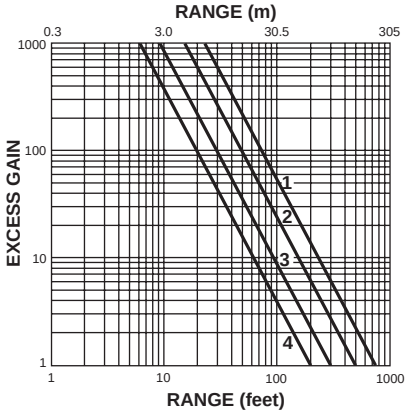
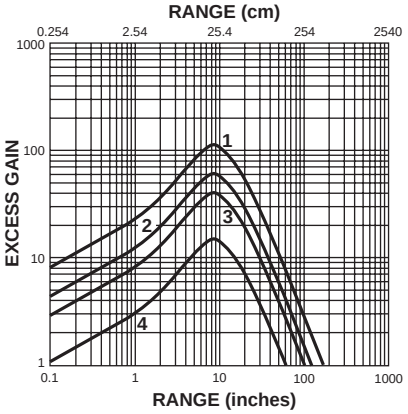
Excess Gain



Thru-Beam

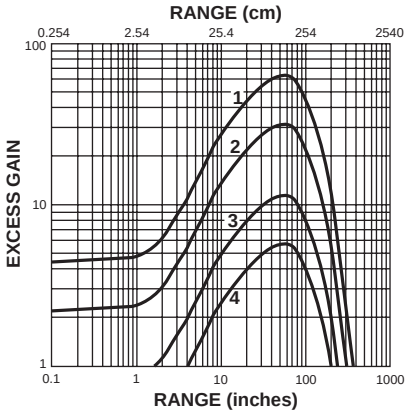
1. 1151E/1251E – Typical
2. 1151E/1251E – Minimum
3. 1150E/1250E – Typical
4. 1150E/1250E – Minimum



Diffuse Reflective

90% Reflectance White Card:

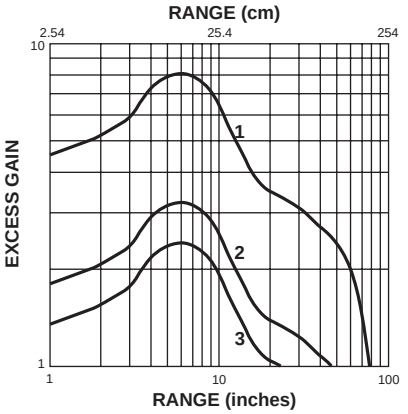
1. 1351E – Typical
2. 1351E – Minimum
3. 1350E – Typical
4. 1350E – Minimum



Reflex

3-inch Diameter Retroreflector:

1. 1450E – Typical
2. 1450E – Minimum
3. 1451E – Typical
4. 1451E – Minimum



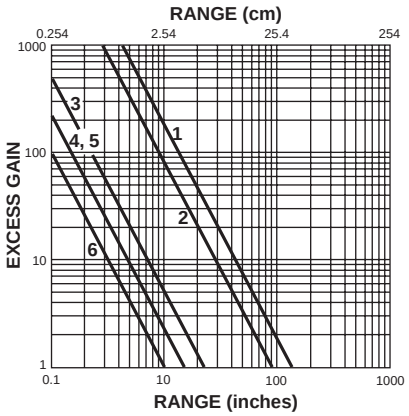
Clear Object Detector

3" E64KR64 High Gain Reflector:

1. 1452E – Typical
2. 1452E – Minimum

3" E51KR84 Std. Reflector:

3. 1452E – Minimum



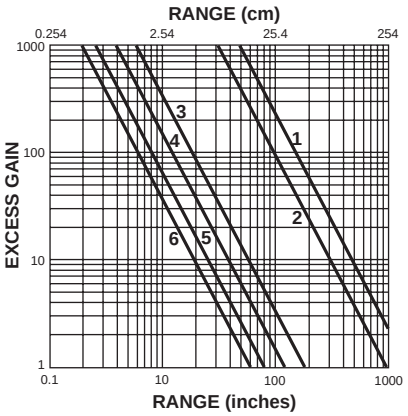
Fiber Optic Diffuse

.125" Dia. Glass Fiber:

