

### Enhanced 50 Series Sensors



### Contents

<i>Description</i>	<i>Page</i>
Enhanced 50 Series Sensors	
Product Selection	
Thru-Beam Sensors . . . . .	<b>V8-T5-10</b>
Reflex Sensors . . . . .	<b>V8-T5-12</b>
Diffuse Sensors . . . . .	<b>V8-T5-14</b>
Clear Object Sensors . . . . .	<b>V8-T5-16</b>
Fiber Optic Sensors . . . . .	<b>V8-T5-17</b>
Compatible Connector Cables . . . . .	<b>V8-T5-19</b>
Fiber Optic Cables . . . . .	<b>V8-T5-20</b>
Accessories . . . . .	<b>V8-T5-21</b>
Technical Data and Specifications . . . . .	<b>V8-T5-21</b>
Excess Gain . . . . .	<b>V8-T5-22</b>
Wiring Diagrams . . . . .	<b>V8-T5-23</b>
Dimensions . . . . .	<b>V8-T5-24</b>

## Enhanced 50 Series Sensors

### Product Description

The new Enhanced versions of the 50 Series™ Photoelectric Sensors from Eaton's electrical sector offer flexibility, durability and high optical performance in a cost-effective self-contained package. Choose from three output types, four time delay functions, six sensing modes and four connection styles to tailor the sensor to exactly meet your needs.

Sensors are available in thru-beam, reflex, polarized reflex, diffuse reflective, clear object, and fiber optic sensing modes. Brackets are available for easy mounting and to allow precise adjustment of sensor alignment.

### Features

- High optical performance models including a 500 ft (152m) thru-beam and a 10 ft (3m) diffuse reflective unit
- Output options include a 3 Amp SPDT relay
- All units offer light/dark selection
- Logic options include ON-delay, OFF-delay, ON/OFF-delay and one-shot delay
- Fiber optic sensors operate in thru-beam or diffuse reflective mode depending on the fiber optic cable selected
- Fully potted construction for use in areas subject to washdown, high shock and/or vibration
- Choice of pre-wired power cable, built-in micro-connector, built-in micro-connector and pigtail micro-connector versions. Standard pre-wired cable length is 6 ft (2m)
- Variety of brackets available including ball swivel

### Standards and Certifications

- CSA Approved
- Certified to UL Standard, UL 508



### **⚠ DANGER**

**THIS SENSOR IS NOT A SAFETY DEVICE AND IS NOT INTENDED TO BE USED AS A SAFETY DEVICE. This sensor is designed only to detect and read certain data in an electronic manner and perform no use apart from that, specifically no safety-related use. This sensor product does not include self-checking redundant circuitry, and the failure of this sensor product could cause either an energized or de-energized output condition, which could result in death, serious bodily injury, or property damage.**

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

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.

# 5.1

## Photoelectric Sensors

### Enhanced 50 Series Sensors

#### Diffuse Sensors

Field of View: 2.8°



5

#### Diffuse Reflective ①

Voltage Range	Sensing Range ②	Optimum Range ②	Sensing Beam	Output Type	Time Delay	Connection Type	Catalog Number				
10–40 Vdc	5 ft (1.5m)	1 to 30 in (25 to 760 mm)	Infrared	NPN/PNP 250 mA	no	6 ft cable	<b>1350E-6517</b>				
					yes		<b>1350E-8517</b>				
					no	4-pin Euro (micro) connector	<b>1350E-6547</b> ☹				
					yes		<b>1350E-8547</b> ☹				
					no	4-pin Euro (micro) connector (pigtail)	<b>1350E-6537</b> ☹				
					yes		<b>1350E-8537</b> ☹				
				no	4-pin mini-connector	<b>1350E-6507</b> ☹					
				yes		<b>1350E-8507</b> ☹					
				12–240 Vdc 24–240 Vac	5 ft (1.5m)	1 to 30 in (25 to 760 mm)	Infrared	Isolated output solid-state relay 300 mA at 240 Vac/dc	no	6 ft cable	<b>1350E-6513</b>
									yes		<b>1350E-8513</b>
									no	4-pin micro-connector	<b>1350E-6543</b> ☹
									yes		<b>1350E-8543</b> ☹
no	4-pin micro-connector (pigtail)	<b>1350E-6533</b> ☹									
yes		<b>1350E-8533</b> ☹									
no	4-pin mini-connector	<b>1350E-6503</b> ☹									
yes		<b>1350E-8503</b> ☹									
SPDT EM relay 3A at 120 Vac	no	6 ft cable	<b>1350E-6514</b>								
	yes		<b>1350E-8514</b>								
	no	5-pin micro-connector (pigtail)	<b>1350E-6534</b> ☹								
	yes		<b>1350E-8534</b> ☹								
	no	5-pin mini-connector	<b>1350E-6504</b> ☹								
	yes		<b>1350E-8504</b> ☹								

#### Notes

☹☹ See listing of compatible connector cables on **Page V8-T5-19**.

① For brackets compatible with these sensors, see Accessories on **Page V8-T5-21**.

② Ranges based on 90% reflectance white card for diffuse reflective sensors.