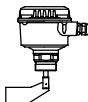
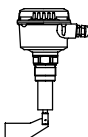
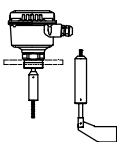
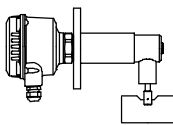
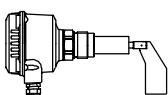
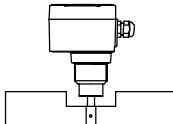


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Subject to change.

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 01.04.2021 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

- Level limit detection in bulk goods/ solids
- Compact unit
- Very robust and reliable sensors
- Wide range of applications, no maintenance
- Full-, demand-, empty detector

- ATEX, IEC-Ex , FM, CSA, UKEX, TR-CU, INMETRO, KC, CCC
- SIL 2
- 1935/2004/EC
- 2011/65/EU

Gas Ex and Dust Ex approvals

Functional safety
 Food grade material
 RoHS Conform

Series	RN 3000	RN 6000
	ATEX/ UKEX/ IEC-Ex/ TR-CU/ INMETRO/ KC/ CCC Small housing Sensitivity >15 g/l (0.9 lb/ft³)	ATEX/ UKEX/ IEC-Ex/ FM/ CSA/ TR-CU/ INMETRO/ KC/ CCC SIL 2 Spacious housing Sensitivity >15 g/l (0.9 lb/ft³)

Housing

Standard



Standard

d

de



RN ..001
 Short extension
 length

RN 3001



RN 6001



RN ..002
 Pipe extension
 vertical

RN 3002



RN 6002



Overview

RN ..002-rope Rope extension	RN 3002-rope 	RN 6002-rope 
	RN 3003 	RN 6003 
RN ..003 Angled extension	RN 3004 	RN 6004 
	RN 3005 	
RN ..004 Pipe extension horizontal		
RN 3005 Extra short version for use in loading bellow		

Specifications

Series		RN 3000	RN 6000
Approvals	CE/ UKCA/ TR-CU	•	•
	ATEX/ UKEX/ IEC-Ex/ INMETRO/ TR-CU/ KC/ CCC:		
	Zone 20/21 Dust Ignition Proof	•	•
	Zone 1 Flameproof/ Increased Safety		•
	FM/ CSA:		
	Ordinary Locations		•
	Cl. II, III Div. 1 Dust Ignition Proof		•
	Cl. I Div. 1 Explosionproof		•
	Zone 1 Flameproof/ Increased Safety		•
	Functional safety SIL 2 (IEC 61508)		•

Technical data	Ambient temperature	-20°C .. +70°C (-4°F .. +158°F) -20°C .. +60°C (-4°F .. +140°F) EX -40°C (-40°F) with heating	-20°C .. +50°C (-4°F .. +122°F) -40°C (-40°F) with heating
	Type of protection	IP66 ⁽⁵⁾ and NEMA Type 4/4X (RN6000)	
	Material housing	Aluminium or plastics PA6 (RN3000, optional)	
	Process connection/ extension material	Aluminium or 1.4301 (304)/ 1.4305 (303)/ 1.4541 (321) or 1.4404 (316L)	
	Material of measuring vane and shaft	1.4301 (SS 304)/ 1.4305 (303) or 1.4404 (316L)	

Electronics

RN 3000								
Power supply		Output signal						
		SPDT ⁽¹⁾	DPDT	PNP	FSH/ FSL ⁽²⁾	Adjustable delay	Fail safe alarm	
AC version	24 V or 48 V or 115 V or 230 V AC	●	-	-	-	-	-	
DC version	24 V DC	●	-	-	-	-	-	
DC version	24 V DC PNP	-	-	●	●	●	-	
Universal voltage	24 V DC/ 22 .. 230 V AC	●	-	-	●	●	option	
RN 6000								
Power supply		Output signal						
		SPST	SPDT ⁽¹⁾	DPDT	PNP	FSH/ FSL ⁽²⁾	Adjustable delay	Fail safe alarm
AC version	24 V or 48 V or 115 V or 230 V AC	-	●	-	-	-	-	
DC version	24 V DC	-	●	-	-	-	-	
Universal voltage	24 V DC/ 22 .. 230 V AC	-	-	● ⁽³⁾	-	●	●	option
Universal voltage SIL 2	24 V DC/ 22 .. 230 V AC	●	● ⁽⁴⁾	-	-	●	●	-

⁽¹⁾ Micro switch, with Universal voltage Relais

⁽²⁾ Switchable signal output (Fail safe high/ low)

⁽³⁾ For Ex approval "Increased safety" (pos.2 R,C,S,K,4) not in combination with option Fail safe alarm

⁽⁴⁾ Additional output, without SIL

⁽⁵⁾ For version with plug the type of protection can be lower (see pos.35)

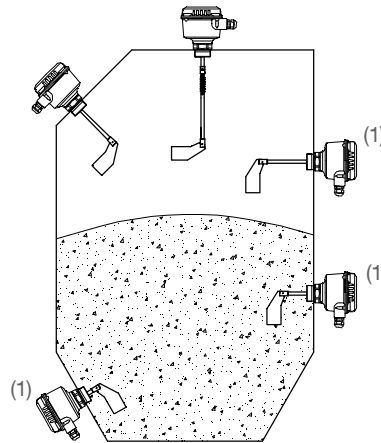
Specifications

Extensions	RN .001	Process temperature	-40/ -25 .. +80/ 150/ 250/ 350/ 600/ 1,100°C (-40/ -13 .. +176/ 302/ 482/ 662/ 1,112/ 2,012°F)
		Process pressure	-0.9 .. +0.8bar; -0.9 .. +5/ 10 bar (-13.1 .. +11.6; -13.1 .. +72.5/ 145 psi)
		Length of extension	
		Full detector vertical from the top	70 .. 1,000 mm (2.76 .. 39.4")
		Full detector with pendulum shaft, vertical from the top	300 .. 1,000 mm (11.8 .. 39.4")
		Full detector oblique from the top	70 .. 300 mm (2.76 .. 11.8")
		Full detector horizontal	70 .. 300 mm (2.76 .. 11.8")
		Demand or empty detector horizontal	70 .. 150 mm (2.76 .. 5.9") *
		Empty detector oblique from the bottom	70 .. 150 mm (2.76 .. 5.9") *
	RN .002	Process temperature	-40/ -25 .. +80/ 150/ 250/ 350/ 600/ 1,100°C (-40/ -13 .. +176/ 302/ 482/ 662/ 1,112/ 2,012°F)
		Process pressure	-0.9 .. +0.8 bar; -0.9 .. +5/ 10 bar (-13.1 .. +11.6; -13.1 .. +72.5/ 145 psi)
		Length of extension	
		Full detector vertical from the top	250 .. 3,000 mm (9.84 .. 118")/ 4,000 mm (158") with support of the extension pipe
		Full detector oblique from the top	250 .. 3,000 mm (9.84 .. 118") with option "Bearing at tube end"
	RN..002-rope	Process temperature	-40/ -25 .. +80/ 150/ 250/ 350/ 600°C (-40/ -13 .. +176/ 302/ 482/ 662/ 1,112°F)
		Process pressure	-0.9 .. +0.8 bar; -0.9 .. +5/ 10 bar (-13.1 .. +11.6; -13.1 .. +72.5/ 145 psi)
		Length of extension	
		Full detector vertical from the top	500 .. 10,000 mm (19.7 .. 394") (observe max. traction)
	RN .003	Process temperature	-40/ -25 .. +80/ 150/ 250°C (-40/ -13 .. +176/ 302/ 482°F)
		Process pressure	-0.9 .. +0.8 bar; -0.9 .. +5/ 10 bar (-13.1 .. +11.6; -13.1 .. +72.5/ 145 psi)
		Length of extension	
		Demand or empty detector horizontal	125 .. 600 mm (4.92 .. 23.6")
		Empty detector oblique from the bottom	125 .. 600 mm (4.92 .. 23.6")
	RN .004	Process temperature	-40/ -25 .. +80/ 150/ 250/ 350/ 600°C (-40/ -13 .. +176/ 302/ 482/ 662/ 1,112°F)
		Process pressure	-0.9 .. +0.8 bar; -0.9 .. +5/ 10 bar (-13.1 .. +11.6; -13.1 .. +72.5/ 145 psi)
		Length of extension	
		Full detector vertical from the top	150 .. 600 mm (5.90 .. 23.6")
		Full detector oblique from the top	150 .. 300 mm (5.90 .. 11.8")
		Full detector horizontal	150 .. 300 mm (5.90 .. 11.8")
		Demand or empty detector horizontal	150 .. 300 mm (5.90 .. 11.8") *
		Empty detector oblique from the bottom	150 .. 300 mm (5.90 .. 11.8") *
	RN 3005	Process temperature	-40/ -25 .. +80°C (-40/ -13 .. +176°F)
		Process pressure	-0.9 .. +0.8 bar (-13.1 .. +11.6 psi)
		Length of extension	
		Application "Loading bellow"	90 mm (3.5")

* A protective canopy is recommended for applications with high mechanical loads

Applications

RN ..001 Short extension length

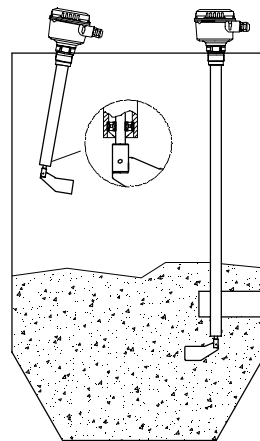


Extension for vertical
 instalation with pendulum shaft

(1) Not for version 1,100°C

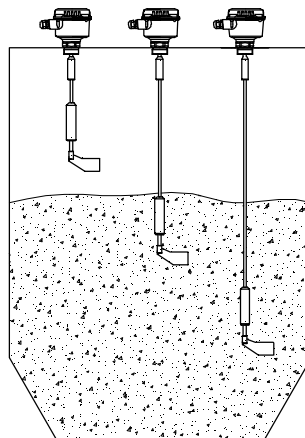
Horizontal mounting:
 Boot shaped vane
 recommended
 (min. mech. loading as
 the vane aligns itself to
 the material flow).

RN ..002 Pipe extension vertical



Deviation up to max.
 10° from vertical
 installation only with
 option „bearing at
 tube end" possible

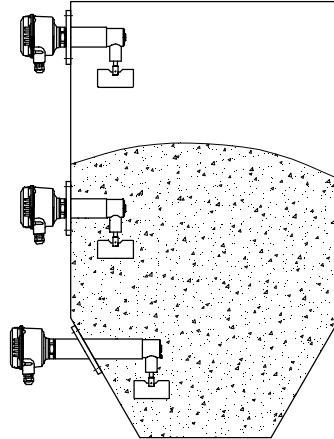
RN ..002 - rope Rope extension



Applications

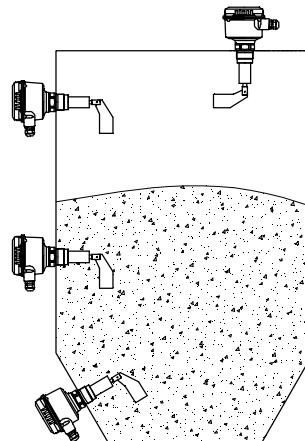
RN ..003

Angled extension



RN ..004

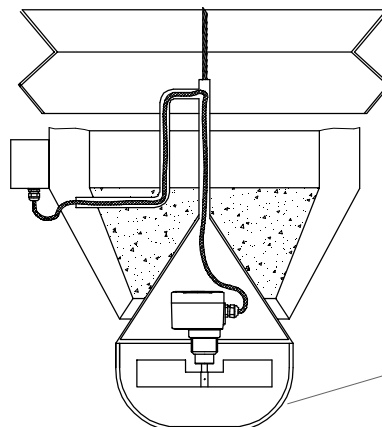
Pipe extension horizontal



Horizontal mounting:
 Boot shaped vane
 recommended
 (min. mech. loading as
 the vane aligns itself to
 the material flow).

RN 3005

Extra short version



Application
 „Loading bellow“

mechanical
 protection for
 sensor

RN ..001 Short extension length

RN 3001



RN 6001



Housings RN 6001



Standard



d (flameproof)



de
(flameproof/
increased safety)

Cable entries (by default)

Depending on model selected, the following cable entries will be delivered (options see pos.28 on page 20):

Version:	Cable entries:
Flameproof (pos.2 T,D,L,5)	M20 x 1.5 (1x open conduit + 1x blind plug)
FM and CSA (pos.2 M,N,S,U)	NPT 1/2" tapered ANSI B1.20.1 (1x open conduit + 1x blind plug)
All other versions	M20 x 1.5 (1x screwed cable gland + 1x blind plug)

Dimensions

see pages 25 - 29

Basic Type

RN 3001

RN 6001

pos.2 **Certificate** (detailed Ex-markings: see page 30)

Certificate	Zone/ Div		Protection method
	Dust	Gas	
0 CE/ UKCA/ TR-CU	-	-	
W ATEX	Zone 20/21	-	Dust Ignition Proof
R ATEX	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
T ATEX	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
A IEC-Ex	Zone 20/21	-	Dust Ignition Proof
C IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
D IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
M FM/ CSA	-	-	General purpose
N FM/ CSA	Cl. II, III, Div.1	-	Dust Ignition Proof
CSA	A 20/21		
S FM/ CSA	Cl. II, III, Div.1	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
CSA	A 20/21		
U FM/ CSA	Cl. II, III, Div.1	Cl. I Div.1/ Zone 1	Explosion Proof/ Dust Ignition Proof
CSA	A 20/21		
E TR-CU	Zone 20/21	-	Dust Ignition Proof
K TR-CU	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
L TR-CU	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
2 Further ⁽¹⁾	Zone 20/21	-	Dust Ignition Proof
4 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
5 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof

pos.3

Process temperature

- max. +80°C (176°F)
- max. +150°C (302°F)
- max. +250°C (482°F)
- max. +350°C (662°F) (not for pos.10 K,S in 1.4404; not for Ex, only with pos.4 1, L min=200 mm)
- max. +600°C (1,112°F) (not for pos.10 K,S in 1.4404; not for Ex, only with pos.4 1)
- max. +1,100°C (2,012°F) Installation vertical/ obliquely downward on request

pos.4

Process overpressure

- max. 0.8 bar (11.6 psi) (0.1 bar (1.45 psi) with Pos.3 5 and pos.3 6)
- max. 5 bar (73 psi)
- max. 10 bar (145 psi)

RN ..001 Short extension length

pos.5

Power supply

A / S

230 V AC 50 - 60 Hz

.....