1. 1550E – Typical
2. 1550E – Minimum
3. 1551E – Typical
4. 1551E – Minimum

.040" Dia. Plastic Fiber:

5. 1551E – Typical
6. 1551E – Minimum



Fiber Optic Thru-Beam

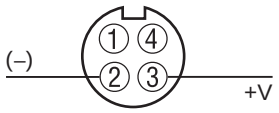
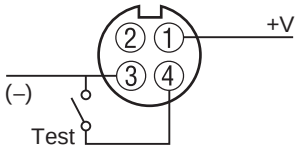
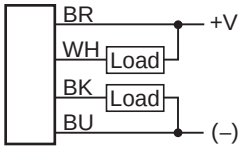
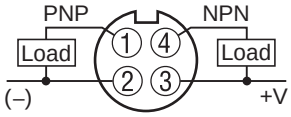
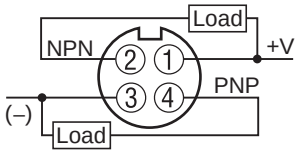
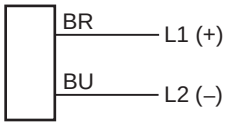
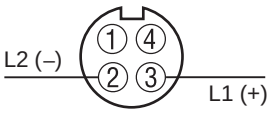
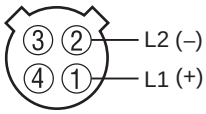
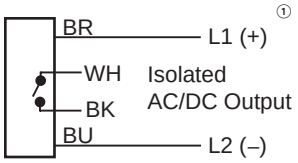
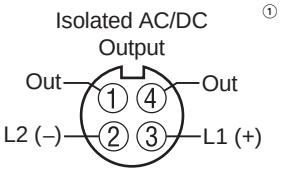
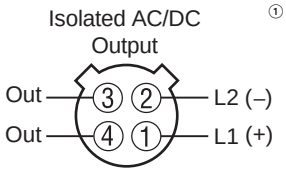
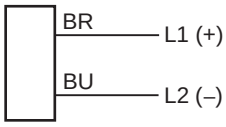
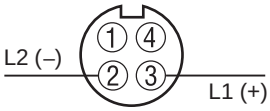
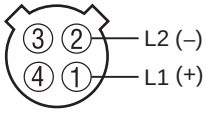
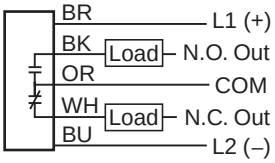
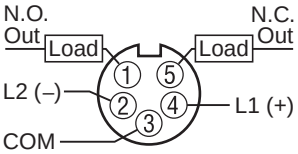
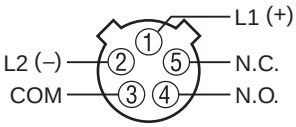
.125" Dia. Glass Fiber:

1. 1550E – Typical
2. 1550E – Minimum
3. 1551E – Typical
4. 1551E – Minimum

.040" Dia. Plastic Fiber:

5. 1551E – Typical
6. 1551E – Minimum

Wiring Diagrams (Pin numbers are for reference only, rely on pin location when wiring)

Operating Voltage	Models	Cable Models	Mini-Connector Models (Face View Male Shown)	Micro-Connector Models (Face View Male Shown)
10 – 40V DC	Thru-Beam Source			
	All others			
12 – 240V DC or 24 – 240V AC Solid-State Relay	Thru-Beam Source			
	All others			
12 – 240V DC or 24 – 240V AC SPDT EM Relay	Thru-Beam Source			
	All others			

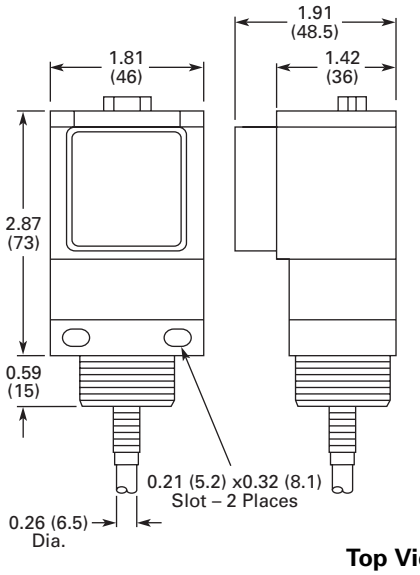
① Connect load to appropriate output for either sinking or sourcing operation.
② Connecting the Test input to 0V DC allows you to switch the light source off for troubleshooting while leaving the sensor under power.

