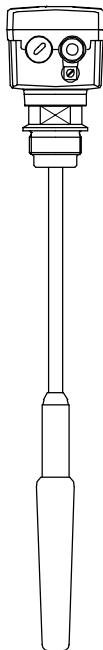
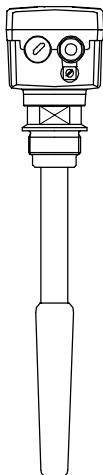
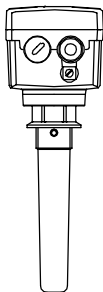


Capanivo[®]

Series **CN 4000**



Instruction manual

010516

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Fax: +49 (0)831 76879 E-Mail: info@uwt.de

Scope of this instruction manual:	Types	CN 4020 / 4030 / 4050
	Approval	CE / TR-CU / ATEX / IEC-Ex
	Electronic modules	Relay (SPDT, DPDT) PNP

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Fields of application	Page	4
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Safety /warning notes

Installation, maintenance and commissioning may be accomplished only by qualified technical personnel.

For terminal connection of the device, the local regulations or VDE 0100 (Regulations of German electrotechnical Engineers) must be observed.

All field wirings must have insulation suitable for at least 250V AC. The temperature rating must be at least 90°C (194°F).

In the case of handling by untrained personnel or handling malpractice, the safety of the device cannot be guaranteed.

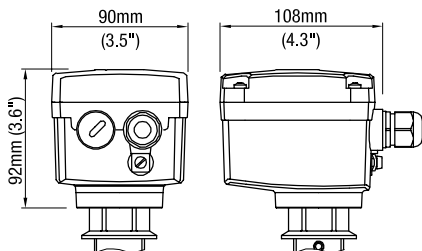
Fields of application

Level limit switch for level limit detection in powder and bulk materials.

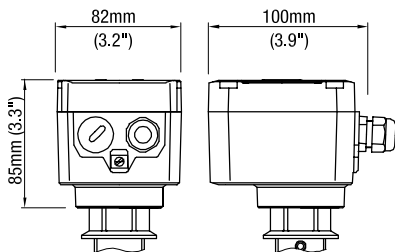
Technical Data



Plastics PA



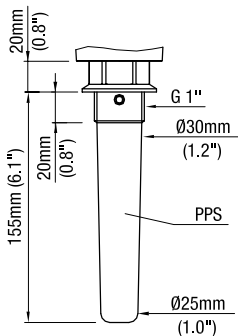
Aluminium



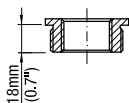


CN 4020

120°C





G 1" → G 1 1/2" / NPT 1 1/4" / NPT 1 1/2"



Material according
to order data

Accessory

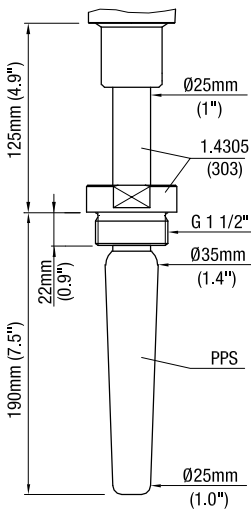
	min. -1bar (-14.5psi) max. +25bar (+363psi)
	~ 0,5kg (1.1 lbs)