Motor Speed: A=1/min S=5/min

.....

/

B / T

115 V AC 50 - 60 Hz

.....

Motor Speed: B=1/min T=5/min

.....

/

C / U

48 V AC 50 - 60 Hz

.....

Motor Speed: C=1/min U=5/min

.....

/

D / V

24 V AC 50 - 60 Hz

.....

Motor Speed: D=1/min V=5/min

.....

/

E / W

24 V DC

.....

Motor Speed: E=1/min W=5/min

.....

/

G / H

24 V DC PNP

.....

Motor Speed: G=1/min H=5/min

.....

/

F / X

24 V DC/ 22 .. 230 V AC universal voltage

.....

Motor Speed: F=1/min X=5/min

.....

/

pos.6

Process connection

A

thread G 1½", DIN 228

.....

B

thread G 1¼", DIN 228

..... (max. 250°C (482°F))

C

thread G 1", DIN 228 (max. 250°C (482°F); not for pos.2 C,D,L,K,R,S,T,U,4,5)

.....

D

thread M32 x 1.5 (max. 0.8 bar (11.6psi)/ 250°C (482°F); nor for pos.2 C,D,L,K,R,S,T,U,4,5)

.....

E

thread M30 x 1.5 (max. 0.8 bar (11.6psi)/ 80°C (176°F); nor for pos.2 C,D,L,K,R,S,T,U,4,5)

.....

F

thread NPT 1½", conical ANSI B1.20.1

.....

Q

thread NPT 1¼", conical ANSI B1.20.1

..... (max. 250°C (482°F))

G

thread NPT 1", conical ANSI B1.20.1 (max. 250°C (482°F); not for pos.2 C,D,L,K,R,S,T,U,4,5)

.....

P

Triclamp 2" (DN50) ISO 2852

..... (max. 250°C (482°F))

H

flange 150x150, 4x ø18 LK-ø170

..... (max. 0.8 bar (11.6psi))

I

flange 150x150, 4x ø14 LK-ø170

..... (max. 0.8 bar (11.6psi))

K

flange DN32 PN6, EN 1092-1

..... (max. 5 bar (73psi)/ 250°C (482°F))

N

flange DN50 PN16, EN 1092-1

.....

L

flange DN100 PN6, EN 1092-1

..... (max. 5 bar (73 psi))

M

flange DN100 PN16, EN 1092-1

.....

S

flange 2" 150lbs ANSI B16.5

.....

T

flange 3" 150lbs ANSI B16.5

.....

U

flange 4" 150lbs ANSI B16.5

.....

pos.7

Material Process connection

1

aluminium

..... (max. 0.8 bar (11.6psi)/ 80°C (176°F))

3

stainless steel 1.4301 (304)/ 1.4305 (303) A-P/ 1.4301 (304) H,I / 1.4541 (321) K-U

.....

7

stainless steel 1.4404 (316L)

..... (only with pos.9 7)

pos.8

Length of extension "L"

K

70 mm (2.76")

..... (only with vane P).....

A

100 mm (3.93")

..... (only with vane A,D,R,J,B,C,E)

B

150 mm (5.90")

.....

C

200 mm (7.87")

.....

D

250 mm (9.84")

.....

E

300 mm (11.8")

.....

Z

other lengths price per 50 mm (1.97") or part thereof (starting from 0 mm) min. 350 mm (13.8"), max. 1,000 mm (39.4")

.....

pos.9

Material of extension "L"

3

stainless steel 1.4305 (303)

.....

7

stainless steel 1.4404 (316L)

..... (only with pos.7 7 and 10 A,D,R,F,K,S,P)

pos.10

Measuring vane

A

boot-shaped⁽²⁾ 40 x 98 mm (1.57 x 3.86")

..... for 1½" socket (with pos.9 7 L=10 mm longer)

D

boot-shaped⁽²⁾ 35 x 106 mm (1.38 x 4.17")

..... for 1¼" socket (L=10 mm longer)

R

boot-shaped⁽²⁾ 28 x 98 mm (1.10 x 3.86")

..... for 1" and M32 socket

J

boot-shaped⁽²⁾ 26 x 77 mm (1.02 x 3.03")

..... for M30 socket

B

rectangular 50 x 98 mm (1.97 x 3.86")

.....

C

rectangular 50 x 150 mm (1.97 x 5.90")

.....

E

rectangular 50 x 250 mm (1.97 x 9.84")

.....

F

rectangular 98 x 98 mm (3.86 x 3.86")

.....

G

rectangular 98 x 150 mm (3.86 x 5.90")

.....

I

rectangular 98 x 250 mm (3.86 x 9.84")

.....

K

hinged vane 98 x 200 mm (3.86 x 7.87") double sided (L=10mm longer) 1.4301/ 1.4404

.....

/

(1.4404)

S

hinged vane 98 x 100 mm (3.86 x 3.93") single sided (L=10mm longer) 1.4301/ 1.4404

.....

/

(1.4404)

M

rubber vane 98 x 250 mm (3.86 x 9.84")

..... (max. 80°C (176°F))

P

notched 40 x 80 mm (1.57 x 3.15")

..... (only with pos.8 K) 1.4301/ 1.4404

/

(1.4404)

Y

without

..... including splint pin for fixation

Further options and accessories: see page 20

Basic type		Further options and accessories:								
	A									
Position	1	2	3	4	5	6	7	8	9	10

← **Order code**

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

⁽¹⁾ Local certificates see option 20/ page 20

(2) Maximum length of socket 40mm

RN ..002 Pipe extension vertical

RN 3002



RN 6002



Without sealing and bearing
 at tube end (see also
 option pos.32)

Housings RN 6002



Standard



d (flameproof)



de
 (flameproof/
 increased safety)

Cable entries (by default)

Depending on model selected, the following cable entries will be delivered (options see pos.28 on page 20):

Version:	Cable entries:
Flameproof (pos.2 T,D,L,5)	M20 x 1.5 (1x open conduit + 1x blind plug)
FM and CSA (pos.2 M,N,S,U)	NPT 1/2" tapered ANSI B1.20.1 (1x open conduit + 1x blind plug)
All other versions	M20 x 1.5 (1x screwed cable gland + 1x blind plug)

Dimensions

see pages 25 - 29

Basic Type

RN 3002	.....	•
RN 6002	.....	•

pos.2 **Certificate** (detailed Ex-markings: see page 30)

Certificate	Zone/ Div		Protection method
	Dust	Gas	
0 CE/ UKCA/ TR-CU	-	-	
W ATEX	Zone 20/21	-	Dust Ignition Proof
R ATEX	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
T ATEX	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
A IEC-Ex	Zone 20/21	-	Dust Ignition Proof
C IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
D IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
M FM/ CSA	-	-	General purpose
N FM/ CSA	Cl. II, III, Div.1	-	Dust Ignition Proof
	A 20/21		
S FM/ CSA	Cl. II, III, Div.1	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
	A 20/21		
U FM/ CSA	Cl. II, III, Div.1	Cl. I Div.1/ Zone 1	Explosion Proof/ Dust Ignition Proof
	A 20/21		
E TR-CU	Zone 20/21	-	Dust Ignition Proof
K TR-CU	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
L TR-CU	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
2 Further ⁽¹⁾	Zone 20/21	-	Dust Ignition Proof
4 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
5 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof

RN ..002 Pipe extension vertical

pos.3	Process temperature			
• •	1 max. +80°C (176°F)	.....	•	
• •	2 max. +150°C (302°F)	.....	•	
• •	3 max. +250°C (482°F)	.....	•	
• •	5 max. +600°C (1,112°F)	 (not for pos.10 K,S in 1.4404; not for Ex, only with pos.4 1)	•	
• •	6 max. +1,100°C (2,012°F)	 Installation vertical/ obliquely downward on request	•	
pos.4	Process overpressure			
• •	1 max. 0.8 bar (11.6 psi)	 (0.1 bar (1.45 psi) with pos.3 5, pos.3 6)	•	
• •	2 max. 5 bar (73 psi)	.....	•	
• •	3 max. 10 bar (145 psi)	.....	•	
pos.5	Power supply			
• •	A / S 230 V AC 50 - 60 Hz	 Motor Speed: A=1/min S=5/min	•	/ •
• •	B / T 115 V AC 50 - 60 Hz	 Motor Speed: B=1/min T=5/min	•	/ •
• •	C / U 48 V AC 50 - 60 Hz	 Motor Speed: C=1/min U=5/min	•	/ •
• •	D / V 24 V AC 50 - 60 Hz	 Motor Speed: D=1/min V=5/min	•	/ •
• •	E / W 24 V DC	 Motor Speed: E=1/min W=5/min	•	/ •
• •	G / H 24 V DC PNP	 Motor Speed: G=1/min H=5/min	•	/ •
• •	F / X 24 V DC/ 22 .. 230 V AC universal voltage	 Motor Speed: F=1/min X=5/min	•	/ •
pos.6	Process connection			
• •	A thread G 1½", DIN 228	.....	•	• •
• •	B thread G 1¼", DIN 228	 (max. 250°C (482°F))	•	• •
• •	F thread NPT 1½", conical ANSI B1.20.1	.....	•	• •
• •	Q thread NPT 1¼", conical ANSI B1.20.1	 (max. 250°C (482°F))	•	• •
• •	P Tricomp 2" (DN50) ISO 2852	 (max. 250°C (482°F))	•	• •
• •	H flange 150x150, 4x ø18 LK-ø170	 (max. 0.8 bar (11.6 psi))	•	• •
• •	I flange 150x150, 4x ø14 LK-ø170	 (max. 0.8 bar (11.6 psi))	•	• •
• •	K flange DN32 PN6, EN 1092-1	 (max. 5 bar (73 psi) /250°C (482°F))	•	• •
• •	N flange DN50 PN16, EN 1092-1	.....	•	• •
• •	L flange DN100 PN6, EN 1092-1	 (max. 5 bar (73 psi))	•	• •
• •	M flange DN100 PN16, EN 1092-1	.....	•	• •
• •	S flange 2" 150lbs ANSI B16.5	.....	•	• •
• •	T flange 3" 150lbs ANSI B16.5	.....	•	• •
• •	U flange 4" 150lbs ANSI B16.5	.....	•	• •
pos.7	Material Process connection			
• •	1 aluminium	 (max. 0.8 bar (11.6 psi)/ 80°C (176°F))	•	
• •	3 stainless steel 1.4301 (304)/ 1.4305 (303) A-P/ 1.4301 (304) H,I / 1.4541 (321) K-U	.....	•	
• •	7 stainless steel 1.4404 (316L)	 (only with pos.9 7)	•	
pos.8	Length of extension "L"			
• •	Z price per 100 mm (3.94") or part thereof (starting from 0 mm)	.....	•	• •
	min. 250 mm (9.84"), max. 4,000 mm (158")		•	• •
pos.9	Material of extension "L"			
• •	1 aluminium	 (max. 0.8 bar (11.6psi)/ 250°C (482°F))	•	
• •	3 stainless steel 1.4305 (303)/ 1.4301 (304)	.....	•	
• •	7 stainless steel 1.4404 (316L)	 (only with pos.7 7 and 10 A,D,F,K,S and 32x)	•	
pos.10	Measuring vane			
• •	A boot-shaped ⁽²⁾ 40 x 98 mm (1.57 x 3.86")	for 1½" socket (with pos.9 7 L=10 mm)	•	
• •	D boot-shaped ⁽²⁾ 35 x 106 mm (1.38 x 4.17")	 for 1¼" socket (L=10 mm longer)	•	
• •	B rectangular 50 x 98 mm (1.97 x 3.86")	.....	•	
• •	C rectangular 50 x 150 mm (1.97 x 5.90")	.....	•	
• •	E rectangular 50 x 250 mm (1.97 x 9.84")	.....	•	
• •	F rectangular 98 x 98 mm (3.86 x 3.86")	.....	•	
• •	G rectangular 98 x 150 mm (3.86 x 5.90")	.....	•	
• •	I rectangular 98 x 250 mm (3.86 x 9.84")	.....	•	
• •	K hinged vane 98 x 200 mm (3.86 x 7.87") double sided	 (L=10 mm longer) 1.4301/ 1.4404	•	/ • (1.4404)
• •	S hinged vane 98 x 100 mm (3.86 x 3.93") single sided	 (L=10 mm longer) 1.4301/ 1.4404	•	/ • (1.4404)
• •	M rubber vane 98 x 250 mm (3.86 x 9.84")	 (max.80°C (176°F))	•	
• •	Y without	 including splint pin for fixation	•	

