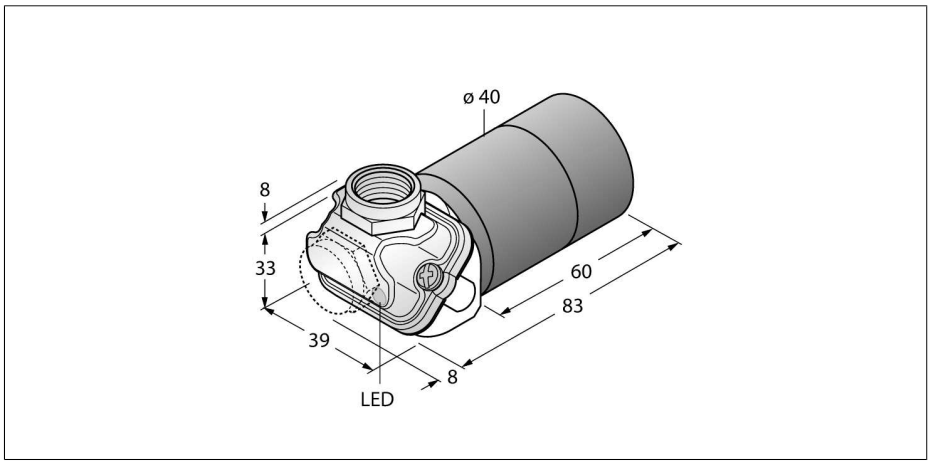
Capacitive sensor
for the food industry
BC20-K40WDTC-VP4X2/S930

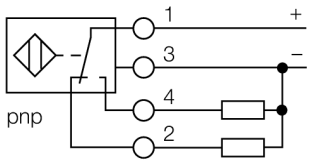
Industrial Automation



Type code	BC20-K40WDTC-VP4X2/S930
Ident no.	2510105
Rated operating distance Sn	20 mm
Rated operating distance Sn	30 mm, non-flush mounting
Assured sensing range	≤ (0.72 x Sn) mm
Hysteresis	2…20 %
Temperaturdrift	type ≤ ± 20 %
Repeatability	≤ 2 % of full scale
Ambient temperature	-25…+70 °C
Operating voltage	10…65VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Switching frequency	0.1 kHz
Rated insulation voltage	≤ 0.5 kV
Output function	4-wire, changover contact, PNP
Short-circuit protection	yes/ cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Design	smooth barrel, 40 mm
Dimensions	91 mm
Housing material	Plastic, Grilamid LV-30H FWA
Material active face	Plastic
Connection	Terminal chamber, Removable cage clamp terminals
Coverage of terminal chamber	Ultem
Clamping ability	≤ 1.5 mm²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP69K
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Operating voltage	LED green
Switching state	● yellow

- **2 Möglichkeiten zur Kabeleinführung (axial, radial)**
- **Kunststoff, LV-30H FWA**
- **glattes Rohr, 40 mm Durchmesser**
- **hohe Schutzart IP69K für extreme Umgebungsbedingungen**
- **spezielle Doppellippenabdichtung**
- **Schutz gegen alle handelsüblichen sauren und alkalischen Reinigungsmittel**
- **dauerhaft lesbares Typenschild durch Lasergravur**
- **für den Lebensmittelbereich geeignet**
- **Fine adjustment via potentiometer**
- **4-wire DC, 10…65 VDC**
- **Changeover contact, PNP output**
- **Terminal chamber**

Wiring diagram



Functional principle

Capacitive proximity switches are designed for non-contact and wear-free detection of electrically conductive as well as non-conductive metal objects.

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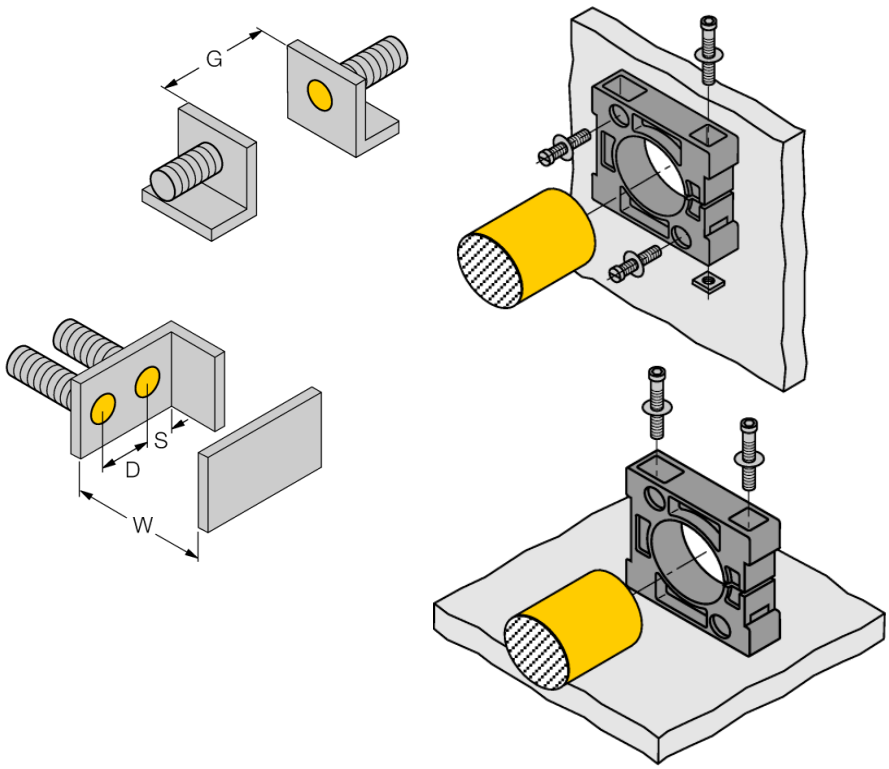
Mounting instructions / Description	minimum distances
Distance D	40 mm
Distance W	60 mm
Distance S	60 mm
Distance G	120 mm

Diameter of the active area B	Ø 40 mm



The given minimum distances have been checked in compliance with the standard switching distance. Should the sensitivity of the sensors be changed via potentiometer, the data sheet specifications no longer apply.

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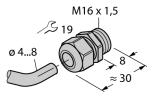
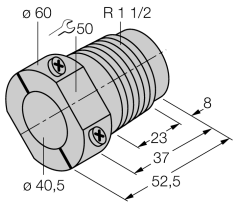
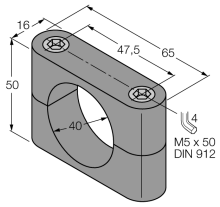
Accessories

Type code	Ident no.	Description	Dimension drawing
M16X1,5 PVDF CABLE GLAND	1634759	Cable glands M16 x 1.5, material PVDF	
MAP-K40	6950014	Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)	
BS 40	69466	Fixing clamp; material mounting block: PBT	

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