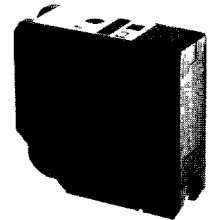


## S6 series

- Multivoltage 15 to 264 Vac/Vdc-relay output.
- 10 to 30 Vdc-dual NPN/ PNP output configuration.
- Built-in amplifier.
- Dark/light selection.
- Retroreflex with polarization filter version.
- Standard sensitivity adjustment.
- ALARM output.
- TEST input version available



### TECHNICAL DESCRIPTION

The new S6 Series, miniaturized photoelectric sensor, is available in the following versions:

RETROREFLEX  
 RETROREFLEX POLARIZED  
 PROXIMITY SCANNER  
 EMITTER/RECEIVER

The S6 Series is supplied in multivoltage 15 to 264 Vac/Vdc versions. The S6 Series is provided with relay output 3A SPDT in multivoltage version and NPN/PNP configuration in 10 to 30 Vdc version.

The S6 photocell has standard dark/light selectable and sensitivity adjustment. On the emitter/receiver version the S6 is supplied as standard with both TEST input and ALARM output functions which provide an auto-diagnostic test facility and an immediate warning of failure. The S6 Series is housed in ABS, IP65 and supplied with 2 m (6.6 ft) cable length and fixing bracket

### APPLICATIONS

- General use on automation machinery.
- Presence detection counting.
- Automatic door initiation
- Detection of shiny objects
- Automatic storage control



## GENERAL INFORMATION

The new miniature photoelectric sensor with built-in amplifier, S6 Series, is manufactured in 15 to 264 Vac/Vdc multivoltage or 10 to 30 Vdc versions.

All models can have 3 A - 250 V relay output or dual NPN/PNP output configuration.

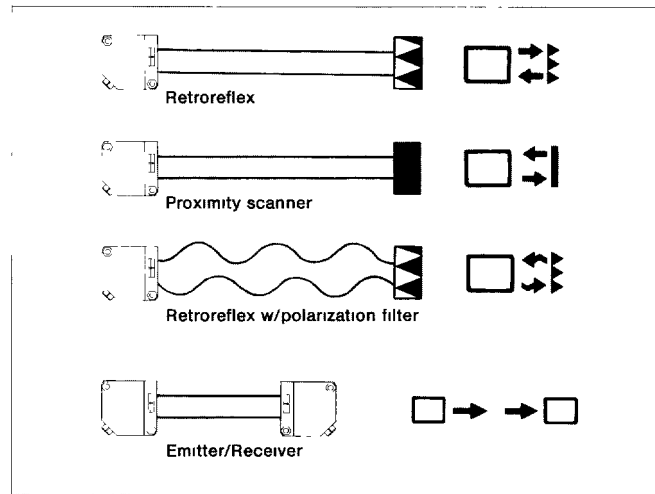
The S6 photocell is provided with dark/light selection and standard sensitivity adjustment.

The S6 photocell is available in retroreflex with polarization filter, retroreflex, proximity scanner and emitter/receiver version

The S6 sensor is housed in ABS plastic, and IP65.

The sensor is provided with standard bracket and R2 reflector in retroreflex version only

## FUNCTIONS



## SPECIFICATIONS

Type of emission	IR LED for proximity scanner, retroreflex and emitter AC/DC version Red LED for polarized retroreflex AC/DC version
Lenses	PMMA Methacrylate
Indicator	Red output LED
Housing material	ABS UL 94 V-O
Protection class	IP65
Connecting cable	2 m (6.6 ft) $\phi$ 6 mm (0.24")
DC version	+, -, out +, out -, dark/light
AC/DC version	P.S., P.S., NO, NC, Common
Operating temperature	-15° to +55°C (+5° to +131°F)
Storage temperature	-20° to +70°C (-4° to +158°F)
Weight	approx 80 g (2.80 oz)
Dimensions	50 x 50 x 18 mm (1.97" x 1.97" x 0.7")
Ambient light rejection	3000 lux max incandescent lamp, 10000 lux max sun light
Vibration	10 to 55 Hz, amplitude 1.5 mm (0.06") p-p, 2 hours each in axes X, Y, Z
Humidity	35 to 85% RH (no condensation)
Shock resistance	500 m/sec <sup>2</sup> (Approx 50 G) 3 shocks each in 3 axes
Sensitivity control	Standard on all models
Hysteresis	10% max
Dark/light selection	Standard (selection by red wire in DC version and by trimmer in multivoltage AC/DC version)

