

## Datasheet

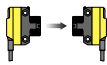
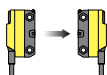


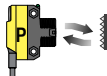
Miniature self-contained photoelectric sensors in universal housing

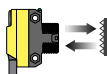
- Easily fits (or retrofits) almost any mounting situation
- Exceptional optical performance, comparable to larger "MINI-style" or barrel sensors
- 10 to 30 V dc operation, with complementary (SPDT) NPN or PNP outputs, depending on model
- Bright LED operating status indicators are visible from 360°
- Rugged sealed housing, protected circuitry
- Models available with or without 18 mm threaded "nose"
- Less than 1 millisecond output response for excellent sensing repeatability
- Choose 2 m (6.5 ft) or 9 m (30 ft) cable or 150 mm (6 inch) Pico-style pigtail QD

To order the 9 m (30 ft) cable model, add suffix "W/30" to the cabled model number.

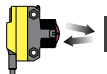
QD Models. For 4-pin integral Euro-style QD, add suffix "Q8" (e.g., QS186EQ8). For 4-pin integral Pico-style QD, add suffix "Q7" (e.g., QS186EQ7). For 4-pin 150 mm (6") Euro-style pigtail, add suffix "Q5" (e.g., QS186EQ5). For 4-pin 150 mm (6") Pico-style pigtail, add suffix "Q" (e.g., QS186EQ).

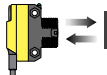
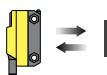
| Opposed Mode                                                                                                            | Model                        | Range        | Output |
|-------------------------------------------------------------------------------------------------------------------------|------------------------------|--------------|--------|
| Effective beam: 13 mm (0.5 inch)<br> | QS186EV (624 nm Visible Red) | 20 m (66 ft) | N/A    |
|                                                                                                                         | QS186E (940 nm Infrared)     |              | N/A    |
|                                                                                                                         | QS18VN6R                     |              | NPN    |
|                                                                                                                         | QS18VP6R                     |              | PNP    |
| Effective beam: 13 mm (0.5 inch)<br> | QS186EB (940 nm Infrared)    | 3 m (10 ft)  | N/A    |
|                                                                                                                         | QS18VN6RB                    |              | NPN    |
|                                                                                                                         | QS18VP6RB                    |              | PNP    |

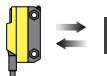
| Polarized Retroreflective Mode                                                                            | Model     | Range         | Output |
|-----------------------------------------------------------------------------------------------------------|-----------|---------------|--------|
| 630 nm Visible Red<br> | QS18VN6LP | 3.5 m (12 ft) | NPN    |
|                                                                                                           | QS18VP6LP |               | PNP    |

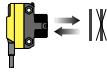
| Retroreflective Mode                                                                                      | Model     | Range         | Output |
|-----------------------------------------------------------------------------------------------------------|-----------|---------------|--------|
| 628 nm Visible Red<br> | QS18VN6LV | 6.5 m (21 ft) | NPN    |
|                                                                                                           | QS18VP6LV |               | PNP    |

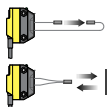


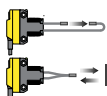
| Convergent Mode                                                                                         | Model       | Range              | Output |
|---------------------------------------------------------------------------------------------------------|-------------|--------------------|--------|
| 630 nm Visible Red<br> | QS18VN6CV15 | 16 mm (0.63 ft)    | NPN    |
|                                                                                                         | QS18VP6CV15 |                    | PNP    |
|                                                                                                         | QS18VN6CV45 | 43 mm (1.7 inches) | NPN    |
|                                                                                                         | QS18VP6CV45 |                    | PNP    |

| Diffuse Mode                                                                                         | Model                     | Range              | Output |
|------------------------------------------------------------------------------------------------------|---------------------------|--------------------|--------|
| 940 nm Infrared<br> | QS18VN6D                  | 450 mm (18 inches) | NPN    |
|                                                                                                      | QS18VP6D                  |                    | PNP    |
|                     | QS18VN6DB (Diffuse, wide) |                    | NPN    |
|                                                                                                      | QS18VP6DB (Diffuse, wide) |                    | PNP    |

| Divergent Mode                                                                                       | Model    | Range             | Output |
|------------------------------------------------------------------------------------------------------|----------|-------------------|--------|
| 940 nm Infrared<br> | QS18VN6W | 100 mm (4 inches) | NPN    |
|                                                                                                      | QS18VP6W |                   | PNP    |

| Fixed Field Mode                                                                                          | Model        | Range             | Output |
|-----------------------------------------------------------------------------------------------------------|--------------|-------------------|--------|
| 660 nm Visible Red<br> | QS18VN6FF50  | 50 mm (2 inches)  | NPN    |
|                                                                                                           | QS18VP6FF50  |                   | PNP    |
|                                                                                                           | QS18VN6FF100 | 100 mm (4 inches) | NPN    |
|                                                                                                           | QS18VP6FF100 |                   | PNP    |

| Plastic Fiber Optic Mode                                                                                  | Model     | Range                                              | Output |
|-----------------------------------------------------------------------------------------------------------|-----------|----------------------------------------------------|--------|
| 660 nm Visible Red<br> | QS18VN6FP | Range varies by sensing mode and fiber optics used | NPN    |
|                                                                                                           | QS18VP6FP |                                                    | PNP    |

| Glass Fiber Optic Mode                                                                                 | Model    | Range                                              | Output |
|--------------------------------------------------------------------------------------------------------|----------|----------------------------------------------------|--------|
| 940 nm Infrared<br> | QS18VN6F | Range varies by sensing mode and fiber optics used | NPN    |
|                                                                                                        | QS18VP6F |                                                    | PNP    |