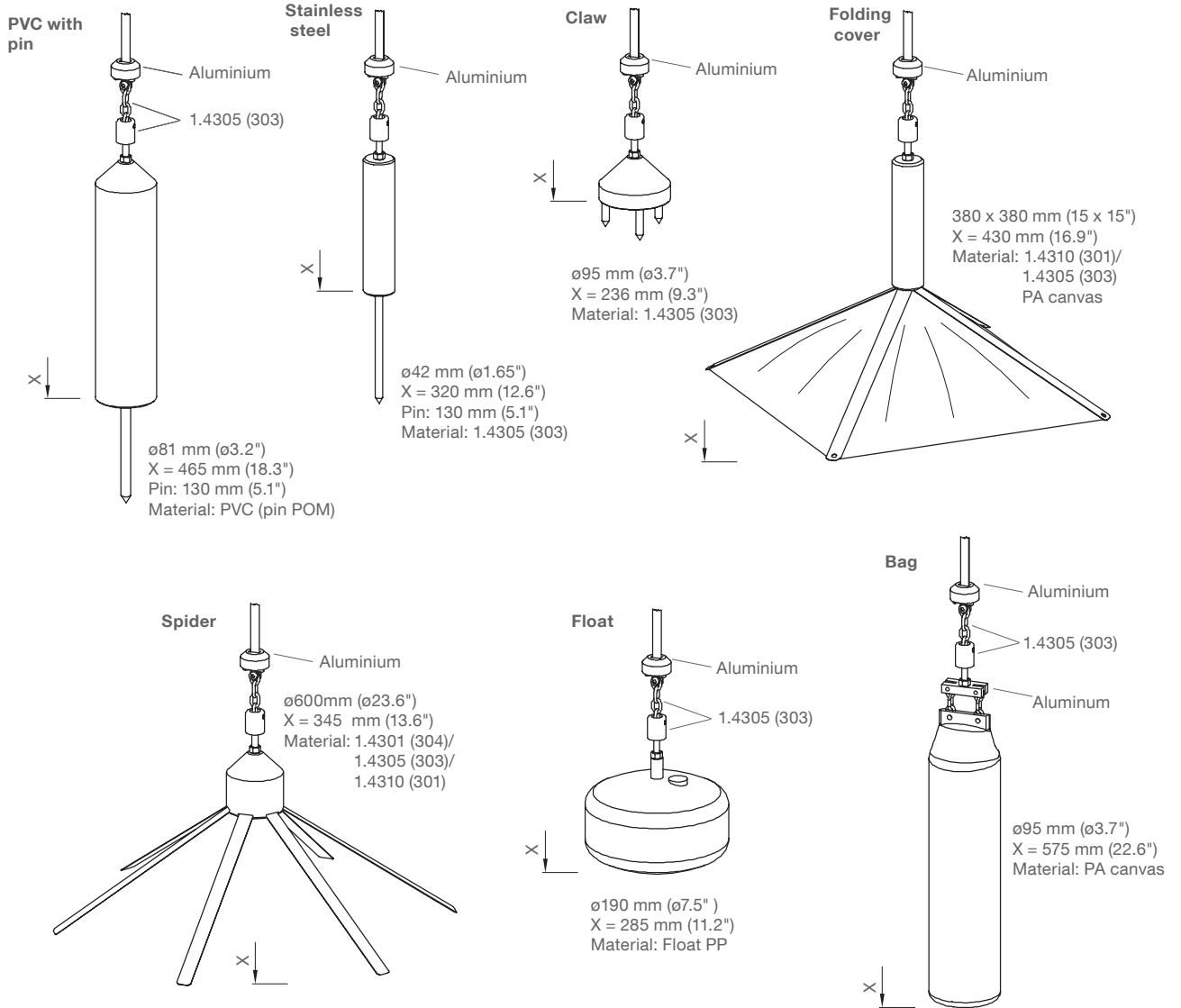


ø95 mm (ø3.7")
 X = 460 mm (18.1")
 Material: PA canvas,
 Chain: 1.4305 (303)
 Cone: aluminium

