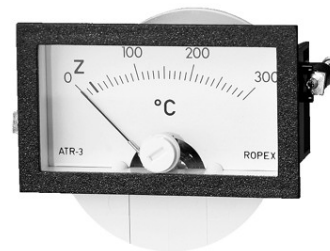# RESISTRON

ATR-3 / ATR-5 [GB]

Operating Instructions

The ATR-3 (+300°C) and ATR-5 (+500°C) analog temperature meters provide a quick indication of the temperature of heatsealing bands and heating elements during the heatsealing process. These instruments are also very useful when it comes to pinpointing disturbances in the external control loop, such as loose or poor contacts, cable breaks, defective plug connectors etc. In combination with a temperature controller, they respond extremely sensitively to resistance changes.

The instruments are designed for mounting on a front panel and are compatible with all ROPEX RESISTRON and CIRUS temperature controllers. The meter damping is optimized for the abrupt temperature changes that occur in impulse mode.
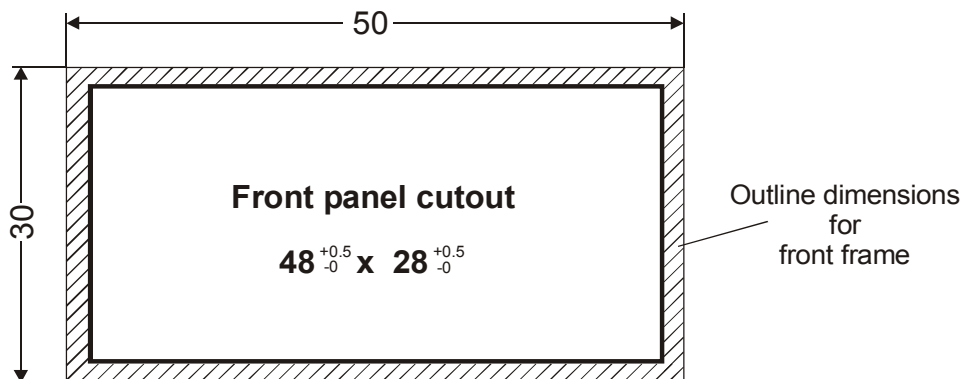
A "Z" mark is provided on the meter at +20°C for zero calibration of the connected temperature controller.

The instruments can be directly connected to a RESISTRON or CIRUS controller with an input voltage range of 0…10VDC.

Technical data

Temperature indication	Analog
Indicating range	ATR-3: 0…+300°C ATR-5: 0…+500°C
Input voltage	0…+10VDC, equivalent to 0…+300°C (ATR-3) 0…+500°C (ATR-5)
Cable connection	Screw terminals, 2-pole, plug-in
Cable cross-sections	Rigid and flexible: 0.2…2.5mm
Dimensions (frame)	(W x H) 50 x 30mm, depth: 57mm
Front panel cutout	(W x H) 48(+0.5) x 28(+0.5)mm
Ambient temperature	$+5°C <= T_a <= +45°C$

Dimensions/front panel cutout

50

30

Front panel cutout

48 $^{+0.5}_{-0}$ **x** **28** $^{+0.5}_{-0}$

Outline dimensions
for
front frame

Installation steps

1. Cut out the front panel (see above).
2. Detach the mounting frame from the meter and insert it into the front of the cutout.
3. Snap the meter into the mounting frame from behind.
4. Tighten the fixing screws in the frame.

5. Refer to the "Installation" section of the controller documentation for details of the electrical connections between the ATR meter and the RESISTRON or CIRUS controller. All national and international installation regulations must be complied with.
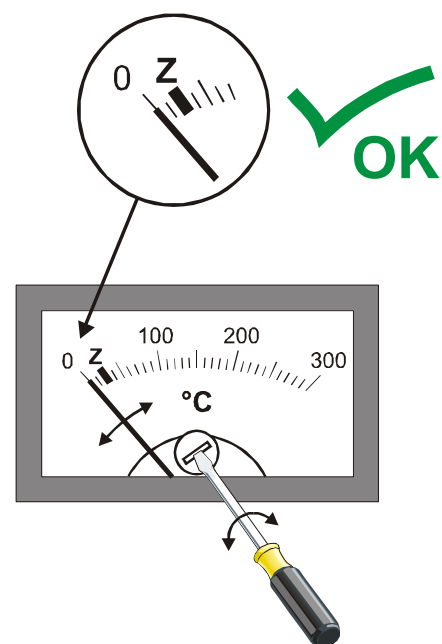
Startup

Mechanical zero calibration

The mechanical zero point of the analog temperature meters can be calibrated if necessary using the adjusting screw on the front panel.

