600-254-4AD02



Analog-input-module, TC, Iso., 16 Bit
4x

- Measuring range ±80 mV
- Supported thermocouples: E, J, K, N, R, S, T, B, C, L
- Measurement resolution: 15 bits + sign
- External or internal temperature compensation
- Wire break detection
- Diagnostic messages
- Limit value alarms for each channel
- A bi-color LED (blue/red) indicates the module operating status and any malfunctions
- Red/green bi-color LEDs (one for each channel) indicate the channel status
- 4 inputs, electrically isolated from the backplane bus
- 4 process input words
- 4 process output words (for temperature compensation)

Info

Analog input modules for the modular fieldbus IO system TB20. Note: Individual modules cannot be combined with IO systems from other manufacturers. The scope of delivery already includes the appropriate front connector for the cabling and a base module. The module has 4 analog inputs for connecting thermocouples. Parameters for the module Diagnostic alarm: On | OffOverflow/underflow diagnosis: On | OffRepresentation values: SIMATIC* S7 | SIMATIC* S5 (for ±80 mV only)Temperature unit: Celsius x 10 | Fahrenheit x 10 | Kelvin x 10 Parameters for each channel Wire break detection: On | OffInterference frequency suppression: None | 10 Hz | 50 Hz | 60 Hz | 400 HzMeasuring ranges: ±80 mVThermocouples: E | J | K | N | R | S | T | B | C | LTemperature compensation: Internal | External | Process data-basedLimit value alarms enabled: On | OffUpper/lower limit: 16 bit analog value (±27648) * SIMATIC is a registered trademark of Siemens AG.

Technical data

General information	
Order number	600-254-4AD02
Article name	AI 4x TC, Iso., 16 bit
Scope of delivery	AI 4x TC, Iso., 16 bit
Dimensions (DxWxH)	110 x 14 x 73 mm
Weight	Approx. 70 g
Number of inputs	4
Internal	Max. 95 mA
Power dissipation	Max. 0.7 W
Parameter configuration length	26 bytes
General error indicator	Red LED
Hot-swap capable	Yes
Electrical isolation	
from the backplane bus	Yes
Between the channels	Yes
Measuring	
Measuring ranges	± 80 mV
Thermocouples	E (-270 °C ... 990 °C)
Measuring method	Integration
Measurement resolution	15 bits + sign
Interference frequency suppression	None | 10 Hz | 50 Hz | 60 Hz | 400 Hz
Refresh rate / conversion rate	Depends on the interference frequency suppression setting being used:
Diagnoses	Upper measuring range limit exceeded (overflow), lower measuring range limit fallen below (underflow), parameter assignment error
Process alarms	Upper and lower limit per channel
Error limits	
Operational error limit in the entire temperature range	±0.5 % relative to the nominal range
Basic error limit at 25 °C	±0.3 % relative to the nominal range
Temperature error	±0.005 %/K relative to the nominal range
Linearity error	±0.05 %/K relative to the nominal range
Repeating accuracy in steady state at 25 °C	±0.05 %/K relative to the nominal range
Ambient conditions	
Ambient temperature	0 °C ... +60 °C
Transport and storage temperature	-20 °C ... +80 °C
Relative air humidity	95 % r H without condensation
Protection rating	IP 20
Certifications	CE, UL
UL	
Surrounding Air Temperature	0 °C ... +60°C
Pollution degree	2
CE	
Noise immunity	DIN EN 61000-6-2 "EMC Immunity"
Interference emission	DIN EN 61000-6-4 "EMC Emission"
Vibration and shock resistance	DIN EN 60068-2-6:2008 „Vibration", DIN EN 60068-2-27:2010 „Shock"