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Subject to technical change.

All dimensions in mm (inches).

We assume no liability for typing errors.

Valid from 01.04.2010 until 31.03.2011 unless otherwise agreed.

By publishing this option list all other option lists become invalid.

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

Specifications

- Level limit detection in bulk goods / solids
- Compact unit
- Die-casted housing aluminium
- Wide range of applications, no maintenance
- Full-, demand-, empty detector
- ATEX, FM, CSA approvals (DustEx)
- Sensitivity > 60 g/l (3.8lb/ft³)

Approvals	CE	
	ATEX	Zone 20/21 (Dust Ignition Proof)
	FM / CSA	General purpose
Cl. II, III Div. 1 (Dust Ignition Proof)		

Electronics	Relay DPDT	19..230V AC 19..50V DC
	PNP	18..50V DC

VN 4020	Length of extension	170mm (6,68")
	Ambient temperature	-40 .. +60°C (-40 .. +140°F)
	Process temperature	-40 .. +150°C (-40 .. +302°F)
	Process pressure	-1 .. +10 bar (-14.5 .. +145 psi)
	Process connection material	1.4581 (SS 316)

VN 4030	Length of extension	300 .. 4.000mm (11.8 .. 157")
	Ambient temperature	-40 .. +60°C (-40 .. +140°F)
	Process temperature	-40 .. +150°C (-40 .. +302°F)
	Process pressure	-1 .. +10 bar (-14.5 .. +145 psi)
	Process connection material	1.4301 (SS 304) or 1.4571 (SS 316)

VN 4020



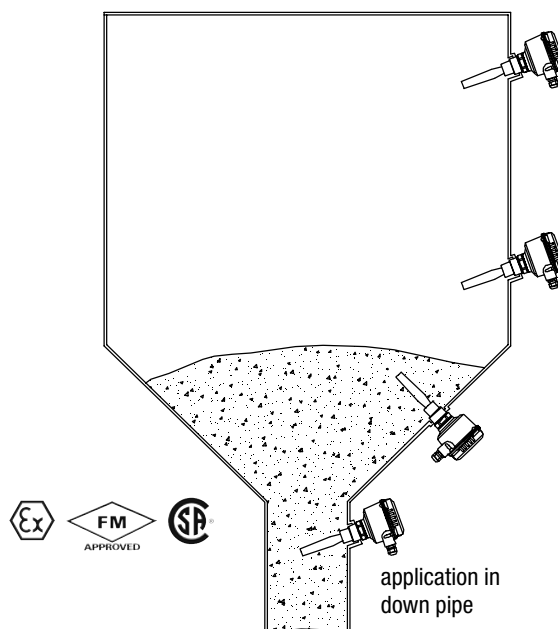
VN 4030



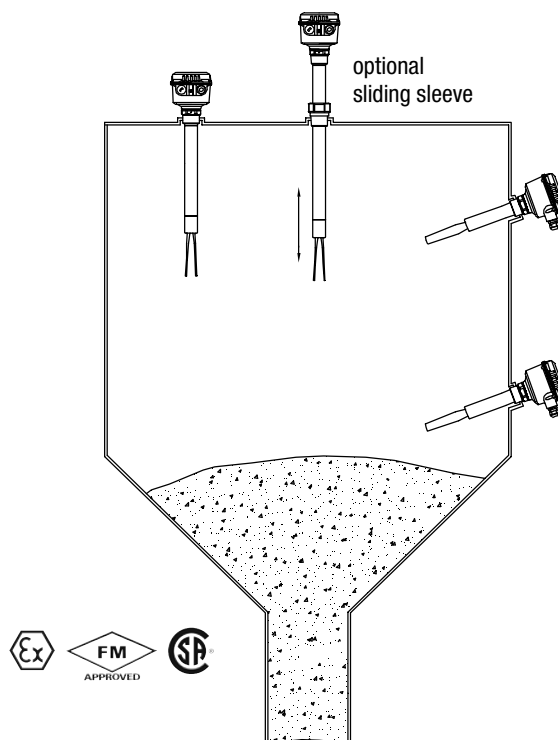
Applications

Detection of solids

VN 4020



VN 4030



VN 4020 Short extension length



Cable entries

Depending on model selected the following cable entries are supported (options see pos 23 on page 8):

Version:	Cable entries:
CE and ATEX (pos.2 0,W)	M20x1,5 (1x cable gland + 1x blind plug)
FM and CSA (pos.2 M,N)	NPT 1/2" tapered ANSI B1.20.1 (1x conduit + 1x blind plug)

