



## Description

MiniSight photoelectric sensors offer high performance sensing in a compact package. Available in both DC and universal voltage two-wire AC/DC versions, MiniSight is available in a wide range of sensing modes to provide multiple application solutions in a single housing.

These sensors are interchangeable with many other standard 18mm threaded barrel photoelectric sensors. Suitable for general purpose applications, these sensors can also be used where rugged performance is required. MiniSight sensors will withstand 1200 psi (8270kPa) high pressure, 60°C (140°F) high temperature washdowns, making them ideal for use in food and beverage packaging and material handling applications.

Three indicators display power, output, and operating margin status. **Note: The power indicator shuts off when the output indicator turns on.** The margin indicator verifies a minimum 2.5X operating margin and flashes if an output is shorted. A clutch-protected five turn sensitivity control allows sensitivity adjustment. All are located under a clear, captive cover that does not require tools for access.

MiniSight sensors are available in three versions:

- 10.8–30V DC standard versions feature response times of 1ms (16ms for transmitted beam), dual NPN/PNP DC outputs and switch selectable light or dark operation.
- For high speed applications, 300µs response time versions are also available for 10.8–30V DC operation.
- Universal voltage two wire 21.6–250V AC/DC sensors have short-circuit protection across the entire voltage range.

## General Specifications

Output Protection	Short Circuit, Reverse Polarity, False Pulse
Housing Materials	Noryl® 190X
Lens Material	Acrylic
Rear Cover Material	Radel R5000
Cable Construction	2m (6.5ft) 300V PVC insulated 22AWG 4-conductor cable
QD Construction	Micro style male receptacle on 152mm (6in) pigtail, 4-pin, 1 keyway for DC sensors, 3-pin 2 keyway for AC/DC sensors
Supplied Accessories	One 18mm mounting nut
Operating Environment	NEMA 4X, 6P, IP67; 1200 psi (8270kPa) washdown
Vibration	10–55Hz, 1mm amplitude, Meets or exceeds IEC 60947–5–2
Shock	30G, Meets or exceeds IEC 60947–5–2
Ambient Temperature	–20°C to +70°C (–4°F to +158°F)
Relative Humidity	95%
Approvals	UL, CSA, and CE marked for all applicable directives

## Features

- Compact rectangular size with standard 18mm mounting nose
- Visible indicators for power, output, and 2.5X margin/short circuit
- Short circuit protection in all versions, including two-wire universal voltage versions
- False pulse protection
- Switch selectable light or dark operation
- Access to sensor adjustments through captive cover that does not require tools for access
- Eight sensing modes available
- Rated to withstand high temperature 1200 psi washdowns
- 300µs high speed DC versions
- No tools are required to attach fiber optic cables to either glass or plastic fiber optic sensors

## General Information

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## Sensing Modes

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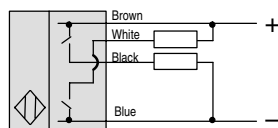
## Accessories

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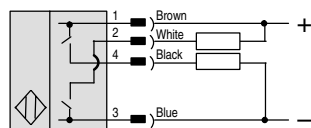
## Wiring Diagrams①②

### 11–30V DC Sensors

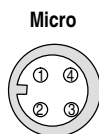
#### NPN/PNP



Cable



Quick-Disconnect

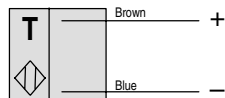


Micro



Pico

#### Transmitted Beam Source



Cable



Quick-Disconnect



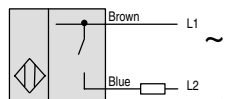
Micro



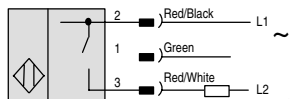
Pico

### 22–250V AC/DC Sensors

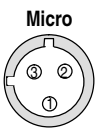
#### AC Wiring



Cable

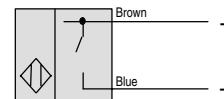


Quick-Disconnect

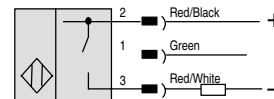


Micro

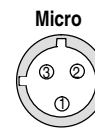
#### DC Wiring



Cable



Quick-Disconnect

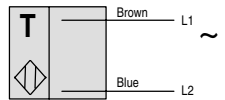


Micro

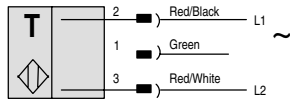
Note: Load can be switched to pin 2 or brown.

#### Transmitted Beam Source

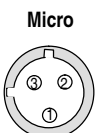
##### AC Wiring



Cable

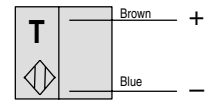


Quick-Disconnect

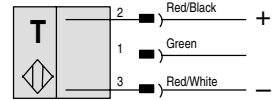


Micro

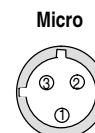
##### DC Wiring



Cable



Quick-Disconnect



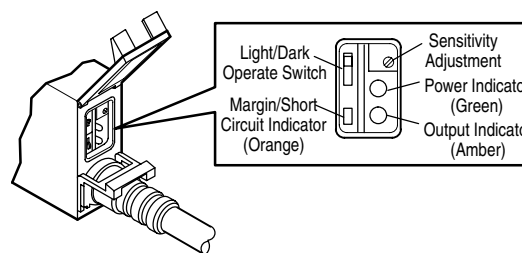
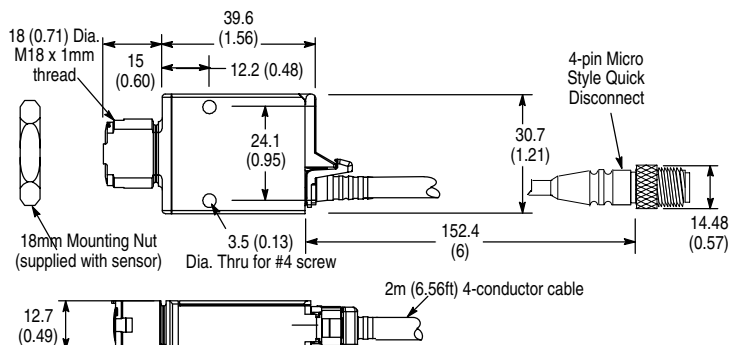
Micro

① For Allen-Bradley programmable controller compatible interface, refer to publication 42–2.0.

