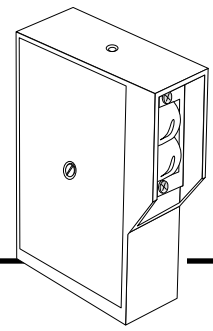
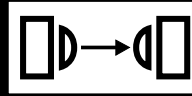


Heavy Duty

Photoelectric Sensors

Thru-Beam & Fiber Optic



Photoelectric Sensors

- Modulated LED
- Choice of Outputs
- Diecast Aluminum Housing Epoxy Coated
- Tri-Color LED Indicator on Fiber Optic Mode Units
- Optional Plug-In Time Delays
- 400 Ft. Range Thru-Beam
- Sealed Heated Optics Thru-Beam
- NEMA 3, 4, 12 & 13 Design
- -20°C to +70°C

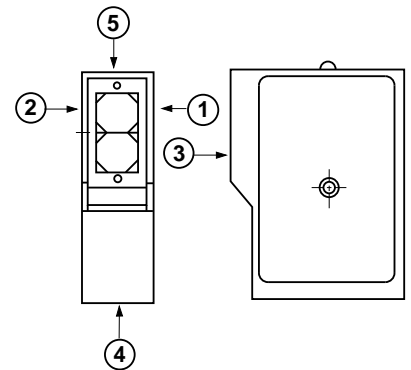
These beefed-up sensors are smart as well as tough. Die cast aluminum housings and totally sealed optics help make them ideal for severe environments. All models use a modulated infrared LED emitter and receiver to ignore ambient light. Plug-in time delay modules offer wide flexibility in application options.

Designed for harsh industrial environments, the Fiber Optic EP140 Series is especially equipped to alert you to potential problems. When other sensors run into alignment or dirty optic problems, you don't know about it until they fail. The Fiber Optic EP140 Series uses a unique "tri-color" LED to indicate impending problems. When the LED glows

- Green — stable operation
>70% reflected signal strength
- Yellow — marginal operation
40-70% reflected signal strength
- Red — insufficient reflected signal

Target Repeatability

For best repeatability, it is recommended to have target travel in direction (1) or (2). Traveling toward lens (3) will result in slightly higher tolerance on switch point. It is not recommended to have target travel in direction (4) and (5).



Supply Voltage	Power Consumption	Output Circuit Type	Thru-Beam		Fiber Optic***	Output Rating	Response Time On/Off	Maximum Switching Frequency	Leakage Current
			Emitter	Receiver					
110/220 VAC	3.5 VA	—	EP120-12501	—	—	—	—	—	—
24 VDC ± 10%	35 mA	—	EP120-15501	—	—	—	—	—	—
RELAY OUTPUTS									
120 VAC	1.0 VA	DPDT	—	—	EP140-12001*	5A Resistive @ 250 VAC or 30 VDC	20ms/25ms	25 Hz	—
110/220 VAC	4.5 VA	SPDT	—	EP120-12701	—	50W - 250 VDC 60 VA - 250 VAC	30ms/150ms	6 Hz	—
11-30 VDC	70 mA	DPDT	—	—	EP140-15001	5A Resistive @ 250 VAC or 30 VDC	20ms/25ms	20 Hz	—
24 VDC ± 10%	100 mA	SPDT**	—	EP120-15701	—	50W - 250 VDC 60 VA - 250 VAC	—	20 Hz	—
TRANSISTOR OUTPUTS									
11-30 VDC	70 mA	NPN	—	—	EP140-15201	25 mA @ 40 VDC	6ms/10ms	60 Hz	—
24 VDC ± 10%	100 mA	PNP**	—	EP120-15701	—	100 mA	—	100 Hz	—

* UL Listed

** EP120-15701 has both relay (SPDT) and transistor (PNP) outputs.

*** Tri-Color LED used on Fiber Optic EP140 Series only.

Thru-Beam EP120 series use standard red LED indicators.

► Fiber optic cables not included with fiber optic sensors. See Accessories for a wide variety of fiber optic cables.

Common Sensor Characteristics

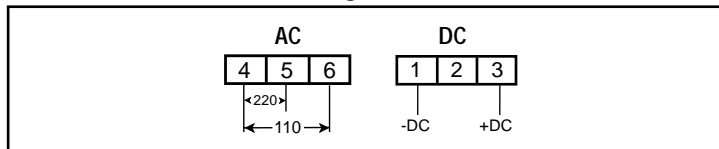
THRU-BEAM & FIBER OPTIC HEAVY DUTY SENSORS		
	Thru-Beam	Fiber Optic
Sensing Range	0-400 ft.	See Photoelectric Accessories section
Lens	Glass	
Light Source	Modulated Infrared LED	
Light/Dark Operate — Selectable	yes	yes
Optional Plug-in Timers*	yes	
NEMA Enclosure Type	3, 4, 12 & 13	
Temperature Range***	-30°C to +60°C	-20°C to +70°C
UL/CSA Certifications	no	yes
Sensitivity Adjustment	no	yes
Optic Heater	yes	no
Cable Entry	1/2" - 14 NPT Conduit	
Shipping Weight	18 oz.	20 oz.

