

## 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:
ATEX / IEC-Ex flameproof (pos.2 T) FM and CSA (pos.2 M,N,S,U) All other versions	M20x1.5 (1x open conduit + 1x Ex-d blind plug) NPT 1/2" tapered ANSI B1.20.1 (1x open conduit + 1x Ex-d blind plug) M20x1.5 (1x screwed cable gland + 1x blind plug)

**Dimensions**

see pages 24 - 28

**Basic Type**

- RN 3001 .....
- RN 6001 .....

pos. 2 **Certificate** (detailed Ex-markings: see page 28)

Certificate	Zone / Div		Protection method
	Dust	Gas	
0 CE	-	-	
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		

For RN3001: pos.2 0 includes GOST-R, pos.2 W includes RTN-Ex and GOST-R

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 Ex, only with pos. 4.1) .....
- 5 max. + 600°C (1112°F) ..... (not for Ex, only with pos. 4.1) .....

pos. 4 **Process overpressure**

- 1 max. 0,8 bar (11,6psi) ..... (0,1bar (14.5psi) with Pos. 3.5) .....
- 2 max. 5 bar (73psi) .....
- 3 max. 10 bar (145psi) .....

## RN ..001 Short extension length

pos. 5	<b>Power supply</b>	
• •	A / S 230V AC 50-60 Hz	Motor Speed: A=1/min S= 5/min
• •	B / T 115V AC 50-60 Hz	Motor Speed: B=1/min T= 5/min
• •	C / U 48V AC 50-60 Hz	Motor Speed: C=1/min U= 5/min
• •	D / V 24V AC 50-60 Hz	Motor Speed: D=1/min V= 5/min
• •	E / W 24V DC	Motor Speed: E=1/min W= 5/min
• •	G / H 24V DC PNP	Motor Speed: G=1/min H= 5/min
• •	F / X 24V DC / 22...230V AC universal voltage <sup>(1)</sup>	Motor Speed: F=1/min X= 5/min
pos. 6	<b>Process connection</b>	
• •	A thread G 1½ inch, DIN 228	(max. 250°C (482°F))
• •	B thread G 1¼ inch, DIN 228	(max. 250°C (482°F)) (not for pos 2. R,S,T,U)
• •	C thread G 1 inch, DIN 228	(max. 250°C (482°F)) (not for pos 2. R,S,T,U)
• •	D thread M32x1.5	(max. 250°C (482°F)) (not for pos 2. R,S,T,U)
• •	E thread M30x1.5	(max.0.8 bar (11.6psi)/80°C (176°F)) (not for pos 2. R,S,T,U)
• •	F thread NPT 1½ inch, conical ANSI B1.20.1	
• •	Q thread NPT 1¼ inch, conical ANSI B1.20.1	(max. 250°C (482°F))
• •	G thread NPT 1 inch, conical ANSI B1.20.1	(max. 250°C; not for pos 2. R,S,T,U)
• •	P Triclamp 2" (DN 50) ISO 2852	(max. 80°C (176°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))
• •	L flange DN100 PN6, EN 1092-1	(max. 5 bar (73psi))
• •	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	<b>Material Process connection</b>	
• •	1 aluminium	(max. 0.8 bar (11.6psi) / 80°C (176°F))
• •	3 stainless steel 1.4305 (303) A-G / 1.4301 (304) P-I / 1.4541 (321) K-U	
• •	7 stainless steel 1.4404 (316L)	(only with pos. 9.7)
pos. 8	<b>Length of extension "L"</b>	
• •	K 70 mm (2,76")	(only with vane P)
• •	A 100 mm (3,93")	(only with vane A, D, R, 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 50mm (1.97") or part thereof (starting from 0mm) min. 350 mm (13.8"), max. 1000mm (39.4")
pos. 9	<b>Material of extension "L"</b>	
• •	3 stainless steel 1.4305 (303)	
• •	7 stainless steel 1.4404 (316L)	(only with pos.7.7 and 10.A,D,F,K,S)
pos. 10	<b>Measuring vane</b>	
• •	A boot-shaped <sup>(2)</sup> 40 x 98mm (1.57 x 3.86")	for 1 1/2" socket (with pos.9.7 L=10mm longer)
• •	D boot-shaped <sup>(2)</sup> 35 x 106mm (1.38 x 4.17")	for 1 1/4" socket ("L"=10mm longer)
• •	R boot-shaped <sup>(2)</sup> 28 x 98mm (1.10 x 3.86")	for 1" and M32 socket
• •	J boot-shaped <sup>(2)</sup> 26 x 77mm (1.02 x 3.03")	for M30 socket
• •	B rectangular 50 x 98mm ( 1.97 x 3.86")	
• •	C rectangular 50 x 150mm (1.97 x 5.90")	
• •	E rectangular 50 x 250mm (1.97 x 9.84")	
• •	F rectangular 98 x 98mm (3.86 x 3.86")	
• •	G rectangular 98 x 150mm (3.86 x 5.90")	
• •	I rectangular 98 x 250mm (3.86 x 9.84")	
• •	K hinged vane 98 x 200mm (3.86 x 7.87") double sided (L=10mm longer)	1.4301/1.4404
• •	S hinged vane 98 x 100mm (3.86 x 3.93") single sided (L=10mm longer)	1.4301/1.4404
• •	M rubber vane 98 x 250mm (3.86 x 9.84")	(max.80°C (176°F), not for Ex)
• •	P notched 40 x 80mm (1.57 x 3.15")	(only with pos. 8K)
• •	Y without	including splint pin for fixation

