



## Features

- Easy-to-use *Expert*-style Static and Dynamic TEACH options, plus Window, Light, and Dark SET, via push button or remote input
- Smart power-control algorithm to maximize performance in low-contrast applications
- Easy push-button or remote sensor setup options:
  - Dark-Operate/Light-Operate select
  - Selectable 30 ms output OFF-delay
- Less than 1 millisecond output response for excellent sensing repeatability
- Tough ABS housing is rated IEC IP67; NEMA 6
- Bright LED operating status indicators are visible from 360°
- Discrete PNP or NPN output, depending on model
- Multiple connection options available (see Models)
- Compact housing, easy barrel-mount (some models) or side-mount installation

## Models

Sensing Mode	Model*	Range	Output Type
Polarized Retro  Visible Red 660 nm	QS18EN6LP	3.5 m (12")**	NPN
	QS18EP6LP		PNP
Diffuse  Infrared 940 nm	QS18EN6D	800 mm (31.5")	NPN
	QS18EP6D		PNP
	QS18EN6DB	500 mm (19.7")	NPN
	QS18EP6DB		PNP
	QS18EN6W	300 mm (11.8")	NPN
	QS18EP6W		PNP
Visible Red 660 nm  DIFFUSE	QS18EN6DV	600 mm (23.6")	NPN
	QS18EP6DV		PNP

\*\* Specified using BRT-84 reflector (sold separately).

Sensing Mode	Model*	Range	Output Type
Convergent  Visible Red 660 nm	QS18EN6CV15	16 mm (0.65")	NPN
	QS18EP6CV15		PNP
	QS18EN6CV45	43 mm (1.7")	NPN
	QS18EP6CV45		PNP
Fiber Optic - Plastic  Visible Red 660 nm	QS18EN6FP	Range varies by sensing mode and fiber optics used	NPN
	QS18EP6FP		PNP

\* Only standard 2 m (6.5') cable models are listed. For 9 m (30') cable, add suffix "W/30" to the model number (e.g., QS18EN6FP W/30). A model with a QD connector requires a mating cordset; see page 7.

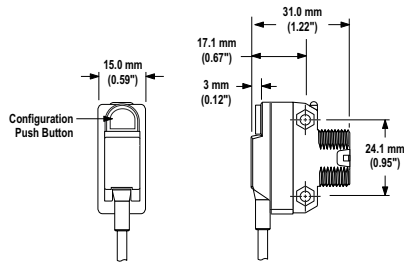
### QD models:

- For 4-pin 150 mm (6") Euro-style pigtail, add suffix "Q5" (e.g., QS18EN6FPQ5).
- For 4-pin 150 mm (6") Pico-style pigtail, add suffix "Q" (e.g., QS18EN6FPQ).
- For 4-pin Integral Euro-style QD, add suffix "Q8" (e.g., QS18EN6FPQ8).
- For 4-pin Integral Pico-style QD, add suffix "Q7" (e.g., QS18EN6FPQ7).

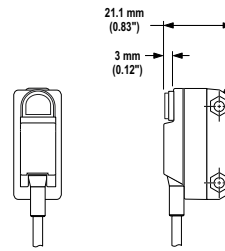
# WORLD-BEAM® QS18E Series

## Dimensions

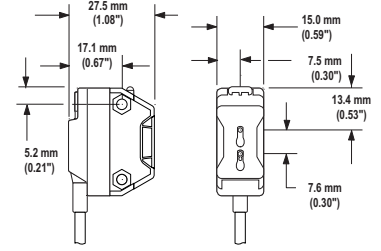
Model suffix: LP, D, CV15, CV45, DV



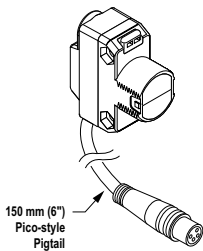
Model suffix: DB, W



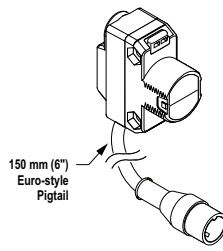
Model suffix: FP



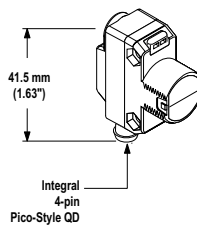
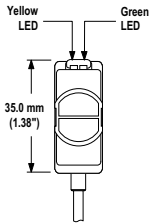
Model suffix: Q  
(e.g., QS18EN6LPQ)



