



IE3202 | 4-channel analog input PT100 (RTD)

The IE3202 analog input module allows resistance sensors to be connected directly. The module's circuitry can operate the sensors using 2-, 3- or 4-wire connection techniques. Linearisation over the full temperature range is realised with the aid of a microprocessor. The temperature range can be selected freely. The module can also be used for simple resistance measurement with the output in ohms. The module's standard settings are: resolution 0.1°C in the temperature range of PT100 sensors in 4-wire connection. Sensor malfunctions such as broken wires are indicated by error LEDs.

The module is quite versatile, but the default values are selected in such a way that in most cases it is not necessary to perform configuration. The input filter and associated conversion times can be set within a wide range; several data output formats may be chosen. If required, the inputs can be scaled differently. Automatic limit monitoring is also available. Parameterisation may be carried out either via the fieldbus or using the KS2000 software tool.

| Technical data | IE3202 |
|------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Number of inputs | 4 |
| Connection method | screw type M12 for 2-, 3- and 4-wire connections, presetting: 4-wire |
| Sensor types | PT100, PT200, PT500, PT1000, Ni100, Ni120, Ni1000 resistance measurement (e.g. potentiometer) |
| Measuring range | -250...+850 °C (PT sensors); -60...+250 °C (Ni sensors) |
| Resolution | 0.1 °C per digit |
| Measuring error | < ±1 °C |
| Conversion time | approx. 250 ms (configurable up to 65 ms) |
| Nominal voltage | 24 V DC (-15 %/+20 %) |
| Measuring current | typ. 0.5 mA |
| Input filter | 5 variations, configurable |
| Sensor supply | from control voltage Us |
| Current consumption from Us (without sensor current) | 40 mA |
| Power supply connection | feed: 1 x M8 male socket, 4-pin; downstream connection: 1 x M8 female socket, 4-pin |
| Bit width in the process image | input: 4 x 16 bit data (4 x 8 bit control/status optional) |
| Electrical isolation | channels/control voltage: 500 V, between the channels: no, control voltage/fieldbus: yes, via IP-Link |
| Operating/storage temperature | 0...+55 °C/-25...+85 °C |
| Vibration/shock resistance | conforms to EN 60068-2-6/EN 60068-2-27 |
| EMC immunity/emission | conforms to EN 61000-6-2/EN 61000-6-4 |
| Protect. class/installation pos. | IP 65/66/67 (conforms to EN 60529)/variable |
| Approvals | CE, UL |