

# QS18 Series

Clear Object Detection Sensor



## Coaxial Clear Object Detection

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QS18  
Clear Object  
Detection  
Sensor

# Fast. Reliable. Easy-to-Use.

QS18 coaxial clear object detection sensor



IP67 rated,  
ABS Housing

LED status indicators

18 mm threads  
or side mount for  
easy installation

LED and  
Coaxial Lens

Multiple connection  
options available



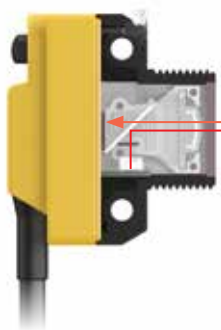
Response speed of **400 µs ON/OFF**



**Coaxial optics** and small spot size for applications where space is limited



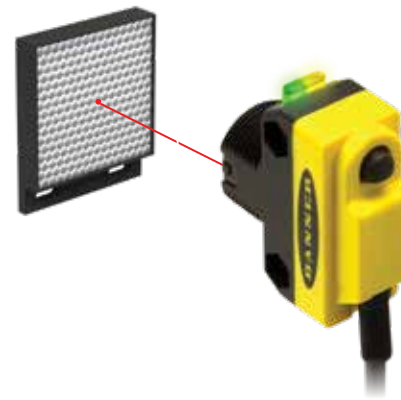
Banner's new **ClearTracking** algorithm provides reliable operation by compensating for dust build-up and ambient temperature changes



## Coaxial Optics



- Detects clear and mirror-like surfaces
- Operates at very short distances from the reflector
- Enables very precise leading edge detection



## Simple Pushbutton Teach

1. Align the sensor with the reflector
2. Push and hold the button for 2 seconds
3. Begin inspection

# Applications



## Accurate Tracking of Clear PET Bottles

### Application Challenge

Identifying accumulations and gaps on the line is essential to ensuring a steady flow of bottles. Many commonly used sensing technologies cannot consistently detect clear bottles at high speeds.

### Solution

The QS18E features a polarized coaxial optical design to ensure reliable detection of clear targets and has a fast 400 microsecond response time. The **ClearTracking** algorithm automatically compensates for the effects of dust and ambient temperature changes.

## Three User-Selectable Thresholds

Optimize the sensor's performance to detect small changes in the amount of light received

8%



Glass



Wrapping Film

16%



PET Bottles



IV Bags



Glass Vials

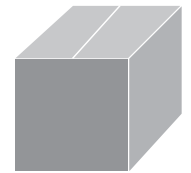


Glass Bottles

32%



Colored Glass Bottles



Boxes



QS18  
Clear Object  
Detection  
Sensor

Order  
Now



Family*	Output	Power	Sensing Mode	Connector
<b>QS18E</b>	<b>P</b>	<b>6</b>	<b>XLPC</b>	<b>Q5</b>
	N = NPN P = PNP	6 = DC Power	XLPC = Polar Retro with coaxial optics	Blank = 2 m Integral Cable Q = M8 4-pin Pico Pigtail QD Q5 = M12 4-pin Euro Pigtail QD Q7 = M8 4-pin Pico QD Q8 = M12 4-pin Euro QD

\* All models require a reflector

NOTE: Potentiometer models are also available.  
Contact our factory for additional information.

QD models require mating cordset

<b>Power</b>	10 to 30 V dc	<b>Construction</b>	Housing: ABS Lens: PMMA
<b>Range</b>	depends on the reflector	<b>Environmental Rating</b>	IEC IP67
<b>Output Response</b>	400 µs ON/OFF	<b>Repeatability</b>	100 µs
<b>Operating Conditions</b>	-4 °F to +158 °F (-20 °C to +70 °C)	<b>Certifications</b>	

## Accessories

### Brackets



**SMBQ4XFA**  
Includes 3/8" bolt for mounting

**SMBQ4XFAM10**  
Includes 10 mm bolt for mounting

**SMBQ4XFAM12**  
Clamps directly onto industry standard bracket systems of 1/2" or 12 mm rods

SMB18A

### Reflectors

Size (mm)	Range (m)	Model
92 x 92	3.0	BRT-92X92C
51 x 51	2.2	BRT-51X51BM
60 x 40	2.2	BRT-60X40C
50 x 50	2.2	BRT-2X2LVC
60 x 40	1.9	BRT-60X40C-PS
40 x 19	1.3	BRT-40X19A
75 x 75	0.5	BRT-THG-3X3

### Cordsets

Type	Length	Model	Type	Length	Model
4-Pin Threaded M12/Euro-Style	2 m (6 ft)	MQDC-406	4-Pin Threaded M8/Pico-Style	2 m (6 ft)	PKG4M-2
	5 m (15 ft)	MQDC-415		5 m (15 ft)	PKG4M-5
	9 m (30 ft)	MQDC-430		9 m (30 ft)	PKG4M-9
	15 m (50 ft)	MQDC-450			

For right-angle models add RA to the model number. Example: MQDC-406RA

For right-angle models change G to W in the model number. Example: PKW4M-2



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