

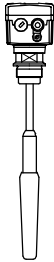


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Subject to change.
 All dimensions in mm (inches).
 All prices in Euro, excluding VAT.

Valid: From 01.04.2013 until 31.03.2014, 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.

Specifications

- Level limit detection in bulk goods / solids
- Compact unit
- Wide range of applications, no maintenance
- Full-, demand-, empty detector
- Capacitive technology with active shield
- Plastic or aluminium housing
- Sensitivity: dielectric constant $\geq 1,6$
- Precalibration allows measurement of most applications without calibration on site
- FSL/FSH switch
- Output with adjustable delay
- 1935/2004/EC food grade material

Approvals	CE	
	ATEX / IEC-Ex	Zone 20/21 (Dust Ignition Proof)
	GOST-R	

Electronics	Relay SPDT	21..27V DC $\pm 10\%$
	Relay DPDT	21..230V AC 21..45V DC $\pm 10\%$
	PNP	20..40V DC $\pm 10\%$

Housing	Material	Plastics PA6 (glass fibre reinforced) or Aluminium
	Type of protection	IP66

CN 4020 (version 120°C)	Length of extension	155mm (6.1")
	Ambient temperature	-40 .. +60°C (-40 .. +140°F) -20 .. +60°C (-4 .. +140°F) (Ex)
	Process temperature	-40 .. +120°C (-40 .. +248°F) -20 .. +120°C (-4 .. +248°F) (Ex)
	Process pressure	-1 .. +16 bar (-14.5 .. +232 psi)
	Process connection	G 1" (with flat gasket) G 1 1/2" adapter
	Material of process connection / probe	Plastics PPS (glass fibre reinforced) FDA listed, food grade



CN 4020 (version 180°C)	Length of extension	190mm (7.5") or 400mm (15.7")
	Ambient temperature	-40 .. +60°C (-40 .. +140°F)
	Process temperature	-40 .. +180°C (-40 .. +356°F) -20 .. +180°C (-4 .. +356°F) (Ex)
	Process pressure	-1 .. +16 bar (-14.5 .. +232 psi)
	Process connection	G 1 1/2" (with flat gasket)
	Material of process connection / extension	1.4305 (SS 303), food grade
	Material of probe	Plastics PPS (glass fibre reinforced) FDA listed, food grade



Specifications

CN 4030	Length of extension	210 .. 3.000mm (8.3 .. 118")
	Ambient temperature	-40 .. +60°C (-40 ..+140°F) -20 .. +60°C (-4 .. +140°F) (Ex)
	Process temperature	-40 .. +110°C (-40 .. +230°F) -20 .. +110°C (-4 .. +230°F) (Ex)
	Process pressure	-1 .. +16 bar (-14.5 .. +232 psi)
	Process connection	G 1 1/2" (with flat gasket)
	Material of process connection / extension	Aluminium or 1.4305 (SS 303), food grade
	Material of probe	Plastics PPS (glass fibre reinforced) FDA listed, food grade



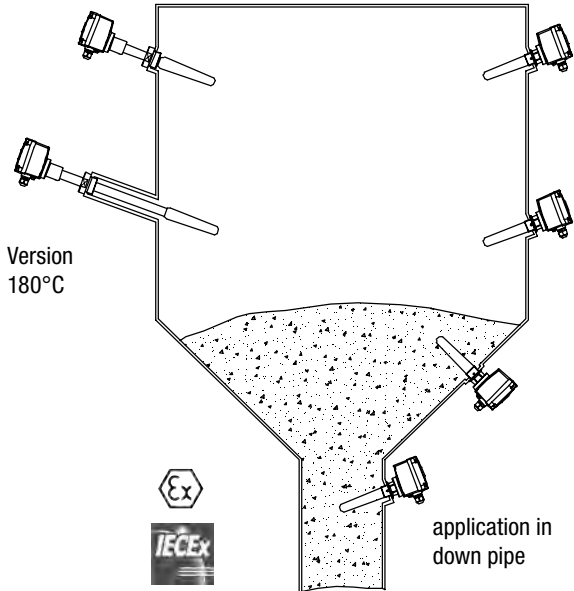
CN 4050	Length of extension	350 .. 6.000mm (13.8 .. 236")
	Ambient temperature	-20 .. +60°C (-4 .. +140°F)
	Process temperature	-20 .. +80°C (-4 .. +176°F)
	Process pressure	-1 .. +6 bar (-14.5 .. +87 psi)
	Process connection	G 1 1/2" (with flat gasket)
	Material of process connection	Aluminium or 1.4305 (SS 303)
	Material of cable isolation	PUR, not food grade
	Material of probe	Plastics PPS/PBT (glass fibre reinforced)



