

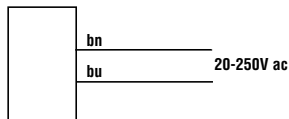
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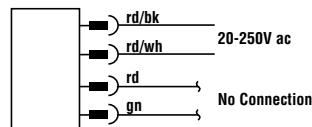
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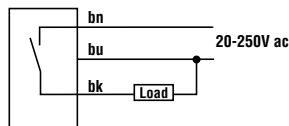
### Cabled Emitters



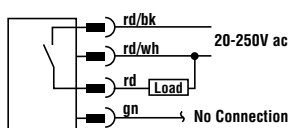
### QD Emitters (4-pin Micro-Style)



### All Other Cabled Models



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



Sensing Mode		Range	LED	Output	Model*	
	<b>Opposed</b>	20 m (66')	Infrared 950 nm	-	<b>S183E</b>	
				LO	<b>S18AW3R</b>	
DO	<b>S18RW3R</b>					
	<b>Retro-reflective†</b>	2 m (79")		LO	<b>S18AW3L</b>	
				DO	<b>S18RW3L</b>	
	<b>Polarized Retro-reflective†</b>	2 m (79")		Visible Red 680 nm	LO	<b>S18AW3LP</b>
			DO		<b>S18RW3LP</b>	
	<b>Diffuse</b>	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>	
	<b>Fixed Field</b>	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.

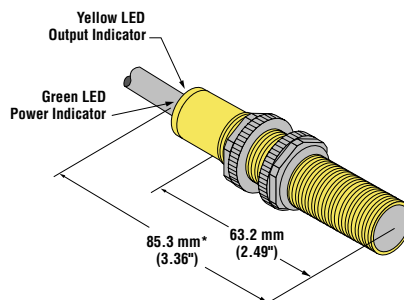
• **9 m (30') cable:** add suffix "W/30" (e.g., **S183E W/30**).

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

† Use polarized models when shiny objects will be sensed.

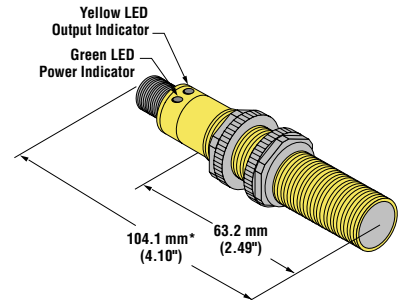
### Dimensions

#### 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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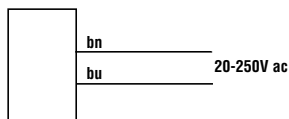
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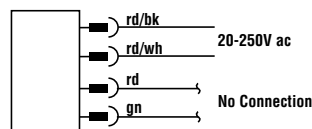
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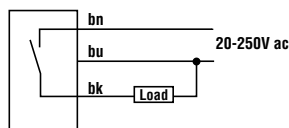
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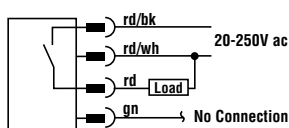
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		100 mm (4") cutoff	LO	<b>S18AW3FF50</b>		
			DO	<b>S18RW3FF50</b>		
			LO	<b>S18AW3FF100</b>		
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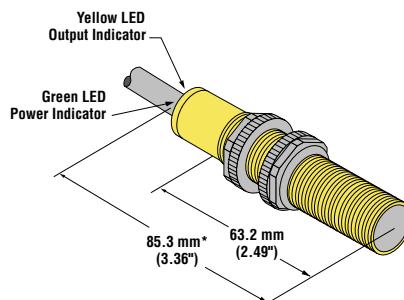
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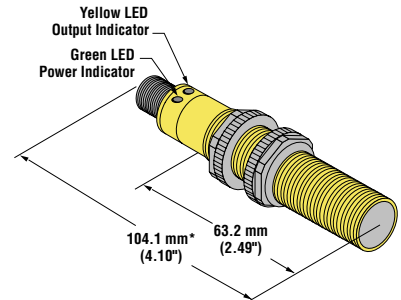
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