



Q4XFNLAF310-Q8

► Q4X SERIES RUGGED LASER DISTANCE SENSOR



Q4X Series: Laser Adjustable Field

Range: 310 mm; Input 10-30 V dc

Outputs: 1 NPN

Connection: Euro M12 5-pin Integral Connector

Flush Mount Housing

Part Number: 97632

CERTIFICATIONS



SPECIFICATIONS

Sensing Mode (General)	Proximity
Sensing Mode (Detailed)	Background/Foreground Suppression
Housing Style	Rectangular
Primary Housing Material	Stainless Steel
Laser Classification	Class 1
Input/Output	Discrete
Indicator	Display; LED(s)
Analog Resolution/Discrete Repeatability	35 mm to 60 mm: +/-0.5 mm; 60 mm to 310 mm: +/- 1% of range
Max Sensing Distance (mm)	310
Minimum Sensing Distance (mm)	35
Sensing Beam	Visible Red Laser

Power Supply	10-30 V dc
Delay at Power-up (ms)	750
Sensing Beam Wavelength (nm)	655
Adjustments	Push Button; Remote Teach
Temperature Effect (mm/°C)	+/- 0.05 mm/°C from 25 to 125 mm, +/- 0.35 mm/°C at 300 mm
Connection	Integral QD
QD Type/Cable Length	M12 (Euro) requires mating cordset
Number of Pins	4
Vibration	MIL-STD-202G req. Method 201A (vibration:10 to 60Hz max., double amplitude 0.06", max acc. 10G).
Mechanical Shock	MIL-STD-202G, Meth. 213B, Cond. I (100G 6x along X, Y & Z axes, 18 total shocks) w/ sensor operating
Output Saturation Voltage NPN Outputs	<1.0 V @ 100 mA
Max Discrete (Switched) Output (mA)	100
Discrete (Switched) Outputs	1 NPN
Output Protection	Protected against continuous overload and short circuit
IP Rating	IP67; IP68; IP69K
Storage Temperature (°C)	-25 to 75
Max Operating Temperature (°C)	50
Min Operating Temperature (°C)	-10
Max Op. Relative Humidity Non-Condensing (%)	95 at 55°C
Window Material	Acrylic
Warm-up Time (minutes)	10
Minimum Response Time (ms)	1.5
Spot Size (@ Reference Distance)	2.0 mm x 0.8 mm @ 300 mm
Minimum Window Size (mm)	0.4
Discrete Output Hysteresis (mm)	Automatically adjusted

Laser Control	Yes
Alarm Output (mA)	100
Max Ambient Light (Lux)	5000
Max Off-state Leakage Current (µA)	5 @ 30 V dc
Power/Current Consumption (exclusive of load)	< 675 mW
Supply Protection Circuitry	Protected against reverse polarity and transient overvoltages
Feature: Remote Teach	Yes
Feature: Washdown Rated	Yes
Feature: Clear Object Detection	Yes
Feature: Timing (Hold/Delay)	Yes
Feature: Ecolab Certified	Yes
Feature: Chemical Resistant	Yes
IO Link	No
Wireless	No

RECOMMENDED PRODUCTS

DOUBLE ENDED CORDSETS

	<p>MQDEC-406SS</p> <p>Euro-style Quick Disconnect Cable; 4-pin Straight Connector; 2 m (6.5 ft) Length; Double Ended With 1 Female & 1 Male Connector</p>
	<p>MQDEC-406SS-PUR</p> <p>Euro-style Quick Disconnect Cable; Double-ended 4-pin Male Connector Straight; 4-pin Female Connector Straight 2 m Length; Chrome plated brass coupling nut</p>
	<p>MQDEC-412SS</p> <p>Euro-style Quick Disconnect Cable; Double-ended 4-pin Male Connector Straight; 4-pin Female Connector Straight 3.7 m Length; Chrome plated brass coupling nut</p>
	<p>MQDEC-415SS-PUR</p> <p>Euro-style Quick Disconnect Cable; Double-ended 4-pin Male Connector Straight; 4-pin Female Connector Straight 5 m Length; Chrome plated brass coupling nut</p>

