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**.
Short-range models available with **background suppression** capability.

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.
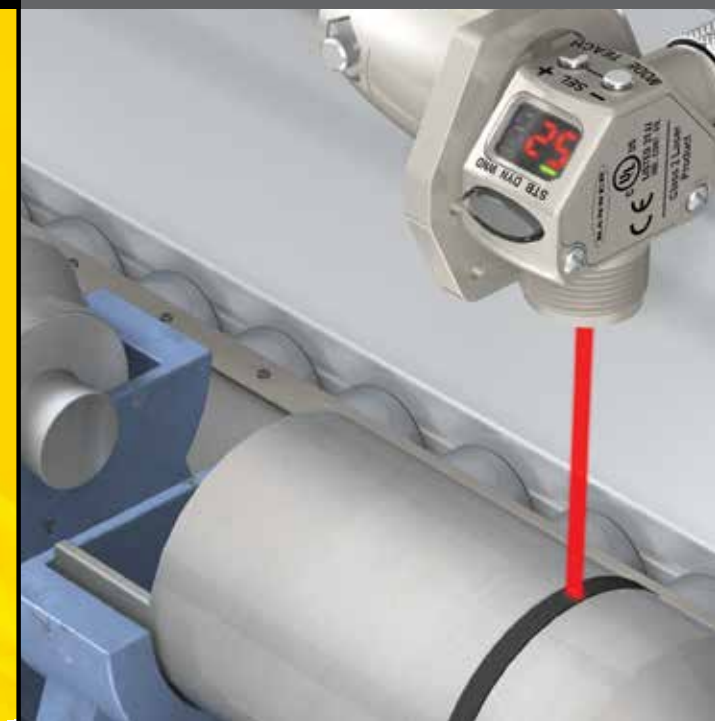
Q3X Laser Contrast Sensor

Ideal for High-Speed Detection

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

High-Performance Contrast Detection

- Can detect small changes in contrast up to 300 mm

LED Output Indicator

Active TEACH Indicators

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

Green LED is ON when signal strength is stable

Two tactile buttons for easy setup and advanced menu options

Nicked-Plated Zinc Housing Rated to IP67, IP68, IP69K

Reliable Detection with Background Suppression

• Short-range models available with fixed background suppression

• Ignores backgrounds including shiny metal while reliably detecting small contrast changes

Diffuse Sensing Range

Target   Background

Background Suppression Distance

Q3X Laser
Contrast Sensor

18.0 mm

ø 18.0 mm

48.6 mm

36.5 mm
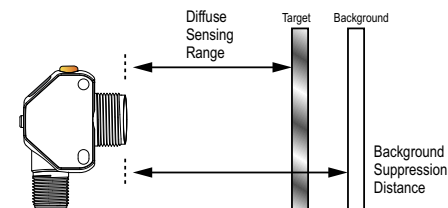
Family	Housing Style	Output	Mode		Connector
Q3X	**T**	**B**	**LD**	**—**	**Q8**

T = 18 mm Threaded Barrel

B = Bipolar

LD = Laser Diffuse 300 mm range

LD50 = Laser Diffuse 50 mm range with 60 mm BGS*

LD100 = Laser Diffuse 100 mm range with 120 mm BGS*

LD150 = Laser Diffuse 150 mm range with 190 mm BGS*

LD200 = Laser Diffuse 200 mm range with 280 mm BGS*

* BGS = Background Suppression

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 (6.5')
MQDC1-515
5 m (15')
MQDC1-530
9 m (30')

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

MQDC-WDSS-0506
2 m (6.5')
MQDC-WDSS-0515
5 m (15')
MQDC-WDSS-0530
9 m (30')

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