

## 2-Channel Analog Input Module 0-30 V

differential measurement input

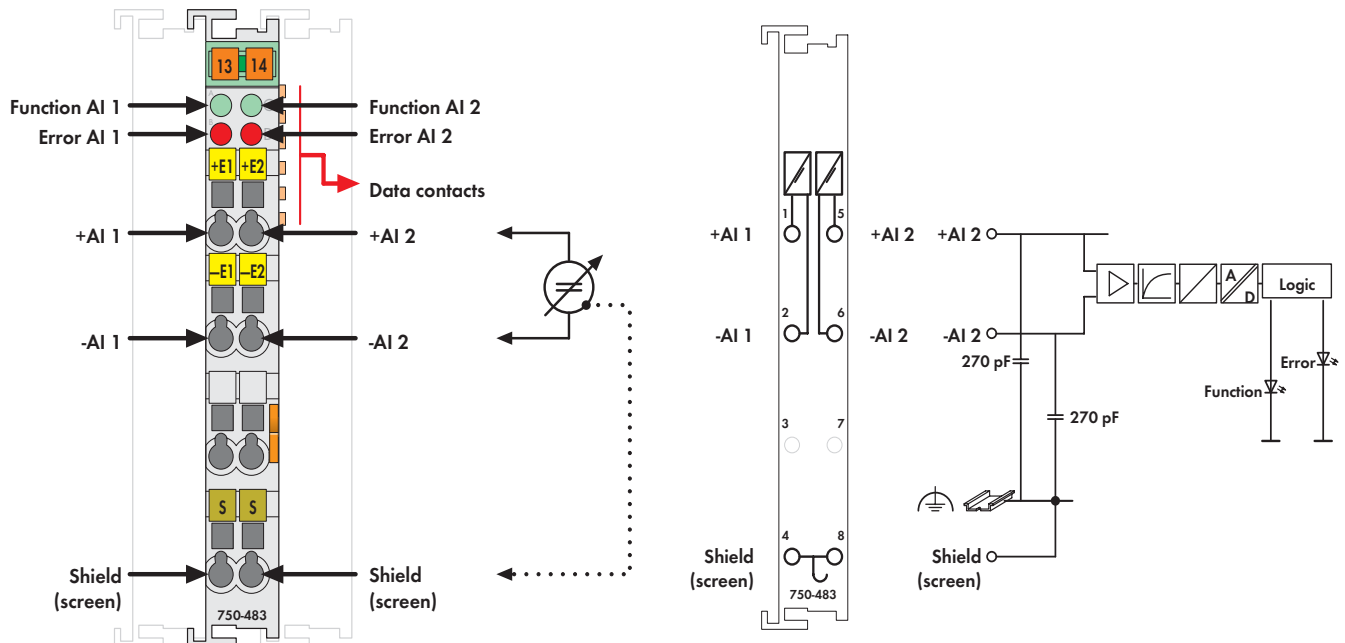


Fig. Series 750 / Technical data see page 28 / Delivery without Mini WSB marker  
 Series 750 / 753 marking see pages 16 ... 17 / 18 ... 19

The analog input module receives differential signals of values  $\pm 10$  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          |
| <b>Accessories</b>                                  |                                       |            |
| 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                 |            |
| <b>Approvals</b>                                    |                                       |            |
| 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 M $\Omega$                                                 |
| 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                            | $\leq 0.4$ % over whole temperature scale                    |
|                                            | $\leq 0.1$ % of upper range value (non-linearity)            |
| Crosstalk attenuation                      | $\geq 80$ dB                                                 |
| Sampling time of repetition                | 1 ms                                                         |
| Sampling delay (module)                    | 1 ms                                                         |
| Sampling delay (channel/channel)           | $\leq 1$ $\mu$ s                                             |
| Sampling duration                          | $\leq 5$ $\mu$ s                                             |
| 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 <sup>2</sup> ... 2.5 mm <sup>2</sup> / 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)                            |