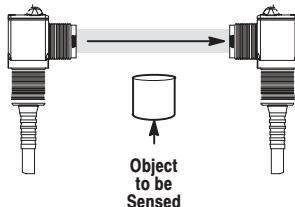


**RightSight™ Transmitted Beam**

Standard On/Off

**Description**

For most applications, transmitted beam sensing provides the most reliable operation. Transmitted beam sensing generally provides the highest operation margin, reducing the need for cleaning of sensor lenses or reflective targets. Transmitted beam sensing is also typically the best choice for sensing in difficult environments where dust, mist, and other contaminants are present.

RightSight transmitted beam sensors are available in both short and long ranges, 4m (13ft) and 20m (66ft), respectively. The short-range version is ideally suited for installation in high noise environments where the sensor will be mounted close to motor starters, variable speed drives and other high frequency devices. The long-range version should only be used when the sensing distance exceeds 4m (13ft).

Easily mounted slit apertures are available for use when sensing smaller objects at reduced ranges.

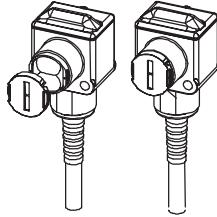
The beam pattern for a transmitted beam sensor represents the boundary within which the receiver responds to the emitter, assuming there is no angular misalignment. Angular misalignment between the emitter and receiver will decrease the size of the sensing area. Margins shown are achieved when sensors are used in matched operating voltage pairs, i.e., AC/DC emitter with AC/DC receiver or DC emitter with DC receiver.

**Specifications**

|               |                |
|---------------|----------------|
| Field of View | 7°             |
| Emitter LED   | Infrared 880nm |

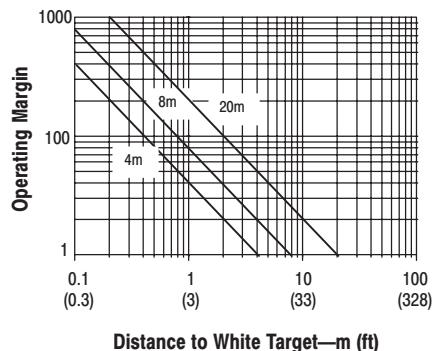
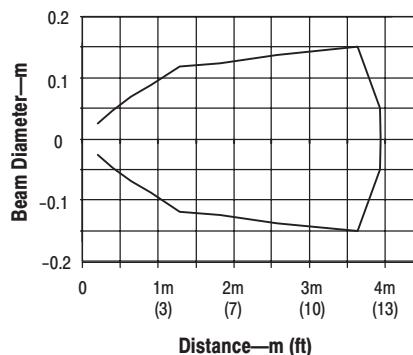
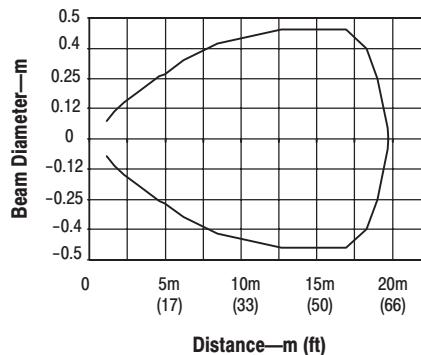
**QD Cordsets and Accessories**

| Description                              | Catalog Number |
|--|----------------|
| DC Micro QD Cordset, Straight, 4-pin, 2m | 889D-F4AC-2    |
| AC Micro QD Cordset, Straight, 4-pin, 2m | 889R-F4AEA-2   |
| Pico QD Cordset, Straight, 4-pin, 2m     | 889P-F4AB-2    |
| Apertures, 1mm slot                      | 60-2660        |
| Apertures, 2mm slot                      | 60-2661        |
| Apertures, 4mm slot                      | 60-2662        |
| Aperture set                             | 60-2659        |
| Mounting Bracket Swivel/Tilt             | 60-2649        |

**Apertures**

Note: 18mm nut must be installed prior to installing aperture if threads on optics snout are to be used.

1mm Qty. 20 #60-2660  
2mm Qty. 20 #60-2661  
4mm Qty. 20 #60-2662  
Aperture Set (4 each) #60-2659

**Typical Response Curve****Beam Pattern****4m Receiver Models****20m Receiver Models****Product Selection for Light Sources**

| Operating Voltage Supply Current | Max Sensing Distance | Connection Type   | Catalog Number |
|----------------------------------|----------------------|-------------------|----------------|
| 10.8-30V DC<br>25mA              | Depends on Receiver  | 2m 300V cable     | 42EF-E1EZB-A2  |
|                                  |                      | 4-pin DC micro QD | 42EF-E1EZB-F4  |
|                                  |                      | 4-pin pico QD     | 42EF-E1EZB-Y4  |
| 21.6-264V AC/DC<br>15mA          |                      | 2m 300V cable     | 42EF-E1QZB-A2  |
|                                  |                      | 4-pin AC micro QD | 42EF-E1QZB-G4  |