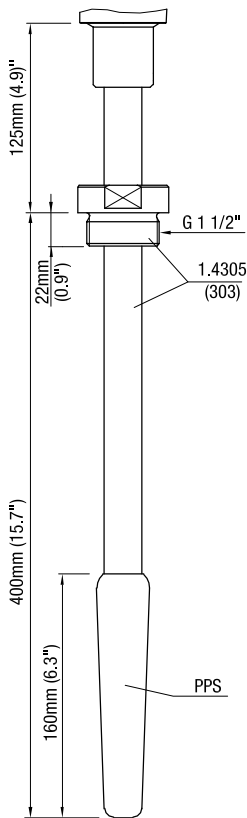
CN 4020



180°C

L=190mm



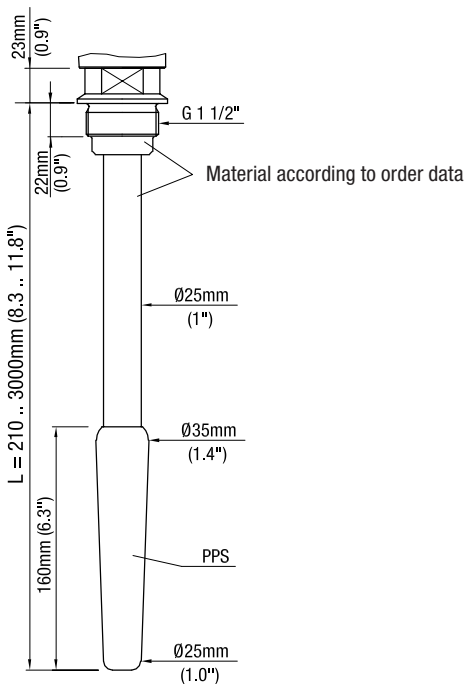
L=400mm



	min. -1bar (-14.5psi) max. +16bar (+232psi)
	~ 1.8kg (4.0 lbs)



CN 4030

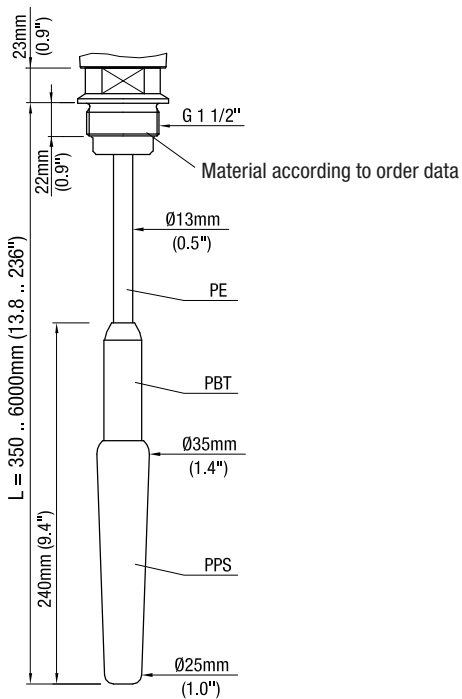




	min. -1bar (-14.5psi) max. +16bar (+232psi)
	~ 0.8 kg (1.8 lbs)+ L: 0.8 kg/m (1.8 lbs/39.9") (1) ~ 1.5 kg (3.3 lbs)+ L: 1.6 kg/m (3.5 lbs/39.9") (2)

(1) = Aluminium (2) = Stainless steel



CN 4050



	min. -1bar (-14.5psi) max. +6bar (+87psi)
	~ 0.9 kg (2.0 lbs)+ L: 0.25 kg/m (0.55 lbs/39.9") (1) ~ 1.4 kg (3.1 lbs)+ L: 0.25 kg/m (0.55 lbs/39.9") (2)

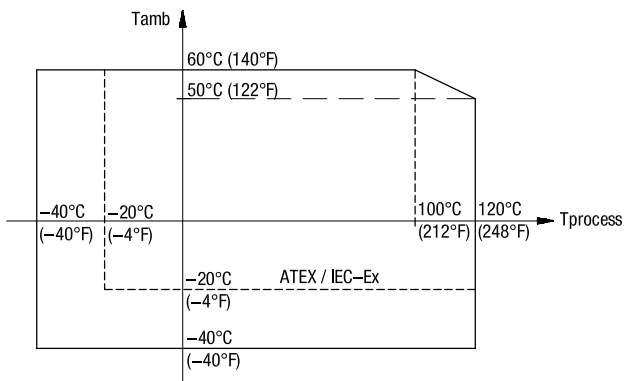
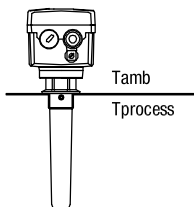
(1) = Aluminium (2) = Stainless steel