② Quick-disconnect wiring codes shown are valid for Allen-Bradley cables only.

## Dimensions—mm (inches)

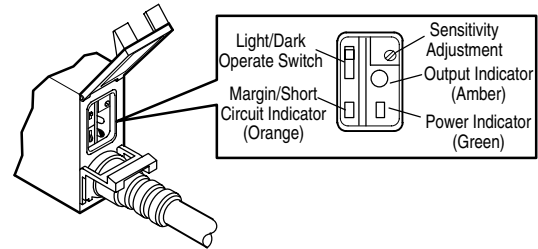
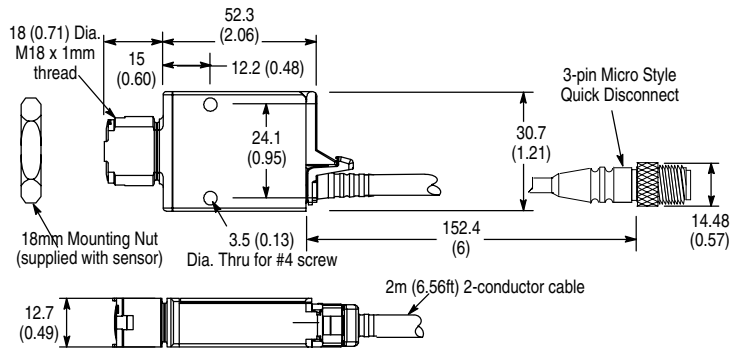
### DC Sensors



NOTE: The power indicator will turn off when the output indicator is on. The catalog number for the Rear Snap Cover is #60–2679.

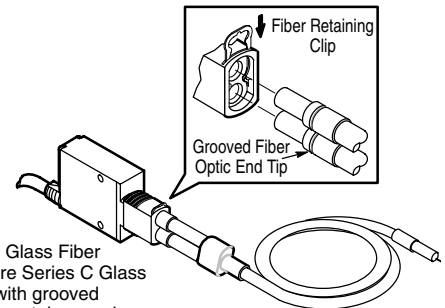
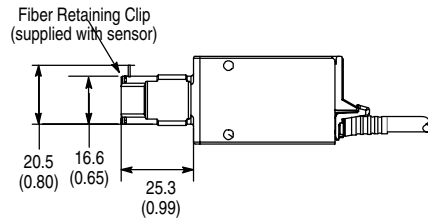
## Dimensions—mm (inches) (continued)

### AC/DC Sensors



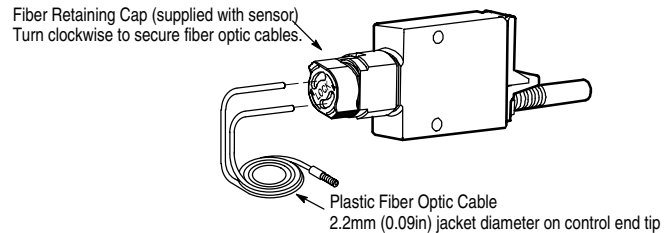
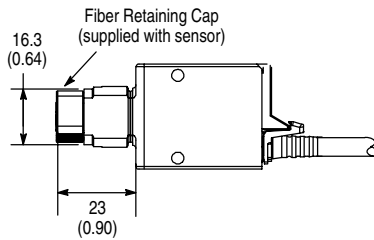
**NOTE:** The power indicator will turn off when the output indicator is on. The catalog number for the Rear Snap Cover is #60-2679.

### Infrared Glass Fiber Optic Sensors



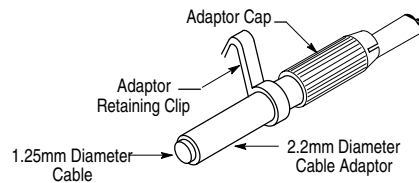
**NOTE:** MiniSight™ Infrared Glass Fiber Optic sensors require Series C Glass Fiber Optic cables with grooved control end tips. The catalog number for the Fiber Retaining Clip is #60-2680.

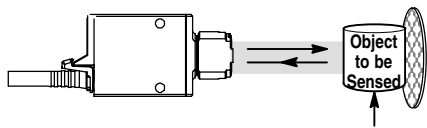
### Visible Red Plastic Fiber Optic Sensors



Special Glass Fiber Optic cables are also available with 2.2mm (0.09in) diameter control end tips.

**NOTE:** Catalog number 61-6731 adaptors are required for smaller fiber optic cables with jacket diameters of 1.25mm (0.05in).





### Description

MiniSight retroreflective sensors are ideal for most material handling applications. The narrow field of view of these sensors enables the detection of relatively small objects when transmitted beam sensing is not practical. The visible red sensing beam assists in installation and alignment of the reflective target. As with all MiniSight sensors, retroreflective versions are switch selectable for light or dark operation.

