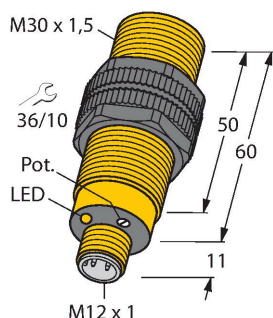


# BCF10-S30-VP4X-H1141

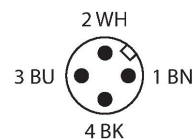
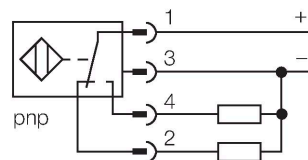
## Capacitive Sensor



### Features

- M30 × 1.5 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- Increased EMI protection (even with high frequency equipment)
- Suited for highly viscous media
- DC 4-wire, 10...65 VDC
- Complementary contact, PNP output
- M12 × 1 connector

### 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

Type	BCF10-S30-VP4X-H1141
ID	2506117
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	10 mm
Secured operating distance	$\leq (0.72 \times S_n)$ mm
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 $U_s$	65 VDC
Ripple $U_{rs}$	$\leq 10$ % $U_{Bmax}$
DC rated operating current $I_s$	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Switching frequency	0.1 kHz
Isolation test voltage	0.5 kV
Output function	4-wire, Complementary contact, PNP
Short-circuit protection	yes/Cyclic
Voltage drop at $I_s$	$\leq 1.8$ V
Wire break/reverse polarity protection	yes/Complete
<b>Tests/approvals</b>	
Approvals	UL

Technical data

UL registration number	E210608
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	60 mm
Housing material	Plastic, PA12-GF30, PEI
Active area material	PA12-GF30, yellow
Admissible pressure on front cap	≤ 3 bar
Max. tightening torque of housing nut	5 Nm
Electrical connection	Connector, M12 × 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Product features

A technical drawing of the sensor assembly. It shows two views: a side view and a top view. The side view shows a rectangular mounting plate with a circular hole in the center, and a cylindrical sensor body mounted on top. The top view shows the sensor body from above, with a yellow circle indicating the active area. Dimension lines are used to specify the following parameters: G is the distance between the sensor body and the mounting plate; D is the distance between the sensor body and the mounting plate; W is the width of the mounting plate; S is the distance between the sensor body and the mounting plate.

Distance D	60 mm
Distance W	30 mm
Distance S	45 mm
Distance G	60 mm
Diameter active area B	Ø 30 mm

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

BCF10-S30-VP4X-H1141| 02/21/2025 17-28 | technical changes reserved