°C

CN 4020

120°C

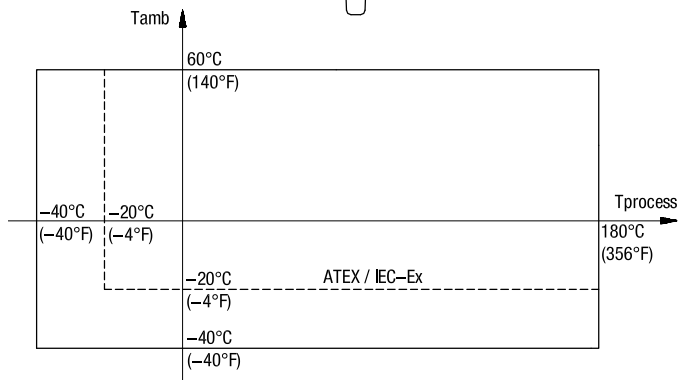
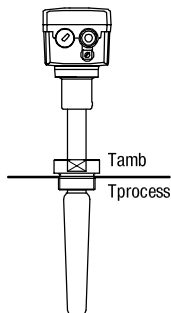




°C

CN 4020

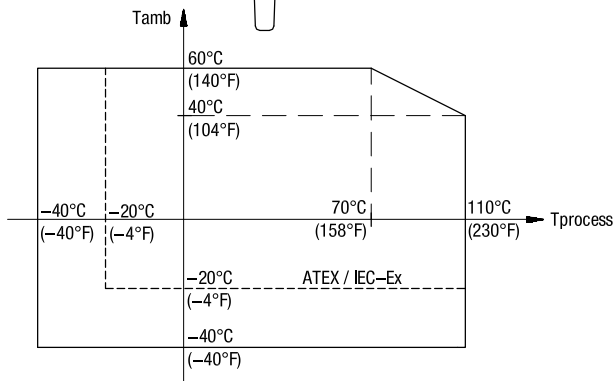
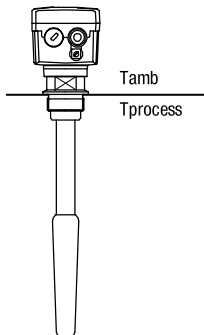
180°C

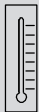




°C

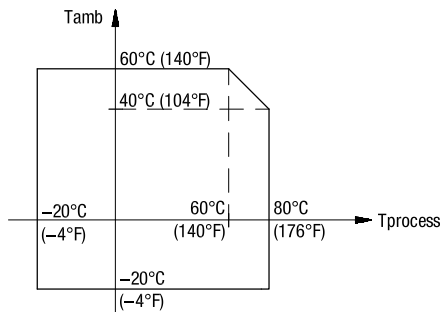
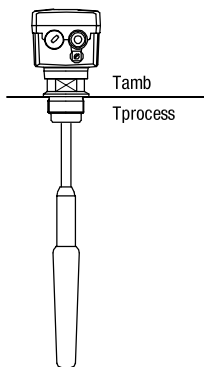
CN 4030



