

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 ≥ 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
- 2011/65/EU RoHS conform

Approvals	CE/ UKCA	
	ATEX/ UKEX/ IEC-Ex/ CCC	Zone 20/21 (Dust Ignition Proof)
	TR-CU	Ordinary Locations Zone 20/21 (Dust Ignition Proof)
Electronics	Relay SPDT	21 .. 27 V DC $\pm 10\%$
	Relay DPDT	21 .. 230 V AC 21 .. 45 V DC $\pm 10\%$
	PNP	20 .. 40 V DC $\pm 10\%$
Housing	Material	Plastics PA6 (glass fibre reinforced) or Aluminium
	Type of protection	IP66 ⁽¹⁾

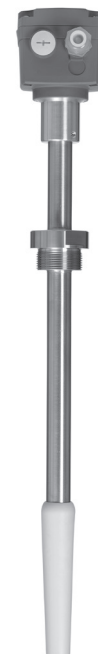
⁽¹⁾ For version with plug the type of protection can be lower (see pos.35)

Cable entries: M20 x 1.5 (1x cable gland + 1x blind plug)

CN 4020 (version 120°C)	Length of extension	155 mm (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) -30 .. +120°C (-22 .. +248°F) (Ex)
	Process pressure	-1 .. +25 bar (-14.5 .. +363 psi)
	Process connection	G 1" (with flat gasket) G 1½" NPT 1¼" NPT 1½" (adapter)
	Material of process connection/ probe	Plastics PPS (glass fibre reinforced) FDA listed, food grade

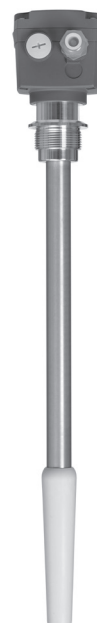


CN 4020 (version 180°C)	Length of extension	190 mm (7.5") or 400 mm (15.7")
	Ambient temperature	-40 .. +60°C (-40 .. +140°F)
	Process temperature	-40 .. +180°C (-40 .. +356°F) -30 .. +180°C (-22 .. +356°F) (Ex)
	Process pressure	-1 .. +16 bar (-14.5 .. +232 psi)
	Process connection	G 1½" (with flat 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 .. 3,000 mm (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) -30 .. +110°C (-22 .. +230°F) (Ex)
	Process pressure	-1 .. +16 bar (-14.5 .. +232 psi)
	Process connection	G 1½" (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



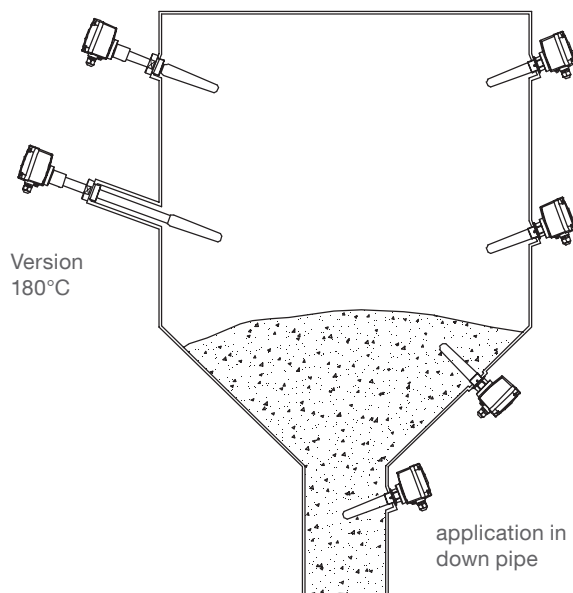
CN 4050	Length of extension	350 .. 6,000 mm (13.8 .. 236")
	Ambient temperature	-20 .. +60°C (-4 .. +140°F)
	Process temperature	-30 .. +80°C (-22 .. +176°F)
	Process pressure	-1 .. +6 bar (-14.5 .. +87 psi)
	Process connection	G 1½" (with flat gasket)
	Material of process connection	Aluminium or 1.4305 (SS 303)
	Material of cable isolation	PE, not food grade
	Material of probe	Plastics PPS (glass fibre reinforced) FDA listed, food grade



