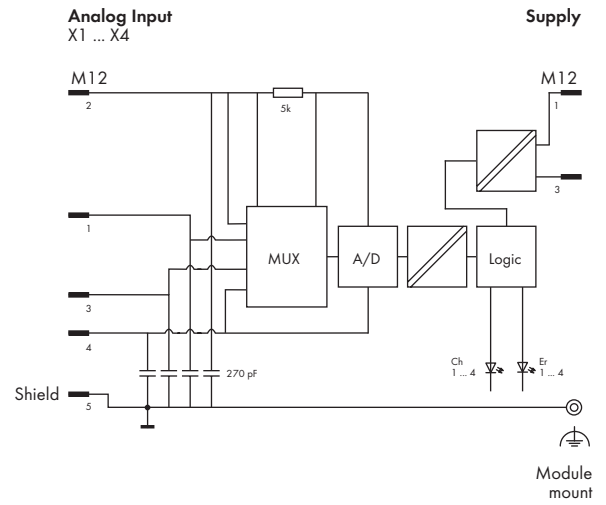


**Block diagram of an input**



| Technical Data                                |   |
|---|---|
| <b>Analog value creation:</b>                 |   |
| Resolution                                    | 16 bits   |
| Integration time                              | 2 - 120ms   |
| Conversion method                             | SigmaDelta  |
| Monotonicity without error code               | yes   |
| Conversion time                               | 1/Input sampling frequency (s)                      |
| Sampling repeat time                          | Number of active channels x conversion time x 2     |
| <b>Failures and errors:</b>                   |   |
| Max. measuring error at 25°C                  | ± 0.1 % of the measuring range                      |
| Temperature error                             | ± 0.001 % of the measuring range/ K                 |
| Maximum error over the full temperature range | < 2°C   |
| Maximum temporary deviation                   | 0.05 °C   |
| Repeat accuracy                               | 0.05 °C   |
| <b>System bus:</b>                            |   |
| Connection type (3)                           | M12 connectors, B coded, 5 poles, shielded          |
| <b>Standards and approvals:</b>               |   |
| Conformity marking                            | CE  |
| Korea Certification                           |   |
| UL 508  |   |
| BVS 15 ATEX E 098 X                           | II 3G Ex nA IIC T5 Gc,<br>II 3D Ex tc IIIB T90°C Dc |
| IECEx BVS 15.0083X                            | Ex nA IIC T5 Gc,<br>Ex tc IIIB T90°C Dc             |

| Technical Data                                   |   |
|--|---|
| <b>Isolation:</b>                                |   |
| Channel - Channel                                | No  |
| U <sub>IS</sub> , U <sub>A</sub> system bus      | 500 V DC each   |
| <b>Configurable functions:</b>                   |   |
| Measuring range (per channel)                    | Pt100/ Pt200/ Pt500/ Pt1000,<br>Ni100/ Ni120/ Ni1000;               |
|  | 1 kΩ / 4 kΩ;  |
|  | 0 ... 100 % setting angle<br>(for 1 kΩ and 4 kΩ);<br>user-defined   |
| Wire connection (per channel)                    | 2-wire/3-wire/4-wire  |
| Limiting values (per channel)                    | Min./Max.   |
| Integration time (per channel)                   | 2, 4, 8, 16.7, 20, 30, 60, 120ms                                    |
| Linearization (per channel)                      | Linear/Pt/Ni/Ni TK 5000/Ni TK 6720                                  |
| Online simulation (per channel)                  | Lock/unlock; simulation value: (according to measuring range)       |
| Online simulation (per channel/module)           | Diagnostics   |
| <b>I/O diagnostics:</b>                          |   |
| I/O diagnostics (per channel)                    | Measurement range overflow/underflow<br>Limit violation (min./max.) |
| I/O diagnostics (per module)                     | Undervoltage (U <sub>IS</sub> + U <sub>A</sub> )                    |
| <b>Process image:</b>                            |   |
| Process data width                               | 8-byte data + status  |
| <b>LED indicators:</b>                           |   |
| SB: System bus status                            | LED (green/red/orange)  |
| F: Error status                                  | LED (red)   |
| Ch1 ... Ch4: Input signal status                 | LED (yellow)  |
| Er1 ... Er4: Input signal error                  | LED (red)   |
| U <sub>IS</sub> + U <sub>A</sub> : Supply status | LED (green)   |
| <b>General Specifications</b>                    |   |
| Dimensions (mm) W x H x L                        | 50 x 35.7 x 117   |
| Weight   | 280 g   |