

Retroreflectors

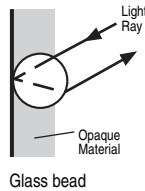
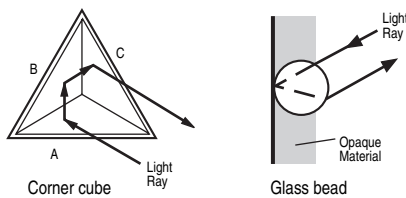
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Cutler-Hammer® Retroreflectors from Eaton's electrical business are used with reflex-type sensors. Two types of retroreflective target material are available: corner cube and embedded glass bead.

Corner Cube Retroreflectors

This type provides the highest signal return to the sensor, typically 2000 to 3000 times the reflectivity of white paper. Three adjoining sides are arranged at right angles to each other. When a ray of light strikes one of these sides (A), it is reflected to the second (B), then the third (C), and then back to the source parallel to its original course. Thousands of these cube shapes are molded into a rugged plastic reflector or vinyl tape material. Corner cube retroreflectors are suitable for use with both standard reflex and polarized reflex sensors.



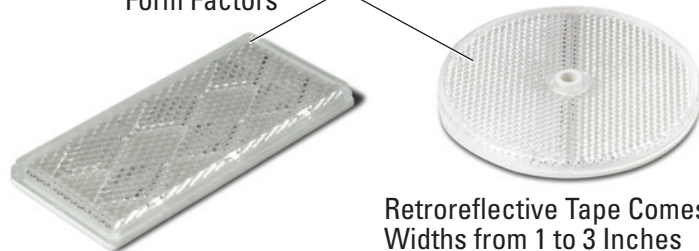
Glass Bead Retroreflectors

Glass bead retroreflectors are available in tape form with an adhesive backing. The bead style surface is typically rated at 200 to 900 times the reflectivity of white paper — much lower than corner cube reflectors. Glass bead retroreflectors are not suitable for use with polarized reflex sensors.

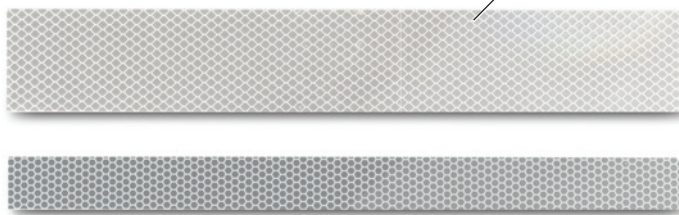
For the most current information on this product, visit our web site: www.EatonElectrical.com

High Quality Retroreflectors and Retroreflective Tape in a Wide Variety of Sizes to Meet Your Needs

Retroreflectors Available in Both Rectangular and Round Form Factors

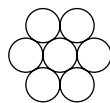


Retroreflective Tape Comes in Widths from 1 to 3 Inches



Retroreflector Size

The size of the retroreflective target has a significant effect on the excess gain and range of a reflex sensor. In general, we recommend you use the largest possible reflector in every reflex sensing application to maximize performance of the sensor and simplify alignment. To provide an even larger reflective area, multiple retroreflectors can be grouped together as shown.



7 Retroreflectors Grouped Together

Using Retroreflectors with Polarized Reflex Sensors

Only corner cube retroreflective material can be used with polarized reflex sensors. When polarized light from the sensor's light source strikes a corner cube retroreflector, it is returned to the sensor in a depolarized state. This allows some of the light to pass through the detector's polarizer, which is positioned at 90° to the source polarizer, to allow the sensor to operate.

Glass bead retroreflectors do not depolarize light and will not work with polarized reflex sensors.

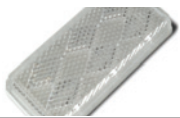





Molded plastic corner cube retroreflectors are always recommended as they provide the highest signal return to the sensor.

Corner cube tape works with polarized reflex sensors but returns less light to the sensor. In all cases, Eaton recommends testing sensor and tape prior to final installation.



For Customer Service in the U.S. call 1-877-ETN CARE (386-2273), in Canada call 1-800-268-3578.
For Application Assistance in the U.S. and Canada call 1-800-426-9184.