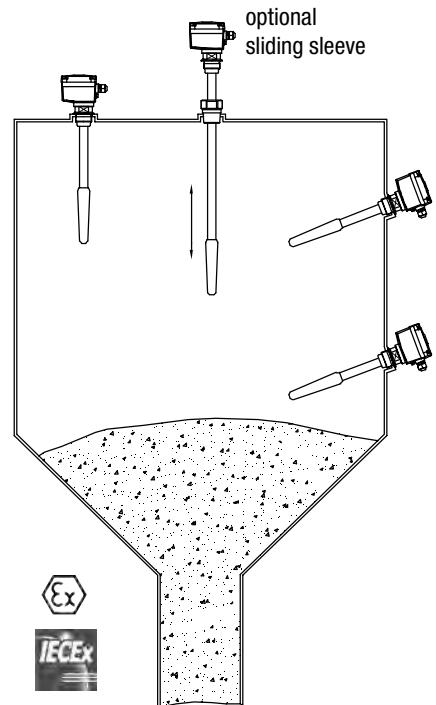
Applications

Detection of solids

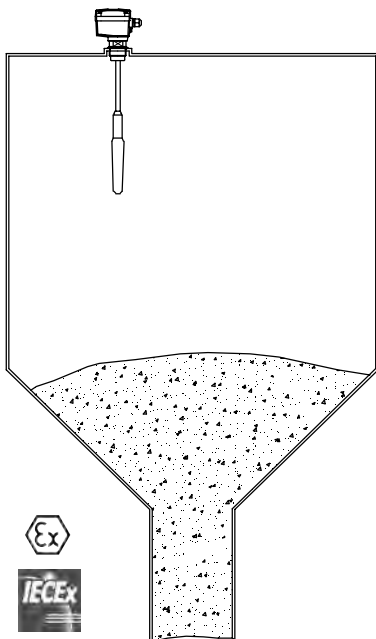
CN 4020



CN 4030



CN 4050



CN 4020 (120°C) Short extension length



Version: 120°C, G1", L=155mm, PPS (food grade)
Dimensions: see page 11
Cable entries: M20x1,5 (1x cable gland + 1x blind plug)*
Housing material: Plastics PA6*

*Options see page 9

Basic type

CN 4020 (120°C)

pos. 2 **Certificate**
 0 CE⁽¹⁾

W ATEX II 1/2D

A IEC-Ex ta/tb IIIC Da/Db

pos. 4 **Electronic module**
 E Relay SPDT 21..27V DC

D PNP 20..40V DC

L Relay DPDT 21..230V AC 21..45V DC

Further options: see page 9

CN 4020	A		1		A	A	1	A
position	1	2	3	4	5	6	7	8

← **Order code**

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

⁽¹⁾ GOST-R included

CN 4020 (180°C) Short extension length



Version: 180°C, G1 1/2", 1.4305/PPS (food grade)
Dimensions: see page 11
Cable entries: M20x1,5 (1x cable gland + 1x blind plug)*
Housing material: Plastics PA6*

*Options see page 9

Basic type

CN 4020 (180°C)

pos. 2	Certificate	
	0 CE ⁽¹⁾
	W ATEX II 1/2D	.....
	A IEC-Ex ta/tb IIIC Da/Db	.....
pos. 4	Electronic module	
	D PNP 20..40V DC	.....
	L Relay DPDT 21..230V AC 21..45V DC	.....
pos. 7	Length of extension "L"	
	2 190mm (7.5")	.....
	3 400mm (15.7")	.....