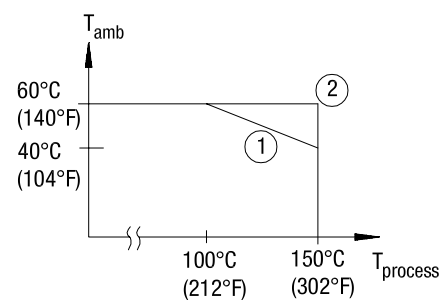
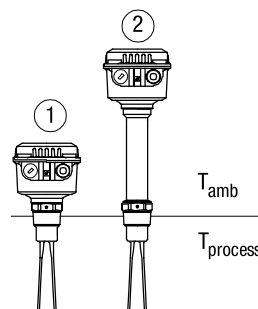
Dimensions

see page 10

pos. 3
 Temperature extended shaft

Application up to 150°C (302°F)

- 1 without
- 2 with



VN 4020 Short extension length

Basic type

VN 4020

pos. 2 Certificate

- 0 CE
- W ATEX II 1/2D Ex tD A20/21
- M FM / CSA general purpose
- N FM / CSA DIP Cl. II, III Div.1 Group E, F, G and CSA DIP A20/21

pos. 3 Temperature extended shaft

- 1 without (upto $T_{process} = 150^{\circ}C$ (302°F) at $T_{amb} < 40^{\circ}C$ (104°F)
- 2 with (upto $T_{process} = 150^{\circ}C$ (302°F) at $T_{amb} > 40^{\circ}C$ (104°F)

pos. 4 Electronic module

- L Relay DPDT 19..230V AC 19..50V DC
- D PNP 18..50V DC

pos. 5 Process connection

- A Thread R 1½ inch, conical DIN 2999
- B Thread NPT 1½ inch, conical ANSI B1.20.1
- D Thread NPT 1 ¼ inch, conical ANSI B1.20.1
- L Flange DN 100 PN6, EN1092-1 (max. 6 bar (87psi)
- M Flange DN 100 PN16, EN1092-1
- S Flange 2" 150lbs ANSI B16.5
- T Flange 3" 150lbs ANSI B16.5
- U Flange 4" 150lbs ANSI B16.5

pos. 8 Material of process connection / extension "L"

- 1 Stainless steel 1.4301 (304)
- 2 Stainless steel 1.4571 (316Ti)

Further options: see page 8

VN 4020 A

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3 1 ← **Order code**

Position 1 2 3 4 5 6 7 8

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

VN 4030 Pipe extension



Cable entries

Depending on model selected the following cable entries are supported (options see pos 23 on page 8):

Version:	Cable entries:
CE and ATEX (pos.2 O,W)	M20x1,5 (1x cable gland + 1x blind plug)
FM and CSA (pos.2 M,N)	NPT 1/2" tapered ANSI B1.20.1 (1x conduit + 1x blind plug)

Dimensions

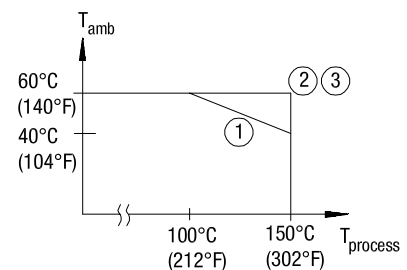
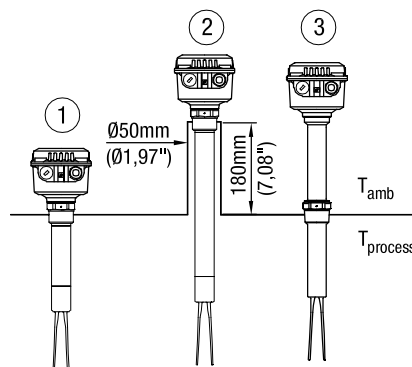
see page 10

pos. 3

Temperature extended shaft

Application up to 150°C (302°F)