Further options and accessories: see page 20

Basic Type

	B						Z		
Position	1	2	3	4	5	6	7	8	9 10

L = **mm**

Order code

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

⁽¹⁾ Local certificates see option 20/ page 20

⁽²⁾ Maximum length of socket 40mm

RN ..002-rope Rope extension

RN 3002 - rope



RN 6002 - rope



Housings RN 6002-rope



Standard



d (flameproof)



de
(flameproof/
increased safety)

Cable entries (by default)

Depending on model selected, the following cable entries will be delivered (options see pos.28 on page 20):

Version:	Cable entries:
Flameproof (pos.2 T,D,L,5)	M20 x 1.5 (1x open conduit + 1x blind plug)
FM and CSA (pos.2 M,N,S,U)	NPT ½" tapered ANSI B1.20.1 (1x open conduit + 1x blind plug)
All other versions	M20 x 1.5 (1x screwed cable gland + 1x blind plug)

Dimensions

see pages 25 - 29

Basic Type

RN 3002-Rope	.....	•
RN 6002-Rope	.....	•

pos.1	Types	
C	Standard	 (max. 4 kN load)
H	Strengthened	 (max. 28 kN load) (max. 80°C (176°F), only with pos.7 3 and pos.2 0.W.A.M.N.E.2)

pos.2	Certificate	(detailed Ex-markings: see page 30)
-------	--------------------	-------------------------------------

Certificate	Zone/ Div		Protection method
	Dust	Gas	
0 CE/ UKCA/ TR-CU	-	-	
W ATEX	Zone 20/21	-	Dust Ignition Proof
R ATEX	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
T ATEX	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
A IEC-Ex	Zone 20/21	-	Dust Ignition Proof
C IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
D IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
M FM/ CSA	-	-	General purpose
N FM/ CSA	Cl. II, III, Div.1	-	Dust Ignition Proof
CSA	A 20/21		
S FM/ CSA	Cl. II, III, Div.1	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
CSA	A 20/21		
U FM/ CSA	Cl. II, III, Div.1	Cl. I Div.1/ Zone 1	Explosion Proof/ Dust Ignition Proof
CSA	A 20/21		
E TR-CU	Zone 20/21	-	Dust Ignition Proof
K TR-CU	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
L TR-CU	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
2 Further ⁽¹⁾	Zone 20/21	-	Dust Ignition Proof
4 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
5 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof

RN ..002-rope Rope extension

pos.3	Process temperature			
	1	max. +80°C (176°F)	.....	
	2	max. +150°C (302°F)	.....	
	3	max. +250°C (482°F)	.....	
	5	max. +600°C (1,112°F)	 (not for pos.10 K,S in 1.4404; not for Ex, only with pos.4 1)	
pos.4	Process overpressure			
	1	max. 0.8 bar (11.6 psi)	 (0.1 bar (1.45 psi) with pos.3 5)	
	2	max. 5 bar (73 psi)	.....	
pos.5	Power supply			
	A / S	230 V AC 50 - 60 Hz	 Motor Speed: A=1/min S=5/min	/
	B / T	115 V AC 50 - 60 Hz	 Motor Speed: B=1/min T=5/min	/
	C / U	48 V AC 50 - 60 Hz	 Motor Speed: C=1/min U=5/min	/
	D / V	24 V AC 50 - 60 Hz	 Motor Speed: D=1/min V=5/min	/
	E / W	24 V DC	 Motor Speed: E=1/min W=5/min	/
	G / H	24 V DC PNP	 Motor Speed: G=1/min H=5/min	/
	F / X	24 V DC/ 22 .. 230 V AC universal voltage	 Motor Speed: F=1/min X=5/min	/
pos.6	Process connection			
	A	thread G 1½", DIN 228	.....	
	B	thread G 1¼", DIN 228	 (max. 250°C (482°F))	
	F	thread NPT 1½", conical ANSI B1.20.1	.....	
	Q	thread NPT 1¼", conical ANSI B1.20.1	 (max. 250°C (482°F))	
	H	flange 150x150, 4x ø18 LK-ø170	 (max. 0.8 bar (11.6 psi))	
	I	flange 150x150, 4x ø14 LK-ø170	 (max. 0.8 bar (11.6 psi))	
	K	flange DN32 PN6, EN 1092-1	 (max. 5 bar (73 psi)/ 250°C (482°F))	
	N	flange DN50 PN16, EN 1092-1	.....	
	L	flange DN100 PN6, EN 1092-1	 (max. 5 bar (73 psi))	
	M	flange DN100 PN16, EN 1092-1	.....	
	S	flange 2" 150lbs ANSI B16.5	.....	
	T	flange 3" 150lbs ANSI B16.5	.....	
	U	flange 4" 150lbs ANSI B16.5	.....	
pos.7	Material Process connection			
	1	aluminium	 (max. 0.8 bar (11.6 psi)/ 80°C (176°F)	
	3	stainless steel	1.4301 (304)/ 1.4305 (303) A-Q/ 1.4301 (304) H,I / 1.4541 (321) K-U	
pos.8	Length of extension "L"			
	Z	price per 100 mm (3.94") or part thereof (starting from 0 mm)	.....	
		pos.1 C min. 500 mm (19.69")/ pos.1 H min. 1,000 mm (39.4")	max. 10,000 mm (394")	
pos.10	Measuring vane			
	A	boot-shaped ⁽²⁾ 40 x 98 mm (1.57 x 3.86")	 for 1½" socket	
	D	boot-shaped ⁽²⁾ 35 x 106 mm (1.38 x 4.17")	 for 1¼" socket (L=10 mm longer)	
	B	rectangular 50 x 98 mm (1.97 x 3.86")	.....	
	C	rectangular 50 x 150 mm (1.97 x 5.90")	.....	
	E	rectangular 50 x 250 mm (1.97 x 9.84")	.....	
	F	rectangular 98 x 98 mm (3.86 x 3.86")	.....	
	G	rectangular 98 x 150 mm (3.86 x 5.90")	.....	
	I	rectangular 98 x 250 mm (3.86 x 9.84")	.....	
	K	hinged vane 98 x 200 mm (3.86 x 7.87")	double sided (L=10 mm)	
	S	hinged vane 98 x 100 mm (3.86 x 3.93")	single sided (L=10 mm longer)	
	M	rubber vane 98 x 250 mm (3.86 x 9.84")	 (max.80°C (176°F))	
	Y	without	including splint pin for fixation	

Further options and accessories: see page 20

Basic Type

								Z	3	
Position	1	2	3	4	5	6	7	8	9	10

— L = mm ← Order code

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

⁽¹⁾ Local certificates see option 20/ page 20

(2) Maximum length of socket 40mm

RN ..003 Angled extension

RN 3003



RN 6003



Housings RN 6003



Cable entries (by default)

Depending on model selected, the following cable entries will be delivered (options see pos.28 on page 20):

Version:	Cable entries:
Flameproof (pos.2 T,D,L,5)	M20 x 1.5 (1x open conduit + 1x blind plug)
FM and CSA (pos.2 M,N,S,U)	NPT 1/2" tapered ANSI B1.20.1 (1x open conduit + 1x blind plug)
All other versions	M20 x 1.5 (1x screwed cable gland + 1x blind plug)

Dimensions

see pages 25 - 29

Basic Type

RN 3003

RN 6003

pos.2

Certificate

(detailed Ex-markings: see page 30)

Certificate	Zone/ Div		Protection method
	Dust	Gas	
0 CE/ UKCA/ TR-CU	-	-	
W ATEX	Zone 20/21	-	Dust Ignition Proof
R ATEX	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
T ATEX	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
A IEC-Ex	Zone 20/21	-	Dust Ignition Proof
C IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
D IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
M FM/ CSA	-	-	General purpose
N FM/ CSA	Cl. II, III, Div.1	-	Dust Ignition Proof
CSA	A 20/21		
S FM/ CSA	Cl. II, III, Div.1	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
CSA	A 20/21		
U FM/ CSA	Cl. II, III, Div.1	Cl. I Div.1/ Zone 1	Explosion Proof/ Dust Ignition Proof
CSA	A 20/21		
E TR-CU	Zone 20/21	-	Dust Ignition Proof
K TR-CU	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
L TR-CU	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
2 Further ⁽¹⁾	Zone 20/21	-	Dust Ignition Proof
4 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
5 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof

RN ..003 Angled extension

pos.3	Process temperature			
• •	1	max. +80°C (176°F)	•	
• •	2	max. +150°C (302°F)	•	
• •	3	max. +250°C (482°F)	•	
pos.4	Process overpressure			
• •	1	max. 0.8 bar (11.6 psi)	•	
• •	2	max. 5 bar (73 psi)	•	
• •	3	max. 10 bar (145 psi)	•	
pos.5	Power supply			
• •	A / S	230 V AC 50 - 60 Hz	Motor Speed: A=1/min S=5/min	• / •
• •	B / T	115 V AC 50 - 60 Hz	Motor Speed: B=1/min T=5/min	• / •
• •	C / U	48 V AC 50 - 60 Hz	Motor Speed: C=1/min U=5/min	• / •
• •	D / V	24 V AC 50 - 60 Hz	Motor Speed: D=1/min V=5/min	• / •
• •	E / W	24 V DC	Motor Speed: E=1/min W=5/min	• / •
• •	G / H	24 V DC PNP	Motor Speed: G=1/min H=5/min	• / •
• •	F / X	24 V DC/ 20 .. 230 AC universal voltage	Motor Speed: F=1/min X=5/min	• / •
pos.6	Process connection			
• •	H	flange 150x150, 4x ø18 LK-ø170 (max. 0.8 bar (11.6 psi))	•	•
• •	I	flange 150x150, 4x ø14 LK-ø170 (max. 0.8 bar (11.6 psi))	•	•
• •	L	flange DN100 PN6, EN 1092-1 (max. 5 bar (73 psi))	•	•
• •	M	flange DN100 PN16, EN 1092-1	•	•
• •	U	flange 4" 150lbs ANSI B16.5	•	•
pos.7	Material Process connection			
• •	1	aluminium (max. 0.8 bar (11.6 psi)/ 80°C (176°F))	•	•
• •	3	stainless steel 1.4301 (304)/ 1.4541 (321)	•	•
pos.8	Length of extension "L"			
• •	1	125 mm (4.92")	•	•
• •	2	150 mm (5.90")	•	•
• •	3	200 mm (7.87")	•	•
• •	4	250 mm (9.84")	•	•
• •	5	300 mm (11.8")	•	•
• •	Z	other lengthes Price per 50 mm (1.97") or part thereof (starting from 0 mm) min. 350 mm (13.8"), max. 600 mm (23.6")	•	•
pos.9	Material of extension "L" (must be the same material as pos.7)			
• •	1	aluminium	•	•
• •	3	stainless steel 1.4305 (303)/ 1.4301 (304)	•	•
pos.10	Measuring vane			
• •	A	boot-shaped ⁽²⁾ 40 x 98 mm (1.57 x 3.86")	•	
• •	B	rectangular 50 x 98 mm (1.97 x 3.86")	•	
• •	C	rectangular 50 x 150 mm (1.97 x 5.90")	•	
• •	E	rectangular 50 x 250 mm (1.97 x 9.84")	•	
• •	F	rectangular 98 x 98 mm (3.86 x 3.86")	•	
• •	G	rectangular 98 x 150 mm (3.86 x 5.90")	•	
• •	I	rectangular 98 x 250 mm (3.86 x 9.84")	•	
• •	K	hinged vane 98 x 200 mm (3.86 x 7.87") double sided	•	
• •	S	hinged vane 98 x 100 mm (3.86 x 3.93") single sided	•	
• •	M	rubber vane 98 x 250 mm (3.86 x 9.84") (max. 80°C (176°F))	•	
• •	Y	without including splint pin for fixation	•	

Further options and accessories: see page 20

Basic Type

	D									
Position	1	2	3	4	5	6	7	8	9	10

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

Order code

⁽¹⁾ Local certificates see option 20/ page 20

⁽²⁾ Maximum length of socket 40mm

RN ..004 Pipe extension horizontal

RN 3004



RN 6004



Housings RN 6004



Standard



d (flameproof)



de (flameproof/
increased safety)

Cable entries (by default)

Depending on model selected, the following cable entries will be delivered (options see pos.28 on page 20):

Version:	Cable entries:
Flameproof (pos.2 T,D,L,5)	M20 x 1.5 (1x open conduit + 1x blind plug)
FM and CSA (pos.2 M,N,S,U)	NPT 1/2" tapered ANSI B1.20.1 (1x open conduit + 1x blind plug)
All other versions	M20 x 1.5 (1x screwed cable gland + 1x blind plug)

Dimensions

see pages 25 - 29

Basic Type

RN 3004

RN 6004

pos.2

Certificate

(detailed Ex-markings: see page 30)

