

Enhanced 50 Series Sensors



Contents

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

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

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.

Field of View: 1.0°



Polarized Reflex ①②③

Voltage Range	Sensing Range ④	Optimum Range ④	Sensing Beam	Output Type	Time Delay	Connection Type	Catalog Number					
10–40 Vdc	16 ft (4.9m)	0.5 to 8 ft (0.2 to 2.5m)	Visible red	NPN/PNP 250 mA	no	6 ft cable	1451E-6517					
					yes		1451E-8517					
					no	4-pin Euro (micro) connector	1451E-6547 Ⓢ					
					yes		1451E-8547 Ⓢ					
					no	4-pin Euro (micro) connector (pigtail)	1451E-6537 Ⓢ					
					yes		1451E-8537 Ⓢ					
					no	4-pin mini-connector	1451E-6507 Ⓢ					
					yes		1451E-8507 Ⓢ					
					12–240 Vdc 24–240 Vac	16 ft (4.9m)	0.5 to 8 ft (0.2 to 2.5m)	Visible red	Isolated output solid-state relay 300 mA at 240 Vac/dc	no	6 ft cable	1451E-6513
										yes		1451E-8513
										no	4-pin micro-connector	1451E-6543 Ⓢ
										yes		1451E-8543 Ⓢ
no	4-pin micro-connector (pigtail)	1451E-6533 Ⓢ										
yes		1451E-8533 Ⓢ										
no	4-pin mini-connector	1451E-6503 Ⓢ										
yes		1451E-8503 Ⓢ										
SPDT EM relay 3A at 120 Vac										no	6 ft cable	1451E-6514
										yes		1451E-8514
										no	5-pin micro-connector (pigtail)	1451E-6534 Ⓢ
										yes		1451E-8534 Ⓢ
					no	5-pin mini-connector	1451E-6504 Ⓢ					
					yes		1451E-8504 Ⓢ					

Notes

- ⓈⓈ See listing of compatible connector cables on **Page V8-T5-19**.
- ① For a complete system, order one sensor and one retroreflector (see **Tab 8, section 8.1**).
- ② Polarized sensors may not operate with reflective tape. Test tape selection before installation.
- ③ For brackets compatible with these sensors, see Accessories on **Page V8-T5-21**.
- ④ Ranges based on 3 in retroreflector for reflex sensors.