**Product Selection for Receivers**

| Operating Voltage/<br>Current | Operating<br>Distance | Output<br>Energized                     | Output Type/<br>Capacity<br>Response Time | Max<br>Leakage<br>Current | Connection Type   | Catalog Number |  |
|-------------------------------|-----------------------|---|---|---------------------------|-------------------|----------------|--|
| 10.8-30V DC<br>25mA           | 20m (65.6ft)          | Dark Operate                            | NPN and PNP<br>100mA<br>4ms               | 0.1mA                     | 2m 300V cable     | 42EF-R9KBB-A2  |  |
|                               |                       | Light Operate                           |   |                           | 4-pin DC micro QD | 42EF-R9KBB-F4  |  |
|                               | 4m (13.1ft)           | Dark Operate                            |   |                           | 2m 300V cable     | 42EF-R9JBB-A2  |  |
|                               |                       | Light Operate                           |   |                           | 4-pin DC micro QD | 42EF-R9JBB-F4  |  |
|                               | 8m (26.25ft)          | Dark Operate                            |   |                           | 2m 300V cable     | 42EF-R9KBBV-A2 |  |
|                               |                       | Light Operate                           |   |                           | 4-pin DC micro QD | 42EF-R9KBBV-F4 |  |
|                               | 4m (13ft)             | Complementary<br>Light and Dark Operate | NPN/100mA<br>4ms                          |                           | 2m 300V cable     | 42EF-R9KBBT-A2 |  |
|                               |                       |   | PNP/100mA<br>4ms                          |                           | 4-pin DC micro QD | 42EF-R9KBBT-F4 |  |
|                               | 8m (26.25ft)          |   | NPN/100mA<br>4ms                          |                           | 2m 300V cable     | 42EF-R9JBBT-A2 |  |
|                               |                       |   | PNP/100mA<br>4ms                          |                           | 4-pin DC micro QD | 42EF-R9JBBT-F4 |  |
|                               | 20m (65.6ft)          |   | NPN/100mA<br>4ms                          |                           | 2m 300V cable     | 42EF-R9MNBV-A2 |  |
|                               |                       |   | PNP/100mA<br>4ms                          |                           | 4-pin DC micro QD | 42EF-R9MNBV-F4 |  |
| 21.6-132V AC/DC<br>15mA       | 4m (13ft)             | Dark Operate                            | P-MOSFET/100mA<br>8.3ms<br>16.6ms         | 0.01mA                    | 4-pin DC pico QD  | 42EF-R9MNB-Y4  |  |
|                               |                       | Light Operate                           |   |                           | 2m 300V cable     | 42EF-R9MPBV-A2 |  |
|                               | 8m (26.25ft)          | Dark Operate                            |   |                           | 4-pin DC micro QD | 42EF-R9MPBV-F4 |  |
|                               |                       | Light Operate                           |   |                           | 4-pin DC pico QD  | 42EF-R9MPBV-Y4 |  |
|                               | 20m (65.6ft)          | Dark Operate                            | N-MOSFET/100mA<br>16.6ms                  | 0.4mA                     | 2m 300V cable     | 42EF-R9SCBV-A2 |  |
|                               |                       | Light Operate                           |   |                           | 4-pin AC micro QD | 42EF-R9SCBV-G4 |  |
| 21.6-264V AC/DC<br>15mA       | 4m (13ft)             | Dark Operate                            |   |                           | 2m 300V cable     | 42EF-R9RCBV-A2 |  |
|                               |                       | Light Operate                           |   |                           | 4-pin AC micro QD | 42EF-R9RCBV-G4 |  |
|                               | 8m (26.25ft)          | Dark Operate                            | N-MOSFET/100mA<br>16.6ms                  | 0.4mA                     | 2m 300V cable     | 42EF-R9SCBT-A2 |  |
|                               |                       | Light Operate                           |   |                           | 4-pin AC micro QD | 42EF-R9SCBT-G4 |  |
|                               | 20m (65.6ft)          | Dark Operate                            |   |                           | 2m 300V cable     | 42EF-R9RCBT-A2 |  |
|                               |                       | Light Operate                           |   |                           | 4-pin AC micro QD | 42EF-R9RCBT-G4 |  |

**Note:** For maximum performance, transmitted beam sources should be combined with matched operating voltage receivers, i.e., AC/DC source with AC/DC receiver or DC source with DC receiver. Reduced operating distance and margin will result from mixed operating voltage pairs.