WORLD-BEAM® QS18



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Miniature self-contained photoelectric sensors in universal-mount housing For complete technical information about this product, including dimensions, accessories, and specifications, see www.bannerengineering.com and search 63908.

Models

Model ¹	Sensing Mode		Output Type	Model ¹ Sensing Mode		Node	Output Type	
QS186E			E-million	QS18VN6DB			NPN	
QS186EV	20 m (66 ft) Opposed		Emitter	QS18VP6DB	450 mm (18 in) Diffuse		PNP	
QS18VN6R			NPN					
QS18VP6R			PNP				NPN	
QS186EB	3 m (10 ft) Opposed		Emitter	QS18VN6W QS18VP6W	100 mm (4 in) Divergent Diffuse	,	PNP	
QS18VN6RB			NPN					
QS18VP6RB			PNP					
			NDN	QS18VN6FF50 QS18VP6FF50	50 mm (2 in) Fixed-Field	∦ ⇒ 1 ∦	NPN	
QS18VN6LP	3.5 m (12 ft) Polarized Retro		NPN				PNP	
QS18VP6LP			PNP	QS18VN6FF100	100 mm (4 in) Fixed-Field		NPN	
				QS18VP6FF100			PNP	
QS18VN6LV	6.5 m (21 ft) Non-Polarized Retro		NPN	QS18VN6FP	220 mm (8.7 in) Individual (Opposed) 60 mm (2.4 in) Bifurcated (Diffuse) Range specified using 1.5 mm plastic fiber op- tics		NPN	
QS18VP6LV			PNP	QS18VP6FP			PNP	
QS18VN6CV15			NPN					
QS18VP6CV15	16 mm (0.63 in) Convergent		PNP	QS18VN6F	500 mm (20 in) Individual (Opposed) 38 mm (1.5 in) Bifurcated (Diffuse) Range specified using 3.2 mm plastic fiber op- tics		NPN	
QS18VN6CV45		u	NPN	QS18VP6F			PNP	
QS18VP6CV45	43 mm (1.7 in) Convergent		PNP					
QS18VN6D	<u>ज</u>		NPN	QD Models:				
QS18VP6D	450 mm (18 in) Diffuse	 ≒ ≓	PNP	 4-pin integral Euro-style QD: add suffix Q8, for example, QS186EQ8. 4-pin 150 mm (6 in) Euro-style pigtail QD: add suffix Q5, for example, QS186EQ5. 4-pin integral Pico-style pigtail QD: add suffix Q7, for example, QS186EQ7) 				

4-pin integral Pico-style pigtall QD: add suffix Q7, for example, Q\$186EQ7).

4-pin 150 mm (6 in) Pico-style pigtail QD: add suffix ${\bf Q},$ for example, ${\bf QS186EQ}.$

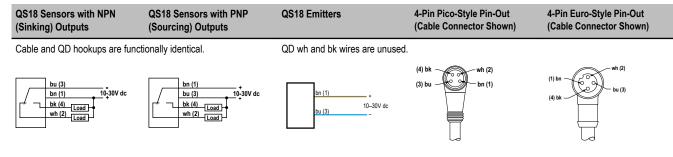


WARNING: Not To Be Used for Personnel Protection

Never use this device as a sensing device for personnel protection. Doing so could lead to serious injury or death. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

¹ Only standard 2 m (6.5 ft) cable models are listed. For 9 m (30 ft) cable, add suffix W/30 to the model number, for example, QS186E W/30.

