



Q3X

## Versatile, Rugged Laser Contrast Sensor

**High-Speed Performance:** Captures up to 2,000 events per second.

*Versatile*

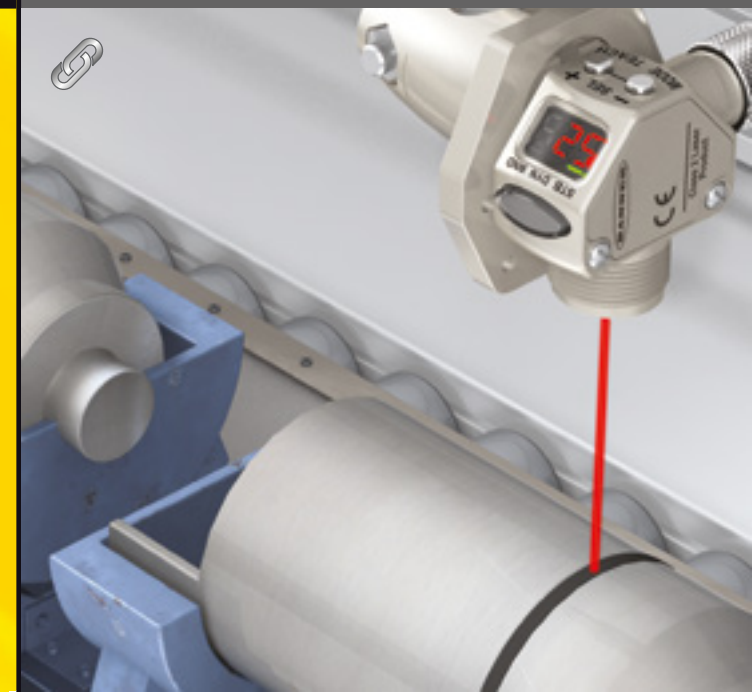
Solves challenging part-detection applications with small contrast differences.

*Durable*

Rugged nickel-plated zinc housing suitable even in environments with cutting fluids and oils.

*Easy to Use*

Simplified user experience with a **clear intensity readout** from the angled three-digit display and easy setup with responsive buttons.

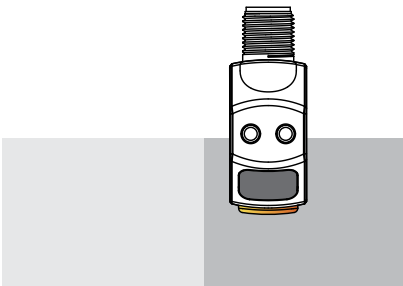




Q3X Laser  
Contrast Sensor

## High-Speed Detection

- High-speed part detection as fast as 250  $\mu$ s, capturing up to 2,000 events per second
- Used for presence/absence or orientation detection



Can detect small changes in contrast up to 300 mm



# Features

## Angled Three-Digit Display

- Clear user feedback facilitates setup
- Easy to read at all angles
- Optional inverted display for easy mounting and readability
- Clear intensity readout



Nicked-Plated Zinc Housing

Green LED is ON when signal strength is stable



LED Output Indicator

Active TEACH Indicators

Two tactile buttons for easy setup





Q3X Laser  
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- User selectable output response time from 250  $\mu$ s to 5 ms
- Rated to IP67, IP68 and IP69K
- CE and UL approved
- Patent pending

Order Now

Family

**Q3X**

Housing Style

**T**

T = 18 mm  
Threaded  
Barrel

Output

**B**

B = Bipolar

Mode

**LD**

LD = Laser Diffuse

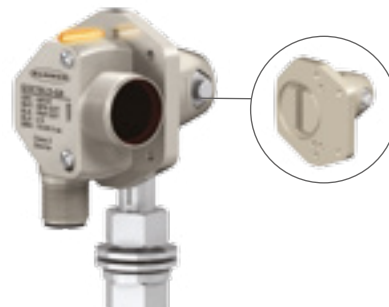
Connector

**Q8**

Q8 = 5-pin Integral QD

*QD models require mating cordset*

## Accessories



**[SMBQ4XFA](#)**  
includes 3/8" bolt for mounting

**[SMBQ4XFAM10](#)**  
includes 10 mm bolt for mounting

**[SMBQ4XFAM12](#)**  
clamps directly onto industry standard bracket systems of 1/2" or 12 mm rods



**5-Pin M12/  
Euro-Style Cordsets**  
Straight connector models listed; for right-angle, add **RA** to the end of the model number (example, **MQDC1-506RA**)

- [MQDC1-506](#)**  
2 m
- [MQDC1-515](#)**  
5 m
- [MQDC1-530](#)**  
9 m



**5-Pin M12/  
Euro-Style  
Washdown Cordset**  
Straight connector models only

- [MQDC-WDSS-0506](#)**  
2 m
- [MQDC-WDSS-0515](#)**  
5 m
- [MQDC-WDSS-0530](#)**  
9 m



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# Additional Resources

Link to  
data sheets

**WORLD-BEAM® Q12 Series Sensors**  
Miniature self-contained photoelectric sensors in universal housing

- Bright, visible red (640 nm) light source
- Standard models available with sizes 2x 6.5 (6) or 3 in (32) fit cable or 3 or 4 wire
- 1.5 m (5 ft) pigtail with Pro-alpha 88 threaded connector
- Shield cable, bipolar voltage, one current sensing (NPN) and one current sinking (PNP) standard on 4-wire models
- Single color sensor uses PNP or NPN standard on 3-wire models
- Light Opener (L.O.) or Dark Opener (D.O.), depending on model
- Models available with PFA chemical-resistant jacket (CRS) (see webstore video for use in harsh environments (see Chemical Resistance (Model) on page 1))
- Compact 8 mm (0.31 in) housing mounts directly on panels
- Consider avoidance circuitry for applications with multiple sensors
- LED status indicator for Power On, Output Overload, Signal Received, and Marginal Signal
- Models with back housing are available

**Standard Model**    **Chemical-Resistant Model**

**WARNING: Not To Be Used for Personnel Protection**  
Never use this device as a warning device for personnel protection. Doing so could lead to injury or death. This device does not include the self-checking redundancy circuitry necessary for use in personnel safety applications. A sensor failure or malfunction can cause either an energized sensor output condition.

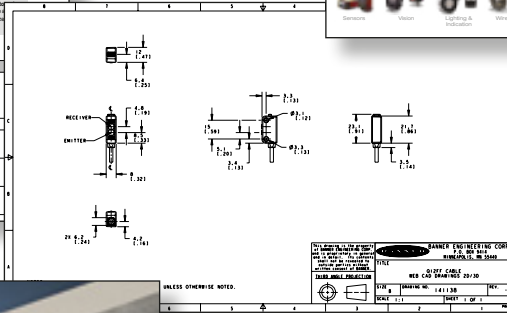
**Chemical-Resistant Models**

Sensing Mode	Model	Range
640 nm Visible Red	D12MCR	
	D12MBCR	
	D12MBBCR	1.5 m (49 ft)
640 nm Visible Red	D12MBPFSR	13 mm (0.5 in) L.O. diff. 8 mm (0.31 in) focus
	D12MBPFSR	26 mm (1.0 in) L.O. diff.
	D12MBPFSR	40 mm (1.6 in) L.O. diff.
	D12MBPFSR	54 mm (2.1 in) L.O. diff.



Link to  
catalogue

Link to the  
Banner website



Link to  
CAD files



Link to videos