Certificate	Zone/ Div		Protection method
	Dust	Gas	
0 CE/ UKCA/ TR-CU	-	-	
W ATEX	Zone 20/21	-	Dust Ignition Proof
R ATEX	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
T ATEX	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
A IEC-Ex	Zone 20/21	-	Dust Ignition Proof
C IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
D IEC-Ex	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
M FM/ CSA	-	-	General purpose
N FM/ CSA	Cl. II, III, Div.1 A 20/21	-	Dust Ignition Proof
S FM/ CSA	Cl. II, III, Div.1 A 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
U FM/ CSA	Cl. II, III, Div.1 A 20/21	Cl. I Div.1/ Zone 1	Explosion Proof/ Dust Ignition Proof
E TR-CU	Zone 20/21	-	Dust Ignition Proof
K TR-CU	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
L TR-CU	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof
2 Further ⁽¹⁾	Zone 20/21	-	Dust Ignition Proof
4 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Increased Safety/ Dust Ignition Proof
5 Further ⁽¹⁾	Zone 20/21	Zone 1	Flameproof/ Dust Ignition Proof

RN ..004 Pipe extension horizontal

pos.3	Process temperature					
	1	max. +80°C (176°F)	.....			
	2	max. +150°C (302°F)	.....			
	3	max. +250°C (482°F)	.....			
	4	max. +350°C (662°F)	(not for pos.10 K,S in 1.4404; not for Ex, only with pos.4 1) (L min=200 mm)			
pos.4	Process overpressure					
	1	max. 0.8 bar (11.6 psi)	 (0.1 bar (1.45 psi) with pos.3 5)			
	2	max. 5 bar (73 psi)	.....			
	3	max. 10 bar (145 psi)	.....			
	pos.5	Power supply				
A / S		230 V AC 50 - 60 Hz	 Motor Speed: A=1/min S=5/min		/	
B / T		115 V AC 50 - 60 Hz	 Motor Speed: B=1/min T=5/min		/	
C / U		48 V AC 50 - 60 Hz	 Motor Speed: C=1/min U=5/min		/	
D / V		24 V AC 50 - 60 Hz	 Motor Speed: D=1/min V=5/min		/	
E / W		24 V DC	 Motor Speed: E=1/min W=5/min		/	
G / H		24 V DC PNP	 Motor Speed: G=1/min H=5/min		/	
F / X		24 V DC/ 22 .. 230 V AC universal voltage	 Motor Speed: F=1/min X=5/min		/	
pos.6	Process connection					
	A	thread G 1½", DIN 228	.....			
	B	thread G 1¼", DIN 228	 (max. 250°C (482°F))			
	F	thread NPT 1½", conical ANSI B1.20.1	.....			
	Q	thread NPT 1¼", conical ANSI B1.20.1	 (max. 250°C (482°F))			
	P	Triclamp 2" (DN50) ISO 2852	 (max. 250°C (482°F))			
	H	flange 150x150, 4x ø18 LK-ø170	 (max. 0.8 bar (11.6 psi))			
	I	flange 150x150, 4x ø14 LK-ø170	 (max. 0.8 bar (11.6 psi))			
	K	flange DN32 PN6, EN 1092-1	 (max. 5 bar/ 250°C)			
	N	flange DN50 PN16, EN 1092-1	.....			
	L	flange DN100 PN6, EN 1092-1	 (max. 5 bar (73 psi))			
	M	flange DN100 PN16, EN 1092-1	.....			
	S	flange 2" 150lbs ANSI B16.5	.....			
	T	flange 3" 150lbs ANSI B16.5	.....			
U	flange 4" 150lbs ANSI B16.5	.....				
pos.7	Material Process connection					
	1	aluminium	 (max. 0.8 bar (11.6psi)/ 80°C (176°F))			
	3	stainless steel 1.4301 (304)/ 1.4305 (303) A-P/ 1.4301 (304) H,I / 1.4541 (321) K-U	.....			
	7	stainless steel 1.4404 (316L)	 (only with Pos.9 7)			
pos.8	Length of extension "L"					
	N	150 mm (5.90") (only with vane A, D, B, C, E)	.....			
	P	200 mm (7.87")	.....			
	Q	250 mm (9.84")	.....			
	R	300 mm (11.8")	.....			
	Z	other lengths	Price per 50 mm (1.97") or part thereof (starting from 0 mm) min. 350 mm (13.8"), max. 600 mm (23.6")			
pos.9	Material of extension "L"					
	1	aluminium	 (max. 0.8 bar/ 80°C)			
	3	stainless steel 1.4305 (303)/ 1.4301 (304)	.....			
	7	stainless steel 1.4404 (316L)	 (only with pos.7 7 and pos.10 A,D,F,K,S)			
pos.10	Measuring vane					
	A	boot-shaped ⁽²⁾ 40 x 98 mm (1.57 x 3.86")	for 1½" socket (with pos.9 7 L=10 mm)			
	D	boot-shaped ⁽²⁾ 35 x 106 mm (1.38 x 4.17")	for 1¼" socket (L=10 mm longer)			
	B	rectangular 50 x 98 mm (1.97 x 3.86")	.....			
	C	rectangular 50 x 150 mm (1.97 x 5.90")	.....			
	E	rectangular 50 x 250 mm (1.97 x 9.84")	.....			
	F	rectangular 98 x 98 mm (3.86 x 3.86")	.....			
	G	rectangular 98 x 150 mm (3.86 x 5.90")	.....			
	I	rectangular 98 x 250 mm (3.86 x 9.84")	.....			
	K	hinged vane 98 x 200 mm (3.86 x 7.87") double sided (L=10 mm longer)	1.4301/ 1.4404	/		1.4404
	S	hinged vane 98 x 100 mm (3.86 x 3.93") single sided (L=10 mm longer)	1.4301/ 1.4404	/		1.4404
	M	rubber vane 98 x 250 mm (3.86 x 9.84")	 (max. 80°C (176°F))			
	Y	without	 including splint pin for fixation			

Further options and accessories: see page 20

Basic Type

	E								
Position	1	2	3	4	5	6	7	8	9

Order code

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

⁽¹⁾ Local certificates see option 20/ page 20

(2) Maximum length of socket 40mm

RN 3005 Extra short version

RN 3005



RN 6005

not available

Cable entries (by default)

M20 x 1.5 (1x screwed cable gland + 1x blind plug)

Options see pos.28 on page 20

Dimensions

see pages 25 - 29

RN 3005 Extra short version

Basic Type

•	•	RN 3005	•
•	•	pos.2	•
•	•	Certificate	•
•	•	0 CE ⁽¹⁾	•
•	•	W ATEX Zone 20/21 Dust Ignition Proof (ATEX II 1/2D)	•
•	•	A IEC-Ex Zone 20/21 Dust Ignition Proof (ta/tb IIIC)	•
•	•	E TR-CU Zone 20/21 Dust Ignition Proof (DIP A20/ A21)	•
•	•	2 Further ⁽²⁾ Zone 20/21 Dust Ignition Proof	•
•	•	pos.5	•
•	•	Power supply	•
•	•	A / S 230 V AC 50 - 60 Hz	Motor Speed: A=1/min S=5/min • / •
•	•	B / T 115 V AC 50 - 60 Hz	Motor Speed: B=1/min T=5/min • / •
•	•	C / U 48 V AC 50 - 60 Hz	Motor Speed: C=1/min U=5/min • / •
•	•	D / V 24 V AC 50 - 60 Hz	Motor Speed: D=1/min V=5/min • / •
•	•	E / W 24 V DC	Motor Speed: E=1/min W=5/min • / •
•	•	G / H 24 V DC PNP	Motor Speed: G=1/min H=5/min • / •
•	•	F / X 24 V DC/ 22 .. 230 V AC universal voltage	Motor Speed: F=1/min X=5/min • / •
•	•	pos.6	•
•	•	Process connection	•
•	•	A thread G 1½", DIN 228	•
•	•	F thread NPT 1½", conical ANSI B1.20.1	•
•	•	pos.7	•
•	•	Material process connection	•
•	•	1 aluminium	•
•	•	3 stainless steel (1.4305/ 303)	•
•	•	pos.10	•
•	•	Measuring vane	•
•	•	N VT-vane	•
•	•	others on request	•

Further options and accessories: see page 20

Basic Type

RN 3005	F	1	1				A	3	
Position 1	2	3	4	5	6	7	8	9	10

← **Order code**

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

⁽¹⁾ UKCA and TR-CU (Ordinary Locations) included

⁽²⁾ Local certificates see option 20/ page 20

[illegible]

Options

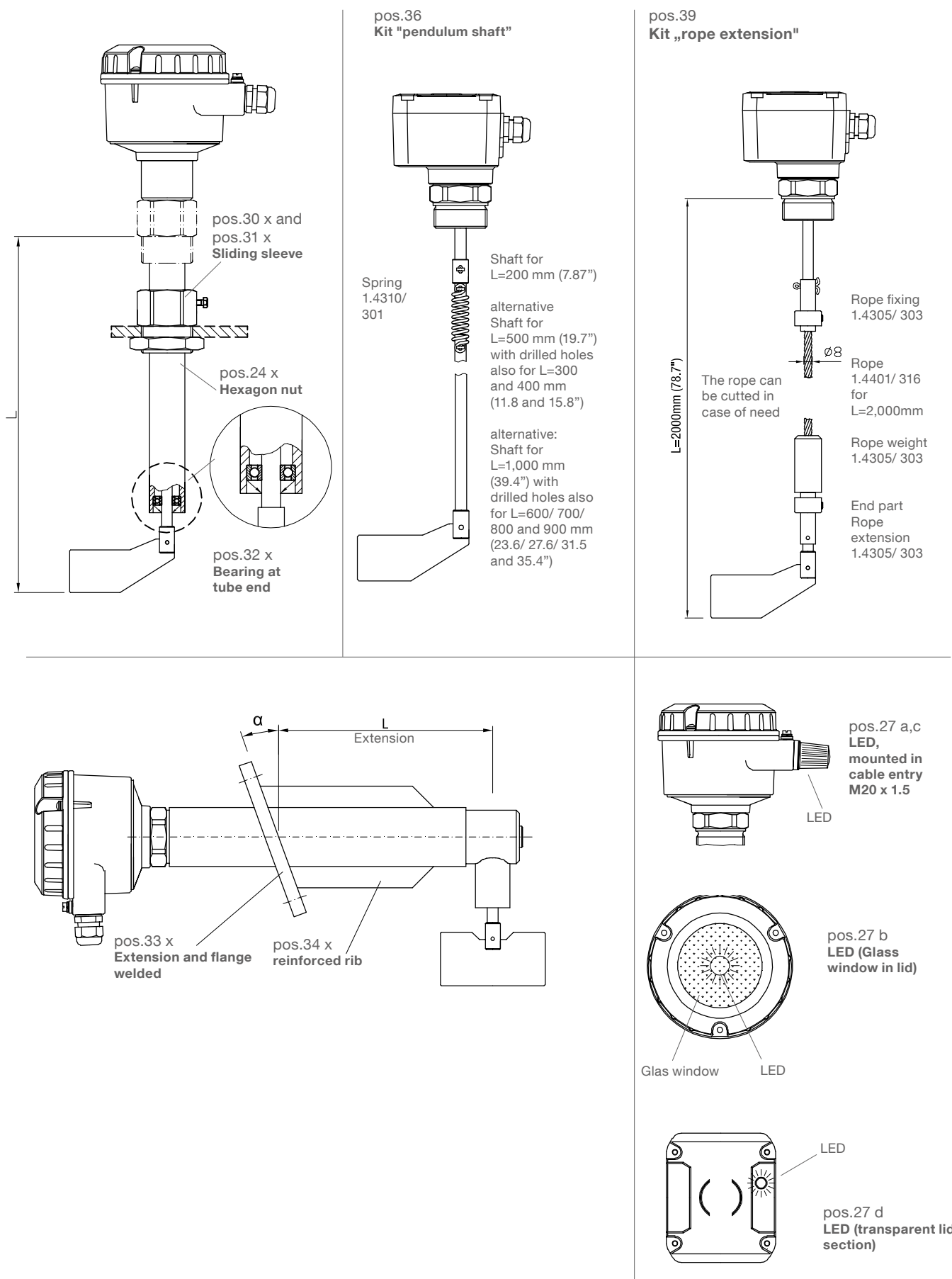
	19	19									pos.30 x	Sliding sleeve for applications without process overpressure	
	20	20									pos.31 x	Sliding sleeve for applications with process overpressure	
	21	21									pos.32 x	Bearing at tube end	
	21	21										max. +80°C (176°F)	
	21	21										max. +150°C (302°F)	
	21	21										max. +250°C (482°F)	
	21	21										max. +600°C (1,112°F)	
	•	•										max. +1,100°C (2,012°F)	on request
						•	•				pos.33 x	Extension and flange welded $\alpha =$ ° min. 0° max. 45°	
						•	•					for aluminium (see pos.7/ 9)	
												for stainless steel (1.4305 (303)) (see pos.7/ 9)	
						22	22				pos.34 x	Reinforced rib	
												Plug	
23	23	23	23	23	23	23	23	23	23	23	pos.35 x	Valve connector (incl. mating plug)	4-pole (incl. PE) max. 230 V
23	23	23	23	23	23	23	23	23	23	23	pos.35 a	M12 (without mating plug)	4-pole max. 25 V
23	23	23	23	23	23	23	23	23	23	23	pos.35 b	M12 (without mating plug)	5-pole (incl. PE) max. 60 V
23	23	23	23	23	23	23	23	23	23	23	pos.35 c	Harting Han 4A (incl. mating plug)	5-pole (incl. PE) max. 230 V
												Kit pendulum shaft	
												Max. pulling force 400 N, only with pos.8 A	
												For vertical and horizontal installation:	
24	24										pos.36 w	L=200 mm (7.87")	
												For vertical installation:	
24	24										pos.36 x	L=500 mm (19.7") (drilled holes also for 300 and 400 mm (11.8 and 15.8"))	
24	24										pos.36 y	L=1,000 mm (39.4") (drilled holes also for 600/ 700/ 800 and 900 mm (23.6/ 27.6/ 31.5 and 35.4"))	
	•	•									pos.39 x	Kit rope extension	
												L=2 m, only available as full detector, only with pos.2 0,W,A,M,N,E,2	
												Declaration, Certificate, Testreport	
25	25	25	25	25	25	25	25	25	25	25	CA	Declaration of compliance with the order, EN 10204 clause 2.1	
	•	•	•	•	•	•	•	•	•	•		Marking	
											DA	Stainless steel tag (Measuring point nr. / identification, max. 27 char.)	