Further options: see page 9

CN 4020	A	2	B	3	3	← Order code
position 1	2	3	4	5	6	7 8

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

⁽¹⁾ GOST-R included

CN 4030 Pipe extension



Version: G1 1/2", Aluminium/1.4305/PPS (food grade)
Dimensions: see page 11
Cable entries: M20x1,5 (1x cable gland + 1x blind plug)*
Housing material: Plastics PA6*

*Options see page 9

Basic type

CN 4030

- pos. 2 **Certificate**
 0 CE ⁽¹⁾
 W ATEX II 1/2D
 A IEC-Ex ta/tb IIIC Da/Db
- pos. 4 **Electronic module**
 D PNP 20..40V DC
 L Relay DPDT 21..230V AC 21..45V DC
- pos. 6 **Material of process connection**
 1 Aluminium
 3 Stainless steel 1.4305 (303)
- pos. 7 **Length of extension "L"**
 A 300mm (11.8")
 B 500mm (19.7")
 C 1.000mm (39.4")
 D 1.500mm (59.1")
 Z Price per 100mm (3.94") or part thereof (starting from 0mm)
 min. 210mm (8.3"), max. 3.000mm (118")
- pos. 8 **Material of extension "L"**
 must be the same material as pos.6
 1 Aluminium (probe: plastics PPS)
 3 Stainless steel 1.4305 (303) (probe: plastics PPS)

Further options: see page 9

CN 4030	B	1	B					
position	1	2	3	4	5	6	7	8

← **Order code**

⁽¹⁾ GOST-R included

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

CN 4050 Cable extension



Version: G1 1/2", extension PUR/PPS/PBT
Dimensions: see page 11
Cable entries: M20x1,5 (1x cable gland + 1x blind plug)*
Housing material: Plastics PA6*

Cable length can be shortened at site
 *Options see page 9

Basic type

CN 4050

pos. 2	Certificate	
	0 CE ⁽¹⁾
	W ATEX II 1/2D	.....
	A IEC-Ex ia/tb IIIC Da/Db	.....
pos. 4	Electronic module	
	D PNP 20..40V DC	.....
	L Relay DPDT 21..230V AC 21..45V DC	.....
pos. 6	Material of process connection	
	1 Aluminium	.....
	3 Stainless steel 1.4305 (303)	.....
pos. 7	Length of extension "L"	
	P 500mm (19.7")	.....
	Q 1.000mm (39.4")	.....
	R 1.500mm (59.1")	.....
	T 2.500mm (98.4")	.....
	U 6.000mm (236")	.....
	Z Price per 100mm (3.94") or part thereof (starting from 0mm)	.....
	min. 350mm (138"), max. 6.000mm (236")	

Further options: see page 9

CN 4050	D	1	B	B
position 1	2	3	4	5
6	7	8		

Order code

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

⁽¹⁾ GOST-R included

Options / Accessories

Options

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

Housing material

pos. 22a Aluminium

Cable entry

Selection of the following options only necessary, if a deviation from the default cable gland is required:

pos. 23x M20x1,5 2x screwed cable gland

pos. 23a ¹ NPT 1/2" tapered ANSI B1.20.1 (1x conduit + 1x Ex-d blind plug)

pos. 23b ¹ NPT 3/4" tapered ANSI B1.20.1 (1x conduit + 1x Ex-d blind plug) on request

Hexagon nut

pos. 24a aluminium 1 pcs

pos. 24b aluminium 2 pcs

pos. 24e stainless steel 1.4305 (303) 1 pcs

pos. 24f stainless steel 1.4305 (303) 2 pcs

Sliding sleeve

² For applications without overpressure

pos. 25a G 1½ inch DIN 228 material 1.4305 (303)

For applications with overpressure max. 16bar (232psi):

pos. 25e G 1½ inch DIN 2999 material 1.4305 (303)

³ Signal lamp

pos. 27a Bulb in cable gland, 2W green

pos. 27c Bulb in cable gland, 2W red

⁴ Plug

pos. 35x Valve connector (incl. mating plug) 4-pole (incl PE) max. 230V

pos. 35a M12 (without mating plug) 4-pole max. 25V

pos. 35b M12 (without mating plug) 5-pole (incl. PE) max. 60V

pos. 35c Harting Han 4A (incl. mating plug) 5-pole (incl. PE) max. 230V

¹ Available only for aluminium housing (pos.22a).