Wiring



Specifications

Supply Voltage 10 to 30V do load;

Repeatability

10 to 30V dc (10% maximum ripple) at less than 25 mA, exclusive of load;

Protected against reverse polarity and transient voltages

Light Source

Glass Fiber Optic, Opposed and Diffuse mode models: 940 nm infrared;

Plastic Fiber Optic, Retroreflective, Convergent and FF mode models: 660 nm visible red

Output Configuration

Solid-state complementary (SPDT): NPN or PNP (current sinking or sourcing), depending on model; Rating: 100 mA maximum each output at 25°C Off-state leakage current:

FF Mode - less than 200 μA at 30V dc All others - less than 50 μA at 30V dc

ON-state saturation voltage: less than 1V at 10 mA; less than 1.5V at 100 mA

Protected against false pulse on power-up and continuous overload or short circuit of outputs

Output Response

Opposed Mode: 750 microseconds On; 375 microseconds Off FF Mode: 850 microseconds On/Off All others: 600 microseconds On/Of NOTE: 100 millisecond delay on power-up; outputs do not conduct during this time Opposed Mode: 100 microseconds FF Mode: 160 microseconds All others: 150 microseconds

Adjustments

Glass Fiber Optic, Plastic Fiber Optic, Convergent, Diffuse, and Retroreflective mode models (only): Single-turn sensitivity (Gain) adjustment potentiometer

Indicators

2 LED indicators: Green steady: Power On Green flashing: Output overloaded Yellow* steady: Light sensed Yellow* flashing: Marginal excess gain (1.0 to 1.5x excess gain)

NOTE: Prior to date code 0223, the output indicator was red.

Construction

ABS housing, rated IEC IP67; NEMA 6; UL Type 1

Connections

2 m (6.5 ft) 4-wire PVC cable; 4-pin Pico-style QD; 4-pin Euro-style QD 9 m (30 ft) 4-wire PVC cable; 4-pin Pico-style 150 mm (6 in) pigtail QD; 4-pin Euro-style 150 mm (6 in) pigtail QD

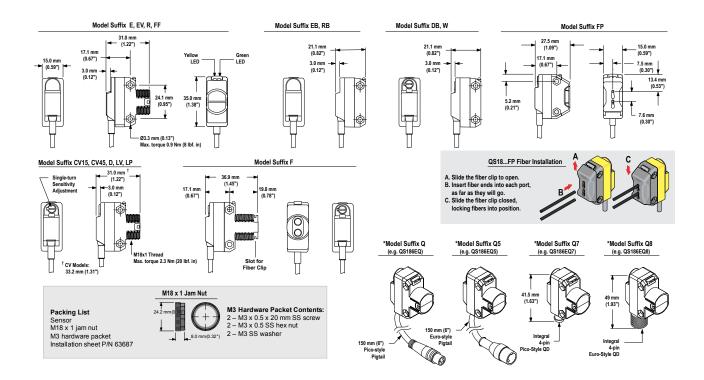
Operating Conditions

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

Certifications



Dimensions



Banner Engineering Corp Limited Warranty

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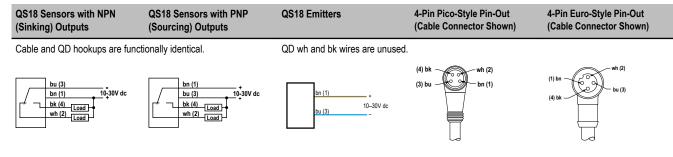


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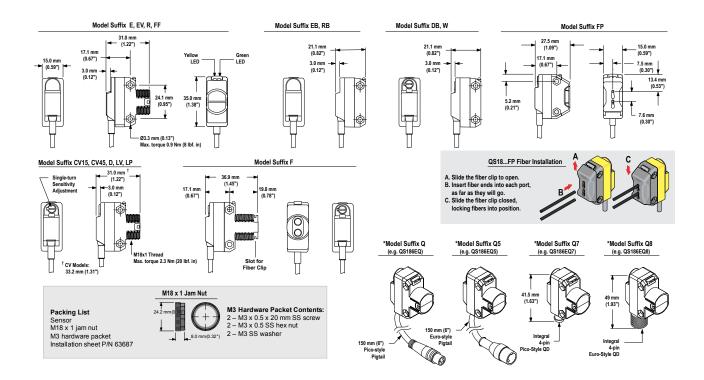
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