

### E58 18 mm Tubular Series Photoelectric Sensors

#### Contents

Overview . . . . .	6-52
Model Selection . . . . .	6-53
Excess Gain . . . . .	6-53
Model Selection, Accessories . . . . .	6-54
Wiring Diagrams . . . . .	6-55
Dimensions . . . . .	6-56
Specifications . . . . .	6-56

The Cutler-Hammer® E58 18 mm Tubular Series by Eaton's electrical business is an ideal choice for a wide variety of sensing tasks. The unique threaded body with flat sides allows quick mounting in a 3/4-inch hole or against any flat surface. Internal components are rigidly sealed in a solid encapsulated package for excellent performance in high-vibration and high-shock applications. Models are available with both AC and DC operation in a single unit or in a DC-only configuration.

For the most current information on this product, visit our web site: [www.EatonElectrical.com](http://www.EatonElectrical.com)

### Industry Standard 18 mm Tubular Sensors Offer Wide Voltage Ranges and Reliable Performance

Solid Polyurethane Body for Rugged Use

Extra Long 3-Meter Cable



Industry Standard 18 mm Threaded Body with Flat Sides for Mounting Flexibility

#### Product Features

- Industry standard 18 mm diameter threaded body has flat sides, allowing it to be mounted like a tubular sensor or against any flat surface
- Solid polyurethane housing completely encapsulates internal circuits for high resistance to shock and vibration
- AC/DC models operate up to 264V AC
- Select models have visible beams for quick setup and alignment
- Gain adjustment on all models to ensure peak optical performance
- 80 foot range for all thru-beam models
- 25 foot range for both DC-only and AC/DC reflex models
- 8 inch range for all diffuse reflective models
- LED output status indicator
- 3 meter long 3-wire connecting cable
- Enclosure rating NEMA 1, 2, 3, 4, 4X, 6, 12 and 13

For Customer Service in the U.S. call **1-800-356-1243**,  
in Canada call **1-800-268-3578**.  
For Application Assistance in the U.S. and Canada  
call **1-800-426-9184**.

July 2005

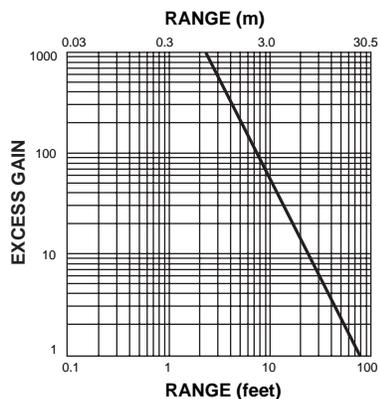
**Model Selection — 18 mm Diameter Sensors (Connection Type: 3-Meter Cable)**

	Input Voltage	Sensing Range	Maximum Load Current	Maximum Inrush	Thru-Beam Component	Output	Catalog Number	
							Dark Operate	Light Operate
<b>3-Wire Sensors</b>								
Thru-Beam ② 	20 – 264V AC, 50 – 60 Hz; or 15 – 30V DC	80 feet (24m)	300 mA	2.0A	Emitter	—	E58CAL18A2E2	
							10 – 30V DC	80 feet (24m)
	250 mA	—	Receiver	NPN	E58CAL18T110C2	E58CBL18T110C2		
					100 mA	—	—	PNP
Reflex 	20 – 264V AC, 50 – 60 Hz; or 15 – 30V DC	25 feet (7.6m) ①	300 mA	2.0A	—	—	E58CAL18A2R2	E58CBL18A2R2
	10 – 30V DC	25 feet (7.6m) ①	250 mA	—	—	NPN	E58CAL18T110R2	E58CBL18T110R2
							100 mA	—
Diffuse Reflective 	20 – 264V AC, 50 – 60 Hz; or 15 – 30V DC	8 inches (200 mm) ③	300 mA	2.0A	—	—	E58CBL18A2D2	E58CAL18A2D2
	10 – 30V DC	8 inches (200 mm) ③	250 mA	—	—	NPN	E58CBL18T110D2	E58CAL18T110D2
							100 mA	—

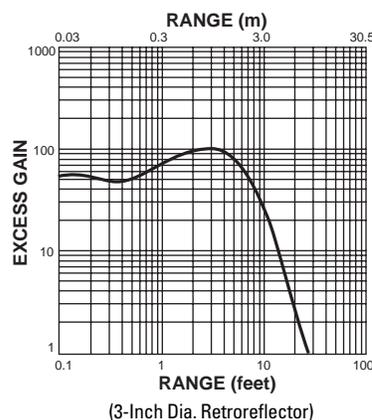
- ① Range is based on 3-inch retroreflector.
- ② For replacement parts, order one complete pair including (1) emitter and (1) receiver otherwise the system will not function properly.
- ③ Sensor will detect a 90% reflectance white card at this range.

**Excess Gain**

**Thru-Beam**



**Reflex**



**Diffuse Reflective**

