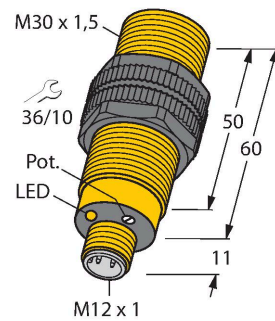


# BC10-S30-VN4X-H1141

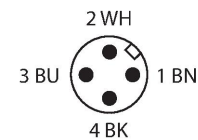
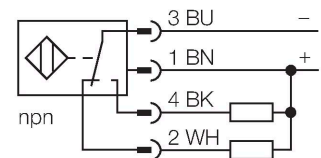
## Capacitive Sensor



### Features

- M30 × 1.5 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- DC 4-wire, 10...65 VDC
- Complementary contact, NPN 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

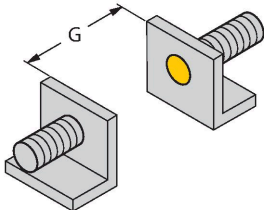
Type	BC10-S30-VN4X-H1141
ID	2506010
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	15 mm
Secured operating distance	$\leq (0.72 \times S_n) \text{ mm}$
Hysteresis	1...20 %
Temperature drift	Typical 20 %
Repeat accuracy	$\leq 2 \%$ of full scale
Ambient temperature	-25...+70 °C
<b>Electrical data</b>	
Operating voltage $U_B$	65 VDC
Ripple $U_{ss}$	$\leq 10 \% U_{Bmax}$
DC rated operating current $I_o$	$\leq 200 \text{ mA}$
No-load current	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
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	0.5 kV
Output function	4-wire, Complementary contact, NPN
Short-circuit protection	yes/Cyclic
Voltage drop at $I_o$	$\leq 1.8 \text{ V}$
Wire break/reverse polarity protection	yes/Complete
<b>Tests/approvals</b>	
Approvals	UL
UL registration number	E210608

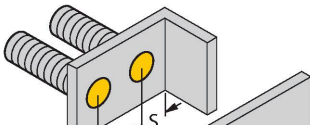
Technical data

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 3D perspective diagram showing two L-shaped metal brackets. The bracket on the left has a threaded rod inserted into its vertical flange. The bracket on the right has a circular hole in its vertical flange. A double-headed arrow labeled 'G' indicates the distance between the center of the threaded rod on the left bracket and the center of the hole on the right bracket.

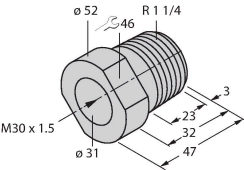
A 3D perspective diagram showing two L-shaped metal brackets. The bracket on the left has two circular holes in its vertical flange, with a threaded rod inserted into the leftmost one. The bracket on the right has a circular hole in its vertical flange. A double-headed arrow labeled 'S' indicates the distance between the center of the threaded rod on the left bracket and the center of the hole on the right bracket.

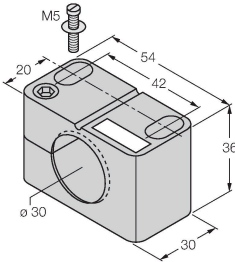
Distance D	60 mm
Distance W	30 mm
Distance S	45 mm
Distance G	60 mm
Diameter active area B	Ø 30 mm

The given minimum distances have been checked against the standard switching distance.


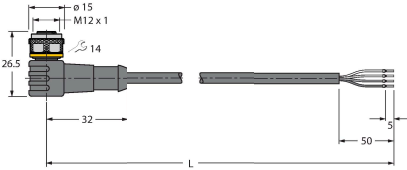
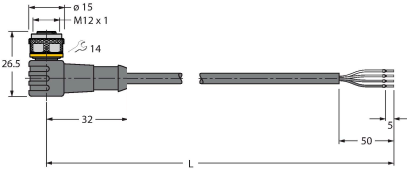
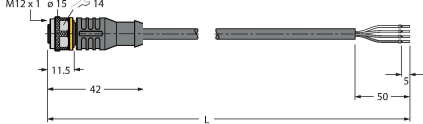

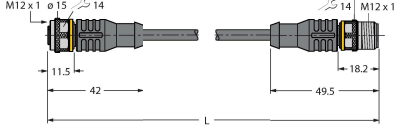
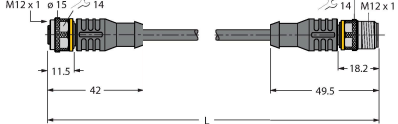
Should the sensitivity of the sensors be changed via potentiometer, the data sheet specifications no longer apply.

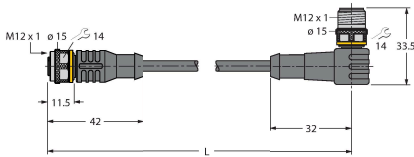
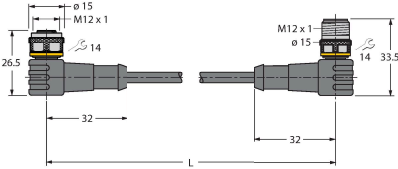
Accessories

MAP-M30	6950013
Mounting adapter; material: Polypropylene; sensor replacement with filled container possible (adapter remains in container during sensor replacement)	
	

BST-30B	6947216
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6	
	

Accessories

Dimension drawing	Type	ID	
	RKC4.4T-2/TXL	6625503	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
	WKC4.4T-2/TXL	6625515	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
	WKC4.4T-2/TEL	6625025	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	RKC4.4T-P7X2-10/TXL	6626184	Connection cable, M12 female connector, straight, 4-pin, LED, cable length: 10 m, jacket material: PUR, black; cULus approval
	RKC4.4T-2-RSC4.4T/TEL	6625208	Extension cable, M12 female connector, straight, 4-pin to M12 male connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	RKC4.4T-2-RSC4.4T/TXL	6625608	Extension cable, M12 female connector, straight, 4-pin to M12 male connector, straight, 4-pin; cable length: 2 m, jacket material: PUR, black; cULus approval

Dimension drawing	Type	ID	
	RKC4.4T-2-WSC4.4T/TXL	6625624	Extension cable, M12 female connector, straight, 4-pin to M12 male connector, angled, 4-pin; cable length: 2 m, jacket material: PUR, black; cULus approval
	WKC4.4T-2-WSC4.4T/TXL	6625656	Extension cable, M12 female connector, angled, 4-pin to M12 male connector, angled, 4-pin; cable length: 2 m, jacket material: PUR, black; cULus approval