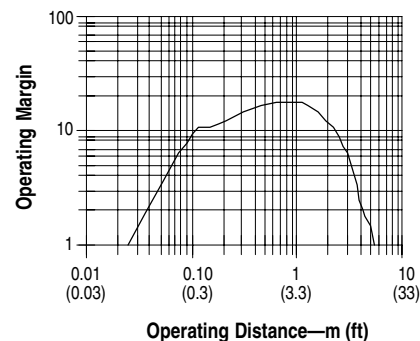
### Specifications

Field of View	1.5°
Emitter LED	Visible Red 660nm

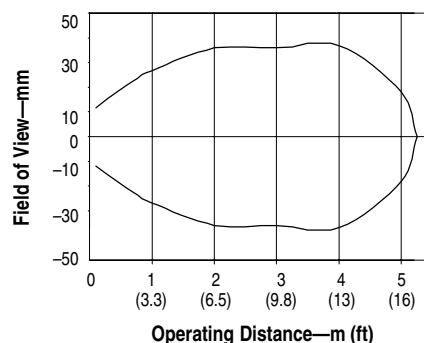
### QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
AC Micro QD Cordset, Straight, 3-pin, 2m	889R-F3AEA-2
Pico QD Cordset, Straight, 4-pin, 2m	889P-F4AB-2
76mm (3in) Diameter with Center Mount Hole	92-39
32mm (1.25in) Diameter with Center Mount Hole	92-47

### Typical Response Curve

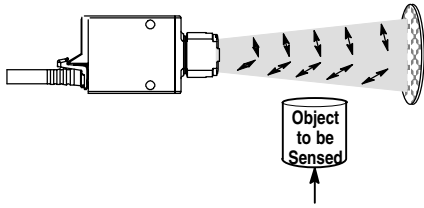


### Beam Pattern



### Selection Guide

Operating Voltage Supply Current	Sensing Distance	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10.8–30V DC 35mA	25mm (0.98in) to 5m (16.4ft)	Light/Dark Selectable	NPN/PNP 100mA 1ms	0.1mA	2m 300V cable	42KL–U2LB–A2
					4-pin DC micro QD	42KL–U2LB–F4
	4-pin pico QD		42KL–U2LB–Y4			
	2m 300V cable		42KL–U2LBQ–A2			
	4-pin DC micro QD		42KL–U2LBQ–F4			
	4-pin pico QD		42KL–U2LBQ–Y4			
21.6–250V AC/DC	25mm (0.98in) to 5m (16.4ft)	Power MOSFET 2 wire 100mA 8.3ms	1.7mA	2m 300V cable	42KL–U2TC–A2	
				3-pin AC micro QD	42KL–U2TC–G3	



### Description

Polarized retroreflective MiniSight sensors can be used to detect most objects, including shiny objects such as bright metals, shrink wrapped products, foils, etc. These sensors are designed to ignore scattered object reflections and require the interruption of light reflected back from the reflector by the object being sensed. These sensors are switch selectable for light or dark operation.

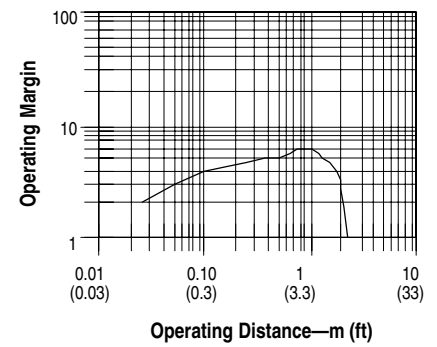
### Specifications

Field of View	1.5°
Emitter LED	Visible Red 660nm

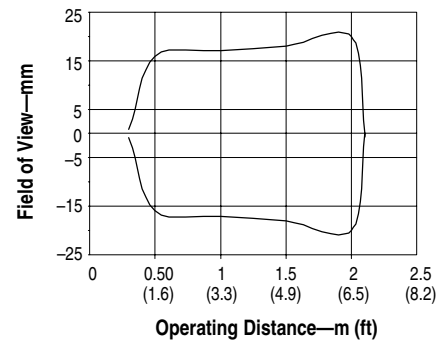
### QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
AC Micro QD Cordset, Straight, 3-pin, 2m	889R-F3AEA-2
Pico QD Cordset, Straight, 4-pin, 2m	889P-F4AB-2
76mm (3in) Diameter with Center Mount Hole	92-39
32mm (1.25in) Diameter	92-47

### Typical Response Curve

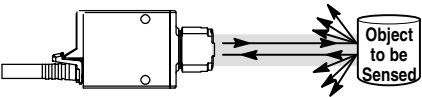


### Beam Pattern



### Selection Guide

Operating Voltage Supply Current	Sensing Distance	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10.8–30V DC 35mA	25mm (0.98in) to 2m (6.6ft)	Light/Dark Selectable	NPN/PNP 100mA 1ms	0.1mA	2m 300V cable	42KL-P2LB-A2
					4-pin DC micro QD	42KL-P2LB-F4
					4-pin pico QD	42KL-P2LB-Y4
10.8–30V DC 35mA	25mm (0.98in) to 1m (3.3ft)	Light/Dark Selectable	NPN/PNP 100mA 300µs	0.1mA	2m 300V cable	42KL-P2LBQ-A2
					4-pin DC micro QD	42KL-P2LBQ-F4
					4-pin pico QD	42KL-P2LBQ-Y4
21.6–250V AC/DC	25mm (0.98in) to 2m (6.6ft)	Light/Dark Selectable	Power MOSFET 2 wire 100mA 8.3ms	1.7mA	2m 300V cable	42KL-P2TC-A2
					3-pin AC micro QD	42KL-P2TC-G3



Description

MiniSight standard diffuse sensors are designed to detect their own emitted light directly reflected by the target object. These sensors are best suited for applications where transmitted beam or retroreflective sensing is not possible. Maximum sensing distances are based on response to a white paper target. Actual operating distances will depend on the relative reflectivity of the target.

