

2-Channel Analog Input Module 0-20 mA

differential inputs

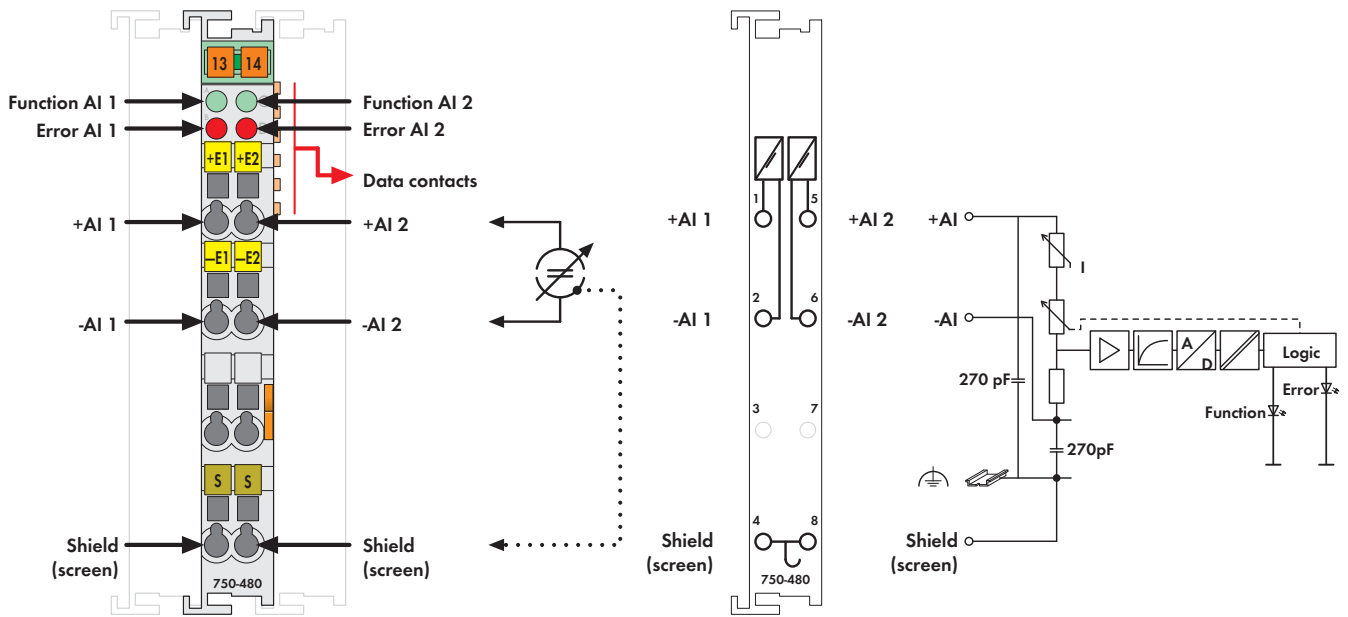


Fig. Series 750 / Technical data see page 28 / Delivery without Mini WSB marker
Series 750 / 753 marking see pages 16 ... 17 / 18 ... 19

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.

- Measured-value acquisition: time synchronous (both inputs)
- Overrange / measuring range underflow: status byte and LED
- Method of conversion: SAR (Successive Approximation Register)
- Operating mode: continuously sampling (preset)
- Protection: non-linear limiting

Differing technical data for 750-480/000-001:

- Measured-value acquisition time synchronous (in connection with synchronized sampling of the slave, 750-303 Fieldbus Coupler (as from version 0101))
- Overrange / measuring range underflow status byte, status bits, measured value and LED (min./max. limiting values can also be set according to customers' specifications)
- Sampling delay (instruction/conversion) < 50 µs
- Operating mode triggered

Description	Item no.	Pack. unit
2AI 0-20mA Differential Input	750-480	1
2AI 0-20mA Differential Input	750-480/000-001	1
Synchronous		
Differing technical data see text		
2AI 0-20mA Differential Input (without connector)	753-480	1
Accessories		
753 Series connector	753-110	25
Coding elements	753-150	100
Miniature WSB quick marking system,		
plain	248-501	5
with marking	see pages 256 ... 257	
Approvals		
Series 750 and 753		
Conformity marking	CE	
UL 508		
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	
Series 750		
EN 60079-15	I M2 / II 3 GD Ex nA IIC T4 BR-Ex nA II T4	

Technical Data	
No. of inputs	2, electrically isolated from each other
Voltage supply	via system voltage DC/DC
Current consumption typ. (internal)	80 mA
Signal current	0 ... 20 mA
Input resistance	< 270 Ω / 20 mA
Input filter	low pass first order, f _c = 5 kHz
Resolution of the A/D converter	14 bits
Monotonicity without missing codes	yes
Resolution of 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
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 (optional)
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm ² ... 2.5 mm ² / AWG 28 ... 14
Stripped lengths (750 / 753 Series)	8 ... 9 mm / 0.33 in 9 ... 10 mm / 0.37 in
Width	12 mm
Weight	54.5 g
EMC CE-Immunity to interference	acc. to EN 50082-2 (1996)
EMC CE-Emission of interference	acc. to EN 50081-1 (1993)