



### Description

The AccuSight photoelectric sensor is a general purpose sensor intended for light to medium duty industrial applications. The narrow 27mm deep housing makes it an ideal solution for use in conveyor side rails.

The sensor may be mounted by the industry standard, threaded 18mm nose, or by mounting screws. Three high visibility LED status indicators provide a 360° area of viewing around and below the sensor. For ease of installation and maintenance, there are no adjustments required.

The AccuSight photoelectric sensor can be powered from a 10–30V DC source and draws a low 35mA of current.

Models are available with either a sink (NPN) or sourcing (PNP) or both, light operate, output. These outputs contain an active short-circuit protection system with automatic reset. The sensor is also protected against reverse polarity and transient over voltage conditions.

Two basic connection types are available: 4-pin micro QD and 2m cable versions. Contact Rockwell Automation for other available connector types.

### Features

- Narrow 27mm deep housing
- 18mm nose and through-hole mounting options
- LED indicators with 360° visibility
- No user adjustments required
- Multiple sensing modes
- Low voltage 24V DC operation
- Variety of connection types

### General Information

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### Sensing Modes

#### Standard On/Off

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See the *Sensors* catalog for Accessory information.



**General Specifications**

<b>Sensing Mode</b>	Diffuse, polarized retroreflective, wide angle diffuse
<b>Light Source</b>	See selection table
<b>Unit Protection</b>	Overload, short-circuit, reverse polarity, false pulse
<b>Supply voltage</b>	10–30V DC
<b>Current Consumption</b>	35mA maximum
<b>Output Type</b>	NPN or PNP by model Both NPN and PNP (44RSP-2JBE3-xx models)
<b>Output Mode</b>	Light operate
<b>Output Rating</b>	30V DC, 100mA
<b>Response Time</b>	10ms
<b>Front Housing Material</b>	Valox®
<b>Lens Material</b>	Acrylic
<b>LED Indicators</b>	See table below
<b>Connection Types</b>	2m, 24AWG 300V PVC cable, 4-pin DC micro QD
<b>Supplied Accessories</b>	75012-097-01 18mm locknut
<b>Optional Accessories</b>	Mounting brackets, reflectors, cordsets
<b>Operating Environment</b>	NEMA 12, IP 54
<b>Vibration</b>	10–55Hz, 1mm amplitude, Meets or exceeds IEC 60947-5-2
<b>Shock</b>	30G with 1ms pulse duration, Meets or exceeds IEC 60947-5-2
<b>Operating Temperature</b>	0°C to +50°C (+32°F to +122°F)
<b>Relative Humidity</b>	5...95%
<b>Approvals</b>	UL listed, cUL, CE marked for all applicable directives

**Features**

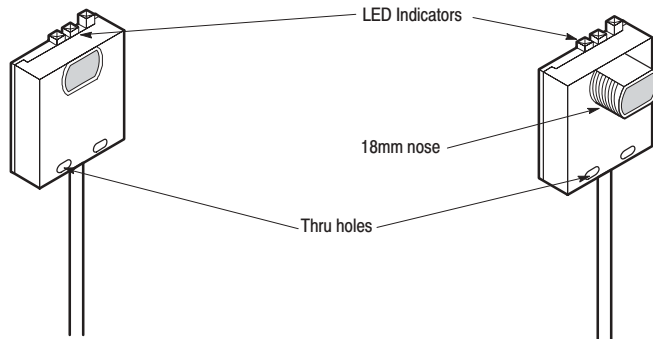
- Narrow 27mm deep housing
- 18mm nose and through-hole mounting options
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**LED Indicators**

Label	Color	State	Status
Output	Yellow	OFF	Sensor output de-activated
		ON	Sensor output activated
Margin	Red	OFF	Margin < 1.2
		ON	Margin > 1.2
Power	Green	OFF	Sensor not powered
		ON	Sensor powered