- 1 without
- 2 without and with extended socket
- 3 with



VN 4030 Pipe extension

Basic type

VN 4030

pos. 2 Certificate

- 0 CE
- W ATEX II 1/2D Ex tD A20/21
- M FM / CSA general purpose
- N FM / CSA DIP Cl. II, III Div.1 Group E, F, G and CSA DIP A20/21

pos. 3 Temperature extended shaft

- 1 without (upto $T_{process} = 150^{\circ}C$ (302°F) at $T_{amb} < 40^{\circ}C$ (104°F)
- 2 with (upto $T_{process} = 150^{\circ}C$ (302°F) at $T_{amb} > 40^{\circ}C$ (104°F)

pos. 4 Electronic module

- L Relay DPDT 19..230V AC 19..50V DC (Delivery time on request)
- D PNP 18..50V DC

pos. 5 Process connection

- A Thread R 1½ inch, conical DIN 2999
- B Thread NPT 1½ inch, conical ANSI B1.20.1
- D Thread NPT 1¼ inch, conical ANSI B1.20.1
- L Flange DN 100 PN6, EN1092-1 (max. 6 bar (87psi)
- M Flange DN 100 PN16, EN1092-1
- S Flange 2" 150lbs ANSI B16.5
- T Flange 3" 150lbs ANSI B16.5
- U Flange 4" 150lbs ANSI B16.5

pos. 7 Length of extension "L"

- Z from 0mm per 100mm (3.94") and part thereof;
 min. 300mm (11.8"), max. 4.000mm (157")

pos. 8 Material of process connection / extension "L"

- 1 Stainless steel 1.4301 (304)
- 2 Stainless steel 1.4571 (316Ti)

Further options: see page 8

VN 4030 | **B** | | | | | **3** | **Z** | | ——— **L=** **mm** ← **Order code**

Position 1 2 3 4 5 6 7 8

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

Options

- pos. 21 **Weather protection cover**
 (for Ex only approved for Zone 22 or Div. 2)

Mounting set for flange mounting

process connection flange	for counter flange with	consists of			
		screws*	nuts*	washers*	sealing**
pos. 22c L	hole ø18	4 pcs M16x60	4 pcs M16	4 pcs	1 piece
pos. 22d L	thread M16	4 pcs M16x40		4 pcs	1 piece
pos. 22e M	hole ø18	8 pcs M16x60	8 pcs M16	8 pcs	1 piece
pos. 22f M	thread M16	8 pcs M16x40		8 pcs	1 piece

* material stainless steel A2 **max. 125°C (256°F)

Cable entry

Optional available:

- pos. 23x M20x1,5 2x screwed cable gland
 pos. 23y M20x1,5 1x screwed cable gland +1x blind plug
 pos. 23a NPT 1/2" tapered ANSI B1.20.1 (1x conduit + 1x blind plug)
 pos. 23b NPT 3/4" tapered ANSI B1.20.1 (1x conduit + 1x blind plug)

Sliding sleeve

Process connection as follows or flange as chosen

³ For applications without overpressure, max. 150°C (302°F),

Applicable not for Ex (Pos.2 W,N)

- pos. 25a R 1½ inch DIN 2999 material 1.4301 (304)
 pos. 25b NPT 1½ inch ANSI B1.20.1 material 1.4301 (304)
 For applications with overpressure max. 10bar (145psi), max. 150°C (302°F)
 pos. 25e R 1½ inch DIN 2999 material 1.4571 (316 TI)
 pos. 25f NPT 1½ inch ANSI B1.20.1 material 1.4571 (316 TI)

Signal lamp

- pos. 27a Bulb in cable gland, 2W green ¹
 pos. 27b LED (glass window in lid)
 pos. 29 **Plug 4–pole** ² (incl. PE)

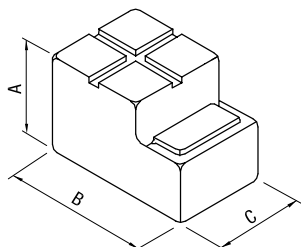
¹ available for CE (pos. 2, 0), not in combination with weather protection cover (pos. 21)

² available only for CE (pos. 2, 0)

³ available for CE and FM/CSA general purpose (pos. 2, 0, M)

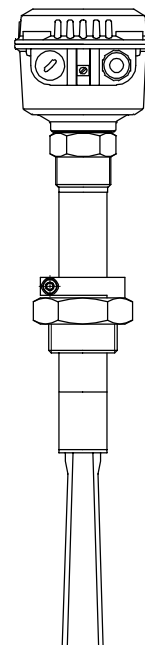
Options

pos. 21
Weather-protection cover

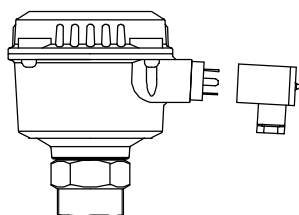


A	130mm (5,12")
B	200mm (7,87")
C	125mm (4,92")