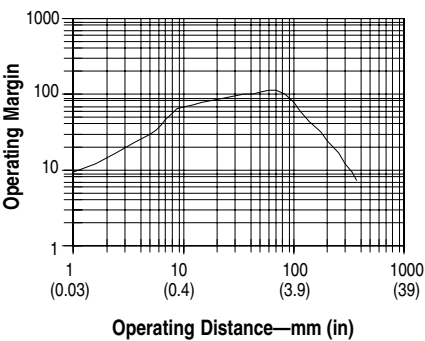
Specifications

Field of View	5°
Emitter LED	Infrared 880nm

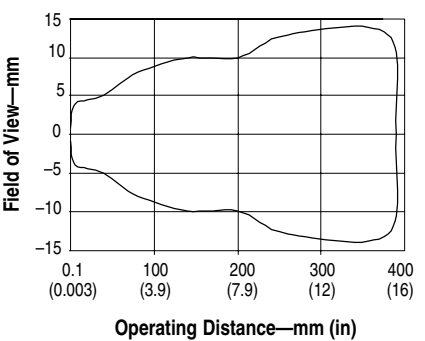
QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
AC Micro QD Cordset, Straight, 3-pin, 2m	889R-F3AEA-2
Pico QD Cordset, Straight, 4-pin, 2m	889P-F4AB-2

Typical Response Curve

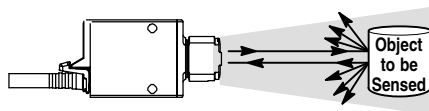


Beam Pattern



Selection Guide

Operating Voltage Supply Current	Sensing Distance	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10.8–30V DC 35mA	1mm to 380mm (15in)	Light/Dark Selectable	NPN/PNP 100mA 1ms	0.1mA	2m 300V cable	42KL–D1LB–A2
					4-pin DC micro QD	42KL–D1LB–F4
	4-pin pico QD		42KL–D1LB–Y4			
	1mm to 190mm (7.5in)		2m 300V cable		42KL–D1LBQ–A2	
			4-pin DC micro QD		42KL–D1LBQ–F4	
			4-pin pico QD		42KL–D1LBQ–Y4	
21.6–250V AC/DC	1mm to 380mm (15in)		Power MOSFET 2 wire 100mA 8.3ms	1.7mA	2m 300V cable	42KL–D1TC–A2
					3-pin AC micro QD	42KL–D1TC–G3



## Description

Wide angle diffuse MiniSight sensors are useful for detecting translucent objects or objects with uneven surface features that cause false outputs with standard diffuse sensors. These sensors are also well suited to detect very small objects at shorter distances.

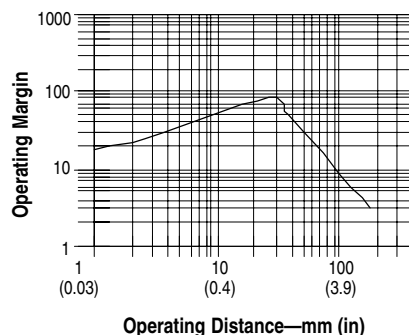
## Specifications

Field of View	18°
Emitter LED	Infrared 880nm

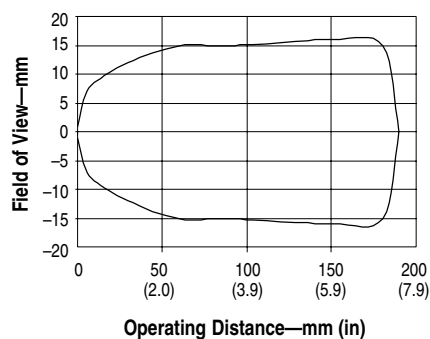
## QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
AC Micro QD Cordset, Straight, 3-pin, 2m	889R-F3AEA-2
Pico QD Cordset, Straight, 4-pin, 2m	889P-F4AB-2

## Typical Response Curve

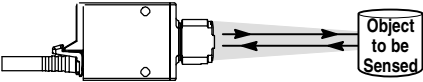


## Beam Pattern



## Selection Guide

Operating Voltage Supply Current	Sensing Distance	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10.8–30V DC 35mA	1mm to 180mm (7.0in)	Light/Dark Selectable	NPN/PNP 100mA 1ms	0.1mA	2m 300V cable	42KL-W1LB-A2
					4-pin DC micro QD	42KL-W1LB-F4
	1mm to 90mm (3.5in)		4-pin pico QD		42KL-W1LB-Y4	
			2m 300V cable		42KL-W1LBQ-A2	
			4-pin DC micro QD		42KL-W1LBQ-F4	
			4-pin pico QD		42KL-W1LBQ-Y4	
21.6–250V AC/DC	1mm to 180mm (7.0in)	Power MOSFET 2 wire 100mA 8.3ms	1.7mA	2m 300V cable	42KL-W1TC-A2	
				3-pin AC micro QD	42KL-W1TC-G3	



Description

MiniSight fixed focus sensors are ideal for sensing very small objects and features, including registration marks. These sensors produce a precise sensing area at a fixed distance from the sensor's optics. Available in visible red and visible green versions, MiniSight fixed focus diffuse sensors are useful in many high contrast, color recognition applications.