Basic type

**Further options and accessories:** see page 20

	<b>A</b>									
Position	1	2	3	4	5	6	7	8	9	10

← **Order code**

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

<sup>(1)</sup> not for FM/CSA

<sup>(2)</sup> maximum length of socket 40mm



## Options

	15	15							pos. 30x	<b>Sliding sleeve</b> for applications without process overpressure .....
	16	16							pos. 31x	<b>Sliding sleeve</b> for applications with process overpressure (1.4305 (303)) .....
	•	•							pos. 32x	<b>Bearing at tube end</b> max. +80°C (176°F) ..... max. +150°C (302°F) ..... max. +250°C (482°F) ..... max. +600°C (1112°F) .....
									pos. 33x	<b>Extension and flange welded</b> $\alpha = \text{ }^\circ$ min. 0° max. 45° for aluminium (see pos. 7/9) ..... for stainless steel (1.4305 (303)) (see pos. 7/9) .....
									pos. 34x	<b>Reinforced rib</b> (only with pos. 33, max. $\alpha = 30^\circ$ ) .....
										<b>Plug</b>
17	17	17	17	17	17	17	17	17	pos. 35x	Valve connector (incl. mating plug)      4-pole (incl. PE)      max. 230V
17	17	17	17	17	17	17	17	17	pos. 35a	M12 (without mating plug)                      4-pole                      max. 25V
17	17	17	17	17	17	17	17	17	pos. 35b	M12 (without mating plug)                      5-pole (incl. PE)      max. 60V
17	17	17	17	17	17	17	17	17	pos. 35c	Harting Han 4A (incl. mating plug)          5-pole (incl. PE)      max. 230V
										<b>Kit pendulum shaft</b> only for vertical installation, max. pulling force 400N, only with pos.8 A
	•	•							pos. 36x	L=500 mm (19.7") (drilled holes also for 300 and 400mm (11.8 and 15.8")) .....
	•	•							pos. 36y	L=1.000 mm (39.4") (drilled holes also for 600/ 700/ 800 and 900mm ( 23,6/ 27,6/ 31,5 und 35,4")) .....
18									pos. 39x	<b>Kit rope extension</b> L=2m, only available as full detector .....

- 1 Available for certificat CE, ATEX and IEC-Ex dust explosionproof (pos.2 0, W, A). Not with cable entry NPT (pos.28 a, c) and control lamp LED (pos.27 b). For ATEX and IEC-Ex the min. ambient temperature is -20°C (-4°F).
- 2 Available for temp. up to 80°C and for pressure up to 0.8 bar, except M30x1.5 (pos. 6E). Note: 150°C version including FPM as standard.
- 3 Available for temp. up to 150°C and for pressure up to 0.8 bar, except M30x1.5 (pos. 6E). Note: Above 250°C and 5bar/10bar PTFE included as standard.
- 4 Available for temperature up to 250°C except M30x1.5 (pos. 6E), not for RN3002-rope strengthened (pos. 1H).  
 All bearings mounted in the extension are made of stainless steel.
- 5 Available for all versions except explosionproof / flameproof version (pos.2 R,T,S,U).
- 6 Available for power supply 230V/115V/48V/24V AC (pos.5 A, B, C, D, S, T, U, V). Not for FM/CSA (pos.2 M, N, S, U). Not with fail safe alarm (pos. 25x).  
 Note: Universal voltage implements FSH/FSL by default.
- 7 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. 26x is not required).
- 8 Available for CE (pos.2 0), not in combination with weather protection cover (pos 21) and cable entries pos.28 x,a,c.  
 In combination with universal voltage (pos.5 F, X) three bulbs (24V, 115V and 230V) will be delivered.  
 Connection of bulb signal lamp wires with internal terminals: without (standard) or according to customer specification.
- 9 Available for all versions except explosionproof / flameproof version (pos.2 R,T,S,U) not in combination with weather protection cover (pos 21).
- 10 Available for certificate CE (pos. 2,0)
- 11 Available for all versions except flameproof version (pos.2 T,U).
- 12 Available for FM/CSA versions (pos.2 M,N,S) except flameproof version (pos.2 T,U).
- 13 Available up to max. 250°C. Not for M30x1.5 (pos. 6E), vane (pos.10 M), flange sealings (pos.22). The option does not automatically implement a food conform design (food conform gaps and radiuses).
- 14 Certificate only valid with the use of the "flush welding socket". With pos.29a this socket must be manufactured on site.  
 Available up to max. 250°C. Only for G 1 1/2" (pos.6 A). Not with vane pos.10 K, P, S, M, Y. Vane pos.10 A can not be inserted through the flush welding socket. RN 3002/6002 only with bearing at tube end (pos 32x). Not in combination with options pos.15, 22, 24, 29y, 30, 31, 36, 39.
- 15 Available for CE (pos.2 0). Process connection and material as choosen in pos.6 and 7.
- 16 Available for temperatures up to 250°C. Process connection as choosen in pos.6.
- 17 Available for CE (pos.2 0). Without connection of stranded wires for installation and internal terminals (standard) or according to customer specification.
- 18 Available for certificate CE, ATEX, IEC-Ex (pos. 2,0,W,A), Extension 100mm (pos.8,A) and 1.4305 (pos.9,3)