- Available for temperatures up to 250°C (pos.3 1,2,3).
- Available for certificate CE, UKCA, ATEX, UKEX, IEC-Ex, TR-CU, INMETRO, KC, CCC dust explosionproof (pos.2 0,W,A,E,2). Not with cable entry NPT (pos.28 a,c) and control lamp LED (pos.27 b). For ATEX, IEC-Ex, TR-CU, INMETRO, KC, CCC the min. ambient temperature is -20°C (-4°F).
- Available for temp. up to 80°C and for pressure up to 0.8 bar, except M30 x 1.5 (pos.6 E). Note to FPM: 150°C version including FPM as standard.
- Available for temp. up to 150°C and for pressure up to 0.8 bar, except M30 x 1.5 (pos.6 E). Note: 250°C and 5 bar/ 10 bar PTFE included as standard.
- Available for temperature up to 250°C except M30 x 1.5 (pos.6 E), not for RN3002-rope strengthened (pos.1 H). All bearings mounted in the extension are made of stainless steel.
- Available for all versions except explosionproof/ flameproof version (pos.2 R,T,C,D,S,U,K,L,4,5). Not with plug Harting Han 4A (pos.35 c).
- Available with universal voltage (pos.5 F,X). Not for CSA. Not in combination with fail safe alarm pos.25 x.
- Not with Ex-certification "increased safety" (pos.2 R,C,S,K,4).
- Available with universal voltage (pos.5 F,X) and PNP (pos.5 G,H). Consider reduced switching sensitivity (see technical data). Note: For temperatures down to -20°C (-4°F) the electronic "universal voltage" and "PNP" have "heating of housing" implemented by default (in this case option pos.26 x is not required).
- Available for CE, UKCA (pos.2 0), not in combination with weather protection cover (pos.21 x) and cable entries pos.28 x,a,c. In combination with universal voltage (pos.5 F, X) 2 LED's (24V, 80-260V) will be delivered. Connection of signal lamp wires with internal terminals: without (standard) or according to customer specification.
- Available for all versions except explosionproof/ flameproof version (pos.2 R,T,C,D,S,U,K,L,4,5), not in combination with power supply AC (pos.5 A,B,C,D,S,T,U,V), not in combination with weather protection cover (pos.21 x).
- Available for CE, UKCA (pos.2,0), not in combination with power supply AC (pos.5 A,B,C,D,S,T,U,V).
- Available for all versions except flameproof version (pos.2 T,D,U,L,5).

Options

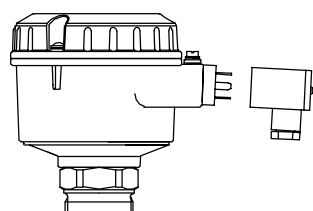
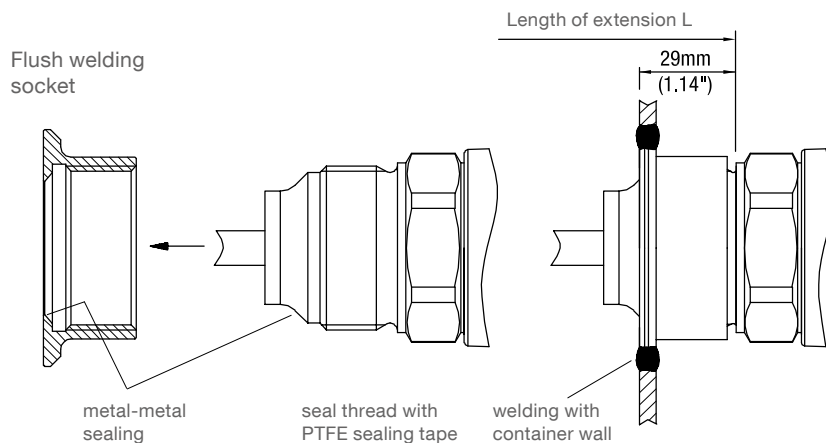
- 15 Available for FM/ CSA versions (pos.2 M,N,S) except flameproof version (pos.2 T,D,U,L).
- 16 Available for CE, UKCA, ATEX, UKEX, IEC-Ex, TR-CU, INMETRO, KC, CCC (pos.2 0,W,R,T,A,C,D,E,K,L,2,4,5)
- 17 Available up to max. 250°C. Not for M30 x 1.5 (pos.6 E), vane (pos.10 M), flange sealings (pos.22). RN 3002/ RN 6002 only with option bearing with tube end (pos.32 x). The option does not automatically implement a food conform design (food conform gaps and radiuses).
- 18 Certificate only valid with use of the "flush welding socket". With pos.29 a this socket must be manufactured on site. Available up to max. 150°C (pos.3 1,2) and for process overpressure max. 0.8 bar (pos.4 1). Only for G 1½" (pos.6 A). Only with vane pos.10 D. Length of extension L min. 100mm. The resulting lenght inside the bin is reduced due to the "flush welding socket" (see dimensions). RN 3002/ RN 6002 only with bearing at tube end (pos.32 x). Not in combination with options pos.15, 17b, 22, 24, 29y, 30, 31, 36, 39.
- 19 Available for CE, UKCA (pos.2 0). Process connection and material as choosen in pos.6 and 7. Available for max. 0,8 bar (pos.4 1).
- 20 Available for temperatures up to 250°C. Process connection as choosen in pos.6. Not with material process connection alu (pos.7 1).
- 21 Available for length L>300 mm (pos.8 Z).
- 22 Available only with pos.33, max. $\alpha = 30^\circ$, min. length "L"=150mm, with matenal aluminium (pos.9.1) max. lenght "L"=300mm.
- 23 Available for CE, UKCA (pos.2 0). Without connection of stranded wires for installation and internal terminals (standard) or according to customer specification.
- 24 Available with material 1.4305 (pos.9 3). Available with extension 100mm (pos.8 A) and vane pos.10 A,D,R,J,B,C,E,Y. Available with extension 150mm (pos.8 B) and vane pos.10 F,G,I,K,S,M.
- 25 The documents are enclosed with the delivered goods.

Options

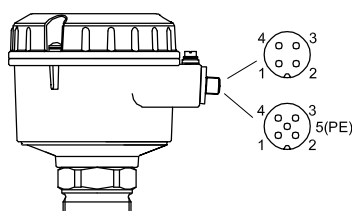


Options

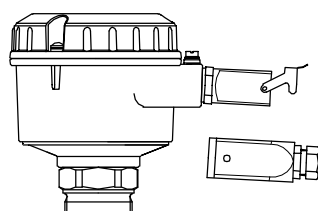
pos.29
 EHEDG approval
 (ED class I)



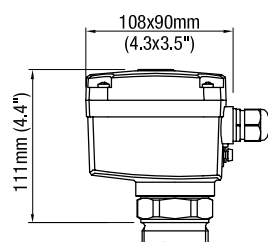
pos.35 x
Valve connector
 Enclosure plastic
 Protection IP65



pos.35 a,b
Plug M12
 Enclosure brass
 Protection IP66

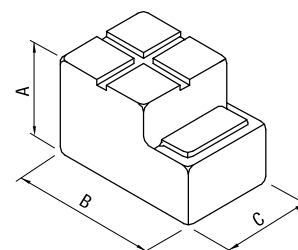


pos.35 c
Plug Han 4A
 Enclosure zinc
 Protection IP65

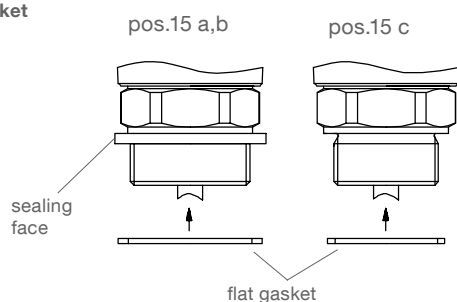


pos.16 a
 Material of housing
 Plastics PA6

pos.21 x
Weather protection cover



pos.15
Flat gasket

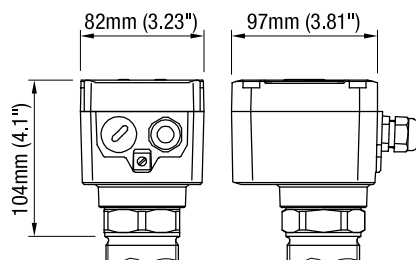


	RN 3000	RN 6000
A	100 mm (3.9")	130 mm (5.1")
B	165 mm (6.5")	200 mm (7.9")
C	95 mm (3.7")	125 mm (4.9")

