QS18 Series
Clear Object Detection Sensor

Coaxial Clear Object Detection

BANNER®

QS18
Clear Object Detection Sensor

Fast. Realiable. 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
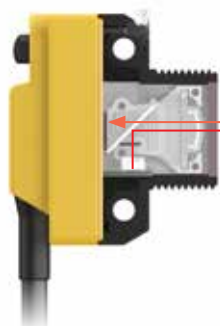
LED and
Coaxial Lens

Multiple connection
options available

Response speed of **400 µs ON/OFF**

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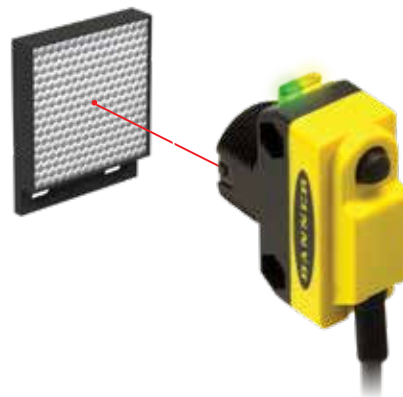where space is limited

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
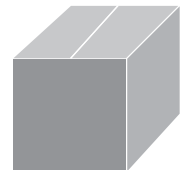
16%

PET Bottles   IV Bags   Glass Vials   Glass Bottles

32%

Colored Glass Bottles   Boxes

BANNER®

QS18
Clear Object Detection Sensor

Family*	Output	Power	Sensing Mode	Connector
QS18E	P	6	XLPC	Q5

Output
N = NPN
P = PNP

* All models require a reflector

Power
6 = DC Power

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

Sensing Mode
XLPC = Polar Retro with coaxial optics

Connector
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

QD models require mating cordset

15 mm
31.1 mm
34.5 mm

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

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

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

Type	Length	Model
4-Pin Threaded M8/Pico-Style	2 m (6 ft)	PKG4M-2
	5 m (15 ft)	PKG4M-5
	9 m (30 ft)	PKG4M-9

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

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