

2-Channel Analog Input Module 0-30 V
differential measurement input

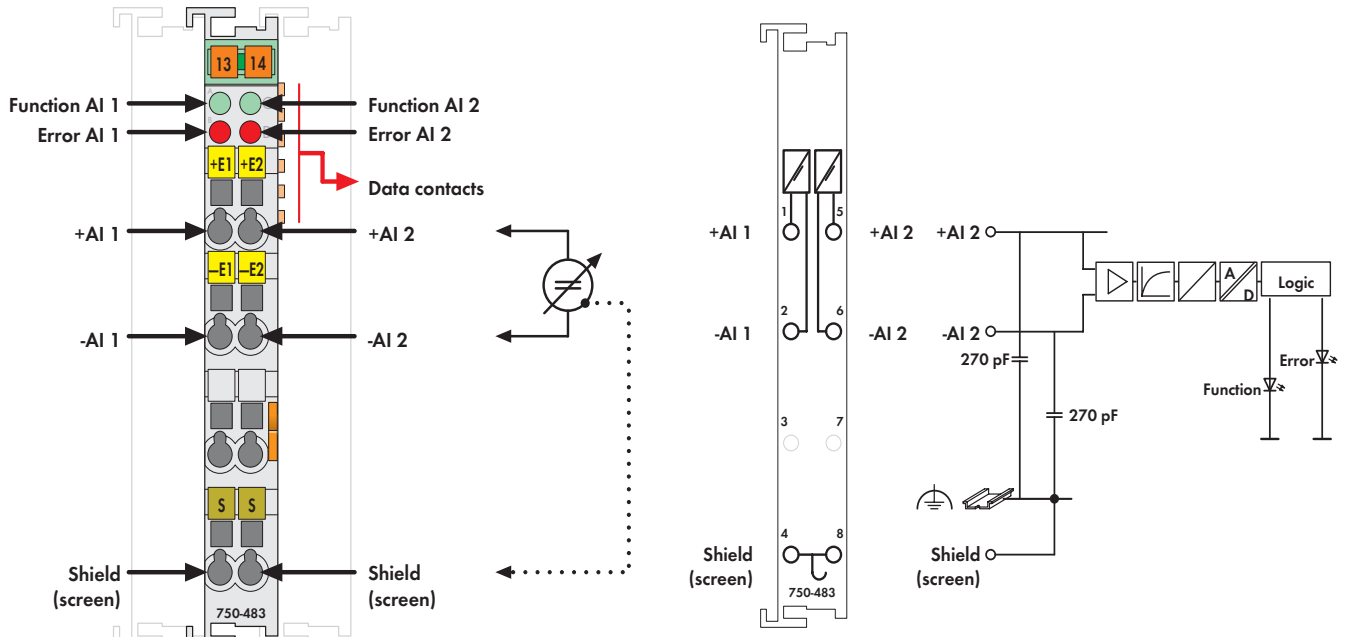


Fig. Series 750 / Technical data see page 28 / Delivery without Mini WSB marker
Series 750 / 753 marking see pages 16 ... 17 / 18 ... 19

The analog input module receives differential signals of values ± 10 V DC or 0 V ... 30 V.

The input signal of each channel is electrically isolated and will be transmitted with a resolution of 14 bits.

The internal 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: RC circuit

Description	Item no.	Pack. unit
2AI 0-30V DC Diff. Measur. Inp.	750-483	1
2AI 0-30V DC Diff. Measur. Inp. (without connector)	753-483	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	
Marine applications	see "Approvals Overview" in section 1	

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 voltage	0 V ... 30 V
Internal resistance	1 MΩ
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	14 bits
Value of a LSB (least significant bit)	1.8 mV
Measuring error (25 °C)	$\leq \pm 0.05$ % of the full scale value
Temperature coefficient	$< \pm 0.01$ % / K of the full scale value
Measuring error	≤ 0.4 % over whole temperature scale
	≤ 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	60 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	55 g
EMC CE-Immunity to interference	acc. to EN 50082-2 (1996)
EMC CE-Emission of interference	acc. to EN 50081-1 (1993)
EMC marine app. - Immunity to interference	acc. to Germanischer Lloyd (2003)
EMC marine app. - Emission of interference	acc. to Germanischer Lloyd (2003)