pos. 25
Sliding sleeve

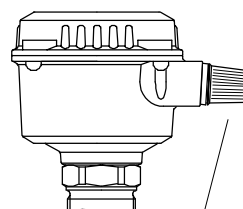


pos. 29
Plug 4-pole



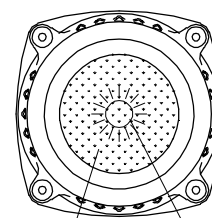
Signal lamp

pos. 27a
 Bulb in cable gland



bulb

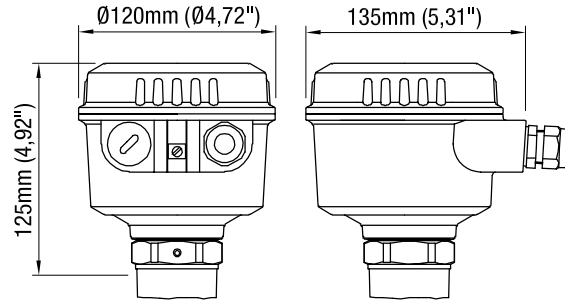
pos. 27b
 LED (glass window in lid)



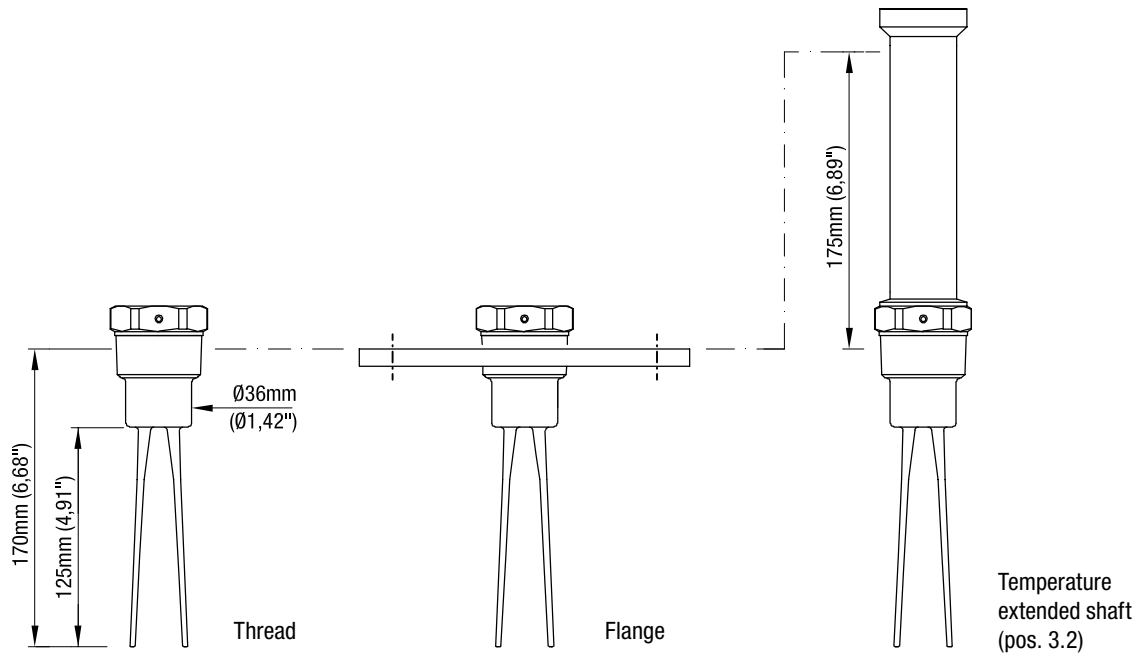
glass window

LED

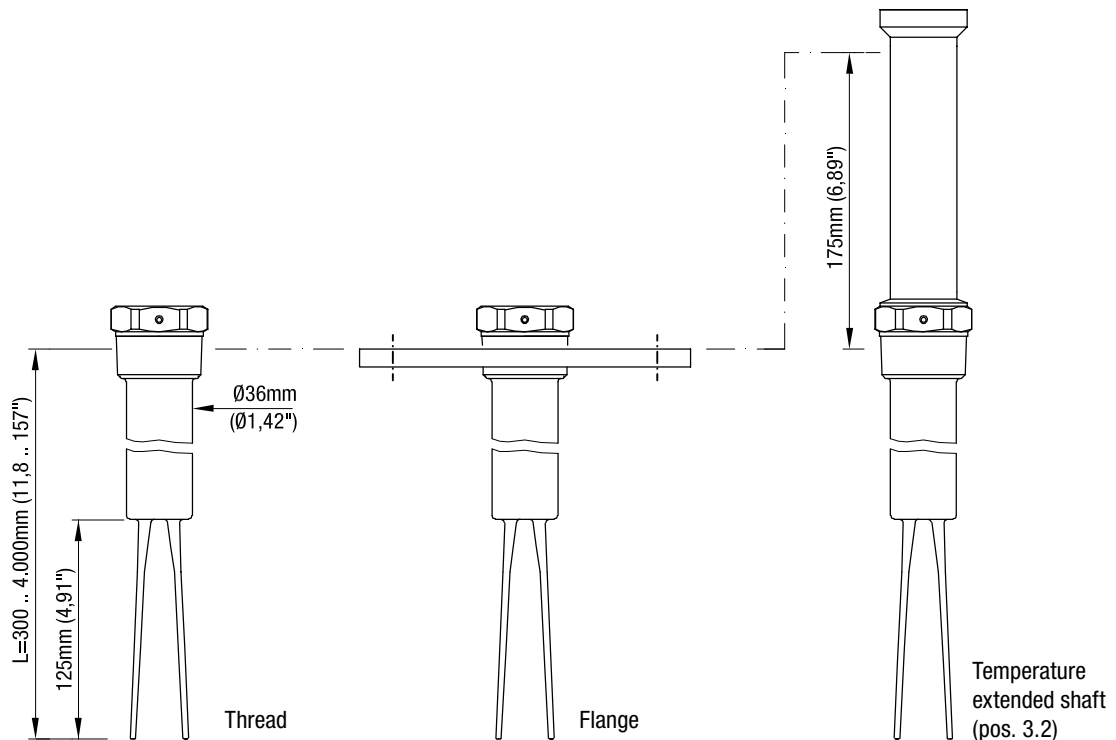
Dimensions



VN 4020



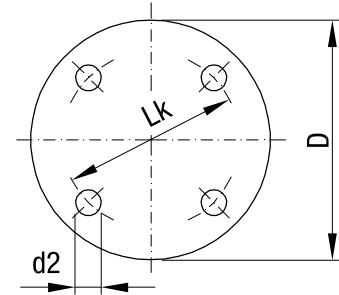
VN 4030



Dimensions / Spare parts

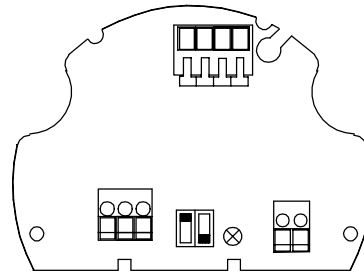
Flanges

code	type	number of holes	d2	Lk	D	T (thickness)
L	flange DN100 PN6	4	18mm (0.71")	170mm (6.69")	210mm (8.27")	16mm (0.63")
M	flange DN100 PN16	8	18mm (0.71")	180mm (7.09")	220mm (8.66")	20mm (0.79")
S	flange 2" 150lbs	4	19.1mm (0.75")	120.7mm (4.75")	152.4mm (6.01")	19.1mm (0.75")