Dimensions

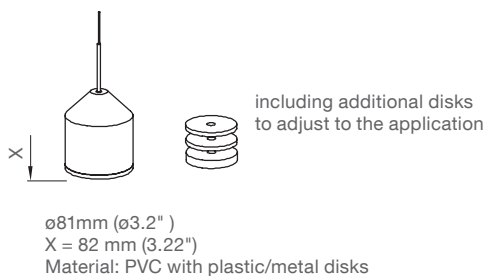
Solids measurement: Tape version

All weights ca. 2.1 kg (4.6 lbs)



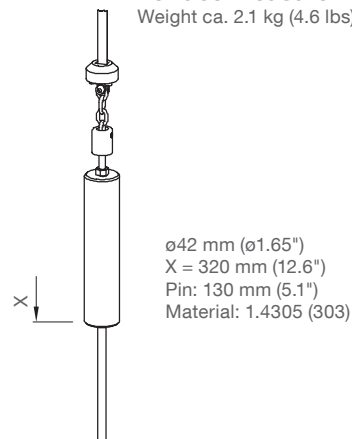
Interface measurement: Rope version

Weight ca. 1.0 kg (2.2 lbs)



Interface measurement: Tape version

Weight ca. 2.1 kg (4.6 lbs)



Spare parts

Minimum order value for separate orders of spare parts or accessories is 75 €.

Rope roller (rope rolls are supplied with an assembly set for proper mounting)

| | | |
|-----------------|--|---|
| sl102243 | Rope roller with 30 m rope (13 mm* rope chamber) Process temperature max. 80°C | • |
| sl102240 | Rope roller with 30 m rope (33 mm* rope chamber) Process temperature max. 80°C | • |
| sl102242 | Rope roller with 30 m rope for increased corrosion resistance (plastic coated) | • |

*For safe function 13 mm and 33 mm rope chamber must be substituted only by the same type.

Tape roller (tape rolls are supplied with an assembly set for proper mounting)

| | | |
|-----------------|----------------------------------|---|
| sb102240 | Tape roller with 40 m tape | • |
|-----------------|----------------------------------|---|

Sensor weights

All sensor weights are delivered incl. mounting set for proper fixing to the rope/tape and excl. rope/tape

Solid measurement

| | | | |
|-----------------|-----------------------------|---------------------------------------|---|
| sl102220 | Sensor weight for rope | PVC without pin | • |
| sl102221 | Sensor weight for rope | PVC with pin | • |
| sl102222 | Sensor weight for rope | Stainless steel ø75 mm (ø3.0") | • |
| sl102228 | Sensor weight for rope | Stainless steel ø42 mm (ø1.65") | • |
| sl102223 | Sensor weight for tape | Claw | • |
| sl102224 | Sensor weight for rope | Folding cover | • |
| sl102225 | Sensor weight for rope | Spider | • |
| sl102226 | Sensor weight for rope | Bag | • |
| sl102227 | Sensor weight for rope | Float | • |
| sb102221 | Sensor weight for tape 40 m | PVC with pin | • |
| sb102222 | Sensor weight for tape 40 m | Stainless steel | • |
| sb102223 | Sensor weight for tape 40 m | Claw | • |
| sb102224 | Sensor weight for tape 40 m | Folding cover | • |
| sb102225 | Sensor weight for tape 40 m | Spider | • |
| sb102226 | Sensor weight for tape 40 m | Bag | • |
| sb102227 | Sensor weight for tape 40 m | Float | • |

Interface measurement

| | | | |
|-----------------|------------------------|---------------------------|---|
| sl102230 | Sensor weight for rope | PVC with metal core | • |
| sb102230 | Sensor weight for tape | Stainless steel | • |

Mounting set without sensor weights

| | | |
|-----------------|-----------------------------|---|
| sl100270 | For rope version 80°C | • |
| zu108030 | For tape version | • |

