

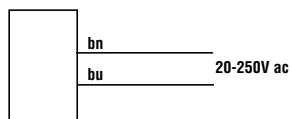
Additional information on this product is immediately available online at [www.bannerengineering.com/116166](http://www.bannerengineering.com/116166)



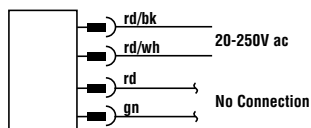
View or download additional information, including excess gain curves, beam patterns and accessories.  
For further assistance, contact a Banner Engineering Applications Engineer at (763) 544-3164 or (888) 373-6767.



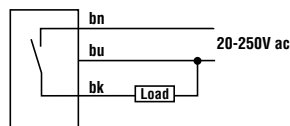
### Cabled Emitters



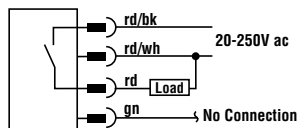
### QD Emitters (4-pin Micro-Style)



### All Other Cabled Models



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



Sensing Mode		Range	LED	Output	Model*
	<b>Opposed</b>	20 m (66')	Infrared 950 nm	-	<b>Q253E</b>
				LO	<b>Q25AW3R</b>
				DO	<b>Q25RW3R</b>
	<b>Polarized Retro-reflective</b>	2 m (79")	Visible Red 680 nm	LO	<b>Q25AW3LP</b>
				DO	<b>Q25RW3LP</b>
	<b>Fixed Field</b>	25 mm (1") cutoff	Infrared 880 nm	LO	<b>Q25AW3FF25</b>
				DO	<b>Q25RW3FF25</b>
		50 mm (2") cutoff		LO	<b>Q25AW3FF50</b>
				DO	<b>Q25RW3FF50</b>
		100 mm (4") cutoff		LO	<b>Q25AW3FF100</b>
				DO	<b>Q25RW3FF100</b>

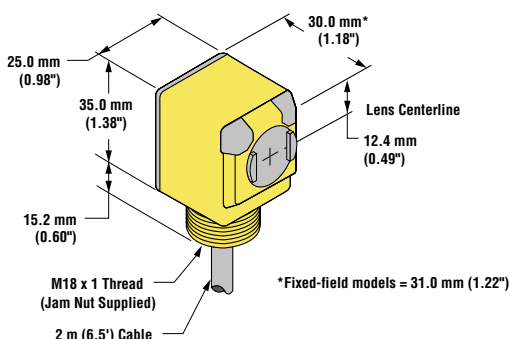
\* Standard 2 m (6.5') cable models are listed.

• **9 m (30') cable:** add suffix "W/30" (e.g., **Q253E W/30**).

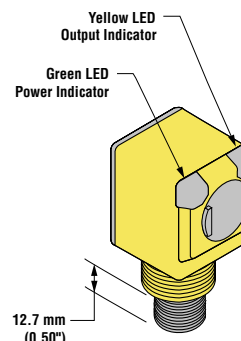
• **4-pin Micro-style QD models:** add suffix "Q1" (e.g., **Q253EQ1**). A model with a QD connector requires a mating cable.

## Dimensions

### Cabled Models



### QD Models



## 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 Q25 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	Pinout
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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