Specifications

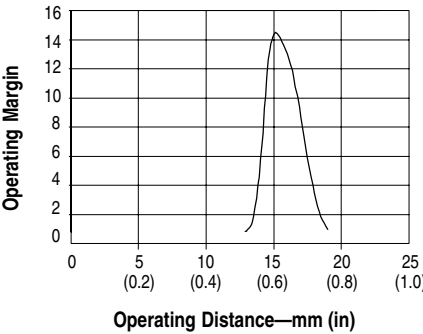
Emitter LED	Refer to selection guide
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QD Cordsets and Accessories

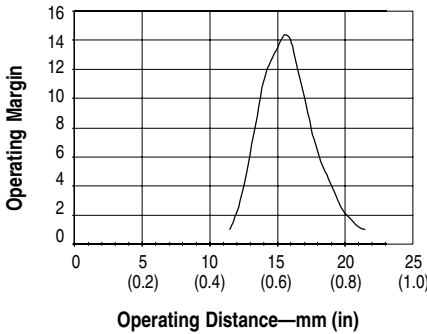
Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
AC Micro QD Cordset, Straight, 3-pin, 2m	889R-F3AEA-2
Pico QD Cordset, Straight, 4-pin, 2m	889P-F4AB-2

Typical Response Curve

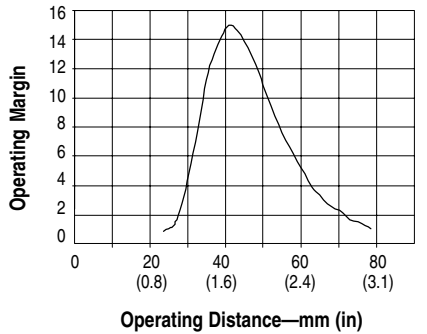
16mm Red LED



16mm Green LED

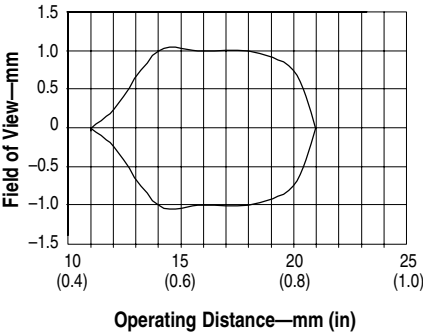


43mm Red LED

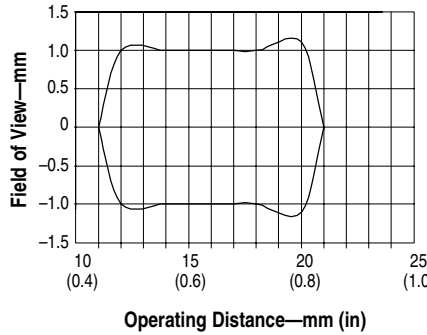


Beam Pattern

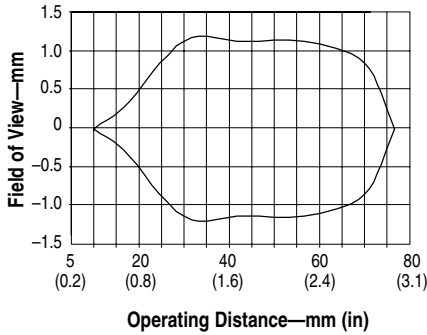
16mm Red LED



16mm Green LED



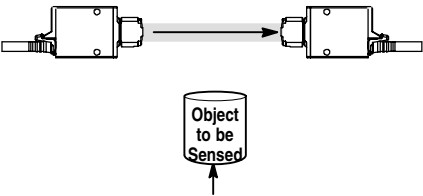
43mm Red LED





## Selection Guide

Operating Voltage Supply Current	Sensing Distance	Emitter LED	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10.8–30V DC 35mA	16mm (0.63in)	Visible Red 660nm	Light/Dark Selectable	NPN/PNP 100mA 1ms	0.1mA	2m 300V cable	42KL–F2LBS–A2
						4-pin DC micro QD	42KL–F2LBS–F4
						4-pin pico QD	42KL–F2LBS–Y4
				NPN/PNP 100mA 300μs		2m 300V cable	42KL–F2LBSQ–A2
						4-pin DC micro QD	42KL–F2LBSQ–F4
						4-pin pico QD	42KL–F2LBSQ–Y4
21.6–250V AC/DC	16mm (0.63in)			Power MOSFET 2 wire 100mA 8.3ms	1.7mA	2m 300V cable	42KL–F2TCS–A2
						3-pin AC micro QD	42KL–F2TCS–G3
10.8–30V DC 35mA	43mm (1.7in)	Visible Green 525nm		NPN/PNP 100mA 1ms	0.1mA	2m 300V cable	42KL–F3LBS–A2
						4-pin DC micro QD	42KL–F3LBS–F4
						4-pin pico QD	42KL–F3LBS–Y4
				NPN/PNP 100mA 300μs		2m 300V cable	42KL–F3LBSQ–A2
			4-pin DC micro QD			42KL–F3LBSQ–F4	
			4-pin pico QD			42KL–F3LBSQ–Y4	
		NPN/PNP 100mA 1ms	2m 300V cable	42KL–F2LBL–A2			
			4-pin DC micro QD	42KL–F2LBL–F4			
			4-pin pico QD	42KL–F2LBL–Y4			
			NPN/PNP 100mA 300μs	2m 300V cable		42KL–F2LBLQ–A2	
				4-pin DC micro QD		42KL–F2LBLQ–F4	
				4-pin pico QD		42KL–F2LBLQ–Y4	
21.6–250V AC/DC			Power MOSFET 2 wire 100mA 8.3ms	1.7mA	2m 300V cable	42KL–F2TCL–A2	
					3-pin AC micro QD	42KL–F2TCL–G3	



Description

For most applications, transmitted beam sensing provides the most reliable object detection. These sensors are also well suited for difficult environments, where dust and other contaminants may be present. The high operating margin of MiniSight transmitted beam sensors reduces the need for frequent cleaning and maintenance during operation.