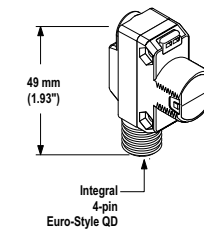
Model suffix: Q5  
(e.g., QS18EN6LPQ5)



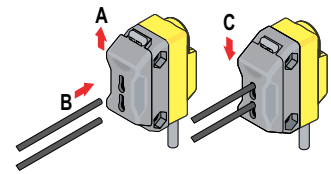
Model suffix: Q7  
(e.g., QS18EN6LPQ7)



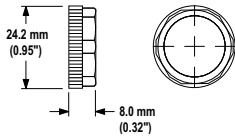
Model suffix: Q8  
(e.g., QS18EN6LPQ8)



Fiber Mounting



M18 x 1 Jam Nut



### Packing List

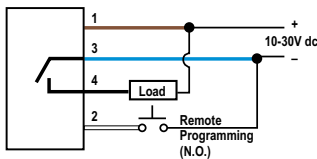
Sensor  
M18 jam nut (some models)  
M3 hardware packet  
Data sheet, P/N 136564

### M3 Hardware Packet Contents:

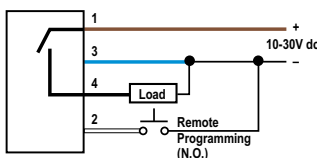
2 – M3 x 0.5 x 20 mm SS Screw  
2 – M3 x 0.5 SS-Hex Nut  
2 – M3 SS Washer

## Hookups

NPN (Sinking) Output Models



PNP (Sourcing) Output Models



Key  
1 = Brown  
2 = White  
3 = Blue  
4 = Black

Cabled hookups only are shown.  
QD hookups are functionally identical.

## Accessory Quick-Disconnect (QD) Cordsets

Style	Model	Length	Dimensions	Pinout
4-pin Euro-style straight	<b>MQDC-406</b> <b>MQDC-415</b> <b>MQDC-430</b>	2 m (6.5') 5 m (15') 9 m (30')	44 mm max. 15 mm M12 x 1	
4-pin Euro-style right-angle	<b>MQDC-406RA</b> <b>MQDC-415RA</b> <b>MQDC-430RA</b>	2 m (6.5') 5 m (15') 9 m (30')	38 mm max. 15 mm M12 x 1	1 = Brown 2 = White 3 = Blue 4 = Black
4-pin Pico-style straight	<b>PKG4-2</b>	2 m (6.5')	34.7 mm 9.6 mm M8 x 1	
4-pin Pico-style right-angle	<b>PKW4-2</b>	2 m (6.5')	23.5 mm 16.5 mm 9.6 mm M8 x 1	1 = Brown 2 = White 3 = Blue 4 = Black

# WORLD-BEAM® QS18E Series

## Specifications

### Supply Voltage and Current

10 to 30V dc (10% max. ripple) at less than 35 mA, exclusive of load  
10 to 24V dc at > 55° C

### Supply Protection Circuitry

Protected against reverse polarity and transient voltages

### Output Configuration

Current sourcing (PNP) or current sinking (NPN), depending on model.  
Light- or dark-operate selectable (see page 5).  
Selectable 30 ms output OFF-delay (see page 5).

### Output Rating

100 mA max.

**OFF-state leakage current:** less than 50µA @ 30V dc

**ON-state saturation voltage:** less than 1.5V (1.7V for 30' cable models)

### Output Protection Circuitry

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

### Output Response Time

600 µs ON/OFF

NOTE: Momentary delay on power-up; output does not conduct during this time.

### Repeatability

75 µs

### Construction

ABS housing, PMMA lens

### Environmental Rating

Meets NEMA 6; IEC IP67

### Connections

PVC-jacketed 4-conductor 2 m (6.5') or 9 m (30') unterminated cable, or 4-pin Euro-style or 4-pin Pico-style quick-disconnect (QD), either integral or 150 mm (6") pigtail, are available. QD cordsets are ordered separately (page 7).

### Operating Conditions

**Temperature:** -20° to +70°C (-4° to +158°F)

**Max. rel. humidity:** 90% at 50°C (non-condensing)

### Application Notes

- If the push button does not appear to be responsive, perform the push button enable procedure (page 2).
- To maintain backwards compatibility with earlier models, 3 remote line pulses or a push button hold followed by 3 push button clicks will perform a Dark SET.

Certifications   