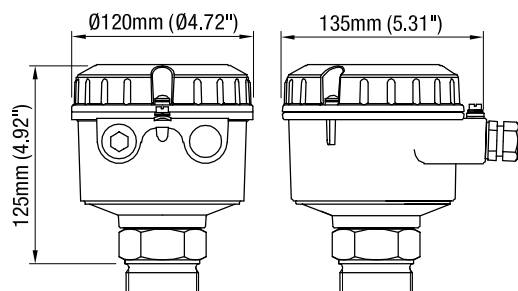
Dimensions

Housing versions

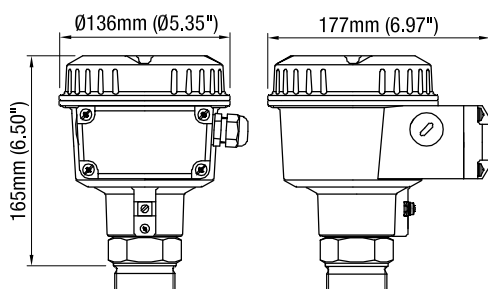
Series RN 3000
 Standard



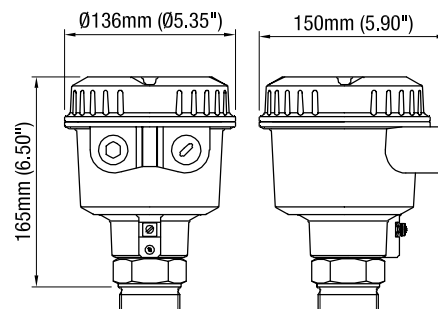
Series RN 6000
 Standard



Series RN 6000
 de explosionproof with increased
 safety terminal box

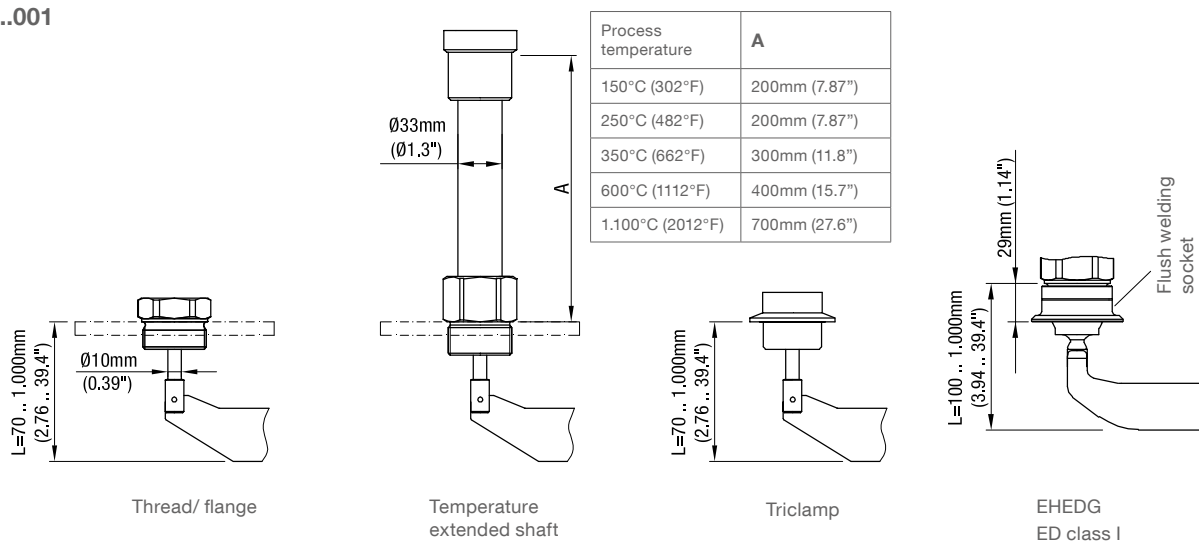


Series RN 6000
 d flameproof/ explosionproof



Extensions

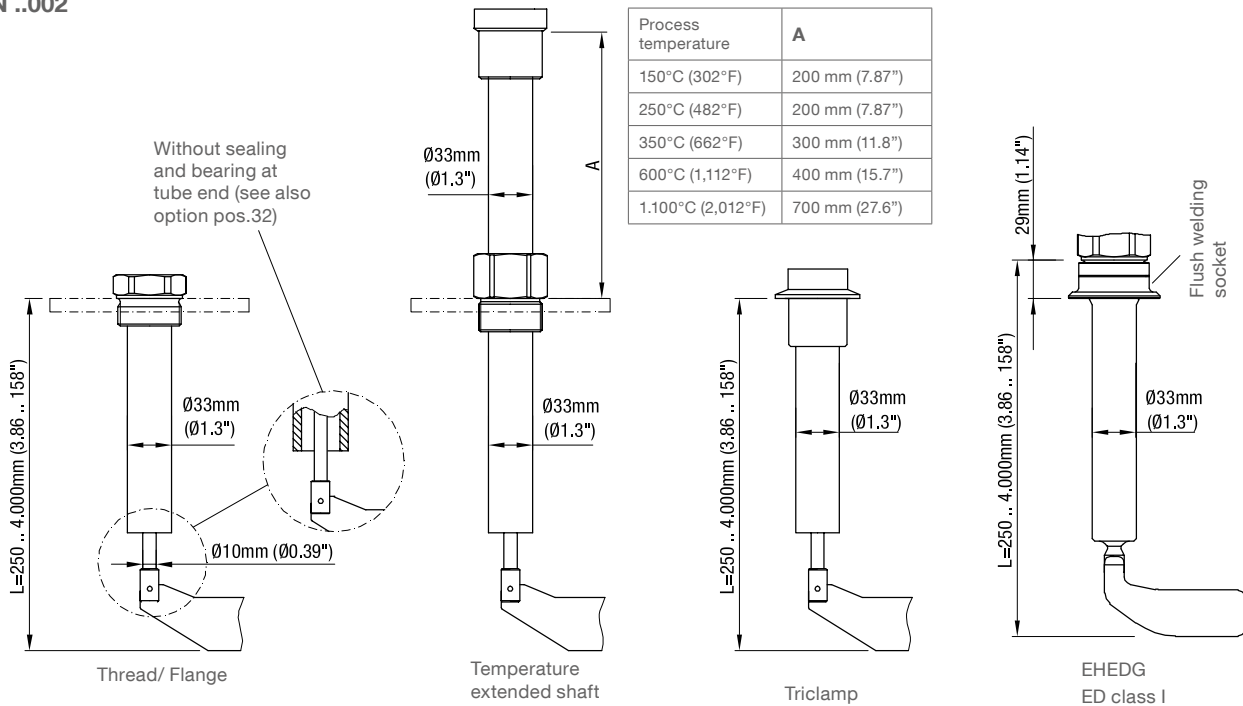
RN ..001



With measuring vanes "boot shaped" and "hinged vane" the length "L" can be increased by 10mm (0.39"). Details see selection code pos.10.

Dimensions

RN ..002

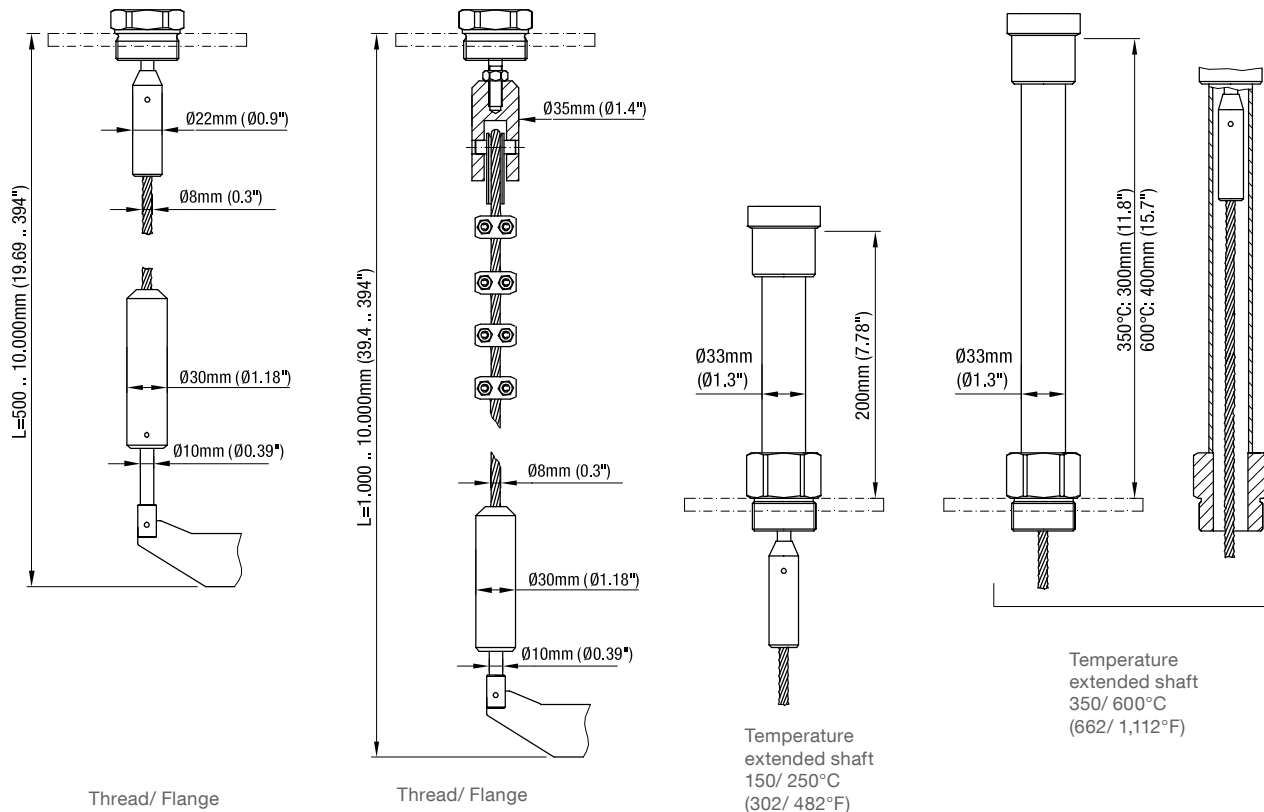


With measuring vanes "boot shaped" and "hinged vane" the length "L" can be increased by 10mm (0.39"). Details see selection code pos.10.

RN ..002 rope

Type standard (pos.1 C)
(max. 4 kN load)

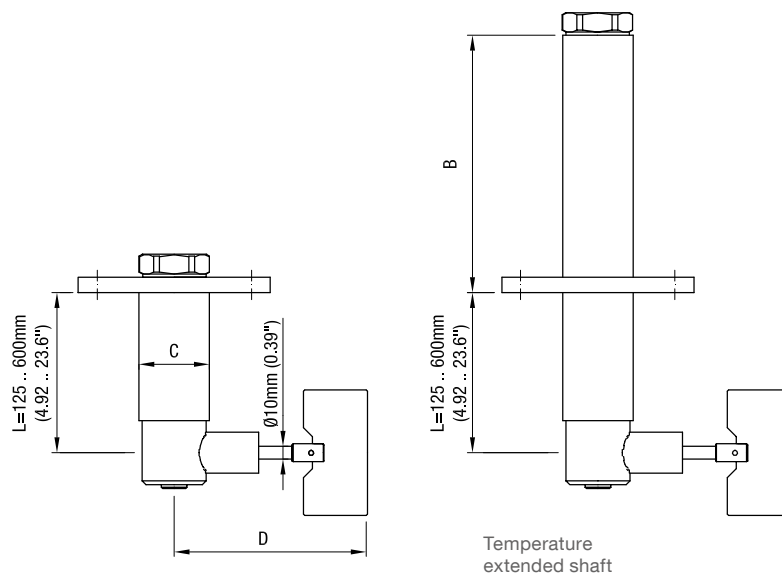
Type reinforced (pos.1 H)
(max. 28 kN load)



With measuring vanes "boot shaped" and "hinged vane" the length "L" can be increased by 10mm (0.39"). Details see selection code pos.10.

Dimensions

RN ..003

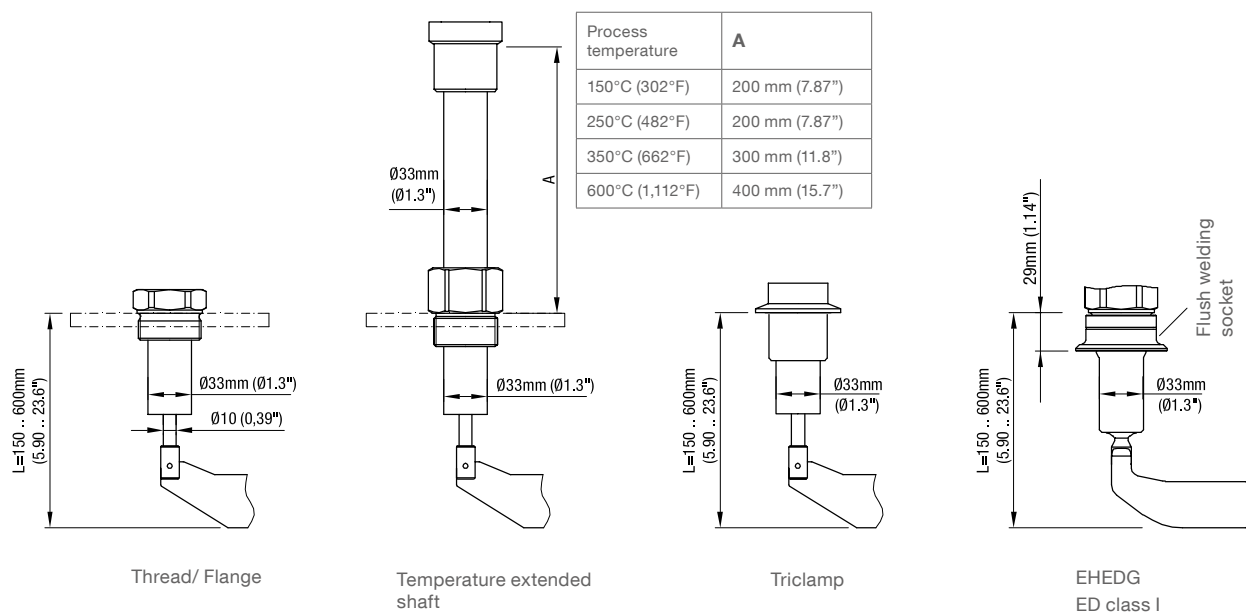


Process temperature	B
80°C (176°F) 0.8 bar (11.6 psi)	10 mm (0.39")
80°C (176°F) 5/ 10 bar (73/ 145 psi)	75 mm (2.95")
150/ 250°C (302/ 482°F) 0.8/ 5/10 bar (11.6/ 73/ 145 psi)	210 mm (8.27")

Material	C
steel	ø55 mm (ø2.17")
aluminium	ø60 mm (ø2.36")

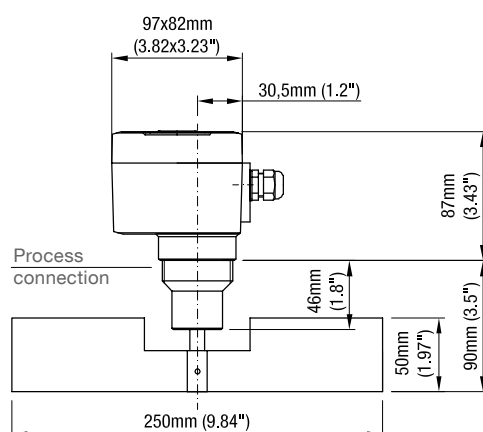
Vane	D
50 mm x .. mm (1.97" x ..")	139 mm (5.47")
98 mm x .. mm (3.86" x ..")	187 mm (7.36")

RN ..004



With measuring vanes "boot shaped" and "hinged vane" the length "L" can be increased by 10mm (0.39"). Details see selection code pos.10.

