



## AI, 16 Bit, U, ±10V

AI 8x U, ±10 V, 0-10 V, 1-5 V, Iso., 16 Bit

- 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
- 8 analog inputs for measuring voltage
- 8 process input words

### 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)

### Channel LED signals

Flashing red light Parameter assignment error on channel  
 Solid red light Reading overflow/underflow or wire break  
 Flashing green light Reading within overrange  
 Solid green light Channel configured, normal reading  
 Off Channel disabled or module not yet configured

## Technical specifications

General information	
Order number	600-252-7BH21
Article name	AI 8x U ,±10 V, 0–10 V, 1–5 V, Iso., 16 bit
Scope of delivery	AI 8x U ,±10 V, 0–10 V, 1–5 V, Iso., 16 bit
Dimensions (DxWxH)	110 x 25 x 73 mm
Weight	Approx. 110 g
Number of inputs	8
Electrical isolation	

from the backplane bus	Yes
Between the channels	Yes
<b>Internal</b>	Max. 140 mA
<b>Power dissipation</b>	Max. 1 W
<b>Measuring ranges / load resistance</b>	0 ... 10 V / 2 Mohms, 1 ... 5 V / 2 Mohms, ±10 V / 2 Mohms, ±5 V / 2 Mohms, ±2.5 V / 2 Mohms
<b>Measuring method</b>	Integration
<b>Measurement resolution</b>	15 bits + sign
<b>Values presentation</b>	SIMATIC* S7   SIMATIC* S5   INT16
<b>Interference frequency suppression</b>	None   10 Hz   50 Hz   60 Hz   400 Hz
<b>Refresh rate / conversion rate</b>	Depends on the interference frequency suppression setting being used: None: 3 ms 400 Hz: 8 ms 60 Hz: 51 ms 50 Hz: 60 ms 10 Hz: 160 ms
<b>Diagnoses</b>	Upper measuring range limit exceeded (overflow), lower measuring range limit fallen below (underflow), wire break (for 1 ... 5 V only), parameter assignment error
<b>Process alarms</b>	Upper and lower limit per channel
<b>Error limits</b>	
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
<b>Parameter configuration length</b>	24 bytes
<b>General error indicator</b>	Red LED
<b>Hot-swap capable</b>	Yes
<b>Ambient conditions</b>	
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
<b>UL</b>	
Surrounding Air Temperature	0 °C ... +60 °C
Pollution degree	2
<b>CE</b>	
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