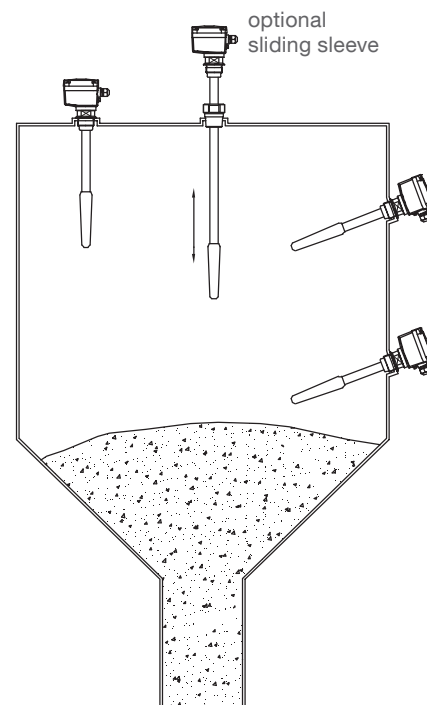
Applications

Detection of solids

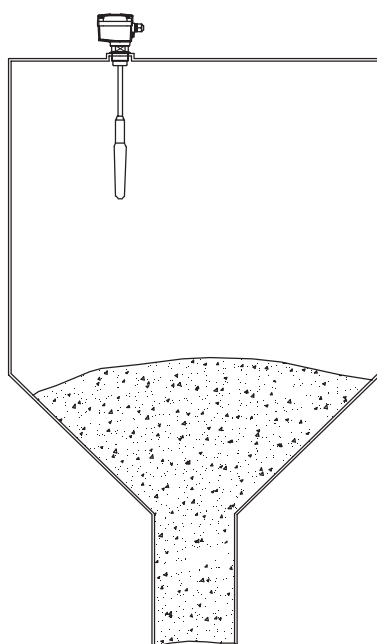
CN 4020



CN 4030

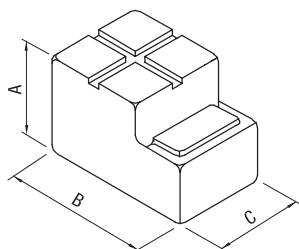


CN 4050



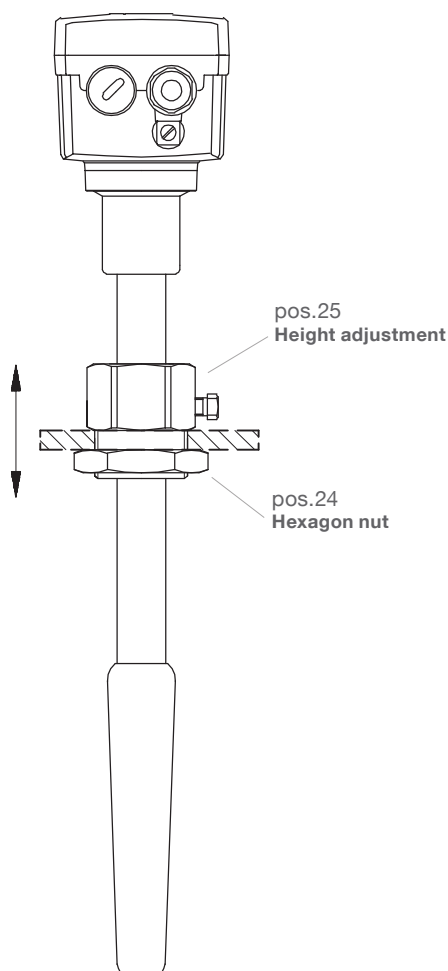
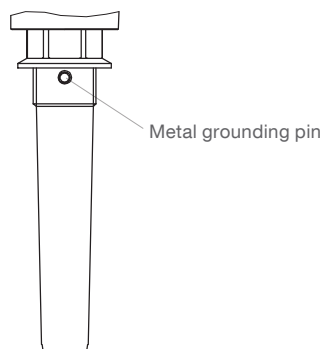
Options

pos.21
Weather protection cover

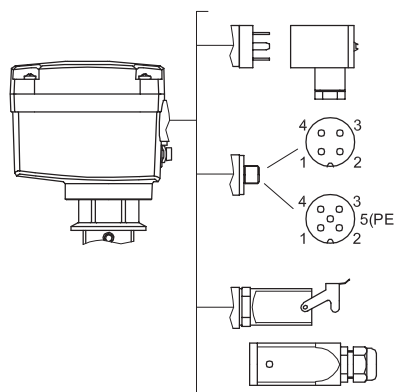


A	100 mm (3.94")
B	165 mm (6.30")
C	95 mm (3.54")