T	flange 3" 150lbs	4	19.1mm (0.75")	152.4mm (6.01")	190.5mm (7.5")	23.9mm (0.94")
U	flange 4" 150lbs	8	19.1mm (0.75")	190.5mm (7.5")	228.6mm (9")	23.9mm (0.94")



Spare parts

Electronic board	Article number
Relay DPDT 19..230V AC 19..50V DC	pI108165
PNP 18..50V DC	pI108166



Electrical installation

Universal voltage

Relay DPDT

Power supply:

19..230V 50-60Hz	+10%	18VA
19..50V DC	+10%	2W

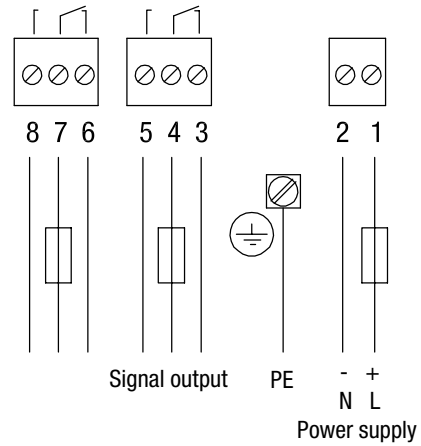
Fuse on power supply: max. 10A

Signal output:

Floating relay DPDT

AC max. 250V, 8A, non inductive
 DC max. 30V, 5A, non inductive

Fuse on signal output: max 10A



3-wire

PNP

Power supply:

18 .. 50V DC +10% 0.6W

Fuse: max 4A

Signal output:

max. 0.4A

Load for example:

PLC, relay, contactor, bulb

