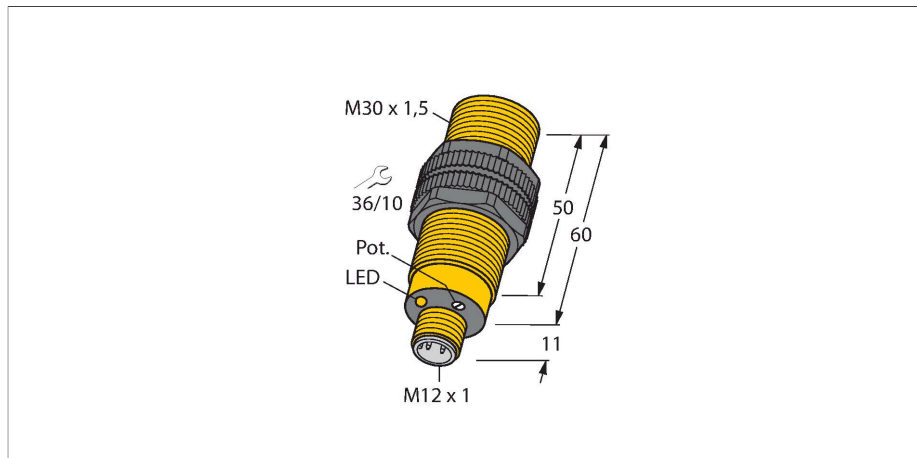


# BCE10-S30-VN6X-H1141

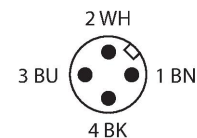
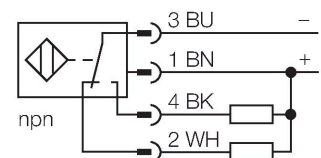
## Capacitive Sensor – With Potentiometer



### Features

- M30 × 1.5 threaded barrel
- Plastic, PA12-GF30
- Fine adjustment via potentiometer
- DC 4-wire, 10...30 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

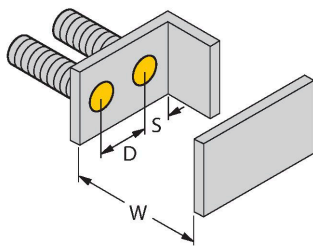
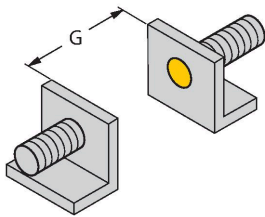
Type	BCE10-S30-VN6X-H1141
ID	100026663
Rated switching distance (flush)	10 mm
Rated switching distance (non-flush)	15 mm
Secured operating distance	$\leq (0.72 \times S_n)$ mm
Hysteresis	1...20 %
Repeat accuracy	$\leq 5$ % of full scale
Ambient temperature	-10...+60 °C
<b>Electrical data</b>	
Operating voltage $U_B$	30 VDC
Ripple $U_{ss}$	$\leq 10$ % $U_{Bmax}$
DC rated operating current $I_e$	$\leq 100$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Switching frequency	0.05 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 $I_e$	$\leq 1.8$ V
Wire break/reverse polarity protection	yes/Complete
<b>Tests/approvals</b>	
Approvals	UL
UL registration number	E210608
<b>Mechanical data</b>	
Design	Threaded barrel, M30 x 1.5

## Technical data

Dimensions	60 mm
Housing material	Plastic, PA6-GF30
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	IP65
MTTF	1080 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

## Mounting instructions

### Product features



Distance D	60 mm
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Distance W	30 mm
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Distance S	45 mm
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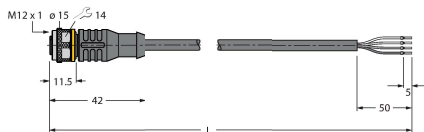
Distance G	60 mm
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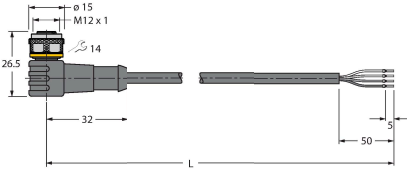
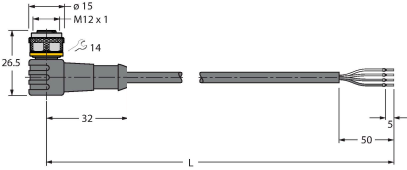