Power supply	<b>MULTIVOLTAGE TYPE (AC/DC)</b>
	15 to 264 Vac/Vdc, 48 to 60 Hz
	40 mA max
	Relay 1 NO, NC contact
	Rated load 250 Vac, 30 Vdc/3 A (resistive load)
Current consumption	250 V/0.4 A, $\cos \phi = 0.4$ (inductive load)
	Minimum applicable load
	10 mA/5 Vdc (reference value)
	Electrical life min 100 000 op
	Mechanical life min 10 x 10 <sup>6</sup> op
Output	3 A max
	2 op/sec max
Load current	<b>DC TYPE (DC)</b>
	10 to 30 Vdc
Response Time	30 mA max
	30 ms max
Switching frequency	Voltage ripple
	2 Vpp max
Power supply	NPN/PNP transistor output
	30 Vdc max
Current consumption	100 mA max short-circuit protection
	1.5 V max (NPN or PNP output)
Voltage ripple	Response time
	1 ms max (2 ms max for emitter/receiver)
Output	Switching frequency
	500 Hz max (250 Hz max for emitter/receiver)

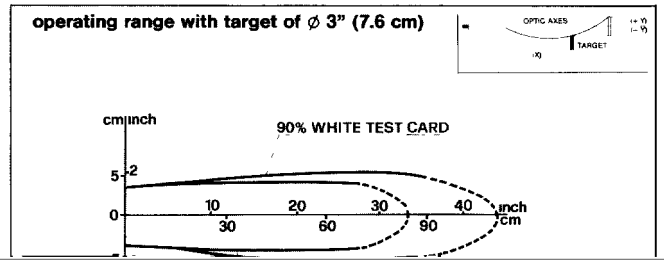
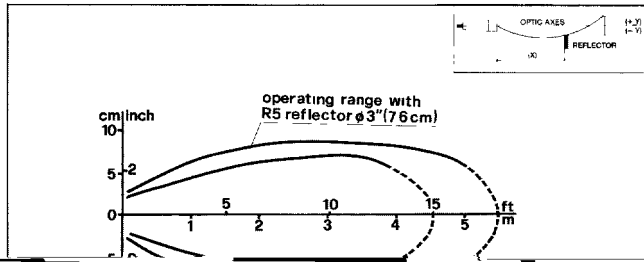
## MODELS SELECTION TABLE

TYPE	FUNCTION MAX OPERATING DISTANCE	OUTPUT	POWER SUPPLY		ORDER No
			DC	AC	
S6-5-A4 (1)	retroreflex 0,1 to 4 m (0.33 to 13.1 ft)	NPN/PNP	10 to 30 V		S937330000
S6-5-B3 (1)	retroreflex w/polarization filter 0,1 to 3 m (0.33 to 2.8 ft)	NPN/PNP	10 to 30 V		S937420000
S6-5-C90	prox scanner 90 cm (35.4")	NPN/PNP	10 to 30 V		S937530000
S6-5-G5	emitter 5 m (16.4 ft)		10 to 30 V		S937130000
S6-5-F5	receiver 5 m (16.4 ft)	NPN/PNP	10 to 30 V		S937200010
<b>MULTIVOLTAGE</b>					
S6-1-A4 (1)	retroreflex 0,1 to 4 m (0.33 to 13.1 ft)	Relay	15 to 264 Vdc	15 to 264 Vac	S937330090
S6-1-B3 (1)	retroreflex w/polarization filter 0,1 to 3 m (0.33 to 0.8 ft)	Relay	15 to 264 Vdc	15 to 264 Vac	S937420090
S6-1-C90	prox scanner 90 cm (35.4")	Relay	15 to 264 Vdc	15 to 264 Vac	S937530090
S6-1-G5	emitter 5 m (16.4 ft)		15 to 264 Vdc	15 to 264 Vac	S937130090
S6-1-F5	receiver 5 m (16.4 ft)	Relay	15 to 264 Vdc	15 to 264 Vac	S937200090