² Available only for CE (pos. 2, 0)

³ Available only for CE (pos. 2, 0), not in combination with weather protection cover (pos. 21) and cable entries pos.23 x,a,b.
 For electronic module Relais DPDT (pos. 4.L) three bulbs (24V, 115V and 230V) will be delivered. For PNP (pos.4.D) a 24V bulb will be delivered.

⁴ Available only for CE (pos.2 0). Without connection of stranded wires for installation and internal terminals (standard) or according to customer specification.

Accessories

Adapter G 1" to G 1 1/2"

bu400606 Aluminium

bu400607 1.4305 (303)

Adapter G 1" to NPT 1 1/2"

bu400610 Aluminium

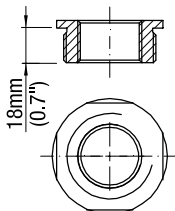
bu400611 1.4305 (303)

zu400200 **Shortening kit** for CN4050 cable

Options / Accessories

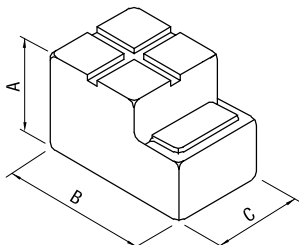
Adapter

G 1" to G 1 1/2"

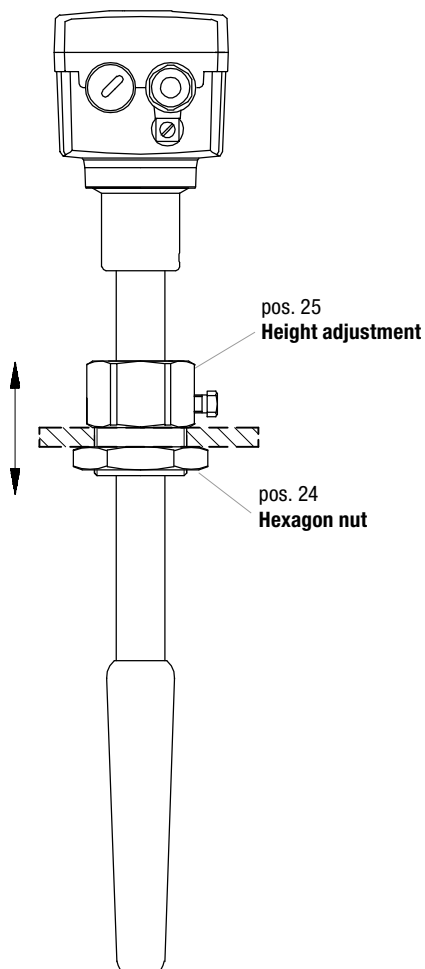


pos. 21

Weather protection cover

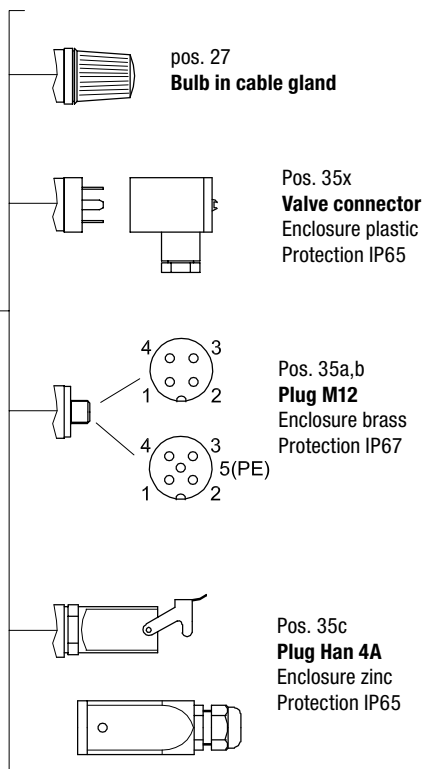
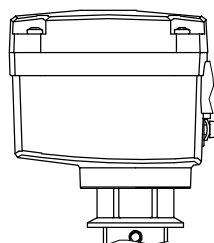


A	100mm (3.94")
B	165mm (6.30")
C	95mm (3.54")



