



Features

- ✓ Channels electrically isolated from each other and from the backplane bus
- ✓ Measuring ranges 0 ... 10 V, 1 ... 5 V, ± 10 V, ± 5 V, ± 2.5 V, individually configurable for each channel
- ✓ Measurement resolution: up to 15 bits + sign
- ✓ Diagnostic messages
- ✓ Wire break detection (for 1 ... 5V)
- ✓ 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 analog inputs for measuring voltage
- ✓ 4 process input words

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

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.

Parameters for the module:

Diagnostic alarm: On | Off

Overflow / underflow diagnosis: On | Off

Representation values: SIMATIC* S7 | SIMATIC* S5 | INT16

Parameters for each channel:

Wire break detection (only for 1 ... 5 V): On | Off

Interference frequency suppression: None | 10 Hz | 50 Hz | 60 Hz | 400 Hz

Measuring ranges: Deactivated | 0 ... 10 V | 1 ... 5 V | ± 10 V | ± 5 V | ± 2.5 V

Limit value alarms enabled: On | Off

Upper/lower limit: 16 bit analog value (± 27648)

* SIMATIC is a registered trademark of Siemens AG.

General information

Order number	600-252-7BD01
Article name	AI 4x U ,±10 V, 0–10 V, 1–5 V, Iso., 16 bit
Scope of delivery	AI 4x U ,±10 V, 0–10 V, 1–5 V, Iso., 16 bit
Dimensions (DxWxH)	110 x 14 x 73 mm
Weight	Approx. 80 g
Number of inputs	4
Internal	Max. 140 mA
Power dissipation	Max. 1 W
Parameter configuration length	24 bytes
General error indicator	Red LED
Hot-swap capable	Yes
Hot-swap capable	Yes
Hot-swap capable	Yes

Electrical isolation

from the backplane bus	Yes
Between the channels	Yes

Measuring

Measuring ranges / load resistance	0 ... 10 V / 2 Mohms,
	1 ... 5 V / 2 Mohms,
	±10 V / 2 Mohms,
	±5 V / 2 Mohms,
	±2.5 V / 2 Mohms
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:
	None: 2,5 ms
	400 Hz: 8 ms
	60 Hz: 51 ms
	50 Hz: 60 ms
	10 Hz: 160 ms
Diagnoses	Upper measuring range limit exceeded (overflow), lower measuring range limit fallen below (underflow), wire break (for 1 ... 5 V only), parameter assignment error

Process alarms	Upper and lower limit per channel
----------------	-----------------------------------

Error limits

Operational error limit in the entire temperature range	±0.2 % relative to the nominal range
Basic error limit at 25 °C	±0.1 % 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"
RoHS	Yes
REACH	Yes

As of: 7 - 2026