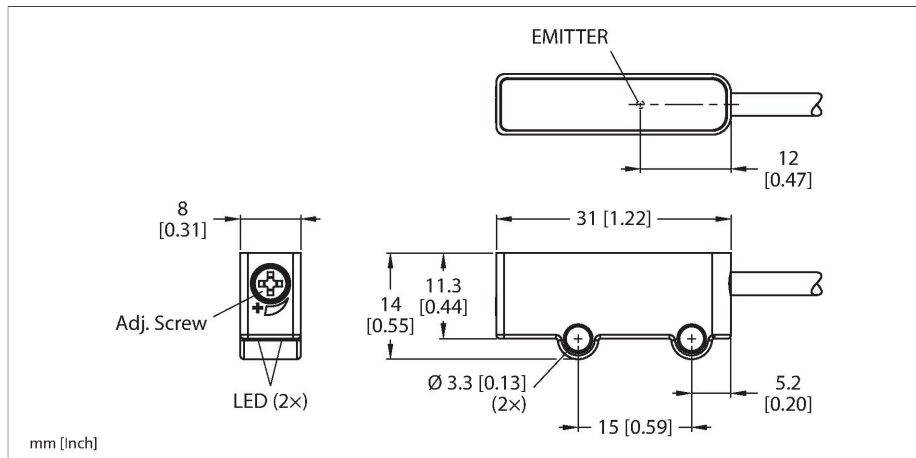


Q2XRBAF150-Q5

Photoelectric Sensor – Diffuse-Mode Sensor



Technical data

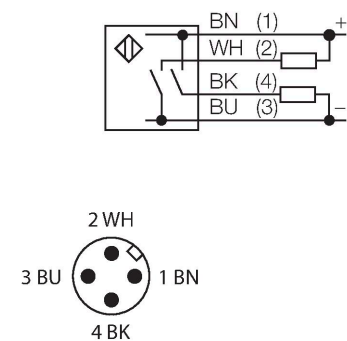
Type	Q2XRBAF150-Q5
ID	3810305
Optical data	
Function	Proximity switch
Operating mode	Background suppression, adjustable
Light type	Red
Wavelength	645 nm
Range	2...150 mm
Electrical data	
Operating voltage U_B	10...30 VDC
Residual ripple	< 10 % U_{ss}
DC rated operating current I_o	≤ 16 mA
Reverse polarity protection	yes
Output function	PNP/NPN
Readiness delay	≤ 120 ms
Response time typical	< 0.85 ms
Setting option	Potentiometer
Mechanical data	
Design	Rectangular, Q2X
Dimensions	14 x 31 mm
Housing material	Plastic, PC ABS
Lens	acrylic, Acrylic
Electrical connection	Cable with connector, M12 × 1, PVC
Number of cores	4
Ambient temperature	-25...+50 °C
Relative humidity	0...95 %



Features

- Miniature sensor with slim housing for confined spaces
- Protection class IP67
- Connection via 150-mm PVC cable with M12 × 1 male connector, 4-pin
- Range: 150 mm
- Crosstalk protection
- Adjusted via potentiometer
- Switching output, bipolar, dark operation

Wiring diagram



Functional principle

Diffuse-mode sensors with background suppression operate with a single emitter and several receiver elements. The position of the object to be detected and the optical structure of the sensor dictate which receiver element gets the most light. The sensor electronics determine whether the reflecting object is within or outside the detection range. The sensors are available with adjustable or fixed cut-off point.

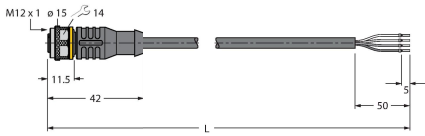
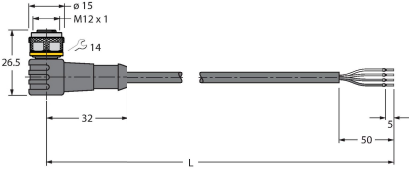
Technical data

Protection class	IP67
Special features	Miniature Crosstalk protection
Power-on indication	LED, Green
Switching state	LED, Yellow
Excess gain indication	LED, yellow, flashing
Tests/approvals	
Approvals	CE, cURus

Accessories

SMBQ2XB	3812494	SMBQ2XA	3812493
Mounting bracket, stainless steel, for Q2X design, L-shaped for wall mounting		Mounting bracket, stainless steel, for Q2X design, L-shaped for mounting on horizontal surfaces	

Accessories

Dimension drawing	Type	ID	
	RKC4.4T-2/TEL	6625013	Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, 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