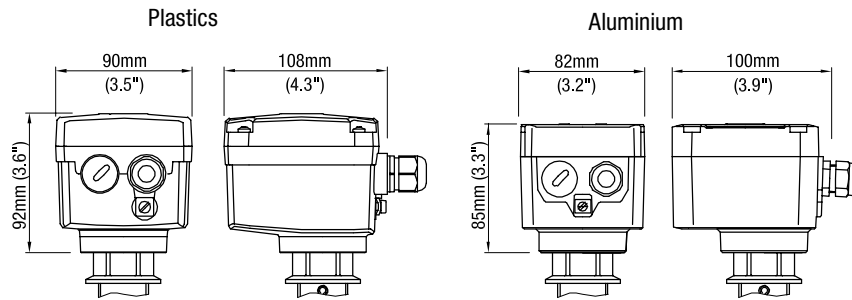
pos. 25
Height adjustment

pos. 24
Hexagon nut

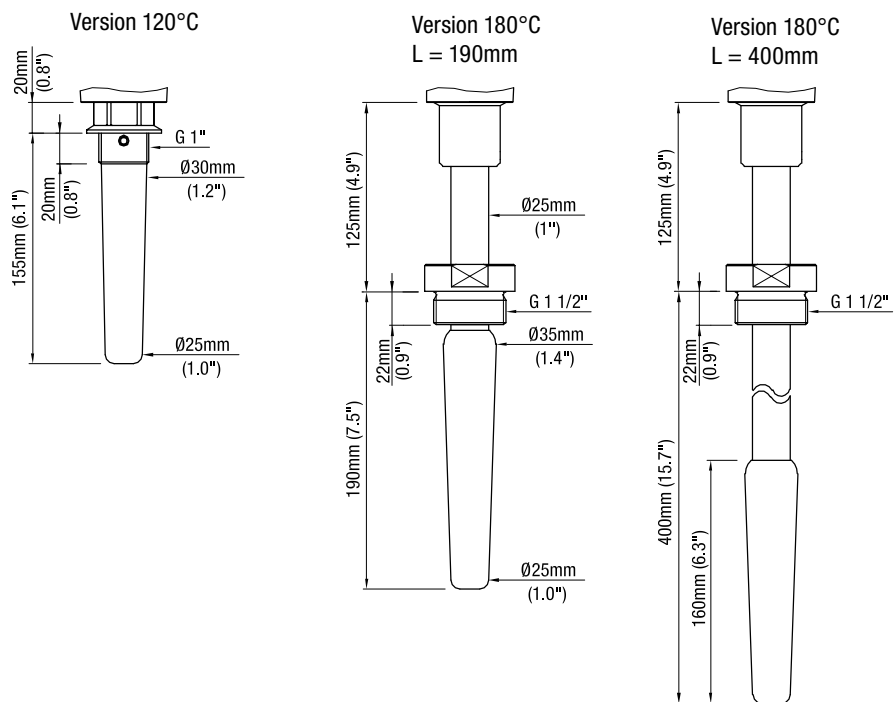


Dimensions

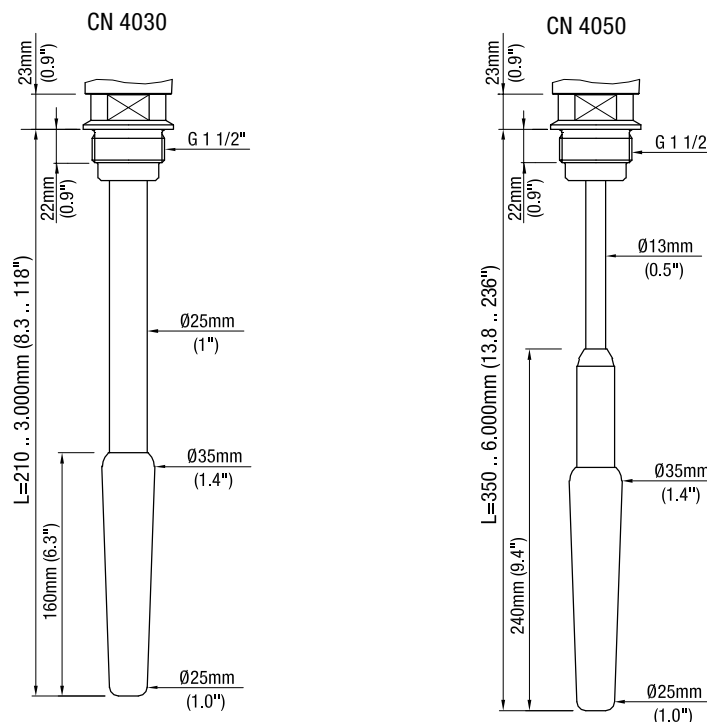
Housing versions



CN 4020



CN 4030 CN 4050



Electrical installation

Relay SPDT

Power supply:

21..27V DC $\pm 10\%^*$ 1,5W
 *incl. 10% of EN 61010

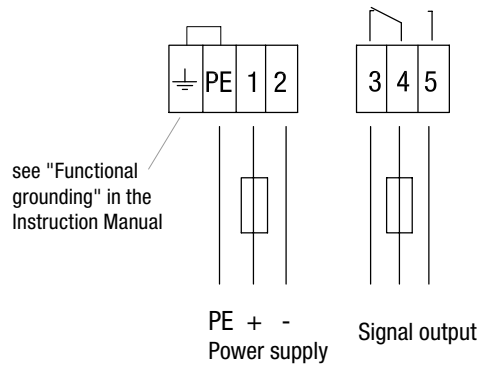
Fuse on power supply: max. 10A

Signal output:

Floating relay SPDT

AC max. 250V, 3A, non inductive
 DC max. 30V, 5A, non inductive

Fuse on signal output: max 5A



Relay DPDT

Universal voltage

Power supply:

21..230V 50-60Hz $\pm 10\%^*$ 18VA
 21..45V DC $\pm 10\%^*$ 2W
 *incl. 10% of EN 61010

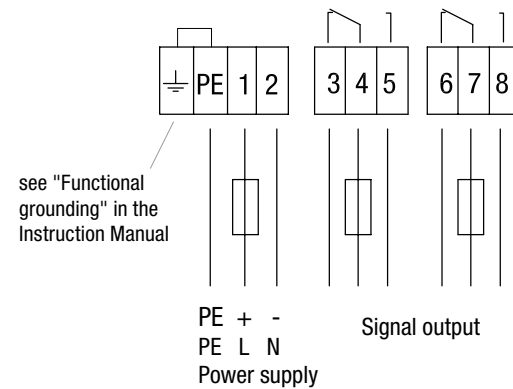
Fuse on power supply: max. 10A

Signal output:

Floating relay DPDT