For detection of small objects, apertures can be purchased separately in 1mm, 2mm, and 4mm (0.04in, 0.08in, and 0.16in) slot sizes. Apertures should be placed on both the source and receiver units for best results.

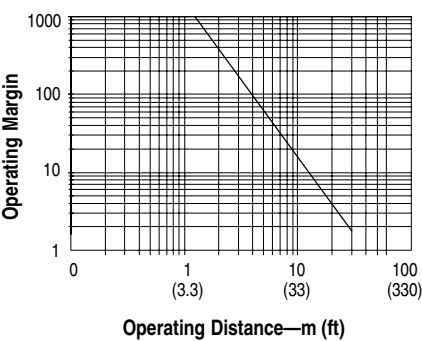
Specifications

Field of View	7°
Emitter LED	Infrared 880nm

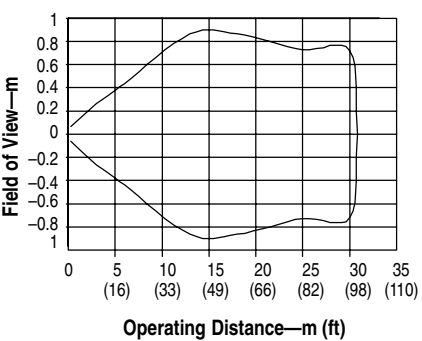
QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
AC Micro QD Cordset, Straight, 3-pin, 2m	889R-F3AEA-2
Pico QD Cordset, Straight, 4-pin, 2m	889P-F4AB-2

Typical Response Curve



Beam Pattern



Maximum Operating Distance with Apertures

Aperture Slot Size	Catalog Number	Maximum Range	
		Standard Speed	High Speed
1mm	60-2673	2.1m (6.9ft)	0.7m (2.3ft)
2mm	60-2674	10.5m (34.5ft)	3.5m (11.4ft)
4mm	60-2675	18.6m (61.0ft)	6.1m (20.1ft)

## Selection Guide for Standard Speed 16ms Versions

### Light Sources

Operating Voltage Supply Current	Sensing Distance	Connection Type	Catalog Number
10.8–30V DC 35mA	1m to 30m (98ft)	2m 300V cable	42KL-E1EZB-A2
		4-pin DC micro QD	42KL-E1EZB-F4
		4-pin pico QD	42KL-E1EZB-Y4
21.6–250V AC/DC 5mA		2m 300V cable	42KL-E1QZB-A2
		3-pin AC micro QD	42KL-E1QZB-G3

### Receivers

Operating Voltage Supply Current	Max Operating Distance	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10.8–30V DC 25mA	30m (98ft)	Light/Dark Selectable	NPN/PNP 100mA 16ms	0.1mA	2m 300V cable	42KL-RLB-A2
					4-pin DC micro QD	42KL-RLB-F4
					4-pin pico QD	42KL-RLB-Y4
21.6–250V AC/DC			Power MOSFET 2 wire 100mA 16ms	1.7mA	2m 300V cable	42KL-RTC-A2
					3-pin AC micro QD	42KL-RTC-G3

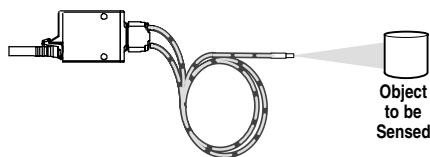
## Selection Guide for High Speed 900µs Versions

### Light Sources

Operating Voltage Supply Current	Sensing Distance	Connection Type	Catalog Number
10.8–30V DC 35mA	1m to 10m (33ft)	2m 300V cable	42KL-E1EZBQ-A2
		4-pin DC micro QD	42KL-E1EZBQ-F4
		4-pin pico QD	42KL-E1EZBQ-Y4

### Receivers

Operating Voltage Supply Current	Max Operating Distance	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10.8–30V DC 25mA	10m (33ft)	Light/Dark Selectable	NPN/PNP 100mA 900µs	0.1mA	2m 300V cable	42KL-RLBQ-A2
					4-pin DC micro QD	42KL-RLBQ-F4
					4-pin pico QD	42KL-RLBQ-Y4



### Description

MiniSight infrared fiber optic sensors are compatible with Allen-Bradley glass fiber optic cables for use in transmitted beam, diffuse, and retroreflective applications. Fiber optic sensing is best suited for applications where the sensor cannot be placed at the actual sensing position.

Infrared sensors with glass cables provide the greatest sensing distances and are the most stable when sensing a wide variety of colors. Plastic fiber optic cables are not well suited for use with infrared sensors.

The MiniSight glass fiber optic sensor will withstand repeated 8270kPa (1200psi) washdowns when used with any Allen-Bradley glass fiber optic cable. However, for best results, PVC sheathed glass fiber optic cables are recommended for use in applications where washdown will occur. Stainless steel sheathed cables are not recommended because gaps in the stainless steel sheathing can allow water or other fluids to penetrate the cable, possibly degrading performance.