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Model Selection — Retroreflectors

	Description	Catalog Number
Corner Cube Retroreflector		
	1.5 x 3.25 inch, adhesive backed, one per package	6200A-6507
	3 inch diameter, with mounting hole, two per package	6200A-6501
	Bulk packaged version of above (ordered quantity will be bulk packaged)	6200AS6501
	3 inch diameter, with mounting hole, one per package	E51KR84
	3 inch diameter, metal backed, with mounting hole, one per package	6200A-6506
	2.18 inch diameter, with mounting hole, one per package	6200A-6505
	2.18 inch diameter, adhesive backed, one per package	6200A-6502
	1.25 inch diameter, adhesive backed, one per package	6200A-6504
	Bulk packaged version of above (ordered quantity will be sent bulk packaged)	6200AS6504
	1.25 inch diameter, no adhesive, one per package	E51KR32

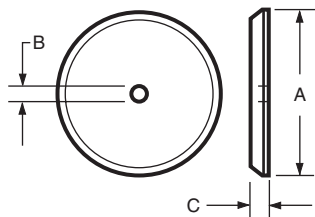
Retroreflective Tape

	Corner Cube Style ①	
	2 inch wide, 1 piece, quantity is length in feet	6201A-XXXX
	3 inch wide, 1 piece, quantity is length in feet	6203A-XXXX
	Glass Bead Style (Not for use with polarized reflex sensors)	
	1 inch wide, 1 piece, quantity is length in feet	6200A-XXXX
	2 inch wide, 1 piece, quantity is length in feet	6202A-XXXX

① Although corner cube tape works with polarized reflex sensors, we recommend testing sensor and tape prior to installation.

- Fast turn product with typical one business day lead-time to shipment.
- Stocked product, typical order quantities guaranteed in stock.

Approximate Dimensions in Inches (mm)



Round Retroreflectors

Catalog Number	Approximate Dimensions in Inches (mm)		
	A — Diameter	B — Hole Size	C — Thickness
6200A-6501	3.30 (84)	0.20 (5)	0.35 (9)
6200A-6502	2.40 (61)	None	0.30 (7.5)
6200A-6504	1.30 (33)	None	0.25 (6)
6200A-6505	2.40 (61)	0.25 (6)	0.30 (7.5)
6200A-6506	3.30 (84)	0.20 (5)	0.30 (7.5)
E51KR32	1.25 (32)	None	0.35 (9)
E51KR84	3.30 (84)	0.20 (5)	0.35 (9)

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Sensor Accessories

A Variety of Items for Replacement, Testing or Additional Functionality

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Cutler-Hammer® Accessories from Eaton's electrical business include Portable Power Supplies for testing or demonstrating DC sensors, a variety of Replacement Mounting Nuts, Protective End Caps for tubular proximity sensors, and Conduit Adapters for tubular sensors.

For the most current information on this product, visit our web site: www.EatonElectrical.com



DC Sensor Testers / Demonstrators



Replacement Mounting Nuts

And More...

Model Selection — Sensor Accessories

	Description	Sensor Diameter	Catalog Number	Approximate Dimensions in Inches (mm) Except Where Noted																							
	DC Sensor Tester/Demonstrator For 2-, 3- and 4-wire DC sensors Provides 27V DC power from three 9V batteries (included) Test output connections for both NPN and PNP outputs	—	9902A-6501	W x H x D 2.5 x 4.75 x 2.1 inches (65 x 120 x 55 mm)																							
	AC Sensor Tester/Demonstrator For AC sensors Provides AC power from wall mount Includes AC adapter	—	9902A-6502	W x H x D 2.5 x 4.5 x 1.5 inches (65 x 114 x 38 mm)																							
	Replacement Mounting Nuts — Stainless Steel Where Used: Harsh environment for tubular sensors Material of Construction: Stainless Steel Packaging: Two per package	8 mm 12 mm 18 mm 30 mm	E57KNM8 E57KNS12 E57KNS18 E57KNS30	<table border="1"> <thead> <tr> <th rowspan="2">Size</th> <th colspan="3">Dimensions in Inches (mm) Except Where Noted</th> </tr> <tr> <th>A</th> <th>B</th> <th>C</th> </tr> </thead> <tbody> <tr> <td>8 mm</td> <td>0.5 (13)</td> <td>0.16 (4)</td> <td>M8 x 1</td> </tr> <tr> <td>12 mm</td> <td>0.7 (17)</td> <td>0.16 (4)</td> <td>M12 x 1</td> </tr> <tr> <td>18 mm</td> <td>0.94 (24)</td> <td>0.16 (4)</td> <td>M18 x 1</td> </tr> <tr> <td>30 mm</td> <td>1.4 (36)</td> <td>0.16 (4)</td> <td>M30 x 1.5</td> </tr> </tbody> </table>	Size	Dimensions in Inches (mm) Except Where Noted			A	B	C	8 mm	0.5 (13)	0.16 (4)	M8 x 1	12 mm	0.7 (17)	0.16 (4)	M12 x 1	18 mm	0.94 (24)	0.16 (4)	M18 x 1	30 mm	1.4 (36)	0.16 (4)	M30 x 1.5
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	Replacement Mounting Nuts — Brass Where Used: General purpose for tubular sensors. These are the standard mounting nuts shipped with the Comet, Prism and OEM Prism Photoelectric Sensors. Material of Construction: Brass Packaging: Two nuts and two wave washers per package	18 mm	E60KNS18																								
	Replacement Mounting Nuts — Stainless Steel Where Used: Harsh environment for tubular sensors Material of Construction: Stainless Steel Packaging: Two per package	18 mm 30 mm	E58KNS18 E58KNS30																								