Motor

| | | |
|-----------------|-------------------------------|---|
| gm102202 | Motor standard version | • |
| gm102211 | Motor brushless version | • |

Electronics

| | | | | | | |
|-----------------|-------------|------------------------|------------|-------------|---|---|
| pl102691 | Electronics | 98 .. 253 V 50 -60 Hz | 0/ 4-20 mA | Modbus | Relay counting pulse (5 cm 10 cm 1/6 ft 1/3 ft) | • |
| pl102690 | Electronics | 98 .. 253 V 50 - 60 Hz | 0/ 4-20 mA | Modbus | Electr. counting pulse (1 cm 2.5 cm 1/20ft 1/10 ft) | • |
| pl102692 | Electronics | 98 .. 253 V 50 - 60 Hz | 0/ 4-20 mA | Profibus DP | Relay counting pulse (5 cm 10 cm 1/6 ft 1/3 ft) | • |
| pl102696 | Electronics | 20 .. 28 V DC | 0/ 4-20 mA | Modbus | Relay counting pulse (5 cm 10 cm 1/6 ft 1/3 ft) | • |
| pl102695 | Electronics | 20 .. 28 V DC | 0/ 4-20 mA | Modbus | Electr. counting pulse (1 cm 2.5 cm 1/20 ft 1/10 ft) | • |
| pl102697 | Electronics | 20 .. 28 V DC | 0/ 4-20 mA | Profibus DP | Relay counting pulse (5 cm 10 cm 1/6 ft 1/3 ft) | • |

Required information: Rope or Tape version. Evt. further menu presettings.

Internal Heater

| | | | |
|-----------------|----------|---|---|
| em100372 | 220 Ohms | For power supply 98 .. 253 V 50 - 60 Hz | • |
| em100371 | 8 Ohms | For power supply 20 .. 28 V DC | • |

Weather protection cover

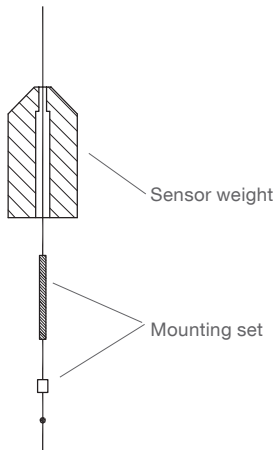
| | | |
|-----------------|-------|---|
| zu400215 | | • |
|-----------------|-------|---|

Spare parts

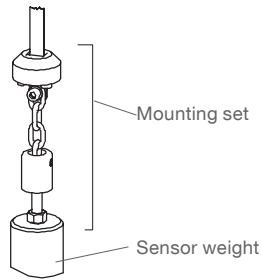
Sensor weights/ Mounting set

All sensor weights are delivered including stated parts for proper fixing to the rope/ tape

