

The **7680 Series** was developed for its choice of AC/DC or DC power supply and small inexpensive package. Available in four operating modes. These sensors have a NEMA 4 rating and three output types: (Relay, FET or NPN), making this series ideal for many applications.

- Compact Size
- 10 to 30V DC or 10-135V AC/DC
- NPN, Relay or Solid-State Output
- Short and Long Range Diffuse
- Polarized Retroreflective
- NEMA 4 Housing
- Output LED



Mini Self-Contained Photoelectric Sensor

SPECIFICATIONS

		7682A Short Range Diffused		7683A Retroreflective		7684A Long Range Diffused		7685A Retroreflective Polarized	
SENSING	Maximum Distance	4" (10 cm)		12' (3.5 m)*		18" (0.5 m)		12' (3.5 m)*	
	Minimum Target Size	0.2" (5 mm)		2.0" (5.1 cm)**		0.5" (1.25 cm)		2.0" (5.1 cm)**	
INPUT	Voltage	10-30 VDC	10-30 VDC 10-135 VAC	10-30 VDC	10-30 VDC 10-135 VAC	10-30 VDC	10-30 VDC 10-135 VAC	10-30 VDC	10-30 VDC 10-135 VAC
	Current (nominal)	30 mA	45 mA	30 mA	45 mA	30 mA	45 mA	30 mA	45 mA
OUTPUT	Type	NPN	FET	NPN	FET	NPN	FET	NPN	FET
	Capacity	200 mA	100 mA	200 mA	100 mA	200 mA	100 mA	200 mA	100 mA
	Response Time	<2 ms	<3 ms	<2 ms	<3 ms	<2 ms	<3 ms	<2 ms	<3 ms
	Max. Switching Rate	500 Hz	166 Hz	500 Hz	166 Hz	500 Hz	166 Hz	500 Hz	166 Hz
	Type		SPDT Relay		SPDT Relay		SPDT Relay		SPDT Relay
	Capacity		1.0 @30 VDC 5A@120 VAC		1.0 @30 VDC 5A@120 VAC		1.0 @30 VDC 5A@120 VAC		1.0 @30 VDC 5A@120 VAC
	Response Time		<5 ms		<5 ms		<5 ms		<5 ms
	Max. Switching Rate		100 Hz		100 Hz		100 Hz		100 Hz
ENVIRONMENT	Ambient Temperature	-13° to 131° F (-25° to 55° C)				-13° to 131° F (-25° to 55° C)			
	Humidity	Maximum Relative Humidity 85%				Maximum Relative Humidity 85%			
PHYSICAL	Housing	Non Metallic, NEMA 4				Non Metallic, NEMA 4			
	Light Emitting Element	Infrared				Infrared		Visible Red	
	Weight Shipping/Unit	7.7 oz. /3.5 oz.		8.3 oz. /3.5 oz.		7.7 oz. /3.5 oz.		8.3 oz. /3.5 oz.	

* Using 2 inch square reflector supplied with sensor. See Ordering Codes for other reflectors.

**Object size shown equals reflector size. Detection of smaller objects possible.

*** Based on sensing a 2 X 2" 90% reflective Kodak white card.

#20 CPM at full rated current for relay output models.

MODEL NUMBER >>>>>	768	4	2		
Type					
Short Range Diffused	2AD				
Retroreflective (IR)	3AR				
Long Range Diffused	4AD				
Polarized Retroreflective (red)	5AR				
Operation					
On/Off	4				
Power Requirements					
10-30 VDC	N				
10-30 VDC/10-135 VAC	F				
Beam Type					
Visible Red Polarized (7685 only)	1				
Infrared	2				
View					
End View	2				
Output					
Logic (DC) NPN Available with option N only	N				
Relay (SPDT) Available with option F only	R				
Solid State (FET) Available with option F only	S				
Features					
Standard	X				
Special	K				

*NOTE: 2" square reflector shipped with retroreflective units.
One mounting bracket and hardware shipped with units.

ACCESSORIES

7690-105-01-00: Mounting Bracket and Hardware

REFLECTORS

7002-210-01-00: 3" Diameter Retroreflective Target
Sensing Distance-9.0 ft.

7002-210-02-00: 1-5/8" Diameter Retroreflective Target
Sensing Distance-5.5 ft.

7002-210-03-00: 7/8" Diameter Retroreflective Target
Sensing Distance-5.0 ft.