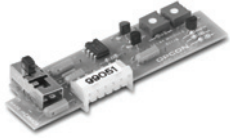
Stocked product, typical order quantities guaranteed in stock.

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SENSOR ACCESSORIES

8


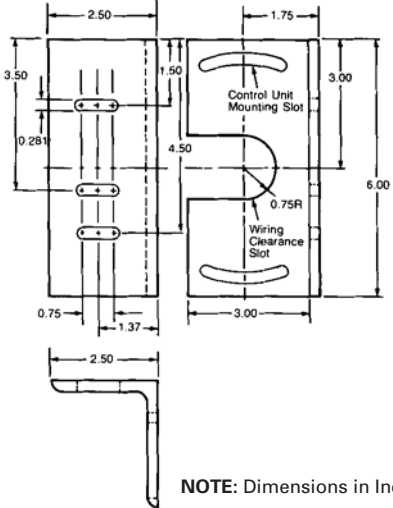


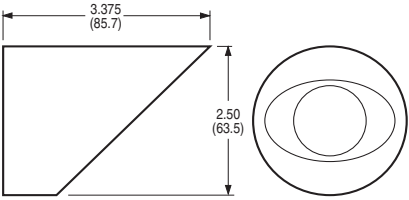
Model Selection — Logic Modules (Optional, not required for sensor operation)

	Description	Selectable Ranges	For Use with These Sensors	Catalog Number
Logic Modules (Modules mount to circuit board within sensor enclosure) 	Time Delay ON and OFF time delays from 0.01 to 35 seconds. Independent adjustment of ON-delay and OFF-delay.	Timing Ranges: ① 0.01 to 0.2 seconds 0.1 to 2.0 seconds 1.0 to 15.0 seconds 2.0 to 35.0 seconds	1320B, 1321B, 1410B and 1420B	8212B-6501
	One-Shot Produces a pulse of preset time when triggered. Switch-select to trigger on leading or trailing edge of object.	Pulse Width: ① 0.02 to 0.5 seconds 0.3 to 2.0 seconds 1.0 to 18.0 seconds 10.0 to 30.0 seconds	1320B, 1321B, 1410B and 1420B	8213B-6501
	Stopped Motion Retriggerable one-shot. Start-up delay adjusts from 0.1 to 11 seconds to allow machine to come up to speed. Control can be reset from remote location.	Retrigger Interval: ① 30 to 430 RPM 430 to 5,000 RPM	1320B, 1321B, 1410B and 1420B	8216A-6501

① Once range is selected, exact value is adjusted via potentiometer.

■ Fast turn product with typical one business day lead-time to shipment.

Model Selection — Accessories

	Description	Catalog Number	Approximate Dimensions in Inches (mm) Except Where Noted
Mount 	Swivel Mounting Bracket, zinc plated steel	6140A-6501	 <p>NOTE: Dimensions in Inches</p>
Retroreflectors	Retroreflectors and retroreflective tape	See Section 8	
Replacement Lens 	Replacement Lens Kit for Catalog Numbers 1320B, 1321B, 1410B and 1420B	1320B-7501	
Protective Lens Cover 	Lens Attachment for Catalog Numbers 1141D and 1241D thru-beam source and detector — attaches to lens barrel and provides a 45° thick flush window that prevents dirt build-up on the lens	6110A-6501	

■ Stocked product, typical order quantities guaranteed in stock.