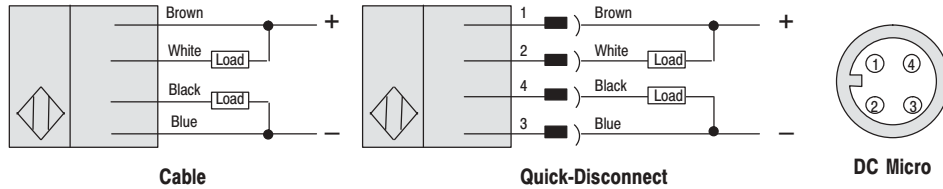
**Wide Angle Diffuse Models**

**Polarized Retroreflective and Standard Diffuse Models**

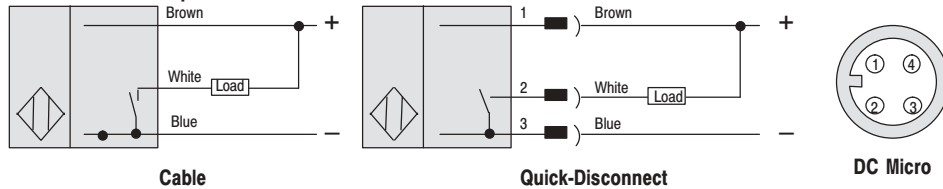


**Wiring Diagrams**

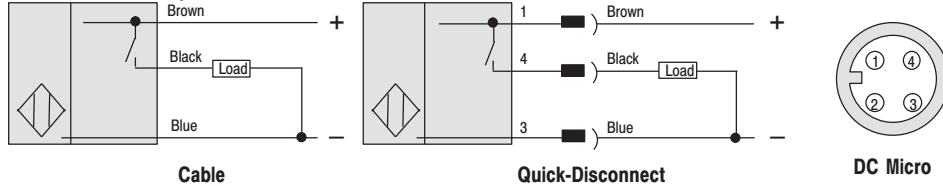
**44RSP–2JBE3 Models**



**Models with NPN Outputs**



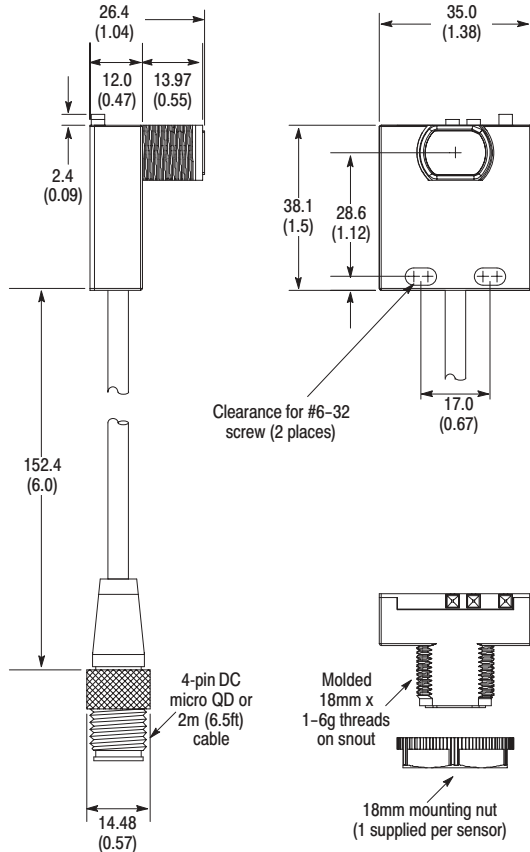
**Models with PNP Outputs**



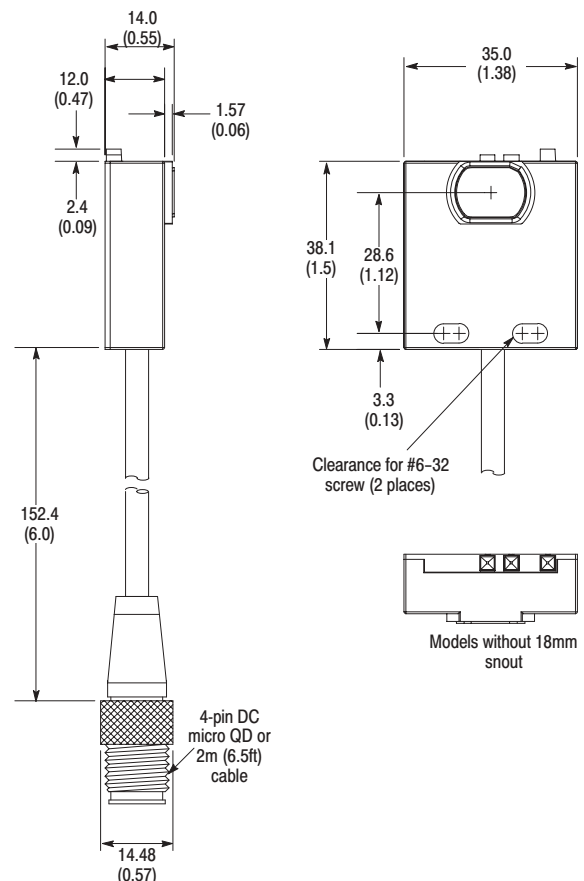
• All wire colors on quick-disconnect models refer to Allen-Bradley 889D cordsets.

