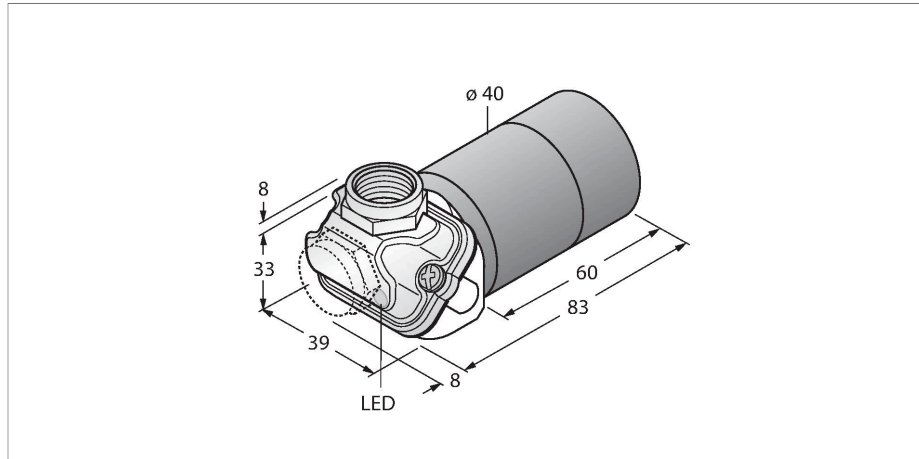


# BC20-K40WDTC-VP4X2/S930

## Capacitive Sensor – For the Food Industry



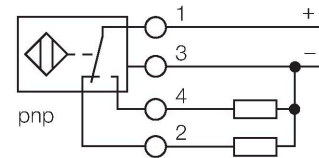
### Features

- 2 cable entries (axial, radial)
- Plastic LV-30H FWA
- Smooth barrel, Ø 40 mm
- High protection class IP69K, for harsh environments
- Special double-lip seal
- Protection against all common acid and alkaline cleaning agents
- Laser engraved label, permanently legible
- For the food industry
- Fine adjustment via potentiometer
- DC 4-wire, 10...65 VDC
- Complementary contact, PNP output
- Terminal chamber

### Technical data

Type	BC20-K40WDTC-VP4X2/S930
ID	2510105
Special version	S930 corresponds to: Except for transparent housing parts, all other plastic parts are black
Rated switching distance (flush)	20 mm
Rated switching distance (non-flush)	30 mm
Secured operating distance	$\leq (0.72 \times \text{Sn})$
Hysteresis	1...20 %
Temperature drift	Typical 20 %
Repeat accuracy	$\leq 2 \%$ of full scale
Ambient temperature	-25...+70 °C
<b>Electrical data</b>	
Operating voltage	65 VDC
Residual ripple	$\leq 10 \%$ $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Switching frequency	0.1 kHz
Oscillation frequency	According to EN 60947-5-2, 8.2.6.2 Table 9: 0.1...2.0 MHz
Isolation test voltage	$\leq 0.5$ kV
Output function	4-wire, Complementary contact, PNP
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V

### 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.

## Technical data

Wire breakage/Reverse polarity protection      yes / Complete

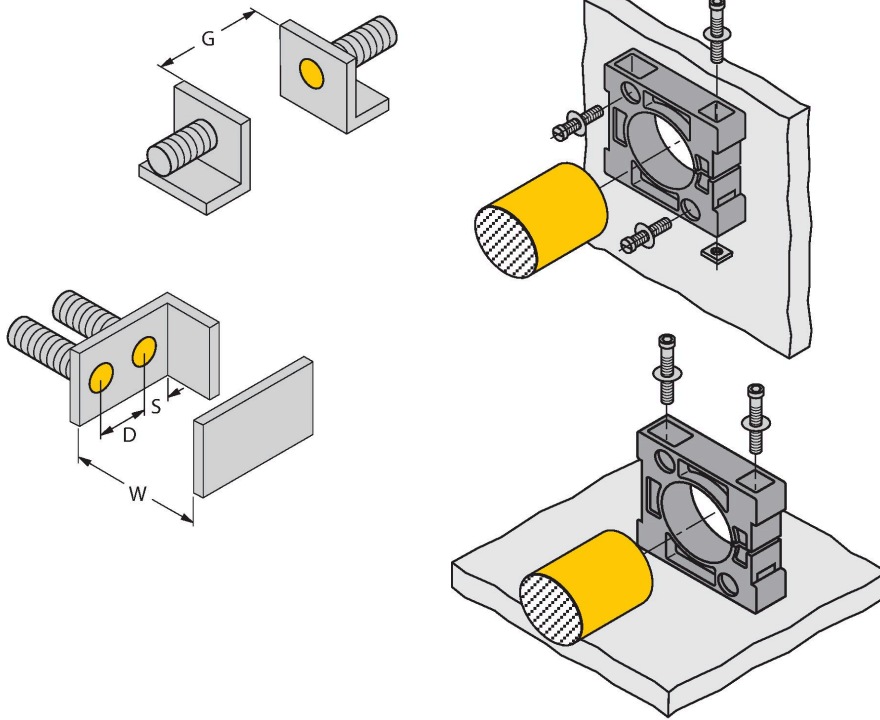
### Tests/approvals

#### Mechanical data

Design	Smooth barrel, 40 mm
Dimensions	91 mm
Housing material	Plastic, Grilamid LV-30H FWA
Electrical connection	Terminal chamber, Removable cage clamp terminals
Coverage of terminal chamber	Ultem
Clamping ability	≤ 1.5 mm <sup>2</sup>
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
Power-on indication	LED, Green
Switching state	LED, Yellow

## Mounting instructions

## Product features



Distance D 40 mm

Distance W 60 mm

Distance S 60 mm

Distance G 120 mm

Diameter active area B  $\varnothing$  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.