MAPLE MODULAR PLC SERIES RTD&TC MODULES



IO-SA0400



IO-SA0400T

FEATURES

- Compatible expansion with any Maple modular PLC CPU.
- RTD module converts PT100, JPT100, PT1000, NI1000 into 14/16-bit digital value.
- TC module converts thermocouples (K, J, E, T, B, R, S, N) into 14-bit digital value.

BENEFITS

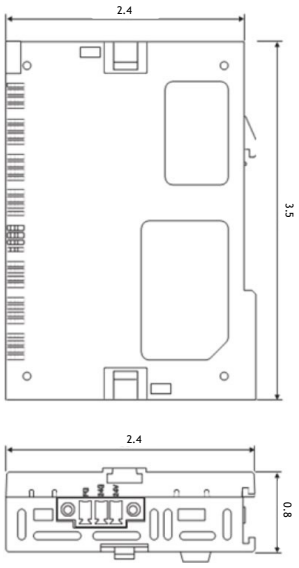
- Diagnostic LEDs.
- Auto detection for wire disconnection.
- Auto detection for out-of-range of measurement.

FUNCTIONAL

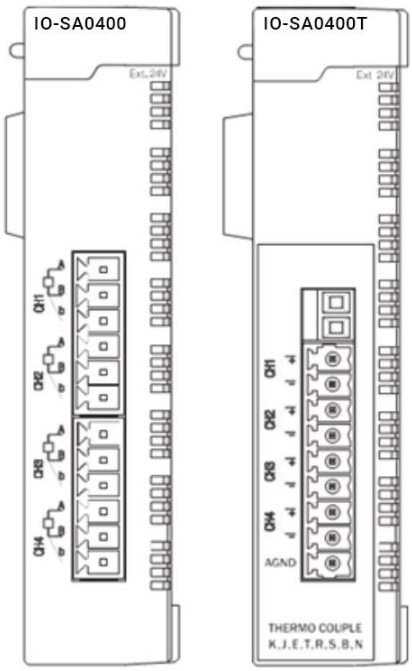
Part Number		IO-SA0400	IO-SA0400T
Type		RTD	Thermocouple
Sensor		PT100, JPT100, PT1000, Ni1000 (DIN 43760), Ni1000 (TCR 5000)	K, J, E, T, B, R, S, N type
Temperature Input Range		PT100: -200.0-600°C (18.52-313.71 Ω) JPT100: -200.0-600°C (17.14-317.31 Ω) PT1000: -200.0- 600°C (185.2-3137.1 Ω) Ni1000 (DIN 43760): -50.0-160°C (742.6-2065.9 Ω) Ni1000 (TCR 5000): -50.0-160°C (790.9-1863.6 Ω)	K: -200.0 - 1200.0°C (-5891 - 48838 uV) J: -200.0 - 800.0°C (-7890 - 48494 uV) E: -200.0 - 600.0°C (-8825 - 45093 uV) T: -200.0 - 400.0°C (-5603 - 20872 uV) B: 400.0 - 1800.0°C (787 - 13591 uV) R: 0.0 - 1750.0°C (0 - 20877 uV) S: 0.0 - 1750.0°C (0 - 18503 uV) N: -200.0 - 1250.0°C (-3990 - 45694 uV)
Digital Conversion		Digital converted value (14-bit): -192-16191 (-8192-8191, 0-16000, -8000-8000) Digital converted value (16-bit): 0-65000 (-32768-32767, 0-64000, -32000-32000) Detected Temp. value: -2000-6000 (First decimal place value * 10) or -500-1600 (First decimal place value * 10)	Digitally converted value: 0-16000 (-8000-8000)/- 192-16191 (-8192-8191) Converted temperature value: Range of measured temperature (one digit after the decimal point * 10)
Wire Disconnection Detection		3 wires per channel	Each channel
Accuracy		±0.1% (full scale)	±[(Full Scale) x 0.3% + 1°C (RJC Error)]
Max Conversion Rate		40 ms/4 Channels	50 ms/4 Channels
Number of Input Channels		4	
Insulation Type		Photocoupler between input terminal and PLC power	
Terminal Block		12 points Terminal Block	9 points Terminal Block
Current Consumption	**+3.3V**	40 mA	
	+24V	10 mA	

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**Both IO-SA0400 and IO-SA0400T have the same dimensions.*



(Unit: in)



PHYSICAL

Part Number	IO-SA0400	IO-SA0400T
Product Dimensions (H x W x D)	3.5 x 0.8 x 2.4 in (90 x 20 x 60 mm)	
Product Weight	0.34 lb (153 g)	0.19 lb (87.5g)

ENVIRONMENTAL

Item	Specification	Standards
Operating Temperature	-10 - +65 °C (+14 - +149 °F)	-
Storage Temperature	-25 - +80 °C (-13 - +176 °F)	-
Operating/Storage Relative Humidity	5 - 95% Non-condensing	-
Shock	15G	IEC 61131-2
Vibration	0.5G - Continuous 1G - Discontinuous	IEC 61131-2
Square Wave Impulse Noise	±2 kV	-
ESD Immunity	±4 kV - Contact Discharges ±8 kV - Air Discharges	IEC 61131-2 IEC 61000-4-2
Radiated Electromagnetic Immunity	80-1000 MHz, 10 V/m	IEC 61131-2 IEC 61000-4-3
Surge Transient Immunity	2 kV - CPU, Power 2 kV - Digital I/O (VAC) 1 kV - Digital I/O (VDC) 1 kV - Communication	IEC 61131-2 IEC 61000-4-4