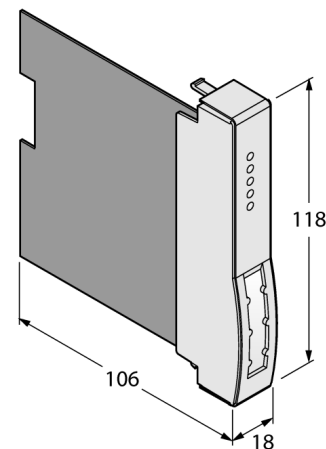
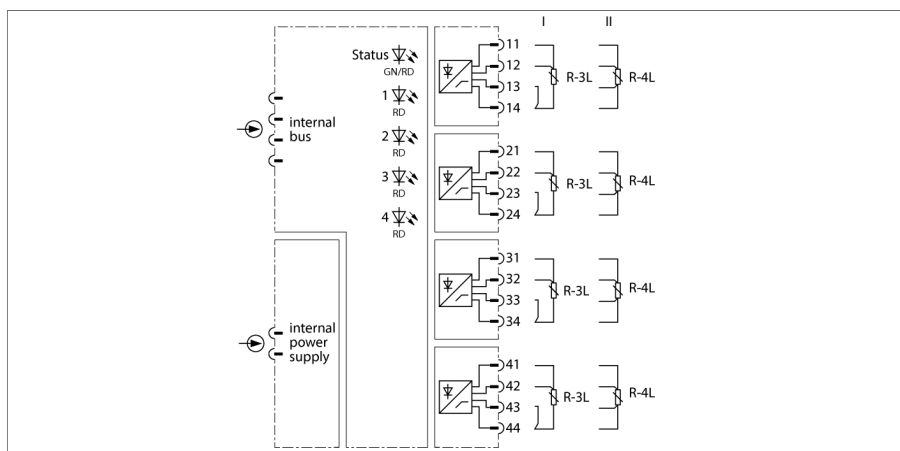




The analog input module AI43-N is used for the connection of potentiometers in 3 or 4-wire technology. If 3-wire potentiometers are used, the terminals at the module rack have to be bridged. Resistance measurements, i.e. the evaluation of potentiometers with a 2-wire connection, is not possible.

The module has four field circuits to control 3 or 4-wire potentiometers. The field circuits are galvanically isolated from the power supply, from the internal bus and from each other.

Each potentiometer input is monitored for wire break. The interruption of a single connection line is securely detected, as well as any combination of interruptions occurring at the four input connection lines. Short-circuit monitoring is not carried out. In case of a line error, the programmed substitute value is immediately output and the output value is set to 'invalid-bit'. This state is maintained until valid measured values are provided again.

The resolution is 14 bit. For clear reading, 0... 100 % is digitized and displayed in a range of 0...10000 (independent of the parametrized measuring range) and transmitted to the host system.

- **Input module for the connection of potentiometers**
- **Complete galvanic isolation**

## Potentiometer Module, 4-channel AI43-N

|                         |                                                     |
|-------------------------|-----------------------------------------------------|
| <b>Type designation</b> | AI43-N                                              |
| Ident-No.               | 6884217                                             |
| <b>Supply voltage</b>   | via the backplanes, central power supply            |
| Power consumption       | ≤ 1.5 W                                             |
| Galvanic isolation      | Complete galvanic isolation                         |
| Number of channels      | 4-channel                                           |
| <b>Input circuits</b>   | Potentiometer                                       |
| Nominal resistance      | 400 Ω ... 12 kΩ                                     |
| <b>Resolution</b>       | 14 Bit                                              |
| Linearity deviation     | ≤ 0.1 % full scale                                  |
| Temperature drift       | ≤ 0.005 % of full scale/K                           |
| Rise time/fall time     | ≤ 50 ms (10...90 %)                                 |
| <b>Indication</b>       |                                                     |
| Operational readiness   | 1 x green / red                                     |
| State/ Fault            | 4 x red                                             |
| <b>Housing material</b> | Plastic                                             |
| Connection mode         | module, plugged on rack                             |
| <b>Protection class</b> | IP20                                                |
| Ambient temperature     | -20...+70 °C                                        |
| Relative humidity       | ≤ 93 % at 40 °C acc. to EN 60068-2-78: test cab     |
| Vibration test          | acc. to IEC 60068-2-6                               |
| Shock test              | acc. to IEC 60068-2-27                              |
| EMC                     | acc. EN 61326-1 (2013)<br>acc. to Namur NE21 (2012) |
| MTTF                    | 71 years acc. to SN 29500 (Ed. 99) 40 °C            |
| Dimensions              | 18 x 118 x 106 mm                                   |

### Dimensions