pos.36 x
Without metal grounding pin



Plug



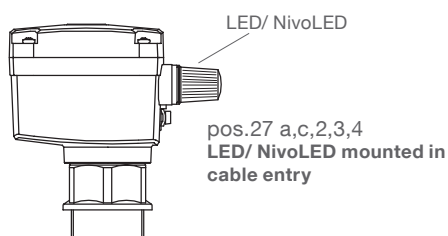
pos.35 x
Valve connector
 max. 230 V
 Enclosure plastic
 Protection IP65
 $-40^{\circ}\text{C} \leq T_a \leq +125^{\circ}\text{C}$

pos.35 a,b
Plug M12
 max. 25 V (4-pole), 60 V (5-pole)
 Enclosure brass
 Protection IP66
 $-25^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$

pos.35 c
Plug Han 4A
 max. 230 V
 Enclosure zinc
 Protection IP65
 $-40^{\circ}\text{C} \leq T_a \leq +125^{\circ}\text{C}$

Connection of the plug wires to the internal terminals of the unit refer to documentation "Plugs and Signal lamps - Connecting diagram".

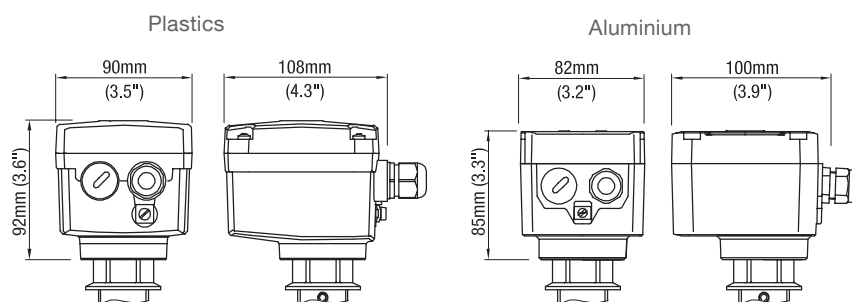
Signal lamp



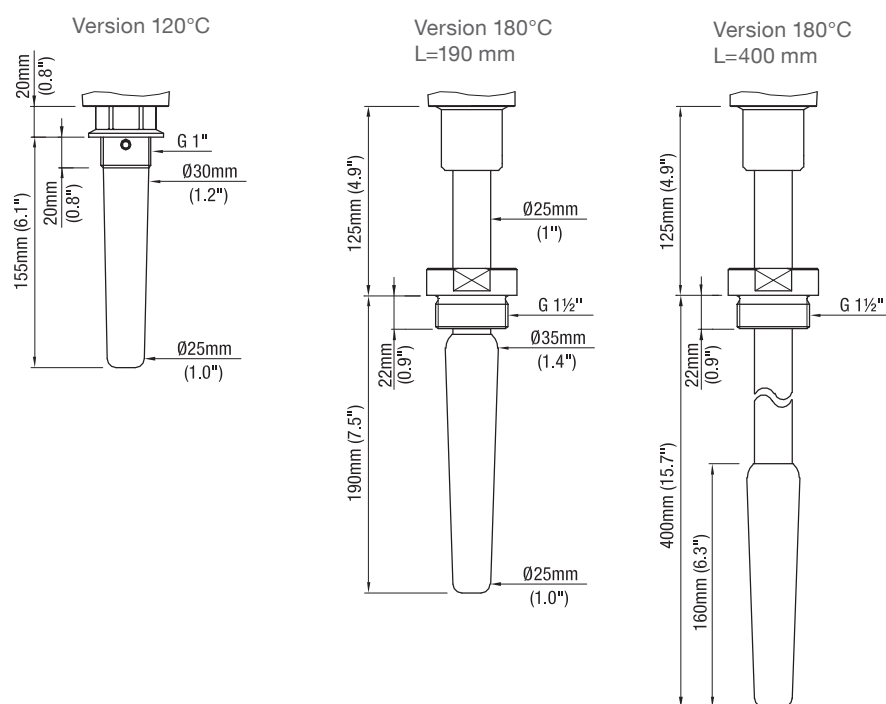
Connection of the wires to the internal terminals of the unit refer to documentation "Plugs and Signal lamps - Connecting diagram".