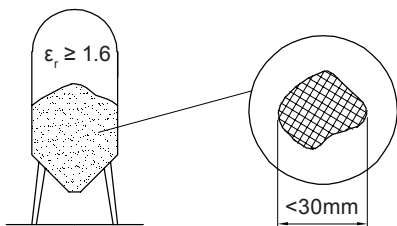


°C

CN 4050



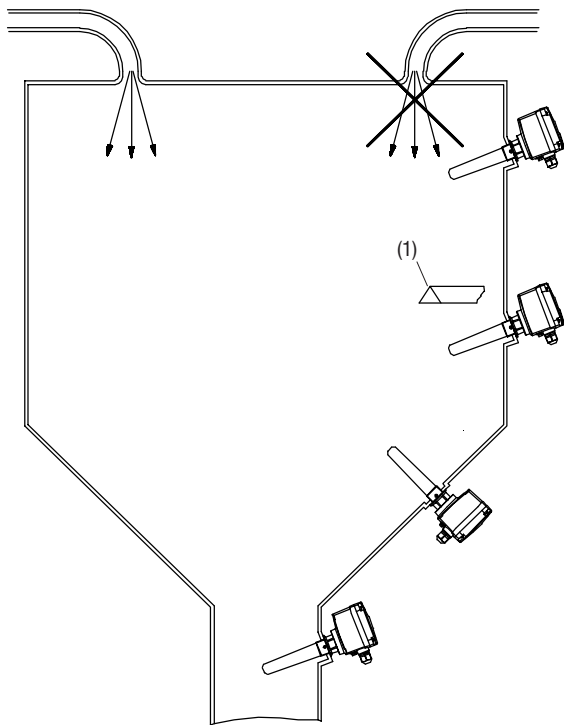
Bulk material



ϵ_r Dielectric constant

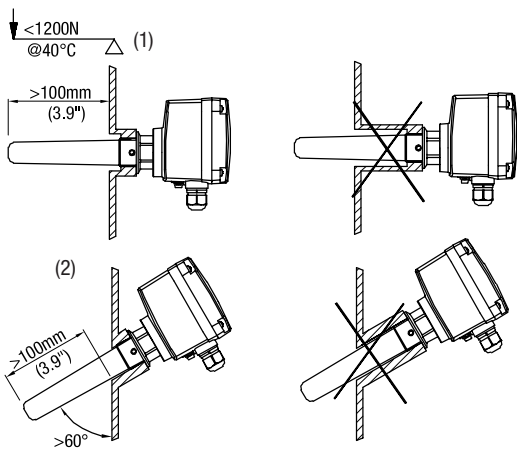
Installation

CN 4020

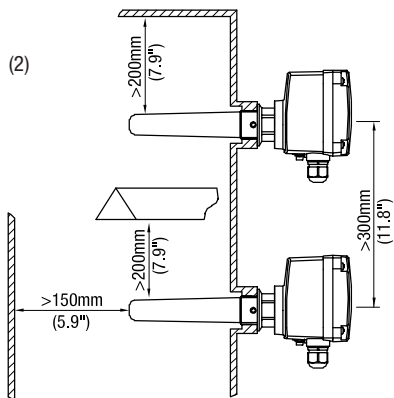


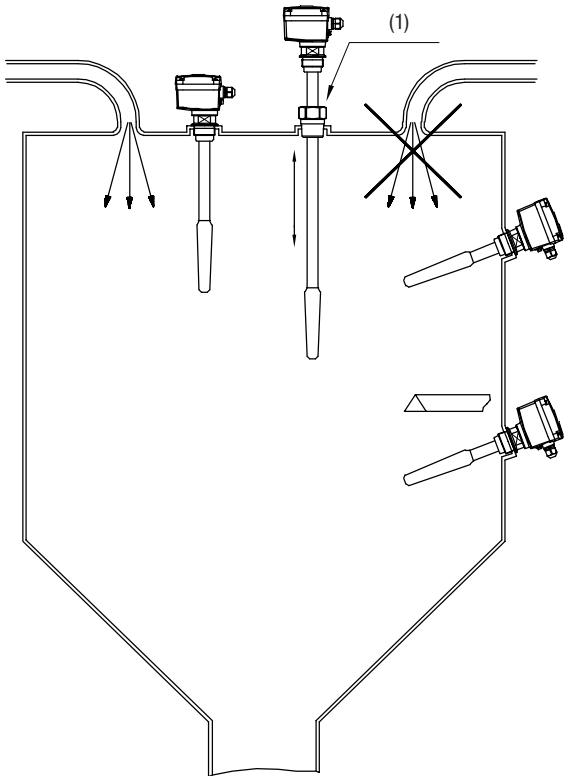
(1) Protective angle (canopy) in case of high mechanical load

CN 4020



- (1) Mech. load of the sensor
- (2) Observe minimum distances

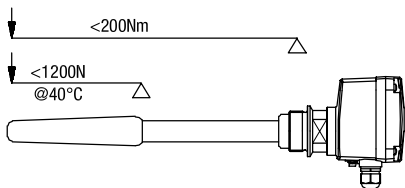




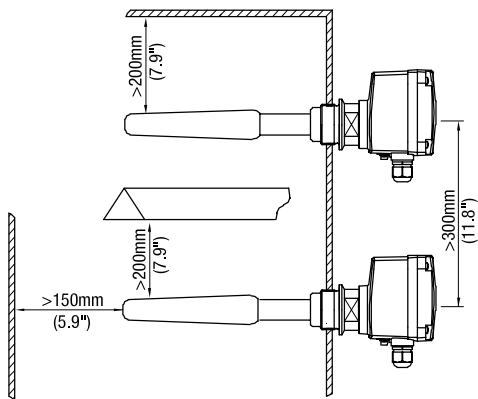
(1) Sliding sleeve: Tighten straining screws with 20Nm

