

## C-I-8 Sensor specification

### C-I-8.1 Proximity switch

#### Use of OMRON E2S-W13,E2S-W14

Item	E2S – W13 type	E2S – W14 type
Setting surface	Front face	
Sensing distance	1.6mm ±15 %	
Setting distance	0 to 1.2mm	
Differential travel	10% max. of sensing distance	
Detectable object type	Ferrous metal	
Standard sensing object	Iron, 12 x 12 x 1mm	
Response frequency	1 kHz min.	
Power supply voltage (operating voltage range)	12 to 24 V DC, ripple (p-p): 10% max., (10 to 30 V DC)	
Current consumption	13 mA max. at 24 V DC with no load	
Control output (Switching Capacity)	NPN open collector output 50 mA max.(30 V DC max.)	
Control output(Residual voltage)	1.0 V max. with a load current of 50 mA and a cable length of 1 m	
Indicator	Operation indicator (orange)	
Operating status (with sensing object approaching)	NO	NC

Movement mode	Output type	Type	Time chart	Output circuit
NO	NPN	E2S-W13 type	Target object: Yes (ON), No (OFF) Output transistor (load): ON (ON), OFF (OFF) Output transistor (orange): ON (ON), OFF (OFF)	<p>*(Maximum load current : 50mA)</p>
		E2S-W14 type	Target object: Yes (ON), No (OFF) Output transistor (load): ON (OFF), OFF (ON) Output transistor (orange): ON (OFF), OFF (ON)	

### C-I-8.2 Photo sensor

#### Use of OMRON EE-SX674

Item	EE-SX674 type
Slot width	5mm
Standard reference object	Opaque: 2 x 0.8 mm
Differential distance	0.025mm
Light source	GaAs infrared LED with a peak wavelength of 940 nm
Indicator(Without detecting object)	ON GaP red LED (peak emission wavelength: 690 nm).
Supply voltage	5 to 24VDC ±10 %, ripple: (p-p) 10 % max.
Current consumption	35mA max.
Control output	NPN open collector output models: At 5 to 24 VDC: 100 mA load current
Response frequency	1kHz max. (3kHz typ.)
Ambient illumination	Fluorescent light: 1,000 lx 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 %RH Storage : 5 to 95 %RH
Connecting method	EE-1001/1006 Connectors; soldering terminals

Type	Movement mode	Time chart	Connection terminal	Output circuit
EE-SX674 type	Light-ON	Incident: ON (ON), OFF (OFF) Indicator (red): ON (ON), OFF (OFF) Output transistor: ON (ON), OFF (OFF) Load 1 (relay): Operates (ON), Releases (OFF) Load 2: H (ON), L (OFF)	When terminals L and ⊕ are short circuited	<p>DC 5 to 24V IC (Control output) Less than 100mA</p>
	Dark-ON	Incident: ON (OFF), OFF (ON) Indicator (red): ON (OFF), OFF (ON) Output transistor: ON (OFF), OFF (ON) Load 1 (relay): Operates (OFF), Releases (ON) Load 2: H (OFF), L (ON)	When terminals L and ⊕ are open circuited	