

Temperature Board

Industry knows a number of different temperature sensors. Most common are thermocouples TC or resistance temperature devices RTD. Each type offers specific advantages: TCs can be used for a wide temperature range, RTDs are comparably restricted concerning the temperature range but compensate this with more precision and stability.

TCs consist of two different metals being connected together. A temperature difference between the loose and the fixed end creates a measurable voltage. RTDs however use the known temperature-dependent change in resistance of a single material, but they must be connected to a power supply.

The ROTEC temperature board supports type J and K TCs with further types being implemented upon request. Pt100 RTDs can be used both in 2-wire as well as in 3-wire configuration.

The front panel is fitted with a 50-pin D-Sub connector. An adapter with screw connector is provided for connection of sensor lines. Custom-made adapters are available.





Technical Specifications

- 16 channels
- sampling rate per channel: 6.1 Hz
- temperature range
 - -200°C to 180°C for Pt100 (standard)
 - -200°C to 800°C for Pt100 (enhanced)
- coupling:
 - 2-wire configuration for Pt100 and thermo
 - couples
 - 3-wire configuration for Pt100

*for Pt100 in 3-wire configuration at room temperature

- supported sensors:
 - Pt 100
 - type J thermocouples (Fe / CuNi)
 - type K thermocouples (NiCr / CrAl)
- precision*: ± 0.1°C
- resolution: 0.1°C