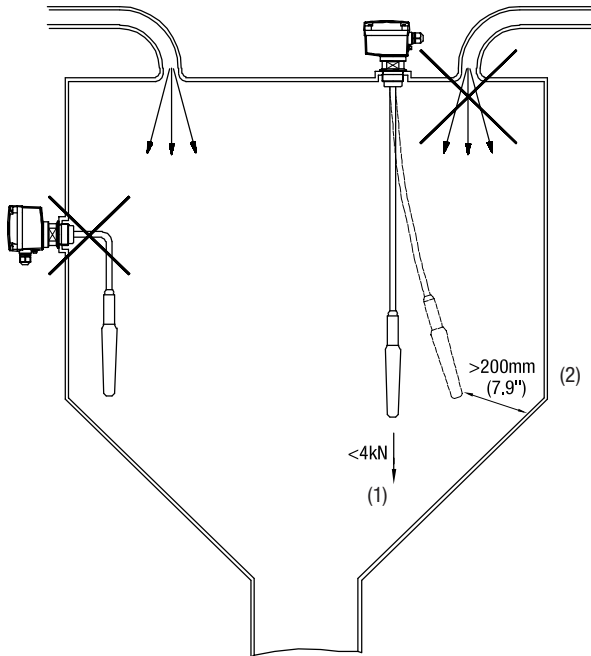
CN 4030

Mech. load of the sensor



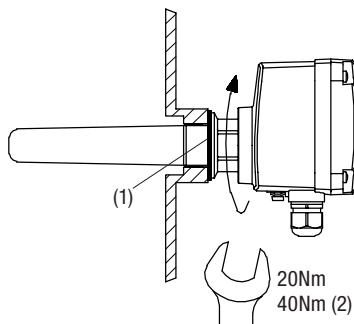
Observe minimum distances





- (1) Mech. load of the sensor
- (2) Observe minimum distances

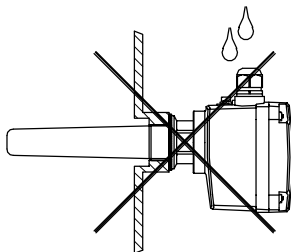
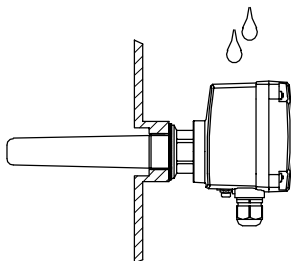
Fixing Threads