Specifications

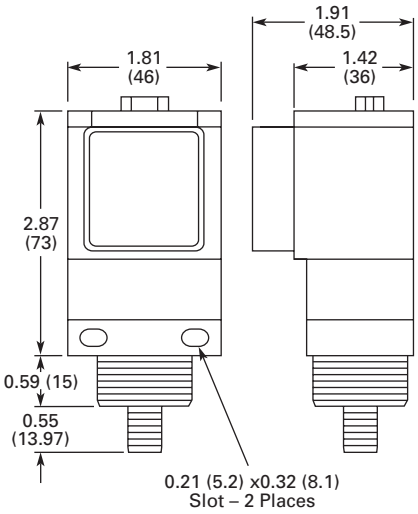
	AC/DC EM Relay Models	AC/DC Solid-State Relay Models	DC Only Standard Range Models	DC Only Extended Range Models
Input Voltage	12 – 140V DC 24 – 240V AC	12 – 140V DC 24 – 240V AC	10 – 40V DC	10 – 40V DC
Light/Dark Operation	Switch selectable			
Operating Temperature	-13 – 131°F (-25 – 55°C)			
Humidity	95% Relative humidity, non-condensing			
Case Material	Fiberglass reinforced plastic			
Lens Material	Acrylic			
Vibration	IEC 60947-5-2 part 7.4.2			
Shock	IEC 60947-5-2 part 7.4.1			
Protection	Output short circuit and overcurrent protection Reverse polarity protection			
Enclosure Ratings	IP67			
Output Load	10A @ 120V AC 5A @ 240V AC 10A @ 28V AC	300 mA @ 240V AC/DC	250 mA	250 mA
Response Time	15 mS	2 mS	2 mS	8 mS
Timer Timing Response	0 – 15 sec.	0 – 15 sec.	0 – 15 sec.	0 – 15 sec.
No Load Current	<30 mA			
Leakage Current (max.)	—	1 mA @ 240V AC	<10 µA	<10 µA
Indicator LEDs	Green: Power, Yellow: Output, Red: Alignment			

Approximate Dimensions in Inches (mm)

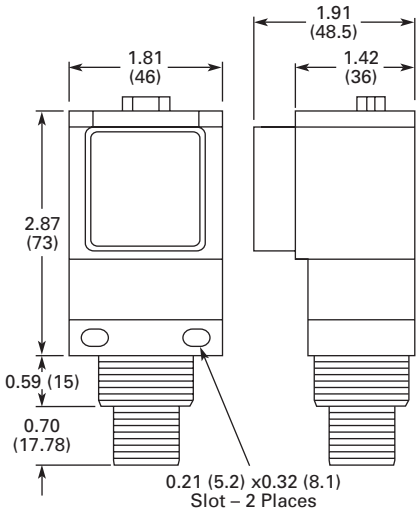
Cable Versions



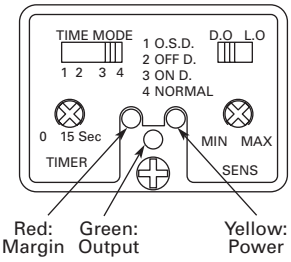
Micro Connector Versions



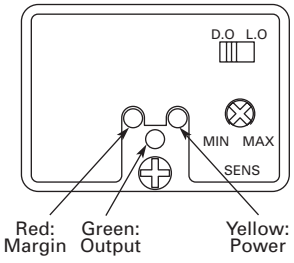
Mini Connector Versions



Top View



With Timing



Without Timing