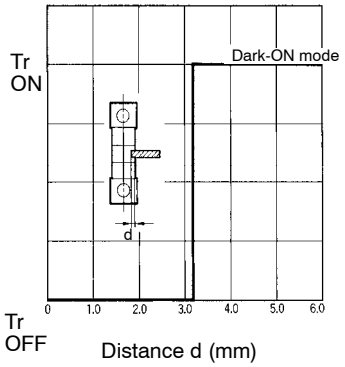
■ CHARACTERISTICS

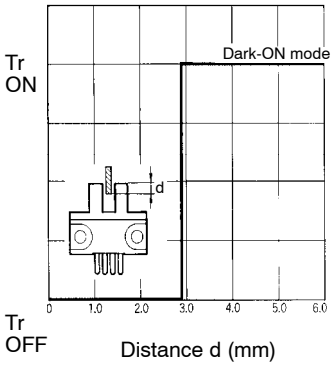
Ambient illumination (See note 1.)		Fluorescent light: 1,000 ℓ x max.
Ambient temperature	Operating	-25°C to 55°C (-13°F to 131°F)
	Storage	-30°C to 80°C (-22°F to 176°F)
Ambient humidity	Operating	5% to 85%
	Storage	5% to 95%
Vibration resistance		Destruction: 20 to 2,000 Hz, (with a peak acceleration of 10 G), 1.5-mm double amplitude for 2 hrs (with 4-minute cycles) each in X, Y, and Z directions
Shock resistance		Destruction: 500 m/s^2 (approx. 50G) for 3 times each in X, Y, and Z directions
Soldering heat resistance (See note 2.)		260°±5°C when the portion between the tip of the terminals and the position 1.5 mm from the terminal base is dipped into the solder for 10±1 seconds
Degree of protection		IEC 60529, IP50
Materials	Case	Polybutylene teraphthalate (PBT)
	Cover	Polycarbonate (PC)
	Emitter/Receiver	Polycarbonate (PC)

Note: 1. The ambient luminance is measured on the surface of the receiver.
2. This conforms to MIL-STD-750-2031-1.

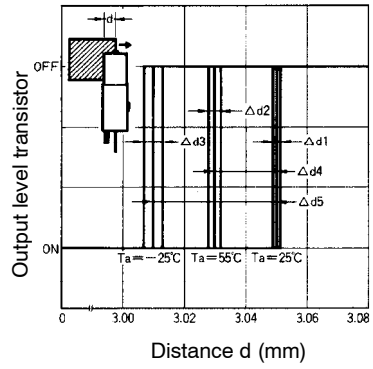
Engineering Data

■ SENSING POSITION CHARACTERISTICS (TYPICAL)



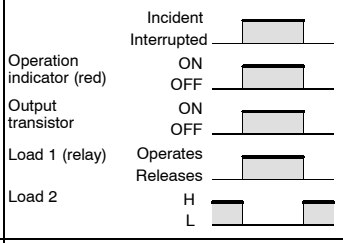
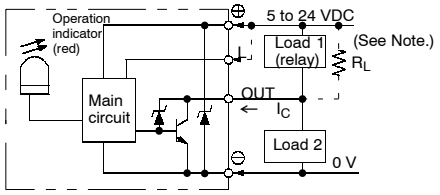
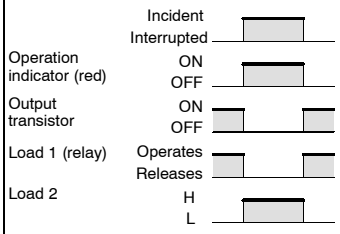
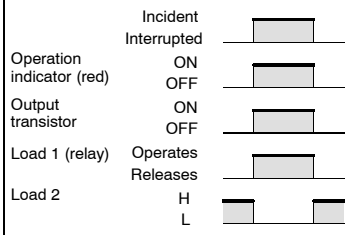
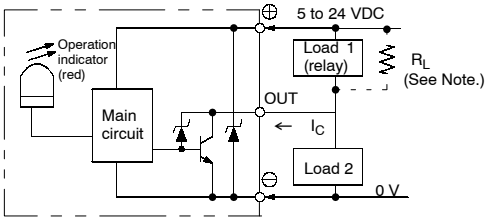
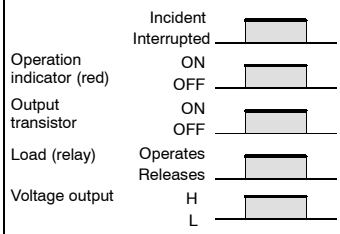
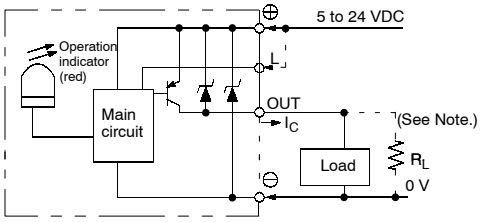
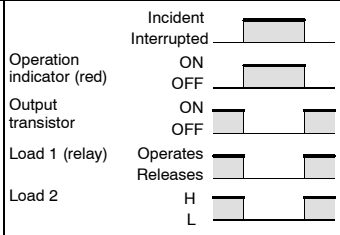
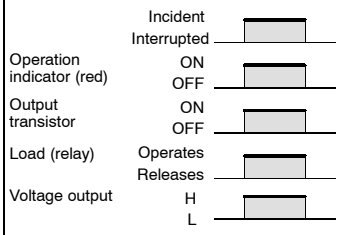
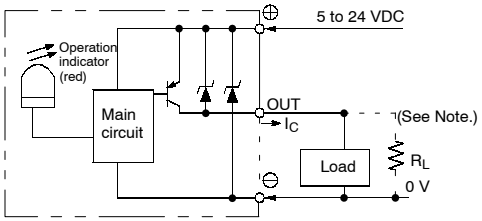


■ REPEATED SENSING POSITION CHARACTERISTICS (TYPICAL)



No. of repetitions: 20 at V_{CC} = 12 V
△d1 = 0.002 mm
△d2 = 0.004 mm
△d3 = 0.005 mm
△d4 = 0.02 mm
△d5 = 0.04 mm

Operation

Output configuration	Model	Output transistor operation	Timing charts	Output circuit
NPN output	EE-SX670 EE-SX671 EE-SX672 EE-SX673 EE-SX674	Light-ON	(When terminals L and ⊕ are short circuited 	 Note: When using a voltage output, always insert a resistor in R_L.
		Dark-ON		
	EE-SX470 EE-SX471 EE-SX472 EE-SX473 EE-SX474	Light-ON		 Note: When using a voltage output, always insert a resistor in R_L.
PNP output	EE-SX670P EE-SX671P EE-SX672P EE-SX673P EE-SX674P	Light-ON	(When terminals L and ⊕ are short circuited) 	 Note: When using a voltage output, always insert a resistor in R_L.
		Dark-ON		
	EE-SX470P EE-SX471P EE-SX472P EE-SX473P EE-SX474P	Light-ON		 Note: When using a voltage output, always insert a resistor in R_L.