* Refer to Photoelectric Accessories section

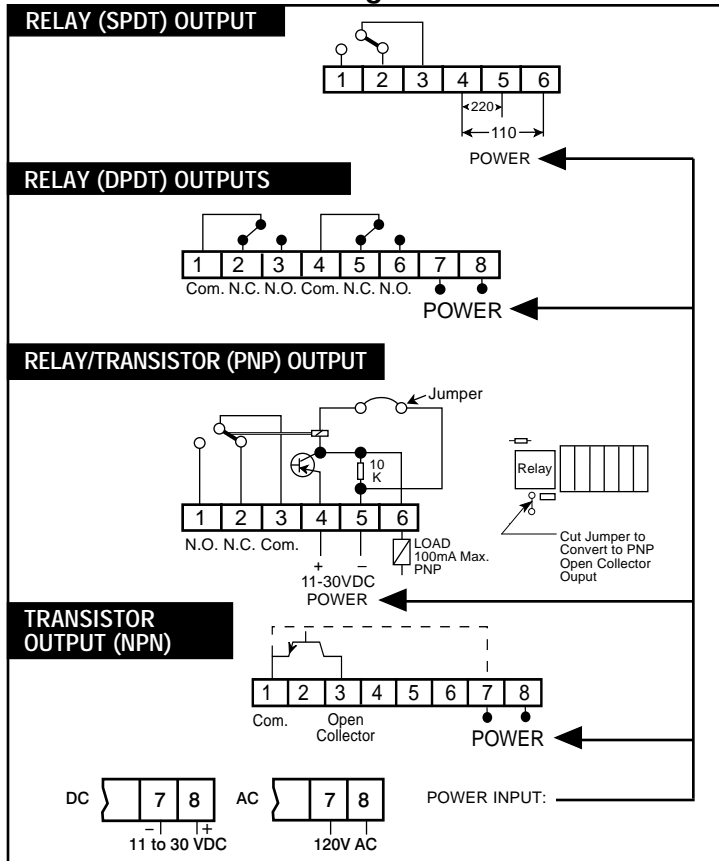
** See chart on previous page.

*** Temperature range for Fiber Optic Cable is:
-40°F to + 525°F (stainless steel), -40°F to + 235°F (PVC)

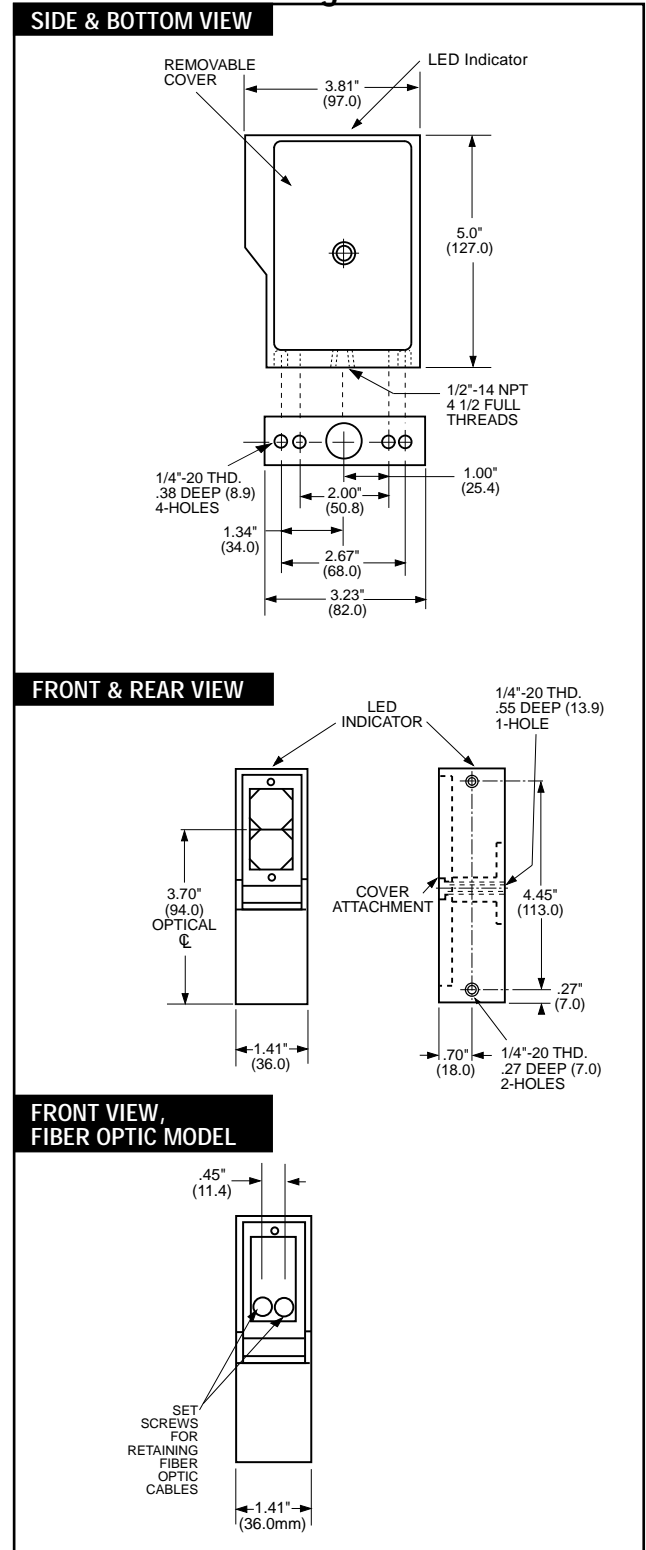
Emitter Circuit Drawings



Receiver Circuit Drawings



Dimensional Drawings



Photoelectric Sensors



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Mayfield Village, OH 44143
(440) 460-1360 • FAX (440) 460-3800 • namcocontrols.com

For technical assistance, call 1-800-NAMTECH