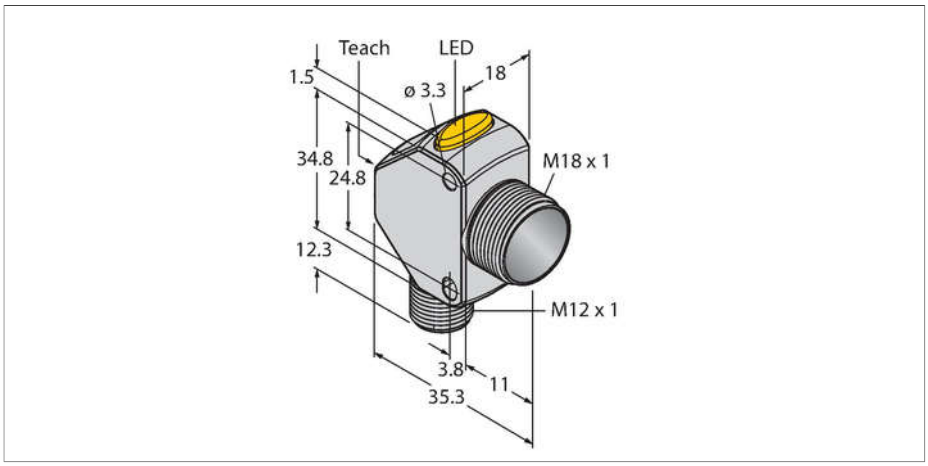
Q3XTBLD-Q8
Photoelectric Sensor – Laser Sensor





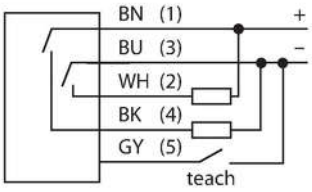
Technical data

Type	Q3XTBLD-Q8
ID	3091638
Optical data	
Function	Proximity switch
Operating mode	Diffuse/Background suppression
Light type	Red
Wavelength	655 nm
Laser class	⚠ 2
Range	0…300 mm
Ambient light immunity	> 5000 lux
Electrical data	
Operating voltage	10…30 VDC
DC rated operational current	≤ 28 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC, PNP/NPN
Current output	100 mA
Readiness delay	≤ 1000 ms
Response time typical	< 0.25 ms
Setting option	Push Button Remote Teach
Mechanical data	
Design	Rectangular with thread, Q3X
Dimensions	Ø 18 x 35.3 x 18 x 48.6 mm
Housing material	Metal, Nickel-plated, Galvanized
Lens	acrylic, Acrylic
Electrical connection	Connector, M12 × 1, PVC

Features

- 3-digit 7-segment LED display
- 2 buttons
- Output indicator (yellow)
- IP67/69K
- Range: 0…300 mm
- Laser class 2, red, 655 nm, acc. to IEC 60825-1:2007
- Operating voltage: 10…30 VDC
- 1 × PNP, 1 × NPN switching output
- Rectangular model with offset M18 thread
- Die-cast zinc housing

Wiring diagram



Functional principle

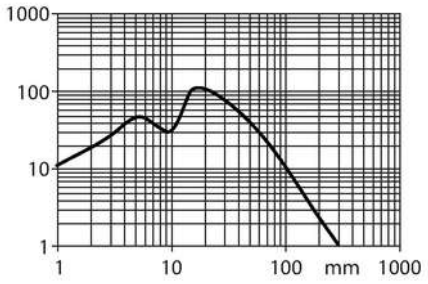
The Q3X series optical sensor is a contrast laser with a reach of 300 mm and bipolar switching outputs (1 PNP and 1 NPN). The switching point of the sensor can be changed via the push button on the housing during operation. Various teach modes available. Various parameters can be changed in setup mode, and the device can be reset to factory setting if necessary. The integrated display shows the contrast value during operation. The robust IP67/IP69K-type metal housing allows the use of the device in adverse environmental conditions.

Q3XTBLD-Q8| 19-01-2022 01-13 | Technical modifications reserved

Technical data

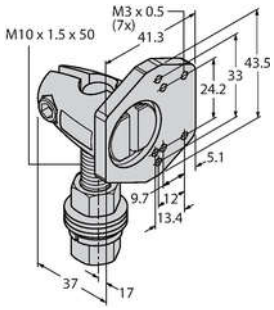
Number of cores	5
Ambient temperature	-10…+50 °C
Storage temperature	-25…+75 °C
Relative humidity	35…95 %
Protection class	IP67 IP68 IP69
Special features	keep/defer Wash down
Switching state	LED, Yellow
Display	3-digit 7-segment LED display
Excess gain indication	LED
Tests/approvals	
Vibration resistance	MIL-STD-202G, Method 201A (10 to 60 Hz, 1.52 mm peak to peak amplitude, for 2 hours along the x, y and z-axis), sensor operating
Shock test	MIL-STD-202G, Method 213B Condition I (100G 6 x along the XYZ-axis, 18 impacts), sensor in operation
Approvals	CE, cULus

Excess Gain Curve



Accessories

SMBQ4XFAM10 3091513



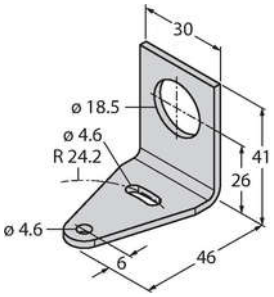
Mounting bracket, rotatable, stainless steel, for sensors of the Q4X/Q3X series, M10 x 1.5 thread

SMB18FAM10 3011184



Mounting bracket, material VA 1.4401, for M10 x 1.5 thread, thread length 18 mm

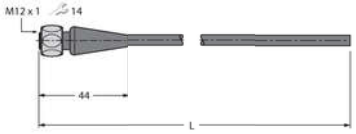
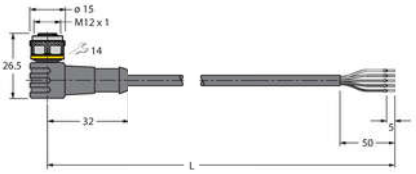
SMB18A 3033200



Mounting bracket, rectangular, stainless steel, for sensors with 18 mm thread

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Accessories

Dimension drawing	Type	ID	
	RKC4.5T-2/TEL	6625016	Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	RKH4.5-2/TFG	6933455	Connection cable, M12 female, straight, 5-pin, stainless steel coupling nut, cable length: 2 m, jacket material: TPE, gray, temperature range -40…+105 °C; other cable lengths and designs available, see www.turck.com
	WKC4.5T-2/TEL	6625028	Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com

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