RN 3005

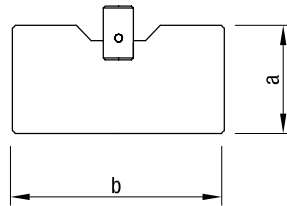


Dimensions

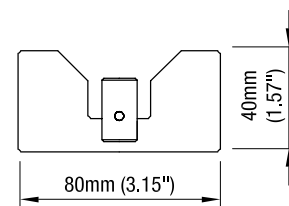
Measuring vanes

code	type	a	b
B	rectangular	50 mm (1.97")	98 mm (3.86")
C	rectangular	50 mm (1.97")	150 mm (5.90")
E	rectangular	50 mm (1.97")	250 mm (9.84")
F	rectangular	98 mm (3.86")	98 mm (3.86")
G	rectangular	98 mm (3.86")	150 mm (5.90")
I	rectangular	98 mm (3.86")	250 mm (9.84")

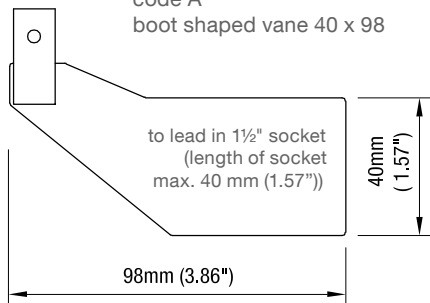
code B,C,E,F,G,I
 rectangular vane



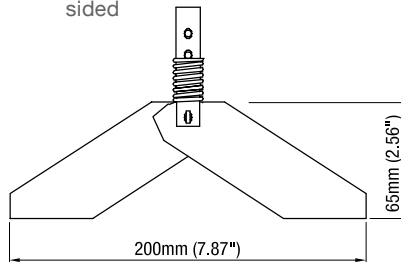
code P
 notched 40 x 80



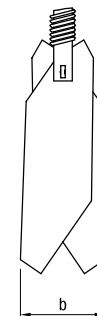
code A
 boot shaped vane 40 x 98



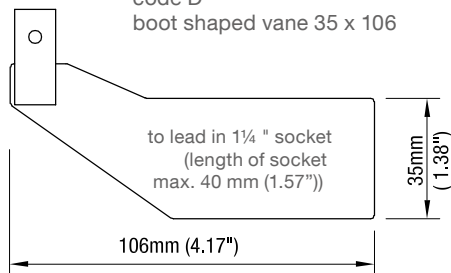
code K
 hinged vane 98 x 200 double sided



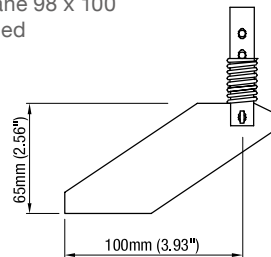
b=37 mm (1.46")
 for 1 1/2" / 1 1/4"
 b=28 mm (1.1")
 for 1" / M32 x 1.5



code D
 boot shaped vane 35 x 106



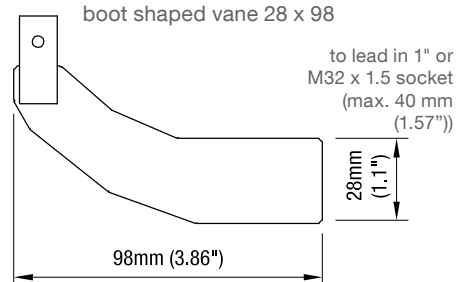
code S
 hinged vane 98 x 100 single sided



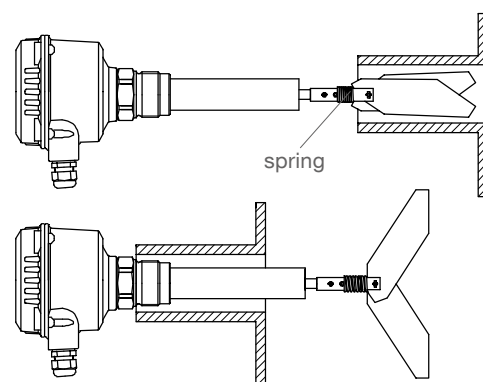
b=37 mm (1.46")
 für 1 1/2" / 1 1/4"
 b=28mm (1.1")
 for 1" / M32 x 1.5



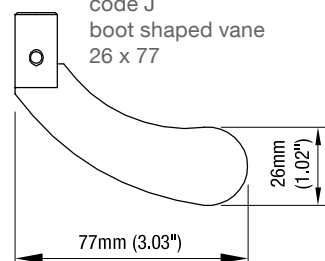
code R
 boot shaped vane 28 x 98



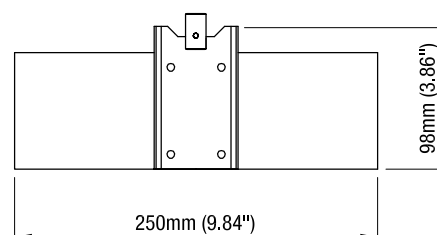
Insertion of the hinged vane through a long socket



code J
 boot shaped vane 26 x 77



code M
 rubber vane 98 x 250



Dimensions

Sensitivity

The table shows approximate values for the minimum densities, at which a normal function should be possible.

Vane	*Minimum density in g/l = kg/m ³ (lb/ft ³) (without guarantee)			
	Vane completely covered with bulk material		Bulk material is 100 mm (3.93") above covered vane	
	Spring adjustment		Spring adjustment	
	fine	medium (factory setting)	fine	medium (factory setting)
Boot shaped vane 40 x 98	200 (12)	300 (18)	100 (6)	150 (9)
Boot shaped vane 35 x 106	200 (12)	300 (18)	100 (6)	150 (9)
Boot shaped vane 28 x 98	300 (18)	500 (30)	150 (9)	200 (12)
Boot shaped 26 x 77	350 (21)	560 (33)	200 (12)	250 (15)
Vane 50 x 98	300 (18)	500 (30)	150 (9)	250 (15)
Vane 50 x 150	80 (4,8)	120 (7.2)	40 (2.4)	60 (3.6)
Vane 50 x 250	30 (1.8)	50 (3)	15 (0,9)	25 (1.5)
Vane 98 x 98	100 (6)	150 (9)	50 (3)	75 (4.5)
Vane 98 x 150	30 (1.8)	50 (3)	15 (0,9)	25 (15)
Vane 98 x 250	20 (1.2)	30 (1.8)	15 (0,9)	15 (0.9)
Hinged vane 98 x 200 b=37 double sided	70 (4.2)	100 (6)	35 (2.16)	50 (3)
Hinged vane 98 x 200 b=28 double sided	100 (6)	150 (9)	50 (3)	75 (4.5)
Hinged vane 98 x 100 b=37 single sided	200 (12)	300 (18)	100 (6)	150 (9)
Hinged vane 98 x 100 b=28 single sided	300 (18)	500 (30)	150 (9)	250 (15)

The above mentioned data is a guideline and is for loose, non compacted material.

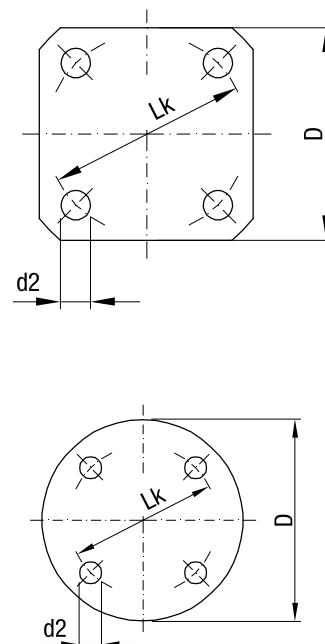
During the filling the bulk density can change (e. g. for fluidised material).

*For versions with option 26 (heating of housing) the above mentioned data must be multiplied by 1.5.

Dimensions / Detailed Ex-markings

Flanges

Code	Type	Number of holes	d2	Lk	D	T (thickness)
H	flange 150x150	4	18 mm (0.71")	170 mm (6.69")	150 mm (5.90")	10 mm (0.39")
I	flange 150x150	4	14 mm (0.55")	170 mm (6.69")	150 mm (5.90")	10 mm (0.39")
K	flange DN32 PN6	4	14 mm (0.55")	90 mm (3.54")	120 mm (4.72")	14 mm (0.55")
N	flange DN50 PN16	4	18 mm (0.71")	125 mm (4.92")	165 mm (6.50")	18 mm (0.71")
L	flange DN100 PN6	4	18 mm (0.71")	170 mm (6.69")	210 mm (8.27")	16 mm (0.63")
M	flange DN100 PN16	8	18 mm (0.71")	180 mm (7.09")	220 mm (8.66")	20 mm (0.79")
S	flange 2" 150lbs	4	19.1 mm (0.75")	120.7 mm (4.75")	152.4 mm (6.01")	19.1 mm (0.75")
T	flange 3" 150lbs	4	19.1 mm (0.75")	152.4 mm (6.01")	190.5 mm (7.5")	23.9 mm (0.94")
U	flange 4" 150lbs	8	19.1 mm (0.75")	190.5 mm (7.5")	228.6 mm (9.0")	23.9 mm (0.94")



Detailed Ex-markings

Code	Certificate	Housing
pos.2 0	CE	Standard
pos.2 W	ATEX II 1/2D Ex ta/tb IIIC T! Da/Db	Standard
pos.2 R	ATEX II 2G Ex db eb IIC T! Gb and ATEX II 1/2D Ex ta/tb IIIC T! Da/Db	de
pos.2 T	ATEX II 2G Ex db IIC T! Gb and ATEX II 1/2D Ex ta/tb IIIC T! Da/Db	d
pos.2 A	IEC-Ex ta/tb IIIC T! Da/Db	Standard
pos.2 C	IEC-Ex db eb IIC T! Gb and IEC-Ex ta/tb IIIC T! Da/Db	de
pos.2 D	IEC-Ex db IIC T! Gb and IEC-Ex ta/tb IIIC T! Da/Db	d
pos.2 M	FM/ CSA general purpose	Standard
pos.2 N	FM/ CSA DIP Cl. II, III Div. 1 Gr. E,F,G CSA Ex DIP A20/21	Standard
pos.2 S	FM Cl. I Zone 1 AEx de IIC and FM/ CSA DIP Cl. II,III Div. 1 Gr. E,F,G CSA Cl. I Zone 1 Ex de IIC and CSA Ex DIP A20/21	de
pos.2 U	FM XP Cl. I,II,III Div. 1 Gr. B-G and FM Cl. I Zone 1 AEx d IIC CSA XP Cl. I,II,III Div. 1 Gr. B-G CSA Cl. I Zone 1 Ex d IIC and CSA Ex DIP A20/21	d
pos.2 E	TR-CU Ex ta/tb IIIC T90°C...T250°C Da/Db X	Standard
pos.2 K	TR-CU 1Ex d e IIC T5...T2 Gb X Ex ta/tb IIIC T90°C...T250°C Da/Db X	de
pos.2 L	TR-CU 1Ex d IIC T5...T2 Gb X Ex ta/tb IIIC T90°C...T250°C Da/Db X	d
pos.2 2	+pos.20 a INMETRO Ex tb IIIC T250°C...T90°C Da/Db IP6X	Standard
pos.2 4	+pos.20 a INMETRO Ex db eb IIC T5...T2 Gb IP66 Ex tb IIIC T250°C...T90°C Da/Db IP6X	de
pos.2 5	+pos.20 a INMETRO Ex db IIC T5...T2 Gb IP66 Ex tb IIIC T250°C...T90°C Da/Db IP6X	d
pos.2 2	+pos.20 b KC Ex t IIIC T!	Standard
pos.2 5	+pos.20 b KC Ex d IIC T! Ex t IIIC T!	d
pos.2 2	+pos.20 c CCC Ex tD A21 IP6X T!	Standard
pos.2 5	+pos.20 c CCC Ex d IIC T! Ex tD A21 IP6X T!	d
pos.2 2	+pos.20 e UKEX II 1/2D Ex ta/tb IIIC T! Da/Db	Standard
pos.2 4	+pos.20 e UKEX II 2G Ex db eb IIC T! Gb and UKEX II 1/2D Ex ta/tb IIIC T! Da/Db	de
pos.2 5	+pos.20 e UKEX II 2G Ex db IIC T! Gb and UKEX II 1/2D Ex ta/tb IIIC T! Da/Db	d

Electrical installation Series RN 3000

Version:

- AC
- DC
- **Universal voltage**

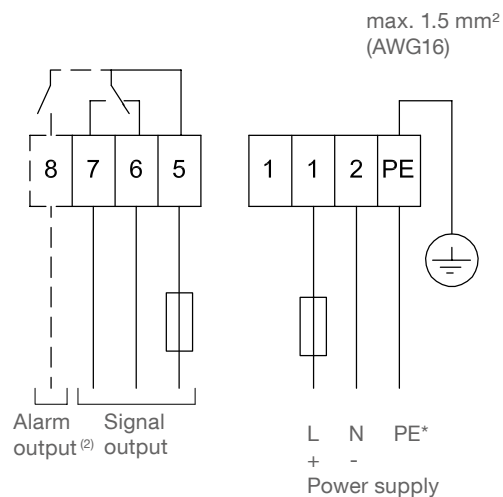
Power supply:

- **AC version:**
24 V or 48 V or 115 V or 230 V 50/60 Hz max. 4 VA
All voltages $\pm 10\%$ ⁽¹⁾
Supply voltage as selected.
External fuse: max. 10 A, fast or slow, HBC, 250 V
- **DC version:**
24 V DC $\pm 15\%$ ⁽¹⁾ max. 2.5 W
External fuse: not required
- **Universal voltage:**
24 V DC $\pm 15\%$ ⁽¹⁾ max. 4 W
22 .. 230 V 50/60 Hz $\pm 10\%$ ⁽¹⁾ max. 10 VA
External fuse: not required

⁽¹⁾ including $\pm 10\%$ of EN 61010

Signal and alarm output:

Micro switch or relay, SPDT contact
max. 250 V AC, 2 A, 500 VA ($\cos\varphi = 1$)
max. 250 V DC, 2 A, 60 W
External fuse: max. 10 A, fast or slow, HBC, 250 V



⁽²⁾ With option Fail safe alarm (rotation control)
Contact open when de-energised

Version:

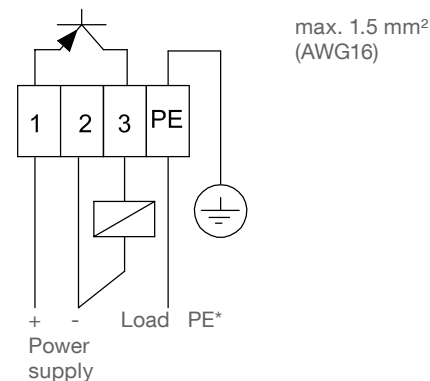
- PNP

Power supply:

24 V DC $\pm 15\%$ ⁽¹⁾
⁽¹⁾ including $\pm 10\%$ of EN 61010
Input current: max. 0.6 A

Signal output:

Load max. 0.4 A
Output voltage equal to input voltage, drop < 2.5 V
Open collector
Protected against short circuit and overload



* Protection against static charge:

The PE terminal of the unit must be grounded to avoid static charging of the unit.
This is particularly important for applications with pneumatic conveying.