**Dimensions—mm (inches)**

**Polarized Retroreflective and Standard Diffuse Models**



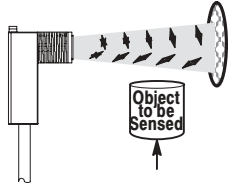
**Wide Angle Diffuse Models**



**Note:** All sensors except wide angle diffuse models are supplied with one M18 mounting nut (catalog number 75012–097–01).

# AccuSight™ Polarized Retroreflective

Standard On/Off



## Description

AccuSight polarized retroreflective sensors can be used to detect most objects, including shiny objects such as shrink wrapped products, bright metals, foils, etc. They are intended primarily for use in applications where an opaque target will completely block the effective beam between sensor and reflector.

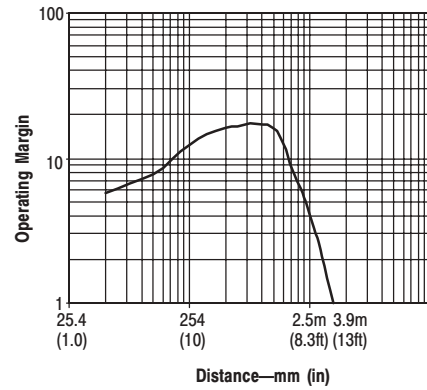
## Specifications

Field of View	1.5°
Emitter LED	Visible Red 660nm

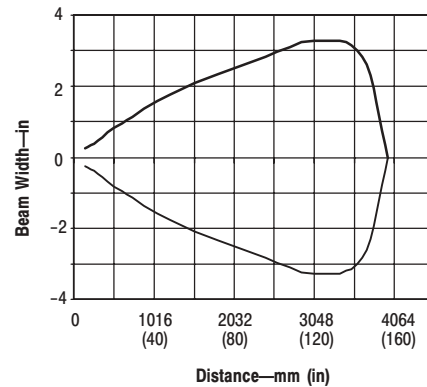
## QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	889D-F4AC-2
76mm (3in) Diameter Reflector	92-39
32mm (1.25in) Diameter Reflector	92-47
Right Angle Mounting Bracket	60-2657

## Typical Response Curve

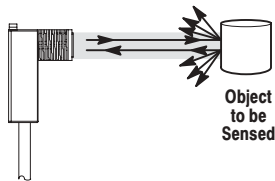


## Beam Pattern



## Selection Guide

Operating Voltage/Current	Sensing Distance	Output Energized	Output Type/Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10-30V DC 35mA	25mm (1in) to 3m (9.8ft)	Light Operate	NPN and PNP 100mA 10ms	0.1mA	2m 300V cable	44RSP-2JBE3-A2
					4-pin DC micro QD	44RSP-2JBE3-F4
		Dark Operate	NPN/100mA 10ms		2m 300V cable	44RSP-2KBE3-A2
					4-pin DC micro QD	44RSP-2KBE3-F4
		Light Operate	PNP/100mA 10ms		2m 300V cable	44RSP-2JNE3-A2
					4-pin DC micro QD	44RSP-2JNE3-F4
					3-pin Molex	44RSP-2JNE3-Z6
					2m 300V cable	44RSP-2JPE3-A2
4-pin DC micro QD	44RSP-2JPE3-F4					



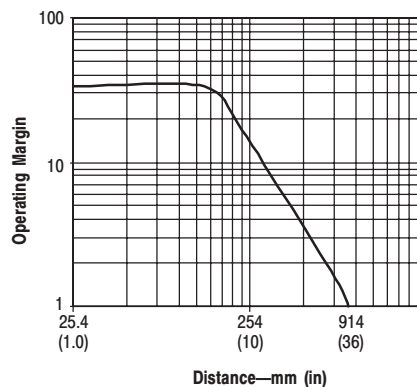
### Specifications

Field of View	5°
Emitter LED	Infrared 880nm

### QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	<b>889D-F4AC-2</b>
Right Angle Mounting Bracket	<b>60-2657</b>