⚠ **The system must be switched off prior to mechanical calibration. The pointer must be set to 0 °C. The Z ("ZERO") mark is only intended for calibrating a connected temperature controller and must not be used for mechanical calibration.**
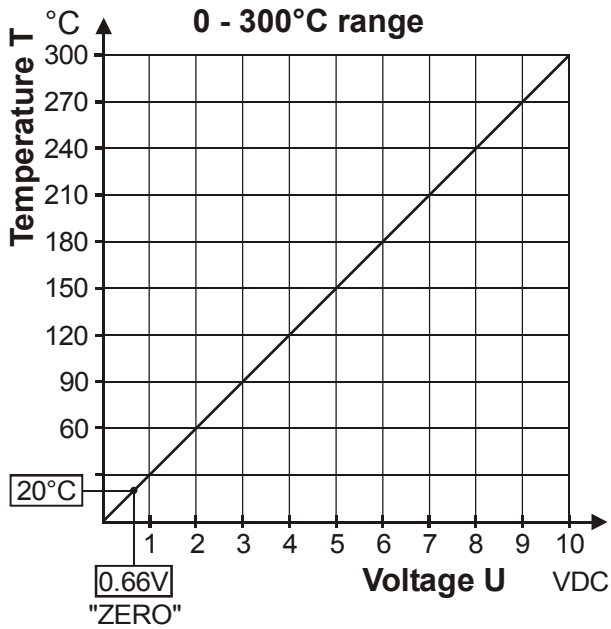
Starting up the controller

Start up the controller as described in the latest version of the controller documentation. Then check the meter function.
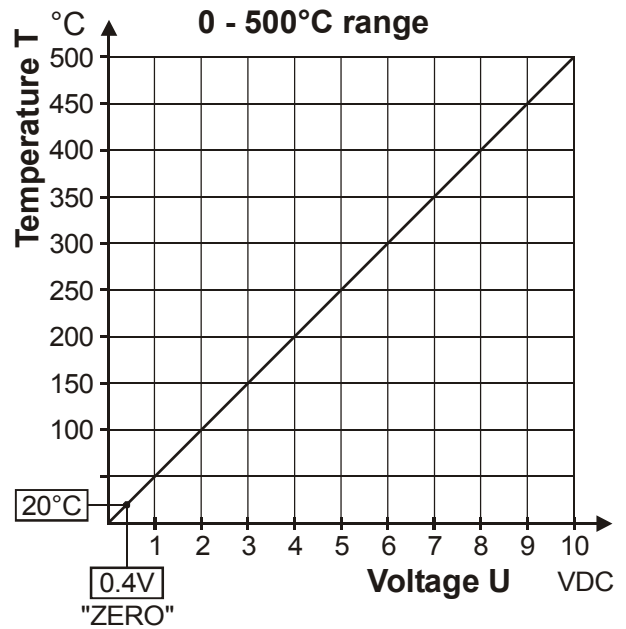
Indicating range

ATR-3

0 - 300°C range

Temperature T (°C)

```
300
270
240
210
180
150
120
 90
 60
 20°C
      1  2  3  4  5  6  7  8  9  10
      Voltage U    VDC
 0.66V
 "ZERO"
```

ATR-5

0 - 500°C range

Temperature T (°C)

```
500
450
400
350
300
250
200
150
100
 20°C
      1  2  3  4  5  6  7  8  9  10
      Voltage U    VDC
 0.4V
 "ZERO"
```

How to order

	ATR- . temperature meter **3**: 300°C range, Art. No. 882130 **5**: 500°C range, Art. No. 882150