Electrical installation Series RN 6000

Version:

- AC
- DC

Power supply:

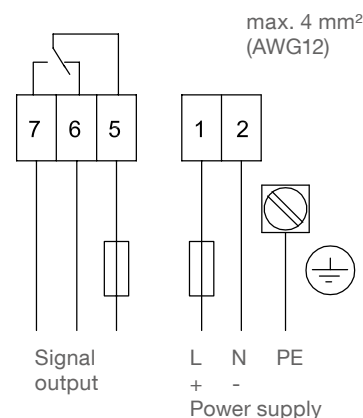
- **AC version:**
24 V or 48 V or 115 V or 230 V 50/ 60 Hz max. 4 VA
All voltages $\pm 10\%$ ⁽¹⁾
Supply voltage as selected.
External fuse: max. 10 A, fast or slow, HBC, 250 V

- **DC version:**
24 V DC $\pm 15\%$ ⁽¹⁾ max. 2.5 W
External fuse: not required

⁽¹⁾ including $\pm 10\%$ of EN 61010

Signal output:

Micro switch, SPDT contact
max. 250 V AC, 5 A, non inductive
max. 30 V DC, 4 A, non inductive
External fuse: max. 10 A, fast or slow, HBC, 250 V



Version:

- Universal voltage
(ohne SIL 2)

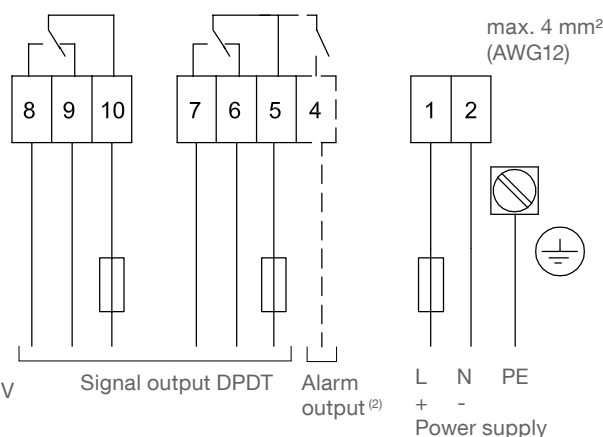
Power supply:

24 V DC $\pm 15\%$ ⁽¹⁾ max. 4 W
22 .. 230 V 50/ 60 Hz $\pm 10\%$ ⁽¹⁾ max. 10 VA

⁽¹⁾ including $\pm 10\%$ of EN 61010

Signal and alarm output:

Relay DPDT contact
max. 250 V AC, 5 A, non inductive;
max. 30 V DC, 4 A, non inductive
External fuse: max. 10 A, fast or slow, HBC, 250 V



⁽²⁾ With option Fail safe alarm (rotation control)
Contact open when de-energised

Version:

- Universal voltage
SIL 2

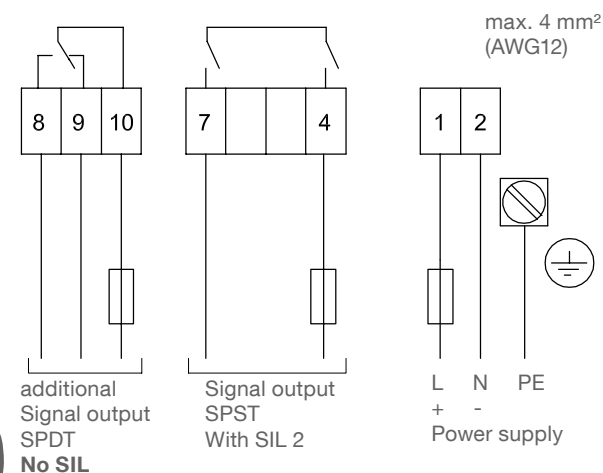
Power supply:

24 V DC $\pm 15\%$ ⁽¹⁾ max. 4 W
22 .. 230 V 50/ 60 Hz $\pm 10\%$ ⁽¹⁾ max. 10 VA

⁽¹⁾ including $\pm 10\%$ of EN 61010

Signal output:

Relay SPST/ SPDT
max. 250 V AC, 5 A, non inductive;
max. 30 V DC, 4 A, non inductive
External fuse:
max. 10 A, fast or slow, HBC, 250 V

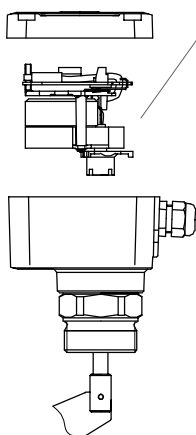


* Protection against static charge:

The PE terminal of the unit must be grounded to avoid static charging of the unit.
This is particularly important for applications with pneumatic conveying.

Spare parts

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



Series RN 3000 Motor/ PCB

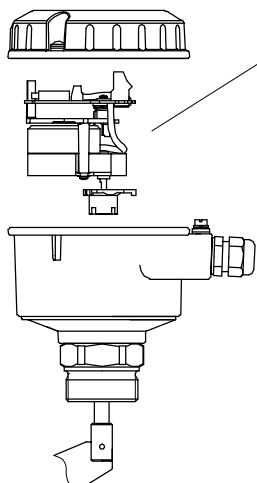
Order code			Voltage	Motor Speed	Spare part Articel number
Pos.5 Power supply	Pos.25 x Fail safe alarm	Pos.26 x Heating of housing			
A	-	-	230 V AC	1/min	gm402000
S	-	-		5/min	gm403000
B	-	-	115 V AC	1/min	gm402005
T	-	-		5/min	gm403005
C	-	-	48 V AC	1/min	gm402015
U	-	-		5/min	gm403015
D	-	-	24 V AC	1/min	gm402010
V	-	-		5/min	gm403010
E	-	-	24 V DC	1/min	gm402020
W	-	-		5/min	gm403020
G	-	-	24 V DC PNP	1/min	gm402026*
H	-	-		5/min	gm403026*
F	-	-	24 V DC/ 22 .. 230 V AC Universal voltage	1/min	gm402038*
F	x	-		1/min	gm404038* **
F	-	x		1/min	gm402039*
F	x	x		1/min	gm404039* **
X	-	-		5/min	gm403038*
X	x	-		5/min	gm405038* **
X	-	x		5/min	gm403039*
X	x	x		5/min	gm405039* **

* This module requires a higher housing lid than the other modules. Therefore it can not be mounted into a housing, where a different module was present before.

** This module requires a sensor to detect the motor rotation, which is mounted inside the housing. Therefore it can not be mounted into a housing where a different module was present before.

Spare parts

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



Series RN 6000 Motor/ PCB

Equipment code				Voltage	Motor Speed	Spare part Article number
Pos.5 Power supply	Pos.25 b SIL 2**	Pos.25 x Fail safe alarm	Pos.26 x Heating of housing			
A	-	-	-	230V AC	1/min	gm412000
S	-	-	-		5/min	gm413000
B	-	-	-	115V AC	1/min	gm412005
T	-	-	-		5/min	gm413005
C	-	-	-	48V AC	1/min	gm412015
U	-	-	-		5/min	gm413015
D	-	-	-	24V AC	1/min	gm412010
V	-	-	-		5/min	gm413010
E	-	-	-	24V DC	1/min	gm412020
W	-	-	-		5/min	gm413020
F	-	-	-	24V DC/ 22 ... 230V AC Universal voltage	1/min	gm412038
F	-	x	-		1/min	gm414038*
F	-	-	x		1/min	gm412039
F	-	x	x		1/min	gm414039*
X	-	-	-		5/min	gm413038
X	-	x	-		5/min	gm415038*
X	-	-	x		5/min	gm413039
X	-	x	x		5/min	gm415039*

* This module requires a sensor to detect the motor rotation, which is mounted inside the housing. Therefore it can not be mounted into a housing where a different module was present before.

** Moduls for units with SIL certificate must be replaced by the manufacturer.

Spare parts

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

Measuring vane (delivery incl. cotter pin)

	Fitting to unit/ model code	Description see page	Spare part Article number	
Boot shaped 40 x 98 mm (1.4305)	Pos.10 A with pos.9 3	28	fg400605	•
Boot shaped 40 x 98 mm (1.4404)	Pos.10 A with pos.9 7	28	fg400502	•
Boot shaped 35 x 106 mm (1.4305)	Pos.10 D with pos.9 3	28	fg400508	•
Boot shaped 35 x 106 mm (1.4404)	Pos.10 D with pos.9 7	28	fg400509	•
Boot shaped 28 x 98 mm (1.4305)	Pos.10 R with pos.9 3	28	fg400603	•
Boot shaped 28 x 98 mm (1.4404)	Pos.10 R with pos.9 7	28	fg400604	•
Boot shaped 26 x 77 mm	Pos.10 J	28	fg400607	•
Rectangular 50 x 98 mm	Pos.10 B	28	fg400610	•
Rectangular 50 x 150 mm	Pos.10 C	28	fg400620	•
Rectangular 50 x 250 mm	Pos.10 E	28	fg400630	•
Rectangular 98 x 98 mm (1.4305)	Pos.10 F with pos.9 3	28	fg400635	•
Rectangular 98 x 98 mm (1.4404)	Pos.10 F with pos.9 7	28	fg400032	•
Rectangular 98 x 150 mm	Pos.10 G	28	fg400637	•
Rectangular 98 x 250 mm	Pos.10 I	28	fg400650	•
Hinged vane 98 x 200 mm double sided (37 mm for G 1½" and G 1¼") (1.4305, max. 250°C)	Pos.10 K with pos.9 3	28	fg400081	•
Hinged vane 98 x 200 mm double sided (37 mm for G 1½" and G 1¼") (1.4404, max. 250°C)	Pos.10 K with pos.9 7	28	fg400087	•
Hinged vane 98 x 200 mm double sided (28 mm for G 1" and M32) (1.4305, max. 250°C)	Pos.10 K with pos.9 3	28	fg400085	•
Hinged vane 98 x 100 mm single sided (37 mm for G 1½" and G 1¼") (1.4305, max. 250°C)	Pos.10 S with pos.9 3	28	fg400084	•
Hinged vane 98 x 100 mm single sided (37 mm for G 1½" and G 1¼") (1.4404, max. 250°C)	Pos.10 S with pos.9 7	28	fg400088	•
Hinged vane 98 x 100 mm single sided (28 mm for G 1" and M32) (1.4305, max. 250°C)	Pos.10 S with pos.9 3	28	fg400086	•
Rubber vane 98 x 250 mm	Pos.10 M	28	fg400565	•
Notched 40 x 80 mm	Pos.10 P	28	fg400614	•
VT-vane	Pos.10 N	19	fg400026	•

Extension parts

Extension shaft ø10 mm: (delivery incl. fixing parts)	by 50 mm	RN 3001/ 6001	-	we400005	•
	by 100 mm	RN 3001/ 6001	-	we401023	•
	by 150 mm	RN 3001/ 6001	-	we401025	•
	by 200 mm	RN 3001/ 6001	-	we401026	•
Pendular shaft L=500 mm (delivery incl. fixing parts)		RN 3001/6001/pos.36	23	zu400131	•
Pendular shaft L=1,000 mm (delivery incl. fixing parts)		RN 3001/6001/pos.36	23	zu400132	•
Kit rope extension L=2,000 mm (implements 2 m single rope (zu400729) and rope fixing parts (zu400110))		RN 3001/6001/pos.39	23	zu400100	•
Single rope ø8 mm, tail welded, price per meter		RN 3002/ 6002-rope RN3001/ RN6001/ pos.39	26 23	zu400729	•
Rope fixing parts, usable for kit rope extension		RN3001/ RN6001/ pos.39	23	zu400110	•
Rope weight ø30 mm (delivery incl. fixing parts)		RN 3002/ 6002-rope	26 below	we400720	•
Rope holder ø22 mm (for version Pos.1 C) (delivery incl. fixing parts)		RN 3002/ 6002-rope	26 below	we400700	•

Spare parts

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

Fitting to unit/ model code	Description see page	Spare part Article number
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Hexagon nut

1½" aluminium	Pos.6 A	23	zu300170	•
1½" stainless steel 1.4305	Pos.6 A	23	zu300180	•
1¼" aluminium	Pos.6 B	23	zu300171	•
1¼" stainless steel 1.4305	Pos.6 B	23	zu300181	•
1" aluminium	Pos.6 C	23	zu200150	•
1" stainless steel 1.4305	Pos.6 C	23	zu200160	•
M32 aluminium	Pos.6 D	23	zu200120	•
M32 stainless steel 1.4305	Pos.6 D	23	zu200130	•
M30 aluminium	Pos.6 E	23	zu200170	•
M30 stainless steel 1.4305	Pos.6 E	23	zu200180	•

Flush welding socket

Flush welding socket ø69/ G 1½" made of Aluminium	Pos.29 b	24	bu400505	•
Flush welding socket ø69/ G 1½" made of 1.4301 (304)	Pos.29 c	24	bu400506	•
Flush welding socket ø69/ G 1½" made of 1.4404 (316L)	Pos.29 d	24	bu400507	•

Weather protection cover

RN 3000 (for lower housing, dimension H=66 mm)	Pos.21 x	24	zu300230	•
RN 3000 (for higher housing, dimension H=70 mm)	Pos.21 x	24	zu300232	•
RN 6000 standard housing	Pos.21 x	24	zu300240	•