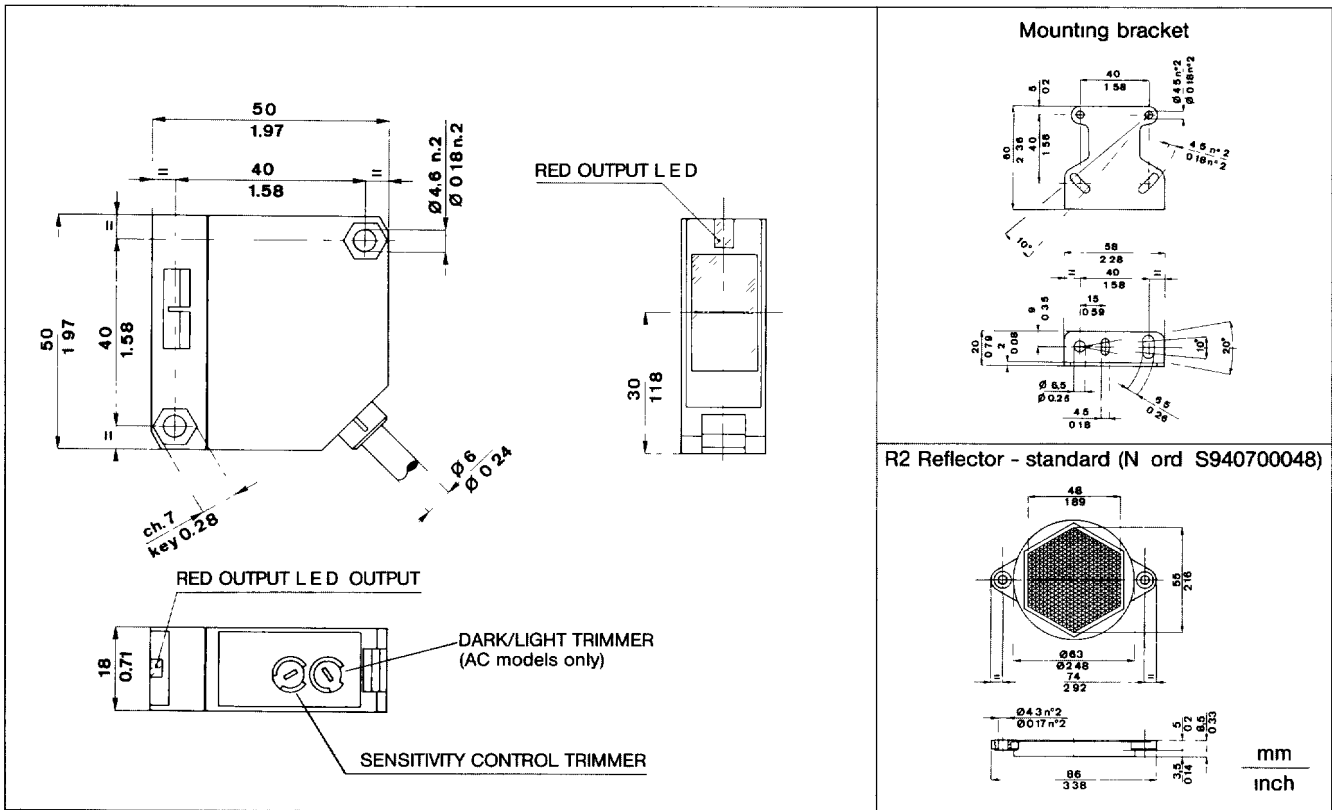
(1) R2 2" ( $\phi$  50 mm) reflector is included See back page for dimensions



