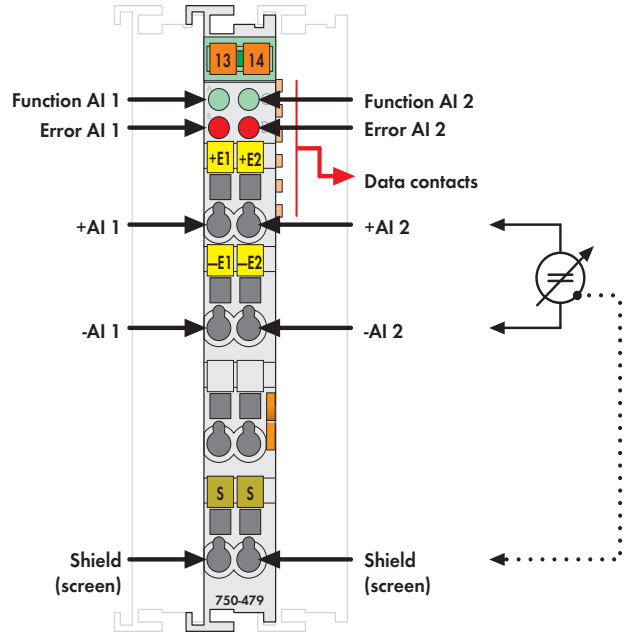
2-Channel Analog Input Module ±10 V

Differential measurement input



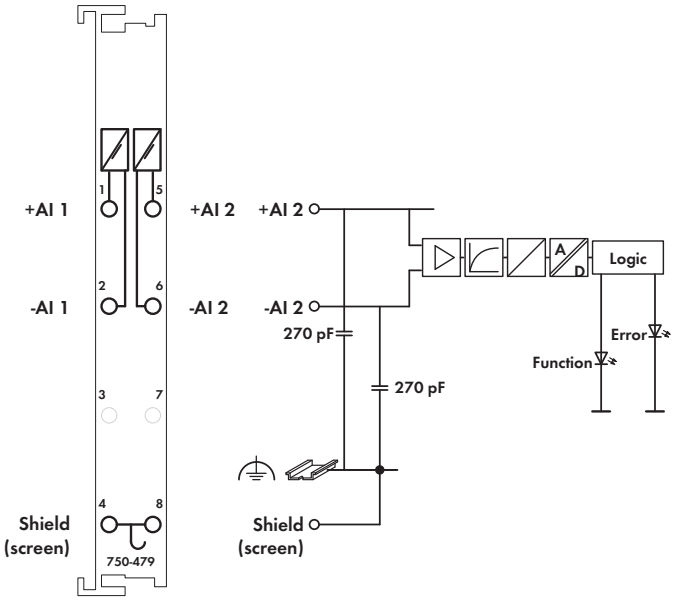


Fig. 750 Series
Delivered without miniature WSB markers

The analog input module receives differential signals of values ± 10VDC.
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: RC circuit

Technical data for the 750-479/000-001 model:

- 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) < 50µs
- Operating mode triggered

Description

	Item No.	Pack. Unit
2AI ±10V DC Diff. Measur. Inp.	**750-479**	1
2AI ±10V DC Differential Input Synchronous	**750-479/000-001**	1
Differing technical data see text		
2AI ±10V DC Differential Input (without connector)	**753-479**	1

Accessories

	Item No.	Pack. Unit
753 Series Connectors	**753-110**	25
Coding elements	**753-150**	100
Miniature WSB Quick marking system		
plain	**248-501**	5
with marking	see Section 11	

Approvals

Conformity marking	CE
Korea Certification	
Marine applications (versions upon request)	ABS, BV, DNV, GL, KR, LR, NKK, PRS, RINA
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
TÜV 12.1297 X (Brazil)	Ex nA IIC T4 Gc (750-479)
TÜV 07 ATEX 554086 X	I M2 Ex d I Mb,
	II 3 G Ex nA IIC T4 Gc,
	II 3 D Ex tc IIIC T135°C Dc
IECEx TUN 09.0001 X	Ex d I Mb,
	Ex nA IIC T4 Gc,
	Ex tc IIIC T135°C Dc

Technical Data

Number of inputs	2, electrically isolated from each other
Power supply	via system voltage DC/DC
Current consumption (internal)	100 mA
Signal voltage	± 10 V
Internal resistance	1 MΩ
Input filter	low pass first order, f_G = 5 kHz
Resolution of the A/D converter	14 bits
Monotonicy without missing codes	yes
Resolution of measured value	13 bits + sign bit
Value of a LSB (least significant bit)	1.2 mV
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 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
Dielectric strength	500 V DC 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 mm² ... 2.5 mm² / AWG 28 ... 14
Strip lengths, 750/753 Series	8 ... 9 mm / 0.33 in
	9 ... 10 mm / 0.37 in
Width	12 mm
Weight	54.5 g
EMC immunity of interference	acc. to EN 61000-6-2, marine applications
EMC emission of interference	acc. to EN 61000-6-4, marine applications