

Pt100 Temperature Transmitter

mpu-10

General Description

The **mpu-10** is a Profibus PA configurable universal transmitter with galvanic isolation between input and output. The input can be configured for RTD or T/C sensors, resistance, current or voltage signals.

2-3-4 wires as well as dual Pt100 can be selected for the resistance input. The built-in temperature sensor or a remote Pt100 can be used to compensate for "cold junction" (CJC) if thermocouples are connected.

The transducer **mpu-10** is mounted in a stable Polyamide case and embedded in silicone which makes it resistant to humidity.



Profibus PA temperature transmitter **mpu-10**

Features

- Transmitter with Profibus PA communication
- Profile: Profibus PA, version 3.0 DPV1
- Configuration via Profibus PDM software
- Inputs: RTD dual, RTD, T/C, mV and R
- Galvanic isolation voltage between input and output: 2 kV (AC)
- Accuracy < 0.1 °C (Pt100)
- Sensor-trim
- Local, remote or fixed compensation for "Cold junction"

Specification

Housing	plastics	PA6GV30, Ø44x26.3mm
Connector		4-pin screw terminal, inclined 1,5mm ²
Ambient	humidity	< 98% without dew
	operat. temperature	-40...+85°C
Accuracy	Pt100	< ±0,1°C
Temperature drift	Pt100	< 0,002%/K
	T/C	0,02%/K
CJC-compensation	local	<0.5 °C
	remote	<0.2 °C
Input		RTD dual, RTD, T/C mV, R
RTD meas. current		0.2 mA, continuously
Sample time	RTD, R, mV	0.5 sec. max
	T/C	0.8 sec. max
Output	current (basic)	11mA+1mA
	signal	IEC1158-2
	damping	30 sec.
DC decoupling	input / output	2 kV (AC)
Profibus Data	Profile	Profibus PA, ver. 3.0, DPV1, fully
		configurable via Siemens PDM software

Connection to Profibus PA

