

Product Discontinuation Notices

March 1, 2010

Proximity Sensors

No. 2010053E

Discontinuation Notice of Proximity Sensor Model E2R series

Product Discontinuation



Proximity sensor

Model E2R-A01

Accessory

Model E22-01

(Connector cable for E2R-A01)

Recommended Replacement

Proximity sensor

Model TL-W5MC1

Discontinuation date : The end of September, 2011

Caution on recommended replacement

- 1) Differences are type of connection
E2R-A01+E22-01:connector and connection code type
TL-W5MC1: prewired type
- 2) Mounting dimensions
E2R-A01: 20mm ± 0.1mm
TL-W5MC1:12mm ± 0.1mm
- 3) Response frequency
E2R-A01: 5 kHz min.
TL-W5MC1:500Hz min.
- 4) Load current
E2R-A01: 100mA max. (12 to 24VDC)
TL-W5MC1: 50mA max. (12 VDC) 100mA max. (24VDC)
- 5) Additionally, please refer to characteristics.

Difference from discontinued product

Model	Body Color	Dimensions	Wire connection	Mounting Dimensions	Characteristics	Operation ratings	Operation methods
TL-W5MC1	*	--	--	--	*	*	-

** : Fully compatible

* : The change is a little/Almost compatible

-- : Not compatible

- : No corresponding specification

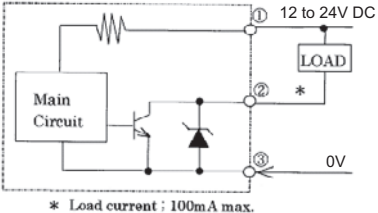
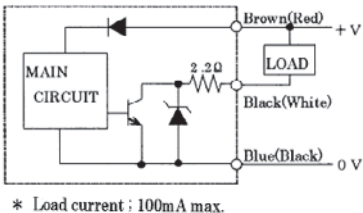
Product Discontinuation and recommended replacement

Product discontinuation	Recommended replacement
E2R-A01	TL-W5MC1 2M
E22-01 (Connector cable for E2R-A01)	-

Dimensions

Product discontinuation	Recommendable replacement
<p>E2R-A01</p> <p>2-3.4dia Mounting holes</p> <p>Sensing surface</p> <p>Operating indicator</p> <p>Terminal</p> <p>Mounting screw holes</p> <p>2-M3</p> <p>20±0.3</p>	<p>TL-W5MC1</p> <p>Sensing surface</p> <p>Indicator *2</p> <p>*1. TL-W5MC1 4-dia. vinyl-insulated round cable with 3 conductors (Conductor cross section: 0.2 mm², Insulator diameter: 1.2 mm), Standard length: 2 m</p> <p>*2. C Models: Detection Indicator (red)</p>
<p>E22-01</p> <p>Vinyl insulated round code 1.7dia (17/0.16) Standard length 1M</p> <p>1 Brown 2 Black 3 Blue</p> <p>Connector Type:5209-03 (Molex)</p>	

Wire Connection

Product discontinuation E2R-A01	Recommendable replacement TL-W5MC1
<p>1) Connection method Connector Models</p> <p>2) I/O circuit diagram</p>  <p>The diagram shows a 'Main Circuit' block connected to three terminals. Terminal 1 is labeled '12 to 24V DC'. Terminal 2 is labeled with an asterisk '*'. Terminal 3 is labeled '0V'. A 'LOAD' is connected between terminals 1 and 2. A diode is connected between terminals 2 and 3, with its cathode towards terminal 2.</p> <p>* Load current : 100mA max.</p>	<p>1) Connection method Pre-wired Model</p> <p>2) I/O circuit diagram</p>  <p>The diagram shows a 'MAIN CIRCUIT' block connected to three terminals. The top terminal is labeled 'Brown(Red) +V'. The middle terminal is labeled 'Black(White)'. The bottom terminal is labeled 'Blue(Black) 0V'. A 'LOAD' is connected between the top and middle terminals. A 2.2Ω resistor is connected between the middle and bottom terminals. A diode is connected between the middle and bottom terminals, with its cathode towards the middle terminal.</p> <p>* Load current : 100mA max.</p>

Mounting dimensions

Product discontinuation	Recommendable replacement
<p>1) Mounting holes 20±0.1mm</p> <p>2) Mounting screw 2-M3</p>	<p>1) Mounting holes 12±0.1mm</p> <p>2) Mounting screw 2-M3</p>

Characteristics

Item	Model	Product discontinuation E2R-A01	Recommendable replacement TL-W5MC1
Sensing distance		5mm±15%	5mm±10%
Set distance		0 to 3.4mm	0 to 4mm
Differential travel		10% max. of sensing distance	
Standard sensing object		Iron, 18×18×1mm	
Response frequency		5kHz min.	500Hz min.
Power supply voltage (operating voltage range)		12VDC -10% to 24VDC +15% ripple (p-p):10% max.	12 to 24VDC (10 to 30VDC), ripple (p-p):10%max.
Current consumption		8mA max.	10mA max.
Control output	Load current	NPN open collector 100mA max.	NPN open collector 50mA max. at 12VDC (30VDC max.) 100mA max. at 24VDC (30VDC max.)
	Residual voltage	1V max. (under load current of 100mA with cable length of 1m)	1V max. (under load current of 50mA with cable length of 2m)
Indicators		Operating indicator (red)	Detection indicator (red)
Operation mode (with sensing object approaching)		NO	
Protection circuit		-	Reverse polarity protection, Surge suppressor
Ambient temperature range		Operating:-10 to 55°C Storage:-25 to 65°C (with no icing or condensation)	Operating/Storage:-25 to 70°C (with no icing or condensation)
Ambient humidity range		Operating/storage:35% to 85% (with no condensation)	Operating/storage:35% to 95% (with no condensation)
Temperature influence		±20% max. of sensing distance at 23°C in the temperature range of -10 to 55°C	±10% max. of sensing distance at 23°C in the temperature range of -25 to 70°C
Voltage influence		±2.5% max. of sensing distance at rated voltage in the rated voltage ±10% range	±2.5% max. of sensing distance at rated voltage in the rated voltage ±20% range
Insulation resistance		50MΩ min.(at 500VDC) between current-carrying parts and case	
Dielectric strength		1000VAC, 50/60Hz for 1 minute between current-carrying parts and case	
Vibration resistance		Destruction:10 to 55Hz, 1.5-mm double amplitude for 2 hours each in X,Y and Z directions	
Shock resistance		Destruction:500m/s ² 3 times each in X,Y and Z directions	
Degree of protection		IEC60529 IP50	IEC60529 IP67 in-house standards: oil-resistant
Materials		Case: PBT Cover: ABS	Case: Heat-resistant ABS Sensing surface: Heat-resistance ABS