

Temperature modules for PT 100 Sensors

MTW 12,4

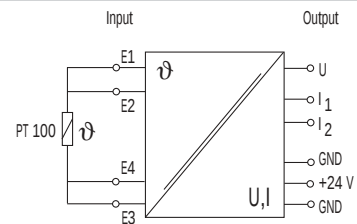
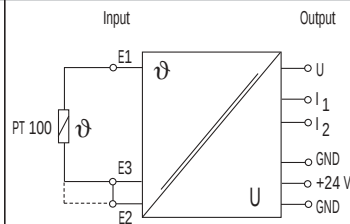
2- 3-wire



MTW 12,4

4-wire

Circuit diagram



Ordering data

Art.-No.

INPUT	spring clamp /screw terminals
$\pm 50\text{ }^{\circ}\text{C}$	6644330
$-50 \dots 150\text{ }^{\circ}\text{C}$	6644331
$0 \dots 100\text{ }^{\circ}\text{C}$	6644332
$0 \dots 150\text{ }^{\circ}\text{C}$	6644333
$0 \dots 200\text{ }^{\circ}\text{C}$	6644334
$0 \dots 300\text{ }^{\circ}\text{C}$	6644335
$0 \dots 600\text{ }^{\circ}\text{C}$	6644336

Art.-No.

spring clamp /screw terminals	
	6644340
	6644341
	6644342
	6644343
	6644344
	6644345
	6644346

Technical data

Supply voltage range	18...30 V DC, smoothed
Supply current	max. 80 mA
Cable resistance (without PT100)	for 3- and 4-wire technology max. 100 Ohm
Output signals	at 0...10 V DC max. 25 mA, overload protected
	at 4...20 mA max. 500 Ohm
	at 0...20 mA max. 500 Ohm
Tolerance	$\pm 1\%$ from end value
Temperature range	$0 \dots +60\text{ }^{\circ}\text{C}$
Mounting method	DIN-rail mounting to EN 50022
Dimensions H x W x D	90 x 12.4 x 65 mm

Description

The Murrelektronik temperature converter module works in conjunction with a temperature sensor PT100 (IEC 751/EN 60751) and converts the output from the sensor into a standard signal format of (0...10 V, 0...20 mA or 4...20 mA).

The MTW module supplies a constant current to the PT100 resistor across, which develops a variable voltage.

This will be measured, linearized and converted to the output signal at the OUT terminals.

All three signals can be used at the same time.

The 2-wire technology allows short distances between the MTW and the PT100 sensor to be covered, i.e. <5 m. For longer distances, 3-wire technology compensates for the cable resistance. For three wire technology, remove the bridge between 2 and 3. For the greatest accuracy, 4-wire technology compensates for both the outgoing and incoming cables which may have differing resistances or lengths.

Notes

To order screw terminal option omit 66 from the part number.

$\pm 0^{\circ} \dots 100^{\circ}\text{C}$ to 0...10 V DC or 4...20 mA with 0.1 % precision on **Art.-No. 446098** approx.. **446099** on request.