



# Q4XFILAF310-Q8

## ► Q4X SERIES RUGGED LASER DISTANCE SENSOR



Q4X Series: Laser Adjustable Field  
Range: 310 mm; Input 12-30 V dc  
Output: Analog: 4-20 mA  
Connection: Euro M12 5-pin Integral Connector  
Flush Mount Housing  
Part Number: 97543

### 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	Analog
Indicator	Display; LED(s)
Analog Output Configuration	4-20 mA
Analog Resolution/Discrete Repeatability	35 mm to 110 mm: < 0.3 mm; 110 mm to 310 mm: < 1 mm
Max Sensing Distance (mm)	310
Minimum Sensing Distance (mm)	35


<b>Sensing Beam</b>	Visible Red Laser
<b>Power Supply</b>	12-30 V dc
<b>Delay at Power-up (ms)</b>	750
<b>Sensing Beam Wavelength (nm)</b>	655
<b>Adjustments</b>	Push Button; Remote Teach
<b>Temperature Effect (mm/°C)</b>	+/- 0.05 mm/°C from 25 to 125 mm, +/- 0.35 mm/°C at 300 mm
<b>Connection</b>	Integral QD
<b>QD Type/Cable Length</b>	M12 (Euro) requires mating cordset
<b>Number of Pins</b>	5
<b>Vibration</b>	MIL-STD-202G req. Method 201A (vibration:10 to 60Hz max., double amplitude 0.06", max acc. 10G).
<b>Mechanical Shock</b>	MIL-STD-202G, Meth. 213B, Cond. I (100G 6x along X, Y & Z axes, 18 total shocks) w/ sensor operating
<b>Analog Current Output Rating</b>	1 kΩ max @24 V dc, max load resistance = [(Vcc-4.5 V)/0.02 A] Ω
<b>Output Protection</b>	Protected against continuous overload and short circuit
<b>IP Rating</b>	IP67; IP68; IP69K
<b>Storage Temperature (°C)</b>	-25 to 75
<b>Max Operating Temperature (°C)</b>	50
<b>Min Operating Temperature (°C)</b>	-10
<b>Max Op. Relative Humidity Non-Condensing (%)</b>	95 at 55°C
<b>Window Material</b>	Acrylic
<b>Warm-up Time (minutes)</b>	10
<b>Minimum Response Time (ms)</b>	0.5
<b>Spot Size (@ Reference Distance)</b>	2.0 mm x 0.8 mm @ 300 mm
<b>Analog Linearity (mm)</b>	+/- 0.75 mm from 25 to 50 mm, 9.0 mm at 300 mm
<b>Minimum Window Size (mm)</b>	2
<b>Laser Control</b>	Yes

Alarm Output (mA)	100
Max Ambient Light (Lux)	5000
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: Timing (Hold/Delay)	No
Feature: Ecolab Certified	Yes
Feature: Chemical Resistant	Yes
IO Link	No
Wireless	No

RECOMMENDED PRODUCTS

SINGLE ENDED CORDSETS

	<p><b>MQDEC2-506</b></p> <p>Euro-Style Quick Disconnect Cable with Shield; 5-Pin Straight Connector; 2 m (6.5 ft) in Length; Chrome-plated brass coupling nut</p>
	<p><b>MQDEC2-515</b></p> <p>Euro-Style Quick Disconnect Cable with Shield; 5-Pin Straight Connector; 5 m (15 ft) in Length; Chrome-plated brass coupling nut</p>
	<p><b>MQDEC2-530</b></p> <p>Euro-Style Quick Disconnect Cable with Shield; 5-Pin Straight Connector.C; 9 m (30 ft) in Length; Chrome-plated brass coupling nut</p>
	<p><b>MQDEC2-506RA</b></p> <p>Euro-Style Quick Disconnect Cable with Sheild; 5-Pin Right-Angle Connector; 2 m (6.5 ft) in Length; Chrome-plated brass coupling nut</p>
	<p><b>MQDEC2-515RA</b></p> <p>Euro-Style Quick Disconnect Cable with Sheild; 5-Pin Right-Angle Connector; 5 m (15 ft) in Length; Chrome-plated brass coupling nut</p>

	<p><b>MQDEC2-530RA</b></p> <p>Euro-Style Quick Disconnect Cable with Shield; 5-Pin Right-Angle Connector; 9 m (30 ft) in Length; Chrome-plated brass coupling nut</p>
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ADAPTERS, BRACKETS, CLAMPS AND MOUNTING ACCESSORIES

	<p><b>SMBQ4XFA</b></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><b>SMBQ4XFAM10</b></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><b>SMBQ4XFAM12</b></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><b>SMB46L2</b></p> <p>Bracket: L; Material: 14 Gauge 316 Stainless Steel</p>



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