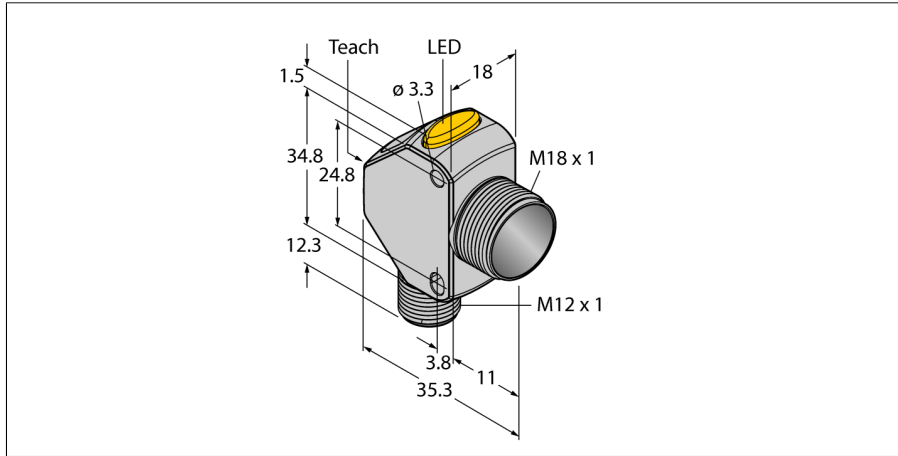


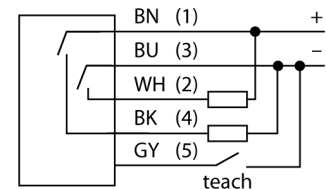
**Photoelectric sensor
Laser Sensor
Q3XTBLD100-Q8**



- 3-digit 7-segment LED display
- 2 buttons
- Output indicator (yellow)
- IP67/69K
- Range: 0...100 mm
- Fixed background suppression at 120 mm
- Laser class 2, red, 655 nm
- Operating voltage: 10...30 VDC
- 1 x PNP, 1 x NPN switching output
- Rectangular model with offset M18 thread
- Die-cast zinc housing

Type designation	Q3XTBLD100-Q8
Ident no.	3091632
Operating mode	Laser contrast sensor
Light type	red
Wavelength	655 nm
Laser class	▲ 2
Range	0...100 mm
Ambient temperature	-10...+55 °C
Relative humidity min.	35 %
Relative humidity max.	95 %
Storage temperature	-25...+75 °C
Ambient light immunity	> 5000 lux
Operating voltage	10...30 VDC
DC rated operational current	≤ 28 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	NO/NC contact, PNP/NPN
Readiness delay	≤ 1000 ms
Response time typical	< 0.25 ms
Approvals	CE, cULus
Design	Rectangular, Q3X
Dimensions	35.3 mm x 18 mm x 48.6 mm
Housing material	Die-cast zinc, ZN, zink-plated
Lens	acrylic, PMMA
Electrical connection	Connector, M12 (1)
Protection class	IP67/IP69K
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
Switching state	LED yellow
Display	3-digit 7-segment LED display

Wiring Diagram

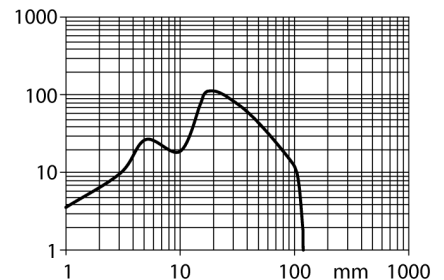


Functional principle

The Q3XTBLD100-Q8 sensor combines the functionality of a contrast scanner with a fixed background suppression. This methodology is unique in the market.

The range of the laser-class-2 sensor is 0...100 mm at a fixed background suppression of 120 mm. The Q3X has two switching outputs (1 PNP and 1 NPN). In RUN mode you can change the switchpoint and teach the sensor. In SETUP mode, you can select teach, all standard operating parameters and also return to the factory defaults.

Excess Gain Curve

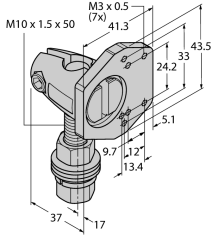
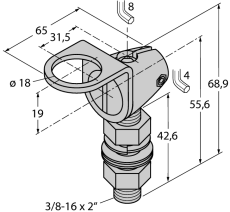
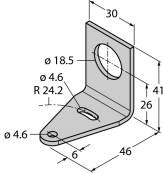


Photoelectric sensor
Laser Sensor
Q3XTBLD100-Q8


TURCK

Industrial
Automation

Accessories

Type code	Ident no.	Description	
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	

Wiring accessories

Type code	Ident no.	Description	
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 connector, angled, 5-pin, cable length: 2 m, sheath material: TPE, gray; Ecolab approved, FDA and RoHS compliant; IP67, IP69K; Other cable lengths and designs are available, see www.turck.com	