

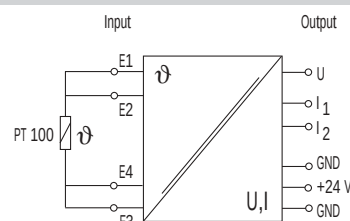
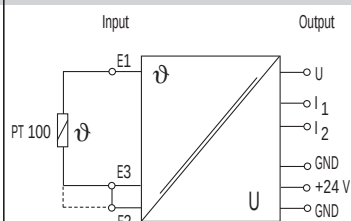
## Temperature modules for PT 100 Sensors

### MTW 12,4 2- 3-wire



### MTW 12,4 4-wire

#### Circuit diagram



| Ordering data                           | Art.-No.                       | Art.-No.                       |
|-----------------------------------------|--------------------------------|--------------------------------|
| INPUT                                   | spring clamp / screw terminals | spring clamp / screw terminals |
| $\pm 50\text{ }^{\circ}\text{C}$        | <b>6644330</b>                 | <b>6644340</b>                 |
| $-50 \dots 150\text{ }^{\circ}\text{C}$ | <b>6644331</b>                 | <b>6644341</b>                 |
| $0 \dots 100\text{ }^{\circ}\text{C}$   | <b>6644332</b>                 | <b>6644342</b>                 |
| $0 \dots 150\text{ }^{\circ}\text{C}$   | <b>6644333</b>                 | <b>6644343</b>                 |
| $0 \dots 200\text{ }^{\circ}\text{C}$   | <b>6644334</b>                 | <b>6644344</b>                 |
| $0 \dots 300\text{ }^{\circ}\text{C}$   | <b>6644335</b>                 | <b>6644345</b>                 |
| $0 \dots 600\text{ }^{\circ}\text{C}$   | <b>6644336</b>                 | <b>6644346</b>                 |

| 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<br>at 4...20 mA max. 500 Ohm<br>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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>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).</p> <p>The MTW module supplies a constant current to the PT100 resistor across, which develops a variable voltage.</p> <p>This will be measured, linearized and converted to the output signal at the OUT terminals.</p> <p>All three signals can be used at the same time.</p> <p>The 2-wire technology allows short distances between the MTW and the PT100 sensor to be covered, i.e. &lt;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.</p> |  |

| Notes                                                                                                                                                                                                                                         |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <p>To order screw terminal option omit 66 from the part number.</p> <p><math>\pm 0^{\circ} \dots 100^{\circ}\text{C}</math> to 0...10 V DC or 4...20 mA with 0.1 % precision on <b>Art.-No. 446098</b> approx.. <b>446099</b> on request.</p> |  |