

August 2007

**E64 Terminal Base Series
Photoelectric Sensors****Contents**

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The Cutler-Hammer® E64 Terminal Base Series from Eaton's electrical business offers unique features well suited to a variety of applications including conveyor control. The sensors are available in thru-beam, reflex, polarized reflex and diffuse reflective sensing modes, and offer 1 – 2 Amp output current switching capacity.

Time delay functionality provides built-in control capability with settings for normal operation, on delay, off delay, on-off delay, or one-shot delay. The timing range can be adjusted from 0.6 to 16 seconds for each.

Each model incorporates a universal voltage design to allow use with 16 to 240V AC or DC power. Wiring, sensitivity adjustment, timing adjustment and light/dark selection are all easily accessed by removing a sealed cover. A unique guard shields the user from electrical connections when making these adjustments, and flips up to allow access to the terminal screws. The cover fastening screw is held captive to prevent loss.

Approvals

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

Flexible Wiring, Stability Indication and High Current Relay Output

Easy to See
Output and
Stability Indicators

Rugged ABS
Housing



Adjustable Mounting
Bracket Included

Product Features

- Universal voltage operation — 16 to 240V AC or DC
- SPST relay output handles up to 1A AC and 2A DC
- Screw-terminal connections with 1/2 inch NPT conduit entry
- Output and stability indicators
- PLC compatible output
- Sensitivity adjustment
- Selectable light or dark operation
- Mounting brackets and retroreflector included (for polarized reflex models)
- Rugged ABS housing rated NEMA 1, 3, 4, 12 and 13 (IP66)
- Polarized reflex models allow reliable detection of shiny targets that could reflect light back to the sensor and falsely trigger a non-polarized sensor
- Time delay can be set for normal operation, on-delay, off-delay, on/off-delay, or one-shot delay, with an adjustable timing range from 0.6 to 16 seconds

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**.

Model Selection — Sensors — Includes Mounting Bracket

	Type	Sensing Range	Field of View	Light Source	With Time Delay	Catalog Number
 <p>Source Detector</p> <p>For a complete system, order One Source and One Detector</p>	Thru-Beam Source	164 feet (50m)	30 inch diameter at 33 feet	Infrared	—	E64CAL4T
	Thru-Beam Detector	164 feet (50m)	30 inch diameter at 33 feet	—	Yes	E64CAT3T
 <p>Retroreflector (Included) Sensor</p>	Polarized Reflex ①	0.5 – 11.5 feet (0.15 – 3.5m) ②	5 inch diameter at 22 inches	Visible Red	Yes	E64CAT5T
	Diffuse Reflective	6.6 feet (2m) ③	0.8 inch diameter at 22 inches	Infrared	Yes	E64CAT2T

① Supplied with retroreflector, Catalog Number E65KR55.

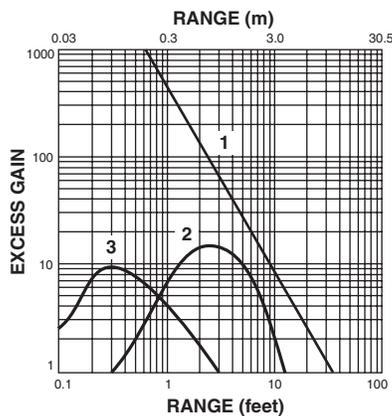
② Measured to supplied 2-inch retroreflector, E65KR55.

③ Measured to a 90% reflective white card.

■ Stocked product, typical order quantities guaranteed in stock.

Excess Gain

- 1. Thru-Beam
- 2. Polarized Reflex
- 3. Diffuse Reflective



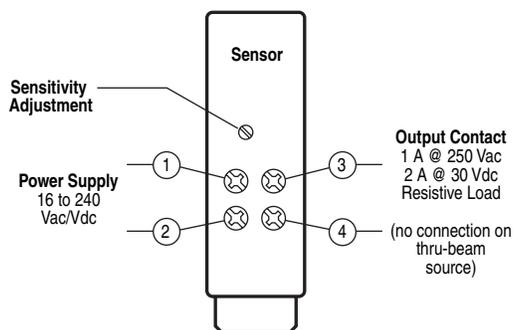
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Model Selection — Accessories

	Description	Catalog Number
	2 inch retroreflector Supplied with reflex and polarized reflex sensors Additional retroreflectors, see Section 8	E65KR55
	Mounting Bracket Supplied with all thru-beam, polarized reflex, clear object, diffuse reflective and fiber optic sensors	E64KH3

 Stocked product, typical order quantities guaranteed in stock.

Wiring Diagram**Specifications**

Description	Specification
Input Voltage	16 – 240V AC/DC; 50/60 Hz
Power Dissipation	3 VA maximum
Output Type	SPST relay
Current Switching Capacity	1A @ 250V AC (resistive load) 2A @ 30V DC (resistive load)
Response Time	20 mS maximum
Operating Temperature	+14° to +140°F (-10° to +60°C)
Storage Temperature	-4° to +158°F (-20° to +70°C)
Light/Dark Operation	Switch selectable
Sensitivity Control	Included on all models
Indicators	Red output LED; Green stability LED
Enclosure Rating	NEMA 1, 3, 4, 12, and 13; IP66 ①
Humidity	35% to 85% RH, non-condensing
Material of Construction	Housing: P.B.T. ; Lenses: PMMA Methacrylate
Vibration	10 to 55 Hz, amplitude 0.06 inch (1.5 mm) p-p, 2 hours each in axis X, Y, Z
Sunlight Immunity	1,000 foot-candles
Timing Functions	Switch selectable for normal, on delay, off delay, on-off delay, one-shot delay. 0.6 to 16 second adjustable timing range

① NOTE: Our products conform to NEMA tests as indicated, however, some severe washdown applications can exceed these NEMA test specifications. If you have questions about a specific application, contact Eaton's Cutler-Hammer Sensor Applications Department at 1-800-426-9184.

