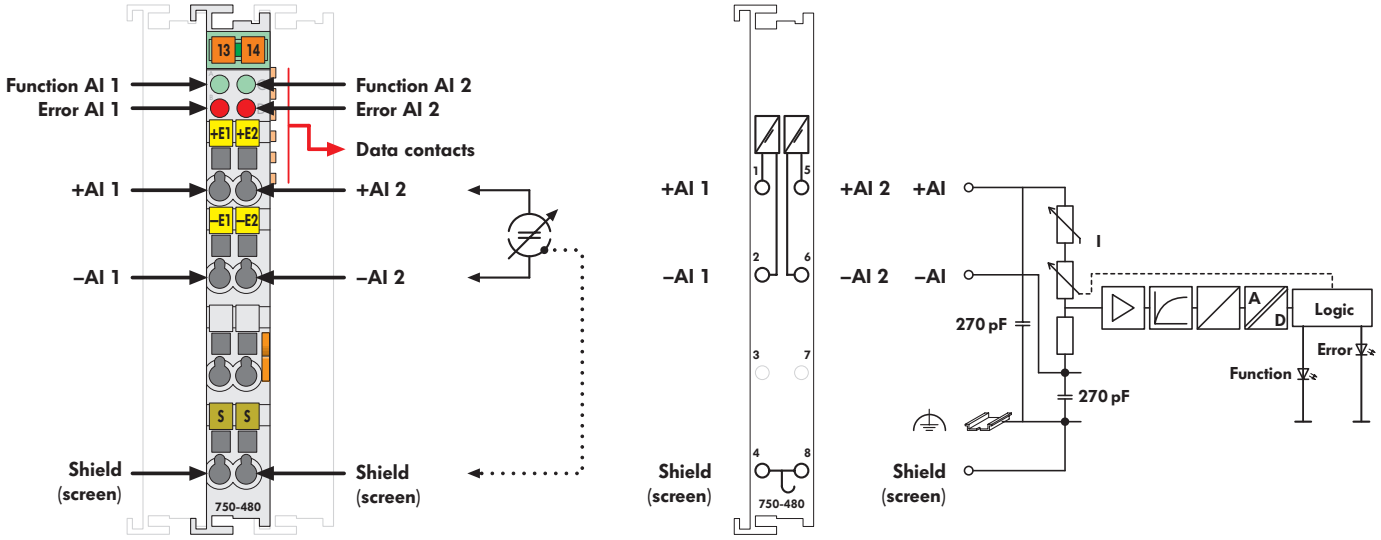
2-Channel Analog Input Module 0–20 mA

differential inputs



Delivery without miniature WSB

The analog input module receives differential signals of values 0 - 20 mA.
The input signal of each channel is electrically isolated and will be transmitted with a resolution of 13 bits.
The system supply (via the data bus contacts) is used for the power supply of the module.
The shield (screen) is directly connected to the DIN rail.

Description	Item-No.	Pack.-unit pcs
2AI 0–20mA Differential Input	**750-480**	1
2AI 0–20mA Differential Input Synchronous	**750-480/000-001**	1
Measured-value acquisition	time synchronous [1]	
Overrange/ measuring range underflow	status byte, status bits, measured value and LED [2]	
Sampling delay (instruction/ conversion)	≤ 50 µs	
Operating mode	triggered	

[1] In connection with synchronized sampling of the slave (fieldbus coupler 750-303 (as from version 0101))
[2] Min./max. limiting values can also be set according to customers' specifications!

General specifications

Operating temperature	0 °C ... +55 °C
Wire connection CAGE CLAMP®	0.08 mm² ... 2.5 mm²; AWG 28 ... 14
	8 ... 9 mm / 0.33 in stripped length
Dimensions (mm) W x H x L	12 x 64* x 100
	* from upper edge of 35 DIN rail
Weight	ca 55 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity	95 % no condensation
Vibration and	acc. to IEC 60068-2-6
shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP 20
EMC CE -Immunity to interference	acc. to EN 50082-2 (1996)
EMC CE -Emission of interference	acc. to EN 50081-1 (1993)

Approvals

cULus	see pages 1.10 ... 1.13
Ex	II 3 GD EEx nA II T4, Class I Div2 ABCD T4A
Conformity marking	CE

Accessories

	Item-No.	Pack.-unit pcs
Miniature WSB quick marking system		
plain	**248-501**	5
with marking	see pages 1.174 ... 1.175	

Technical Data

No. of inputs	2, electrically isolated from each other
Measured-value acquisition	time synchronous (both inputs)
Voltage supply	via system voltage DC / DC
Current consumption (internal)	≤ 100 mA
Signal current	0 mA ... 20 mA
Input resistance	< 270 Ω at 20 mA
Overrange/ measuring range underflow	status byte and LED
Input filter	low pass first order, f_G = 5 kHz
Resolution of the A / D converter	14 bits
Monotonicity without missing codes	yes
Resolution of the measured value	13 bits
Value of a LSB (Least Significant Bit)	2.4 µA
Measuring error 25°C	≤ ± 0.05 % of the full scale value
Temperature coefficient	< ± 0.01 % / K of the full scale value
Measuring error	≤ 0.4 % over whole temperature range
	≤ 0.1 % of upper range value (non-linearity)
Crosstalk attenuation	≥ 80 dB
Sampling time of repetition	1 ms
Sampling delay (module)	1 ms
Sampling delay (channel/ channel)	≤ 1 µs
Sampling duration	≤ 5 µs
Method of conversion	SAR (Successive Approximation Register)
Operating mode	continuously sampling (preset)
Protection	non-linear limiting
Admissible continuous overload	30 V
Voltage resistance	DC 500 V channel / channel or channel / system
Bit width	2 x 16 bits data
	2 x 8 bits control / status (option)

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