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

Fuse on signal output: max 5A



PNP

3-wire

Power supply:

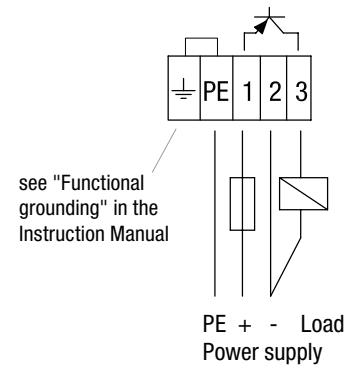
20 .. 40V DC $\pm 10\%^*$ 0.5A
 *incl. 10% of EN 61010

Fuse: max 4A

Signal output:

max. 0.4A

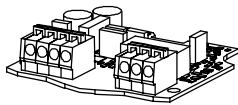
Load for example:
 PLC, relay, contactor, bulb



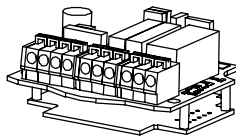
Spare parts

For type	Electronics	Article number
CN 4020 Version 120°C	Relay SPDT 21..27V DC	pl406100
	Relay DPDT 21..230V AC 21..45V DC	pl406110
	PNP 20..40V DC	pl406120
CN 4020 Version 180°C	Relay DPDT 21..230V AC 21..45V DC	pl406111
	PNP 20..40V DC	pl406121
CN 4030 CN 4050	For these types a non changeable electronic is located inside the probe. No spare parts are stated.	

Relay SPDT



Relay DPDT



PNP

