

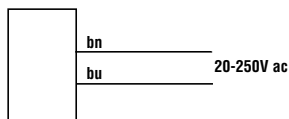
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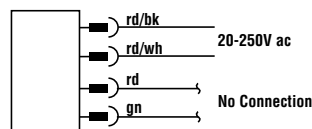
View or download additional information, including excess gain curves, beam patterns and accessories.  
For further assistance, contact a Banner Engineering Applications Engineer at (763) 544-3164 or (888) 373-6767.



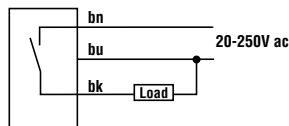
### Cabled Emitters



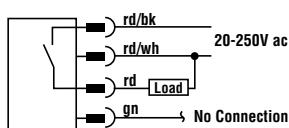
### QD Emitters (4-pin Micro-Style)



### All Other Cabled Models



### All Other QD Models (4-pin Micro-Style)



Sensing Mode		Range	LED	Output	Model*	
	Opposed	20 m (66')	Infrared 950 nm	-	<b>S183E</b>	
				LO	<b>S18AW3R</b>	
DO	<b>S18RW3R</b>					
	Retro-reflective <sup>†</sup>	2 m (79")		LO	<b>S18AW3L</b>	
				DO	<b>S18RW3L</b>	
	Polarized Retro-reflective <sup>†</sup>	2 m (79")		Visible Red 680 nm	LO	<b>S18AW3LP</b>
			DO		<b>S18RW3LP</b>	
	Diffuse	100 mm (4")	Infrared 880 nm		LO	<b>S18AW3D</b>
		DO			<b>S18RW3D</b>	
		300 mm (12")			LO	<b>S18AW3DL</b>
		DO			<b>S18RW3DL</b>	
	Fixed Field	25 mm (1") cutoff	Infrared 880 nm	LO	<b>S18AW3FF25</b>	
		DO		<b>S18RW3FF25</b>		
		50 mm (2") cutoff		LO	<b>S18AW3FF50</b>	
		DO		<b>S18RW3FF50</b>		
		100 mm (4") cutoff		LO	<b>S18AW3FF100</b>	
		DO		<b>S18RW3FF100</b>		

\* Standard 2 m (6.5') cable models are listed.

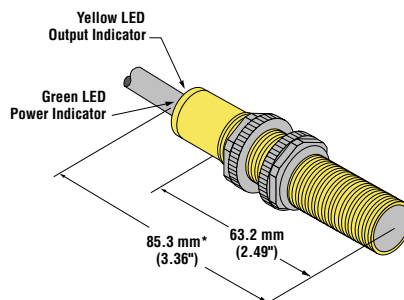
• **9 m (30') cable:** add suffix "W/30" (e.g., **S183E W/30**).

• **4-pin Micro-style QD models:** add suffix "Q1" (e.g., **S183EQ1**). A model with a QD connector requires a mating cable.

<sup>†</sup> Use polarized models when shiny objects will be sensed.

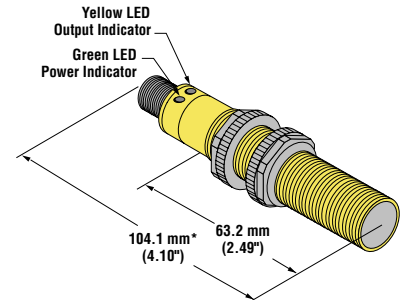
### Dimensions

#### Cabled Models



\*Polarized retro and fixed-field models = 86.3 mm (3.40")

#### QD Models



\*Polarized retro and fixed-field models = 105.1 mm (4.14")



### 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.

# EZ BEAM S18 Sensors – ac-Voltage Series

## Specifications

### Supply Voltage and Current

20 to 250V ac (50/60 Hz). Average current: 20 mA  
Peak current: 200 mA at 20V ac, 500 mA at 120V ac, 750 mA at 250V ac

### Supply Protection Circuitry

Protected against transient voltages

### Output Configuration

SPST solid-state ac switch; Three-wire hookup; Choose light operate or dark operate models

**Light Operate:** Output conducts when sensor sees its own (or the emitter's) modulated light

**Dark Operate:** Output conducts when the sensor sees dark

### Output Rating

300 mA maximum (continuous);

**Fixed-Field Models:** derate 5 mA/°C above +50°C (+122°F)

**Inrush Capability** 1 amp for 20 milliseconds, non-repetitive

**OFF-state leakage current:** < 100 microamps

**ON-state saturation voltage:** 3V at 300 mA ac; 2V at 15 mA ac

### Output Protection Circuitry

Protected against false pulse on power-up

### Output Response Time

**Opposed Mode:** 16 milliseconds ON, 8 milliseconds OFF

**Other Models:** 16 milliseconds ON and OFF

NOTE: 100 millisecond delay on power-up

### Repeatability

**Opposed Mode:** 2 milliseconds

**Other Models:** 4 milliseconds

Repeatability and response are independent of signal strength.

### Indicators

Two LEDs (Green and Yellow)

**Green ON steady:** power to sensor is ON

**Yellow ON steady:** sensor sees light

**Yellow flashing:** excess gain marginal (1 to 1.5x) in light condition

### Construction

PBT polyester housing; polycarbonate (opposed mode) or acrylic lens

### Environmental Rating

Leakproof design rated NEMA 6P, DIN 40050 (IP69K)

### Connections

2 m (6.5') attached cable, or 4-pin Micro-style quick-disconnect fitting

### Operating Conditions

**Temperature:** -40° to +70°C (-40° to +158°F);

**Maximum relative humidity:** 90% at 50°C (non-condensing)

### Vibration and Mechanical Shock

All models meet Mil. Std. 202F requirements. Method 201A (Vibration; frequency 10 to 60 Hz, max., double amplitude 0.06" acceleration 10G). Method 213B conditions H&I (Shock: 75G with unit operating; 100G for non-operation)

### Certifications



## Quick-Disconnect (QD) Cables

Style	Model	Length	Dimensions	Pin-Out
4-pin Micro-style Straight	<b>MQAC-406</b> <b>MQAC-415</b> <b>MQAC-430</b>	2 m (6.5') 5 m (15') 9 m (30')		
4-pin Micro-style Right-angle	<b>MQAC-406RA</b> <b>MQAC-415RA</b> <b>MQAC-430RA</b>	2 m (6.5') 5 m (15') 9 m (30')		

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