



AFP7TC8 | FP7 Temperature input units



※Photo may vary from actual product.

Product Number	AFP7TC8
Part Number	AFP7TC8
Product	FP7 Temperature input units
Product name	FP7 Temperature input units

Spec Detail

As of May 30, 2021

Specifications and design of the products are subject to change without notice for the product improvement.

Item	Specifications
Product Number	AFP7TC8
Part Number	AFP7TC8
Number of channels	8 channels
Input range(resolution):Thermocouple(resolution: 0.1°C)	K1: -100.0 to 600.0degrees / K2: -200.0 to 1000.0degrees J1: -100.0 to 400.0degrees / J2: -200.0 to 750.0degrees T: -270.0 to 400.0degrees / N: -270.0 to 1300.0degrees R: 0.0 to 1760.0degrees / S: 0.0 to 1760.0degrees B: 0.0 to 1820.0degrees / E: -270.0 to 1000.0degrees PLI: 0.0 to 1390.0degrees / WRe5-26: 0.0 to 2315.0degrees
Input range(resolution):Voltage	-10 to 10V DC (resolution: 1/62,500) 0 to 5V DC (resolution: 1/31,250) 1 to 5V DC (resolution: 1/25,000)(Note) -100 to 100mV DC (resolution: 1/62,500) Resolution: max. 16 bits (Note) The full scale (F.S.) ranges of accuracy is 1 to 5 V DC for current input, respectively.
Input range(resolution):Current	0 to 20 mA (resolution: 1/31,250) 4 to 20 mA (resolution: 1/25,000)(Note) Resolution: max. 16 bits (Note) The full scale (F.S.) ranges of accuracy is 0 to 20 mA for current input, respectively.
Conversion speed	5 ms/channel + 5 ms (Note) 25 ms/channel + 25 ms Add the drift compensation measuring time to the number of measuring channels. (Note) The AC noise removal is disabled.
Overall accuracy	plus or minus 0.1%F.S.or less(at +25degrees +77degrees Fahrenheit) plus or minus 0.3%F.S.or less(at 0 to +55degrees +32 to +131degrees Fahrenheit)
Reference contact compensation accuracy	plus or minus 1.0degrees (with thermocouple input)
Input impedance:Voltage	1 MOhm
Input impedance:Current	250 Ohm
Insulation method:Between input terminals and internal circuit	Photocoupler and isolated DC/DC converter
Insulation method:Between channels	PhotoMOS relay
Conversion execution / non-execution channel setting	Selectable per channel unit
Input range change method	Selectable per channel
Digital processing:Averaging	Cycle, time, moving
Digital processing:Scale conversion setting	Any value within plus or minus 30,000 (Voltage and current range

	only)
Digital processing:Offset setting	Any value within plus or minus 3,000
Digital processing:Gain setting	plus or minus 10%
Comparison of upper and lower limit values	Selectable for one channel
Max. and min. value holding	Selectable for one channel
Broken wire detection	Available
Connection method	Connector type terminal block
[[COMMON GENERAL SPECIFICATIONS]]Ambient temperature	0 to +55 °C +32 to +131 °F, Storage: -40 to +70 °C -40 to +158 °F
[[COMMON GENERAL SPECIFICATIONS]]Ambient humidity	10 to 95 % RH (at +25 °C +77 °F, no condensation), Storage: 10 to 95 % RH (at +25 °C +77 °F, no condensation)
[[COMMON GENERAL SPECIFICATIONS]]Breakdown voltage	500 V AC for 1 minute
[[COMMON GENERAL SPECIFICATIONS]]Insulation resistance	100 MOhm or more (at 500 V DC)
[[COMMON GENERAL SPECIFICATIONS]]Vibration resistance	5 to 8.4 Hz, single amplitude of 3.5 mm 0.138 in, 1 sweep/min. (IEC 61131-2) ; 8.4 to 150 Hz, constant acceleration of 9.8 m/s ² , 1 sweep/min. (IEC 61131-2), 10 times each in X, Y, and Z directions
[[COMMON GENERAL SPECIFICATIONS]]Shock resistance	147 m/s ² or more , 3 times each in X, Y, and Z directions (IEC61131-2)
[[COMMON GENERAL SPECIFICATIONS]]Noise immunity	1,000 V [p-p] with pulse width 50 ns and 1 micro s (using a noise simulator)
[[COMMON GENERAL SPECIFICATIONS]]Operating condition	Free from corrosive gasses and excessive dust
[[INDIVIDUAL GENERAL SPECIFICATIONS]]Rated voltage range	-
[[INDIVIDUAL GENERAL SPECIFICATIONS]]Current consumption	80 mA or less
[[INDIVIDUAL GENERAL SPECIFICATIONS]]Net weight	145 g approx.
[[INDIVIDUAL GENERAL SPECIFICATIONS]]Accessory	-

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