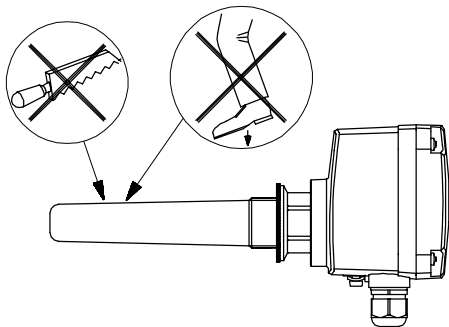
(1) Flat gasket (2) Metal

Alignment

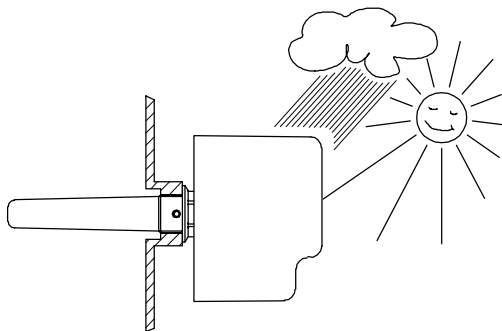
Ingress protection IP 66



Treatment



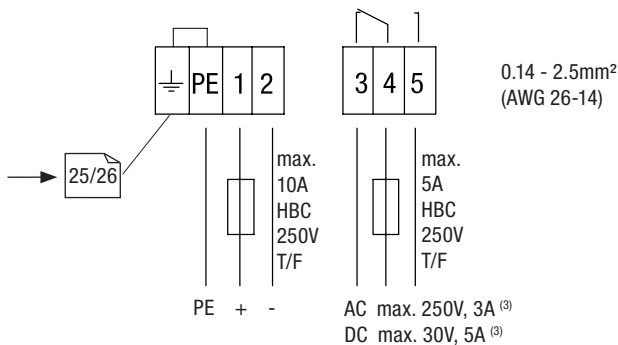
Option: Weather protection cover



for Ex only approved for Zone 22

Electrical connection

Relay SPDT

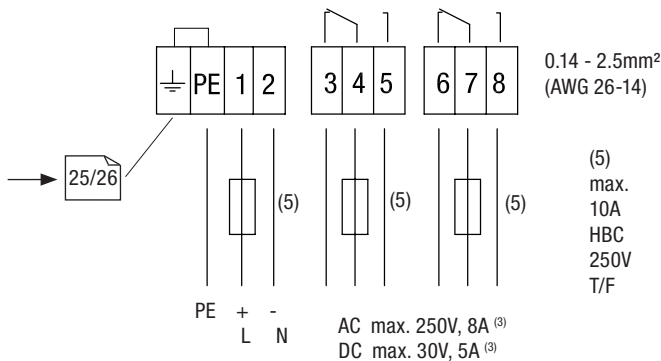


(1)
21...27V DC $\pm 10\%$ ⁽²⁾, max. 1.5W

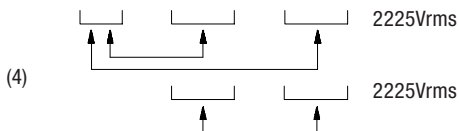


- (1) Power supply
- (2) Including 10% from EN 61010
- (3) Non inductive
- (4) Isolating voltage

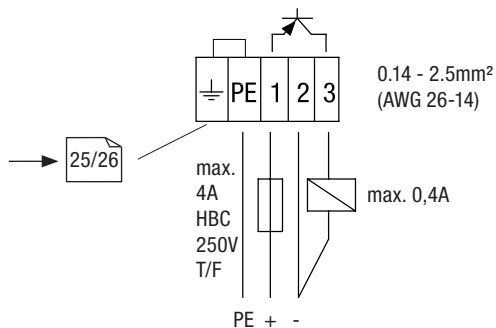
Relay DPDT



- (1)
21...230V 50-60Hz $\pm 10\%$ ⁽²⁾, max. 18VA
21...45V DC $\pm 10\%$ ⁽²⁾, max. 2W



- (1) Power supply
(2) Including 10% from EN 61010
(3) Non inductive
(4) Isolating voltage

