Temperature measurement

Rated data

Version	AI 4, 16 bits, resistor	AI 2, 16 bits, thermocouple
Order designation	EPM-S404	EPM-S405
Function	2 or 4 analog inputs, temperature measurement based on resistance tests	2 analog inputs, temperature measurement with thermocouples, cold junction compensation by internal temperature measurement
Current supply		
Backplane bus current consumption	75 mA	75 mA
I/O supply current consumption	30 mA	30 mA
Electrical isolation	500 V between backplane bus and I/O signal	500 V between backplane bus and I/O signal
Signal		
Number of inputs/outputs	4(2)/-	2/-
Signal		
Measuring range	Temperature detection: PT100: −200 °C ... +850 °C PT1000: −200 °C ... +850 °C NI100: −60 °C ... +250 °C NI1000: −60 °C ... +250 °C Resistance test: 60 Ω 600 Ω 3000 Ω 6000 Ω	type J, −210.0 °C ... +1200.0 °C type K, −270.0 °C ... +1372.0 °C type N, −270.0 °C ... +1300.0 °C type R, -50.0 °C ... +1769.0 °C type S, -50.0 °C ... +1769.0 °C type T, −270.0 °C ... +400.0 °C type B, 0.0 °C ... +1820.0 °C type C, 0.0 °C ... +2315.0 °C type E, −270.0 °C ... +1000.0 °C type L, −200.0 °C ... +900.0 °C -80 mV ... +80 mV
Sensor	PT100, PT1000, NI100, NI1000, resistor	J, K, N, R, S, T, B, C, E, L
Resolution	16 bits	16 bits
Usage error margin	+- 0.4 %	>= +-1.5 K, depending on sensor and spurious frequency suppressor
Usage error margin (at 25°C)	+- 0.2 %	>= +-1 K, depending on sensor and spurious frequency suppressor
A/D conversion time		Depending on configuration and filter setting 4 ms – 325 ms
Connection system	2- (3-/4-wire conductor technology)	
Communication		
Width in the input process image	8 bytes	4 bytes
Parameter data (PROFIBUS/PROFINET)	34 bytes	22 bytes
Status display		
Module status	Ready for operation / error	Ready for operation / error
Signal status	1 LED per channel	1 LED per channel
General		
Scope of supply	I/O compound module (base module + electronic module)	I/O compound module (base module + electronic module)
Packaging unit	1	1
Enclosure	IP20	IP20
Dimensions (height x width x depth)	100 x 12.5 x 76	100 x 12.5 x 76
Weight	0.06 kg	0.06 kg
Wiring diagram		