Dimensions

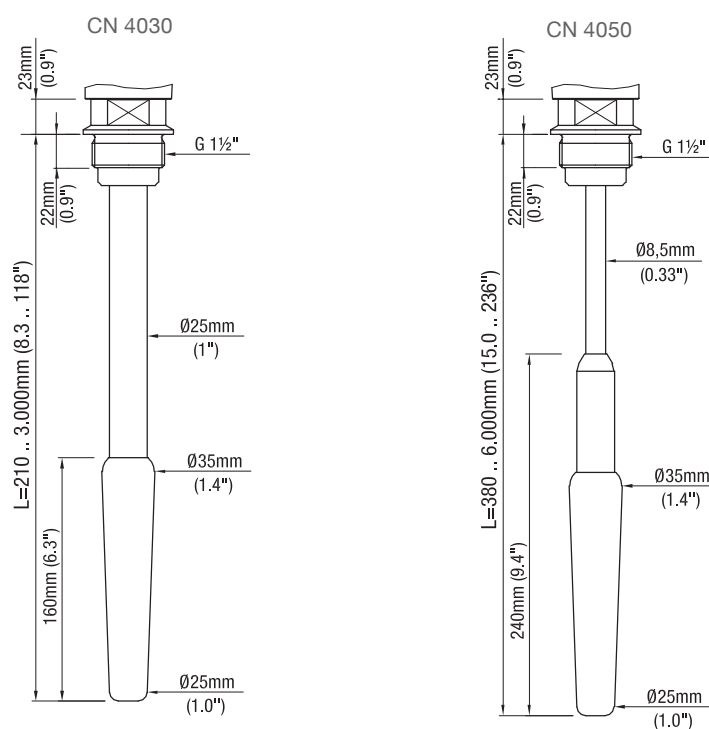
Housing versions



CN 4020



CN 4030 CN 4050



Electrical installation

Relay SPDT

Power supply:

21 .. 27 V DC $\pm 10\%^*$ 1.5 W
 *incl. 10% of EN 61010

Fuse on power supply:

max. 10 A, fast or slow, HBC, 250 V

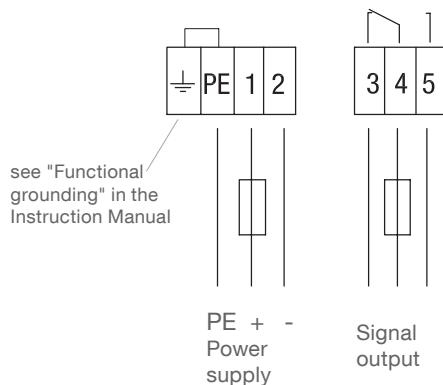
Signal output:

Floating relay SPDT

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

Fuse on signal output:

max. 5 A, fast or slow, HBC, 250 V



Relay DPDT

Universal voltage

Power supply:

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

Fuse on power supply:

max. 10 A, fast or slow, HBC, 250 V

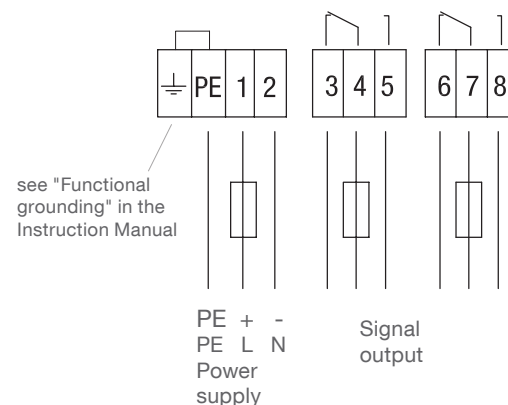
Signal output:

Floating relay DPDT

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

Fuse on signal output:

max. 10 A, fast or slow, HBC, 250 V



PNP

3-wire

Power supply:

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

Fuse:

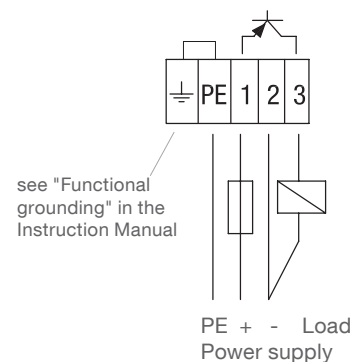
max. 4 A, fast or slow, 250V, HBC

Signal output:

max. 0.4 A

Load for example:

PLC, relay, contactor, bulb



Approved power supply with reinforced insulation to mains is required