### Specifications

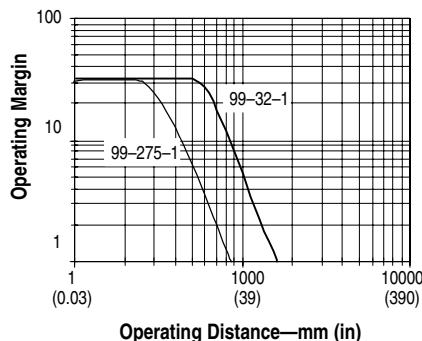
Field of View	Depends on Glass Fiber Optic cable selected
Emitter LED	Infrared 880nm

### QD Cordsets and Accessories

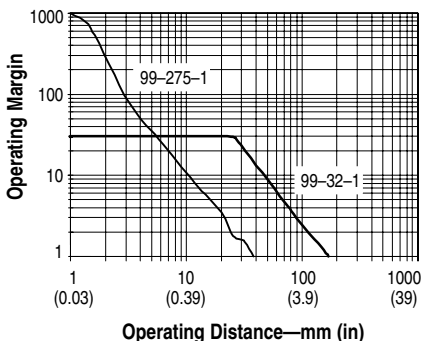
Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
AC Micro QD Cordset, Straight, 3-pin, 2m	889R-F3AEA-2
Pico QD Cordset, Straight, 4-pin, 2m	889P-F4AB-2

### Typical Response Curves

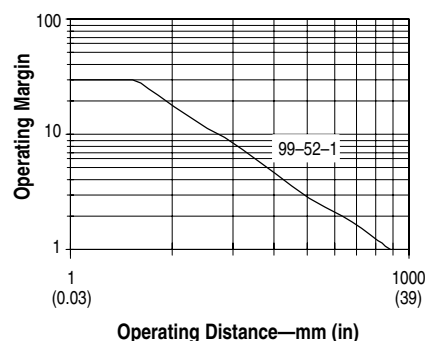
**Retroreflective (using 3" dia. reflector)**



**Diffuse**

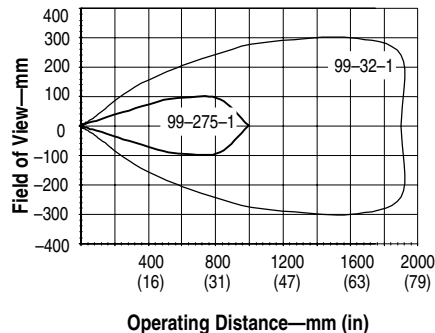


**Transmitted Beam**

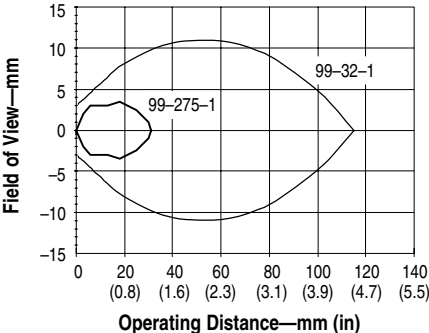


### Beam Pattern

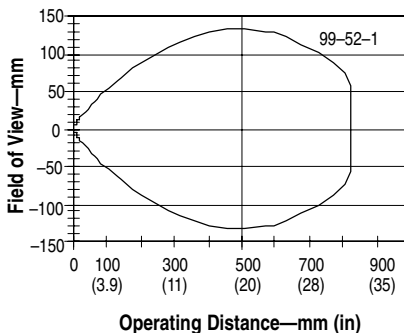
**Retroreflective**



**Diffuse**



**Transmitted Beam**



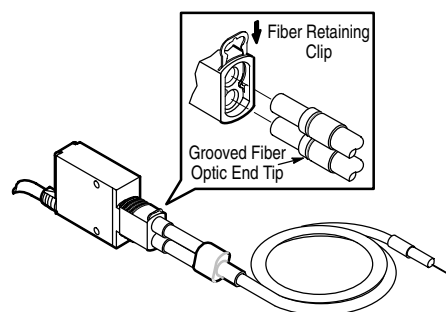
## Selection Guide

Operating Voltage Supply Current	Sensing Distance	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number	
10.8–30V DC 35mA	Depends on Glass Fiber Optic cable selected	Light/Dark Selectable	NPN/PNP 100mA 1ms	0.1mA	2m 300V cable	42KL–G1LB–A2	
					4-pin DC micro QD	42KL–G1LB–F4	
					4-pin pico QD	42KL–G1LB–Y4	
			NPN/PNP 100mA 300μs		2m 300V cable	42KL–G1LBQ–A2	
					4-pin DC micro QD	42KL–G1LBQ–F4	
					4-pin pico QD	42KL–G1LBQ–Y4	
21.6–250V AC/DC			Power MOSFET 2 wire 100mA 8.3ms	1.7mA	2m 300V cable	42KL–G1TC–A2	
					3-pin AC micro QD	42KL–G1TC–G3	

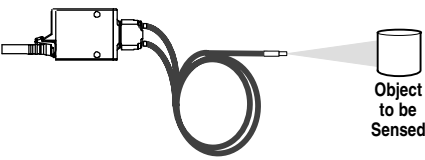
## Typical Glass Fiber Optic Cable Selection—mm (inches) ①

Sensing Mode	Glass Fiber Diameter	Typical Fiber Model	Maximum Range
Diffuse (Bifurcated Fiber)	3.1 (0.125)	99–32–1	38 (1.5)
	1.1 (0.046)	99–275–1	21 (0.8)
Transmitted Beam (Individual Fiber)	3.1 (0.125)	99–52–1	457 (18)
	1.1 (0.046)	99–715–1	152 (6)

① Hundreds of other fiber optic cables are available (see pages 1–245 through 1–299).