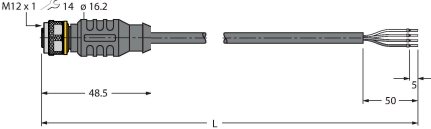
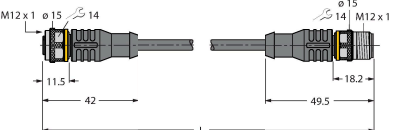
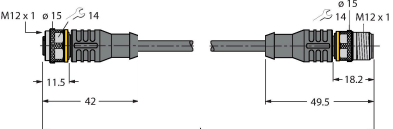
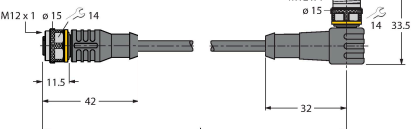
Diameter active area B	Ø 30 mm
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The given minimum distances have been checked against the standard switching distance.  
Should the sensitivity of the sensors be changed via potentiometer, the data sheet specifications no longer apply.

## Accessories

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



Dimension drawing	Type	ID	
 <p>Technical drawing of the WKC4.4T-2/TXL cable. It shows a side view of the angled M12 female connector with dimensions: connector diameter <math>\phi 15</math>, connector length 26.5, and a distance of 32 from the connector to the start of the cable jacket. The cable length is labeled 'L'. The other end shows a 4-pin terminal block with a distance of 50 from the start of the cable jacket to the terminal block, and a pin offset of 5.</p>	WKC4.4T-2/TXL	6625515	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
 <p>Technical drawing of the WKC4.4T-2/TEL cable. It shows a side view of the angled M12 female connector with dimensions: connector diameter <math>\phi 15</math>, connector length 26.5, and a distance of 32 from the connector to the start of the cable jacket. The cable length is labeled 'L'. The other end shows a 4-pin terminal block with a distance of 50 from the start of the cable jacket to the terminal block, and a pin offset of 5.</p>	WKC4.4T-2/TEL	6625025	Connection cable, M12 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
 <p>Technical drawing of the RKC4.4T-2/TEL cable. It shows a side view of the straight M12 female connector with dimensions: connector diameter <math>\phi 15</math>, connector length 11.5, and a distance of 42 from the connector to the start of the cable jacket. The cable length is labeled 'L'. The other end shows a 4-pin terminal block with a distance of 50 from the start of the cable jacket to the terminal block, and a pin offset of 5.</p>	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
 <p>Technical drawing of the RKC4.4T-P7X2-10/TXL cable. It shows a side view of the straight M12 female connector with dimensions: connector diameter <math>\phi 15</math>, connector length 11.5, and a distance of 48.5 from the connector to the start of the cable jacket. The cable length is labeled 'L'. The other end shows a 4-pin terminal block with a distance of 50 from the start of the cable jacket to the terminal block, and a pin offset of 5.</p>	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
 <p>Technical drawing of the RKC4.4T-2-RSC4.4T/TEL extension cable. It shows two straight M12 connectors. The first connector has a diameter of <math>\phi 15</math> and a length of 11.5, with a distance of 42 to the start of the cable jacket. The second connector has a diameter of <math>\phi 15</math> and a length of 18.2, with a distance of 49.5 from the start of the cable jacket to the second connector. The total cable length is labeled 'L'.</p>	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
 <p>Technical drawing of the RKC4.4T-2-RSC4.4T/TXL extension cable. It shows two straight M12 connectors. The first connector has a diameter of <math>\phi 15</math> and a length of 11.5, with a distance of 42 to the start of the cable jacket. The second connector has a diameter of <math>\phi 15</math> and a length of 18.2, with a distance of 49.5 from the start of the cable jacket to the second connector. The total cable length is labeled 'L'.</p>	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
 <p>Technical drawing of the RKC4.4T-2-WSC4.4T/TXL extension cable. It shows two M12 connectors. The first is a straight female connector with a diameter of <math>\phi 15</math> and a length of 11.5, with a distance of 42 to the start of the cable jacket. The second is an angled male connector with a diameter of <math>\phi 15</math> and a length of 33.5, with a distance of 32 from the start of the cable jacket to the second connector. The total cable length is labeled 'L'.</p>	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

Dimension drawing	Type	ID	
	WKC4.4T-2-WSC4.4T/TXL	6625656	<p>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</p>