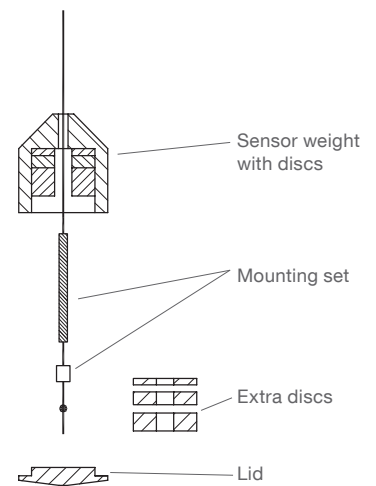
Solids measurement: rope version



Solids measurement: tape version Interface measurement: tape version

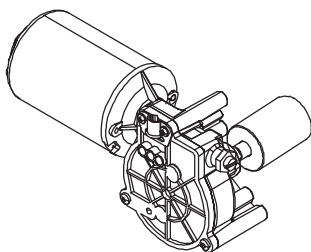


Interface measurement: rope version

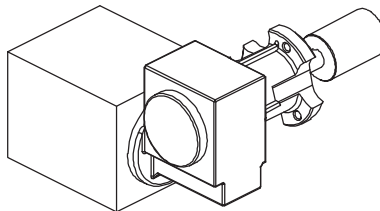


Motor

Standard

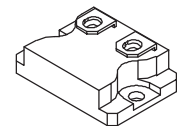


Brushless motor



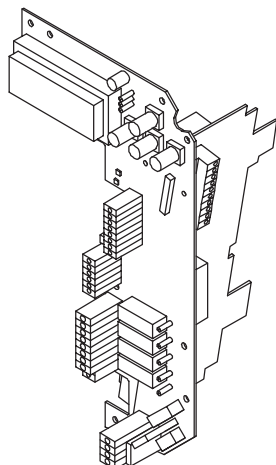
Delivery including: cable, plug, sealing, mounting tools

Heater

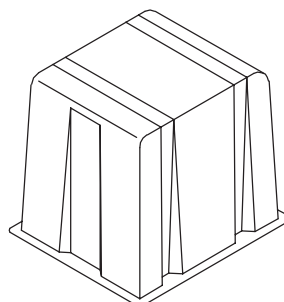


Delivery including cable and plug

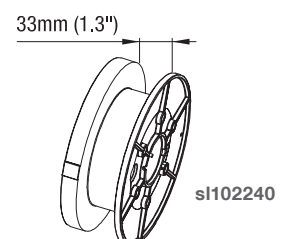
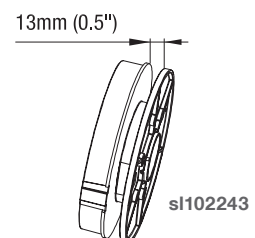
Electronics