**NOTE:** The catalog number for the Fiber Retaining Clip is #60–2680.



Specifications

Field of View	Depends on Fiber Optic cable selected
Emitter LED	Visible Red 660nm

QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
AC Micro QD Cordset, Straight, 3-pin, 2m	889R-F3AEA-2
Pico QD Cordset, Straight, 4-pin, 2m	889P-F4AB-2

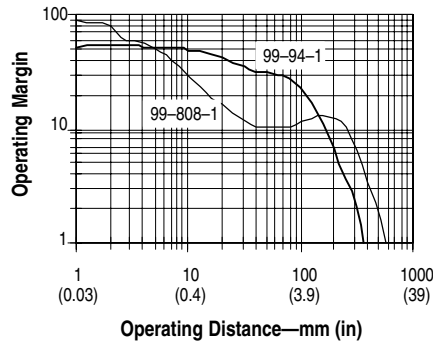
Description

MiniSight visible red fiber optic sensors are ideally suited for short range sensing applications and small part detection, where the sensor cannot be placed at the actual sensing position. These sensors are also a cost-effective approach to color contrast and registration mark detection applications.

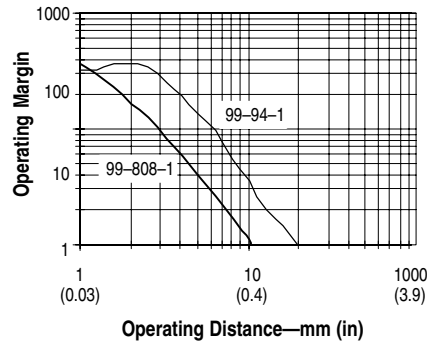
MiniSight visible red fiber optic sensors are compatible with a wide range of Allen-Bradley plastic and special glass fiber optic cables.

Typical Response Curves

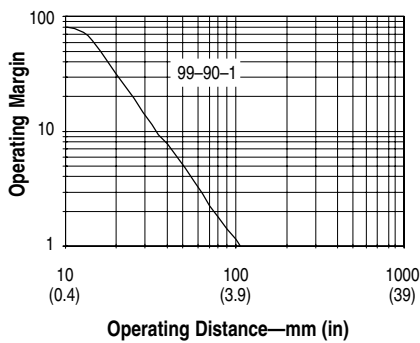
Retroreflective (using 3" dia. reflector)



Diffuse

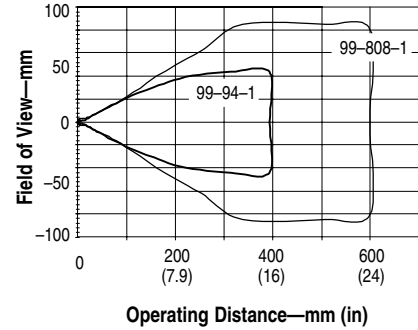


Transmitted Beam

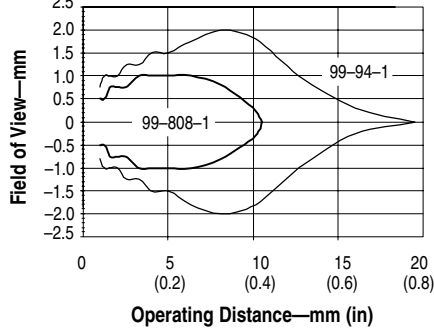


Beam Pattern

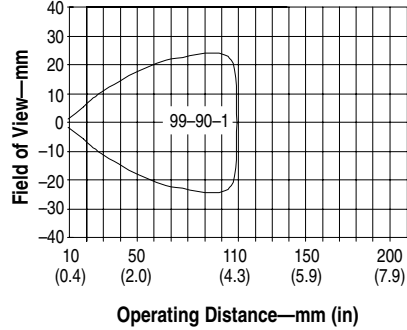
Retroreflective



Diffuse



Transmitted Beam



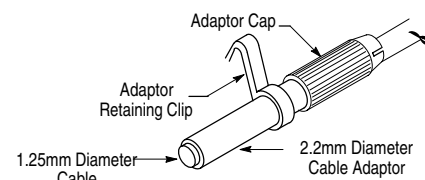
## Selection Guide

Operating Voltage Supply Current	Sensing Distance	Output Energized	Output Type Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number	
10.8–30V DC 35mA	Depends on Fiber Optic cable selected	Light/Dark Selectable	NPN/PNP 100mA 1ms	0.1mA	2m 300V cable	42KL–L2LB–A2	
					4-pin DC micro QD	42KL–L2LB–F4	
					4-pin pico QD	42KL–L2LB–Y4	
			NPN/PNP 100mA 300μs		2m 300V cable	42KL–L2LBQ–A2	
					4-pin DC micro QD	42KL–L2LBQ–F4	
					4-pin pico QD	42KL–L2LBQ–Y4	
21.6–250V AC/DC 15mA			Power MOSFET 2 wire 100mA 8.3ms	1.7mA	2m 300V cable	42KL–L2TC–A2	
					3-pin AC micro QD	42KL–L2TC–G3	

## Typical Plastic Fiber Optic Cable Selection—mm (inches) ❶

Sensing Mode	Plastic Fiber Diameter	Typical Fiber Model	Maximum Range
Diffuse (Bifurcated Fiber)	1 (0.040)	99–94	31 (1.2)
	0.5 (0.020)	99–808	12.7 (0.5)
Transmitted Beam (Individual Fiber)	1 (0.040)	99–90	127 (5)
	0.5 (0.020)	99–822	38 (1.5)

❶ Hundreds of other fiber optic cables are available (see pages 1–245 through 1–299).



**NOTE:** For smaller fiber optic cables with jacket diameters of 1.25 (0.05), catalog number 61–6731 adaptors are required.