	<p>MQDEC-430SS</p> <p>Euro-style Quick Disconnect Cable; Double-ended 4-pin Male Connector Straight; 4-pin Female Connector Straight 9.1 m Length; Chrome plated brass coupling nut</p>
	<p>MQDEC-430SS-PUR</p> <p>Euro-style Quick Disconnect Cable; Double-ended 4-pin Male Connector Straight; 4-pin Female Connector Straight 10 m Length; Chrome plated brass coupling nut</p>
	<p>MQDEC-WDSS-406SS</p> <p>Euro-style Quick Disconnect Cable; 4-pin Straight Connector for F&B Applications; 1.83 m (6 ft) Length IP69K PVC Cable; Double Ended With 1 Female & 1 Male Connector</p>
	<p>MQDEC-WDSS-412SS</p> <p>Euro-style Quick Disconnect Cable; 4-pin Straight Connector for F&B Applications; 3.66 m (12 ft) Length IP69K PVC Cable; Double Ended With 1 Female & 1 Male Connector</p>

SINGLE ENDED CORDSETS

	<p>MQDC-406</p> <p>Euro-style Quick Disconnect Cable; 4-Pin Straight Connector; 2 m (6.5 ft) in Length; Nickel-plated Brass Coupling Nut</p>
	<p>MQDC-415</p> <p>Euro-style Quick Disconnect Cable; 4-Pin Straight Connector; 5 m (15 ft) in Length; Nickel-plated Brass Coupling Nut.</p>
	<p>MQDC-430</p> <p>Euro-style Quick Disconnect Cable; 4-Pin Straight Connector; 9 m (30 ft) in Length; Nickel-plated Brass Coupling Nut</p>
	<p>MQDC-450</p> <p>Euro-Style Quick Disconnect Cable; 4-Pin Straight Connector; 15 m (50 ft) in Length; Nickel-plated Brass Coupling Nut</p>
	<p>MQDC-406RA</p> <p>Euro-Style Quick Disconnect Cable; 4-Pin Right-Angle Connector; 2 m (6.5 ft) in Length; Nickel-plated brass coupling nut</p>
	<p>MQDC-415RA</p> <p>Euro-Style Quick Disconnect Cable; 4-Pin Right-Angle Connector; 5 m (15 ft) in Length; Nickel-plated brass coupling nut</p>
	<p>MQDC-430RA</p> <p>Euro-Style Quick Disconnect Cable; 4-Pin Right-Angle Connector; 9 m (30 ft) in Length; Nickel-plated brass coupling nut</p>

	<p>MQDC-450RA</p> <p>Euro-Style Quick Disconnect Cable; 4-Pin Right-Angle Connector; 15 m (50 ft) in Length; Nickel-plated brass coupling nut</p>
	<p>MQDC-WDSS-0406</p> <p>Euro-style Quick Disconnect Cable; 4-Pin Straight Connector for F&B Applications; 2 m (6.5 ft) in Length abrasion resistant PVC cable; Stainless Steel hex coupling nut and EPDM O-ring; Environmental Rating: IP69K</p>
	<p>MQDC-WDSS-0415</p> <p>Euro-style Quick Disconnect Cable; 4-Pin Straight Connector for F&B Applications; 5 m (15 ft) in Length abrasion resistant PVC cable; Stainless Steel hex coupling nut and EPDM o-ring; Environmental Rating: IP69K</p>
	<p>MQDC-WDSS-0430</p> <p>Euro-style Quick Disconnect Cable; 4-Pin Straight Connector for F&B Applications; 9 m (30 ft) in Length abrasion resistant PVC cable; Stainless Steel hex coupling nut and EPDM o-ring; Environmental Rating: IP69K</p>

ADAPTERS, BRACKETS, CLAMPS AND MOUNTING ACCESSORIES

	<p>SMBQ4XFA</p> <p>Bracket: Kit for 12 mm (1/2 in) Rod Bracket Systems; for: Q4X, QS18, QS30; Includes 3/8-16 X 2 in. Socket Head Cap Screw (SHCS)</p>
	<p>SMBQ4XFAM10</p> <p>Bracket: Kit for 10 mm (3/8 in) Rod Bracket Systems; for: Q4X, QS18, QS30; Includes M10-1.5 X 50 mm; Socket Head Cap Screw (SHCS)</p>
	<p>SMBQ4XFAM12</p> <p>Bracket: Kit for 12 mm (1/2 in) Rod Bracket Systems; for: Q4X, QS18, QS30; No Socket Head Cap Screw (SHCS) included</p>
	<p>SMB46L2</p> <p>Bracket: L; Material: 14 Gauge 316 Stainless Steel</p>

REFERENCE TARGET

	<p>BRT-Q4X-60X18</p> <p>Reflector; Q4X Clear Object Detection; Rectangular 60 mm X 18 mm</p>
	<p>BRT-Q4X-60X50</p> <p>Reflector; Q4X Clear Object Detection; Rectangular 60 mm X 50 mm</p>



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