

WORLD-BEAM® QS30 - Universal Voltage

Self-contained photoelectric sensors in universal-style housing

Installation Guide

Additional information on this product is immediately available online at www.bannerengineering.com/119166

MORE INFO

View or download additional information, including excess gain curves, beam patterns and accessories. For further assistance, contact a Banner Engineering Applications Engineer at (763) 544-3164 or (888) 373-6767.



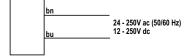
Sensing Mode		Range	Output	Model*
875 nm Infrared	Opposed	60 m (200')	_	QS303E
Effective Beam: 18 mm (0.7")			SPDT	QS30VR3R
630 nm Visible Red	Polarized Retroreflective	8 m (26') [†]		QS30VR3LP
680 nm Visible Red	Fixed-Field	200 mm (8")		QS30VR3FF200
		400 mm (16")		QS30VR3FF400
		600 mm (24")		QS30VR3FF600

^{*}Only standard 2 m (6.5') cable models are listed. For 9 m (30') integral cable, add suffix "**W/30**" to the model number (e.g., **QS303E W/30**).

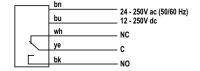
QD models: Contact Factory for availability.

Hookups

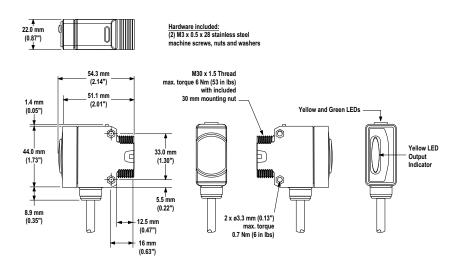
Emitters



All Other Models



Dimensions





WARNING . . . Not To Be Used for Personnel Protection

Never use these products as sensing devices for personnel protection. Doing so could lead to serious injury or death. These sensors do NOT include the self-checking redundant circuitry necessary to allow their use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition. Consult your current Banner Safety Products catalog for safety products which meet OSHA, ANSI and IEC standards for personnel protection.

[†] Range is measured using a model **BRT-84** retroreflector.

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Specifications

Supply Voltage and Current

Universal Voltage: 24 to 250V ac, 50/60 hz or 12 to 250V dc (1.0 watt maximum)

Supply Protection Circuitry

Protected against transient voltages

Output Configuration

SPDT (Single-Pole Double-Throw) electromechanical relay output (all models except emitters)

Output Rating

Max. Switching Power (resistive load): 150 W, 1250 VA Max. Switching Voltage (resistive load): 250V ac; 125V dc

Max. Switching Current (resistive load):

5 A @ 250V ac

5 A @ 30V dc derated to 200 mA @ 125V dc Min. Voltage and Current: 5V dc, 10 mA Mechanical life of relay: 50 million operations

Electrical life of relay at full resistive load: 100,000 operations

Output Response Time 15 milliseconds ON and OFF

NOTE: 100 millisecond delay on power-up; output does not conduct during

this time.

Cutoff Point Tolerance

Fixed-Field Only: ± 5% of nominal cutoff distance

Indicators

2 LED indicators on sensor top: Green ON steady: Power ON Yellow ON steady: Light sensed

Yellow flashing: Marginal excess gain (1.0 to 1.5x excess gain)

Large, oval LED indicator on sensor back (except emitters): Yellow ON steady: Normally open output is conducting

Construction

ABS housing, rated IEC IP67; NEMA 6; Acrylic lens cover

Connections

2 m (6.5') or 9 m (30') 5-wire PVC cable

Operating Conditions

Temperature: -20° to +70° C (-4° to +158° F)
Relative Humidity: 90% @ 50° C (non-condensing)

Certifications





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WARRANTY: Banner Engineering Corp. warrants its products to be free from defects for one year. Banner Engineering Corp. will repair or replace, free of charge, any product of its manufacture found to be defective at the time it is returned to the factory during the warranty period. This warranty does not cover damage or liability for the improper application of Banner products. This warranty is in lieu of any other warranty either expressed or implied.

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