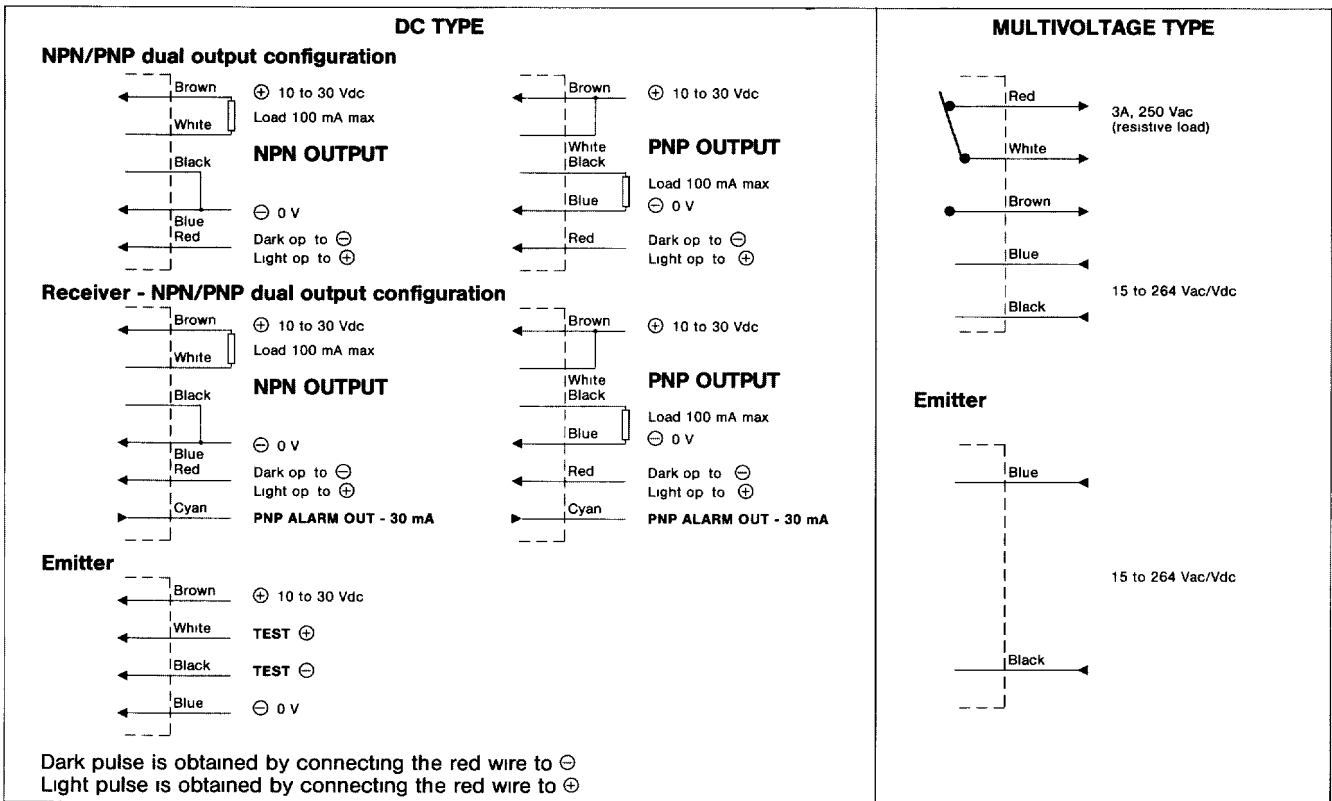
CHARACTERISTICS DIAGRAM: EFFECTIVE BEAM DIAMETER



OVERALL DIMENSIONS



CONNECTIONS



We reserve the right to make modifications and improvements