Weather protection cover

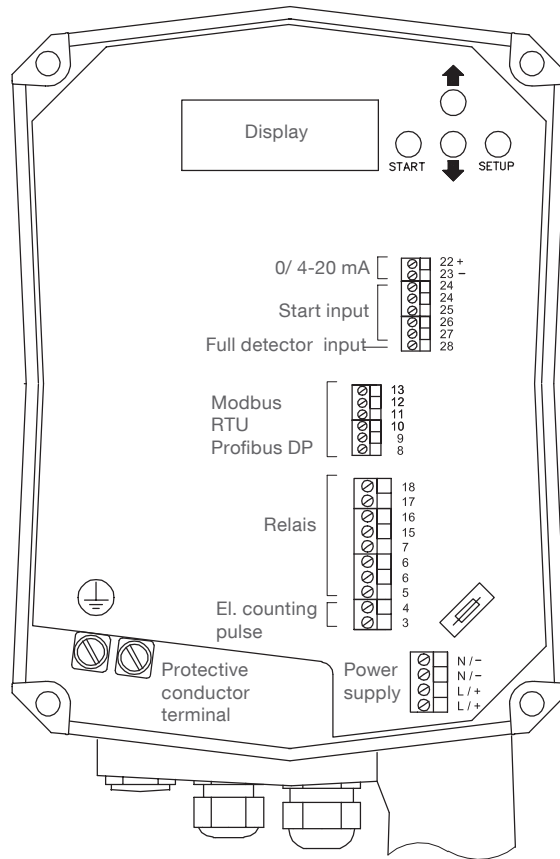


Rope roller



Electrical installation

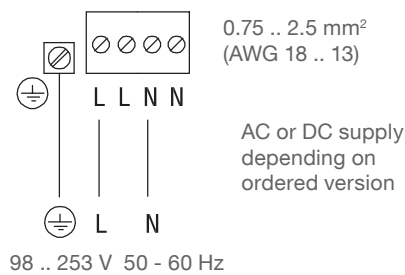
Terminal location



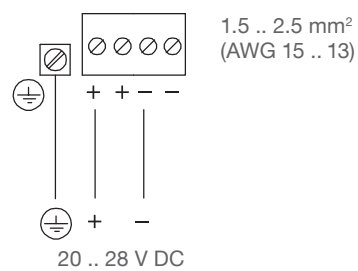
Power supply and Signal input/ output

Power supply

AC version

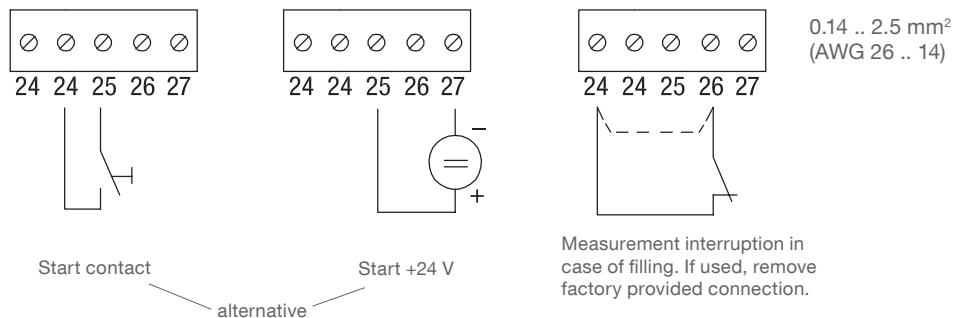


DC version



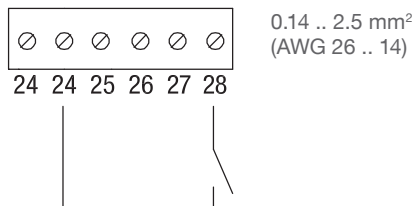
Signal input:

Start of measurement

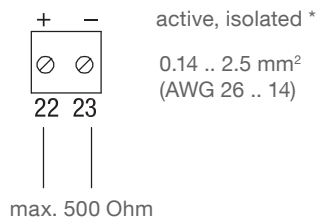


Electrical installation

**Signal input:
Full detector**

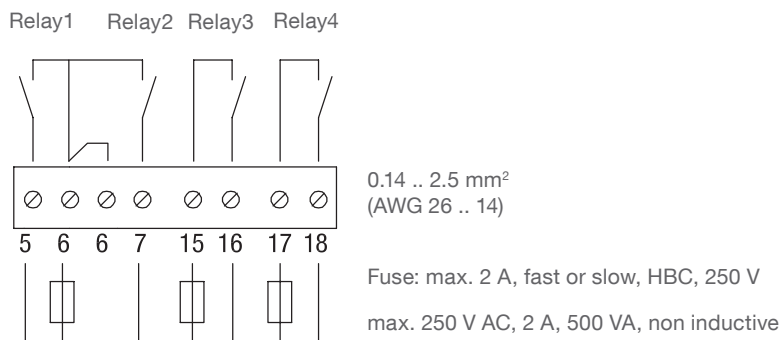


**Signal output:
0/4-20 mA**

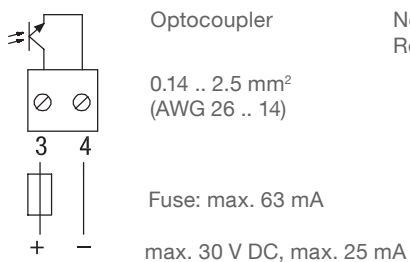


* CAUTION:
If connecting to a PLC with isolated (floating) 4-20 mA input, the "-" line must be connected to ground of the PLC. See user manual of the PLC.

**Signal output:
Relay**

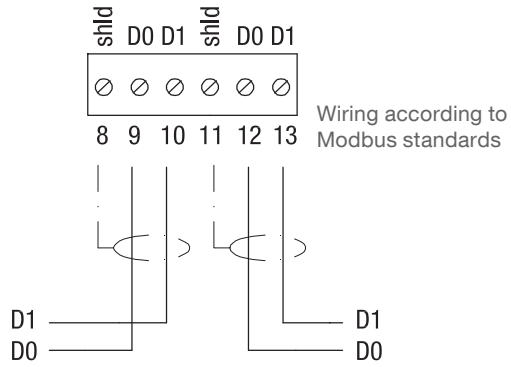


**Signal output:
Electronic counting
pulse**



Electrical installation

Modbus network



Profibus DP network