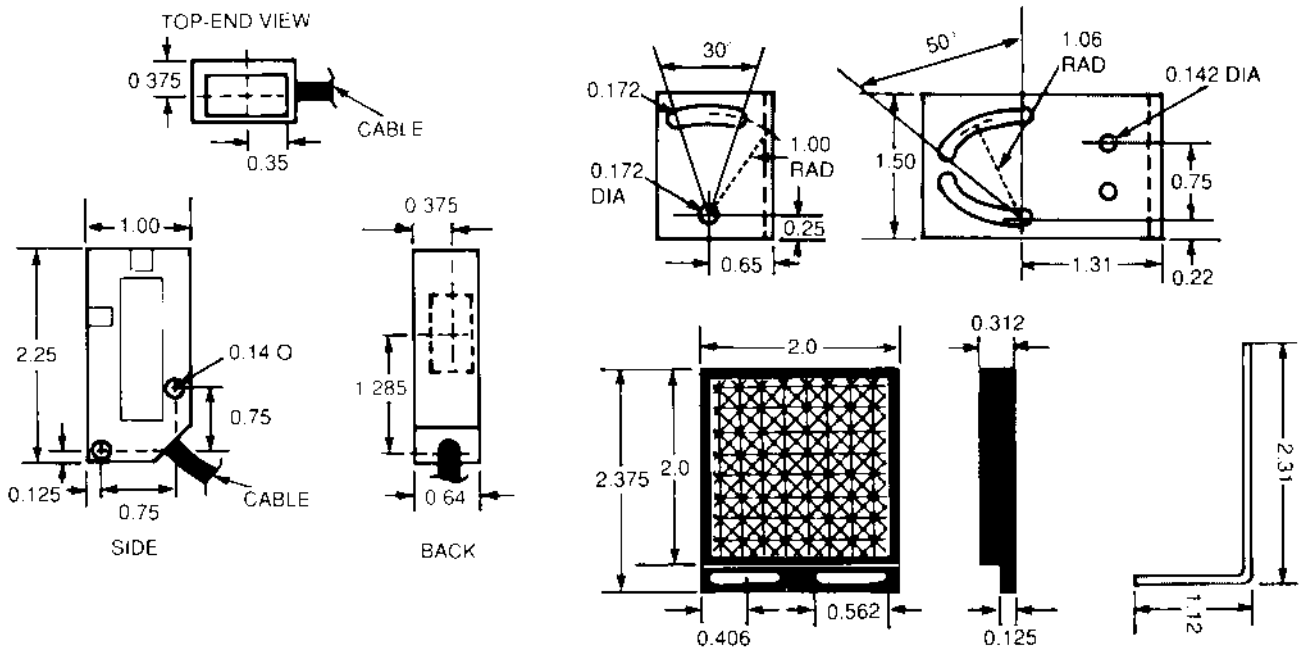
7002-210-04-00: 5/8" Diameter Retroreflective Target
Sensing Distance-3.0 ft.

0000-181-20-00: 1-1/2 X 3" Adhesive Backed Reflector
Sensing Distance-7.0 ft.

0000-181-53-00: 1.4" Square Reflector
Sensing Distance-8.0 ft.

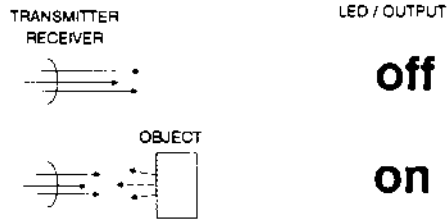
0000-181-52-00: 2" Square Reflector*
Sensing Distance-12.0 ft.

DIMENSIONS (INCHES)

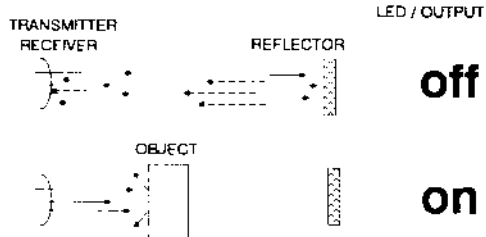


OPERATING MODES

DIFFUSE REFLECTIVE

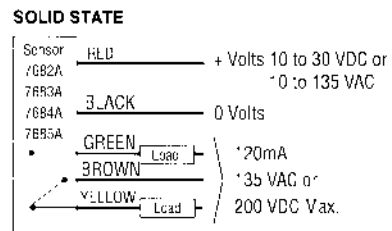


RETRO REFLECTIVE



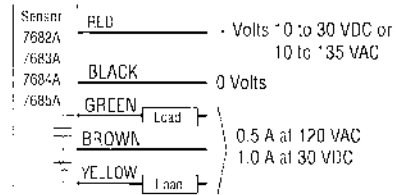
WIRING

AC/DC MODEL



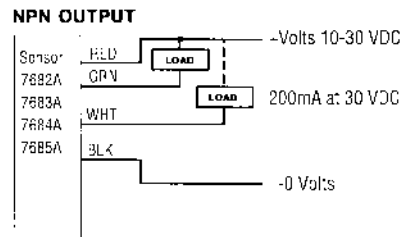
DUAL FET OUTPUT (SPDT)

RELAY



RELAY OUTPUT (SPDT)

DC MODEL



NOTE: The load connected to the green wire is energized when the LED is on. The load connected to the white wire is energized when the LED is off.

OPERATING CHARACTERISTICS