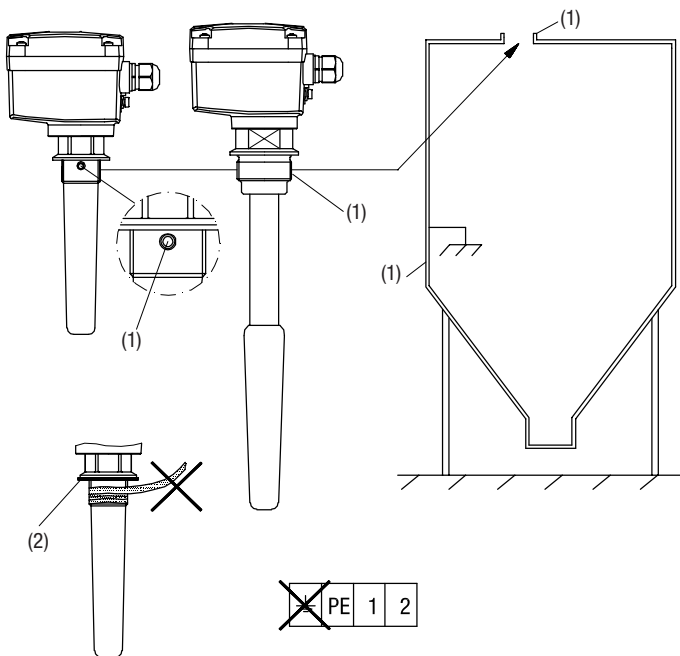


(1)
20...40V DC $\pm 10\%$ ⁽²⁾, max. 0.5A

- (1) Power supply
(2) Including 10% from EN 61010

Functional grounding

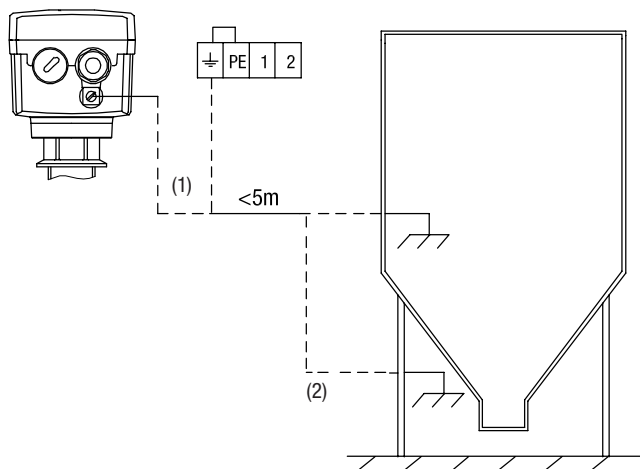
by process connection



(1) Metal

(2) Use flat gasket, no teflon tape

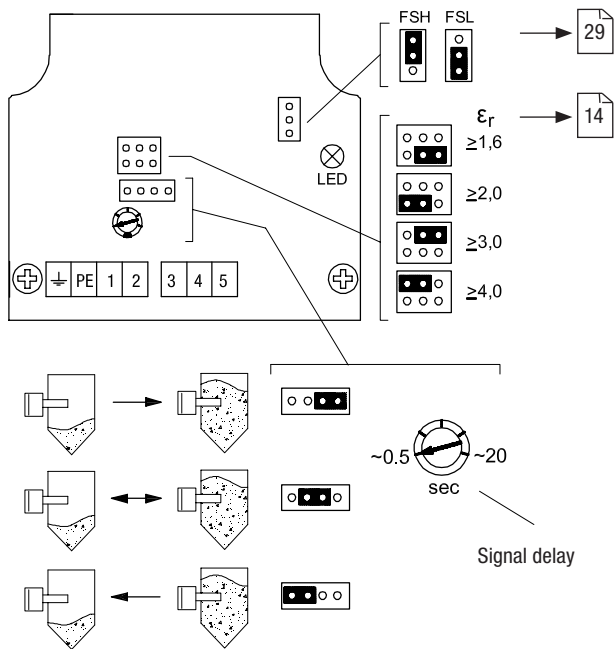
alternative by cable



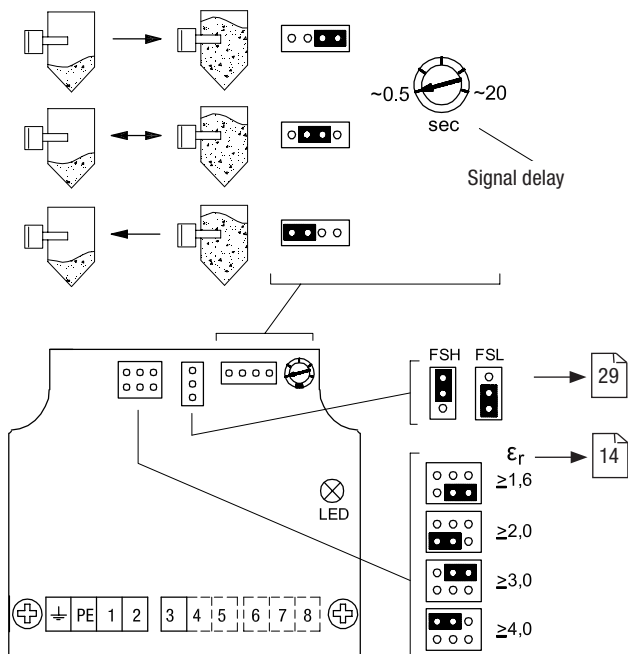
- (1) Use internal or external terminal
- (2) Grounded metal parts in case of non metal bin

Settings

Relay SPDT



Relay DPDT / PNP

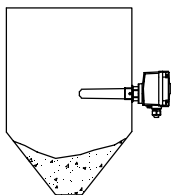


Signal output logic

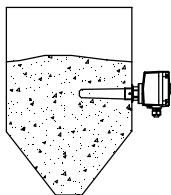
FSL

FSH

27



		(1)
		(2)
		(3)
		(4)



