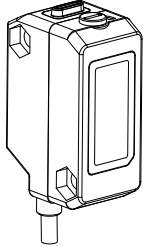


WORLD-BEAM® QS18AFF200 Sensors with Foreground Suppression



Datasheet

Compact sensors featuring extended range and foreground suppression mode



- Exceptional optical performance; up to 200 mm sensing range in compact QS18 housing
- Foreground suppression models for reliable detection when a fixed background is present and the object color or shape varies
- Objects detected to the face of the sensor (no dead zone)
- Simple multi-turn screw adjustment of cutoff distance
- Enhanced immunity to fluorescent lights
- Crosstalk immunity algorithm allows two sensors to be used in close proximity
- Visible red emitter



WARNING: Not To Be Used for Personnel Protection

Never use this device as a sensing device for personnel **protection**. Doing so could lead to serious injury or death. This device does not include the self-checking redundant circuitry necessary to allow its use in personnel safety applications. A sensor failure or malfunction can cause either an energized or de-energized sensor output condition.

Models

Long Range Models			
Models ¹	Supply Voltage	Sensing Range	Output Type
QS18VN6AFF200	10 to 30 V dc	Adjustable Cutoff: 30 to 200 mm	NPN
QS18VP6AFF200			PNP
QS18AB6AFF200			Bipolar (1 NPN & 1 PNP)

Overview

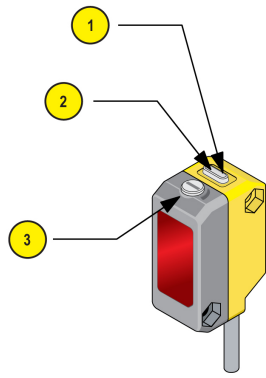
WORLD-BEAM® QS18 Adjustable-Field Sensors with Foreground Suppression detect the light reflected from the background. The output changes when the light from the background is blocked.

In general, if the background is fixed and the color or shape of the objects in the foreground vary, foreground suppression mode will provide reliable detection. A foreground suppression sensor uses the background in the same way a retroreflective sensor would use a reflector. The sensor output will change whenever an object passes between itself and the background.

¹ Only standard 2 m (6.5 ft) cable models are listed.

- For 9 m (30 ft) cables: add suffix "W/30" to the model number (for example, QS18VN6AFF200 W/30).
- For 150 mm (6 in) pigtail with a 4-pin Pico-style connector, add suffix "Q" to the model number (for example, QS18VN6AFF200Q)
- For 150 mm (6 in) pigtail with a 4-pin Euro-style connector, add suffix "Q5" to the model number (for example, QS18VN6AFF200Q5)





1	Green: Power Indicator
2	Yellow: Light Sensed Indicator (Flashes for Marginal Conditions)
3	Cutoff Point Adjustment Screw

Figure 1. Sensor features

Sensor Orientation

To ensure reliable detection, orient the sensor as shown in relation to the target to be detected.

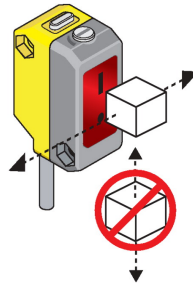
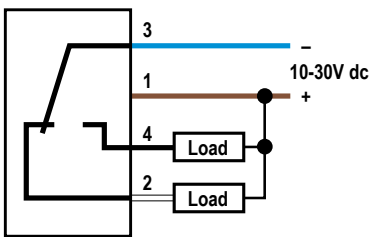


Figure 2. Optimal Orientation of Target to Sensor

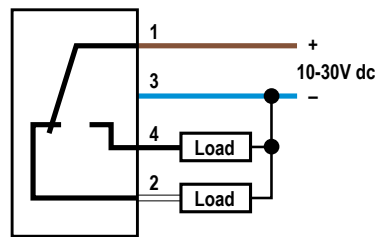
Wiring Diagrams

Cabled wiring diagrams are shown. Quick disconnect (QD) wiring diagrams are functionally identical.

NPN (Sinking) Outputs



PNP (Sourcing) Outputs



Wiring Key

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

Bipolar Outputs