### Typical Response Curve

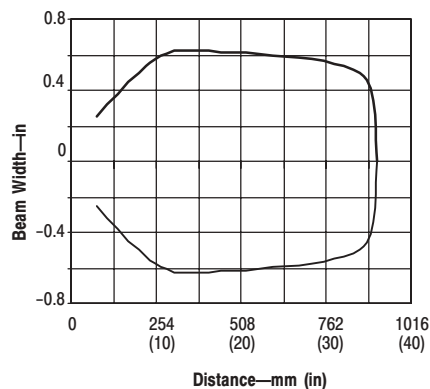


### Description

AccuSight standard diffuse sensors are designed to detect light directly reflected by the target surface. The nominal range of these sensors is measured to a standard white paper target. Actual range will depend on the reflectivity of the target.

Successful application of standard diffuse sensors can be challenging, and caution must be used to avoid detecting the background behind the target, or detecting other objects in the target area.

### Beam Pattern

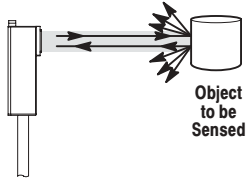


### Selection Guide

Operating Voltage/Current	Sensing Distance	Output Energized	Output Type/ Capacity Response Time	Max Leakage Current	Connection Type	Catalog Number
10-30V DC 35mA	3mm (0.12in) to 380mm (15in)	Light Operate	NPN/100mA 10ms	0.1mA	2m 300V cable	<b>44RSD-1JNC38-A2</b>
					4-pin DC micro QD	<b>44RSD-1JNC38-F4</b>
			PNP/100mA 10ms		2m 300V cable	<b>44RSD-1JPC38-A2</b>
					4-pin DC micro QD	<b>44RSD-1JPC38-F4</b>

# AccuSight™ Wide Angle Diffuse

Standard On/Off



## Specifications

Field of View	Approx. 60°
Emitter LED	Infrared 880nm

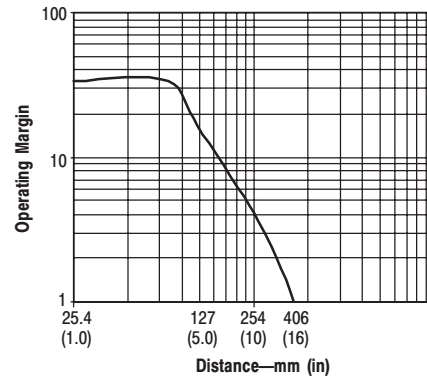
## QD Cordsets and Accessories

Description	Catalog Number
DC Micro QD Cordset, Straight, 4-pin, 2m	<b>889D-F4AC-2</b>
Mounting Screws (not supplied)	2 x #6-32

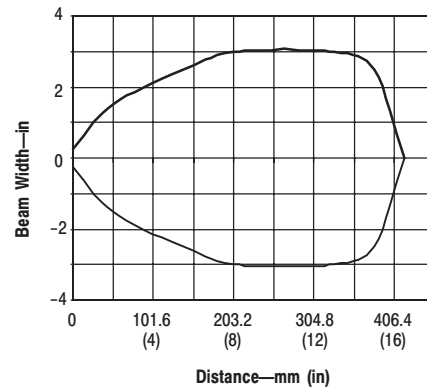
## Description

Wide angle diffuse AccuSight 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.

## Typical Response Curve



## Beam Pattern



## Selection Guide

Operating Voltage/Current	Sensing Distance	Output Energized	Output Type/Capacity/Response Time	Max Leakage Current	Connection Type	Catalog Number
10-30V DC 35mA	3mm (0.12in) to 200mm (7.8in)	Light Operate	NPN/100mA 10ms	0.1mA	2m 300V cable	<b>44RSW-1JNC20-A2</b>
			PNP/100mA 10ms		4-pin DC micro QD	<b>44RSW-1JNC20-F4</b>
					2m 300V cable	<b>44RSW-1JPC20-A2</b>
			4-pin DC micro QD		<b>44RSW-1JPC20-F4</b>	