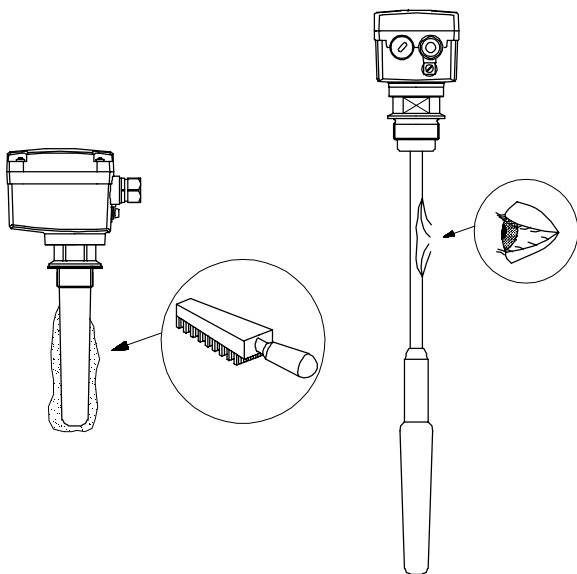
		(1)
		(2)
		(3)
		(4)

(1) = Relais SPDT

(2) = Relay DPDT

(3) = PNP

(4) = LED Signal

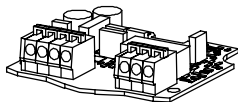


Spare parts

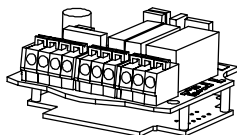
CN 4020 120°C

SPDT	21..27V DC	pl406100
DPDT	21..230V AC 21..45V DC	pl406110
PNP	20..40V DC	pl406120

SPDT



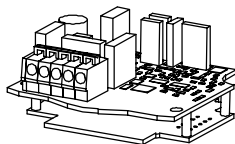
DPDT



CN 4020 180°C

DPDT	21..230V AC 21..45V DC	pl406111
PNP	20..40V DC	pl406121

PNP



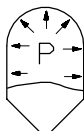
CN 4030 / CN 4050

No spare parts available

ATEX + IEC-Ex

Notes

Permitted relative pressure



-0,2...+0,1bar
(-2.9...+1.45psi)

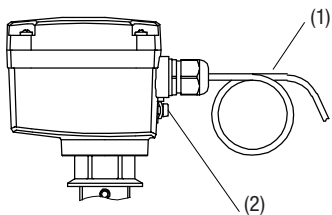
Ambient temperature

Max. surface temperature



60°C (140°F) 60°C (140°F) 60°C (140°F)	CN 4020: 120°C (248°F) CN 4030: 110°C (230°F) CN 4050: 80°C (176°F)	120°C (248°F) 120°C (248°F) 135°C (275°F)
60°C (140°F) 60°C (140°F) 60°C (140°F) 60°C (140°F) 60°C (140°F) 60°C (140°F) 60°C (140°F)	CN 4020: 120°C (248°F) 130°C (266°F) 140°C (284°F) 150°C (302°F) 160°C (320°F) 170°C (338°F) 180°C (356°F)	CN 4020: 120°C (248°F) 130°C (266°F) 140°C (284°F) 150°C (302°F) 160°C (320°F) 170°C (338°F) 180°C (356°F)

Installation



- (1) A pull relief must be provided
- (2) Connect with equipotential bonding of the plant

ATEX / IEC-Ex: Further Remarks

For installation and field wiring the respectively valid installation regulations of the respective country must be observed.

Commissioning only with closed lid.

Do not remove the lid (cover) while circuits are alive.

Before opening the lid take care, that no dust deposits or whirlings are present.

The installation has to be carried out in a way, that mechanical friction or impact does not cause sparks between the aluminium enclosure and steel.

Cable glands:

Installation according to the regulations of the country, where the product is installed.

Not used entries have to be closed with blanking elements certified for this purpose.

Where applicable the factory provided parts must be used.

A strain relief must be provided for the field wiring cables, when the device is installed with the factory provided cable glands.

The diameter of the field wiring cable must match to the clamping range of the cable clamp.

If other than the factory provided parts are used, following must be ensured:

The parts must have an approval adequate to the approval of the level sensor (certificate and type of protection).

The approved temperature range must be from the min. ambient temperature of the level sensor to the max. ambient temperature of the level sensor increased by 10 Kelvin.

The parts must be mounted according to the instructions of the supplier.