

Temperature Controller

The 1-channel temperature controller TRM500 is a universally applied and easily operated stand-alone device. This controller features one configurable analog input for a wide range of resistance thermometers and thermocouples as well as one digital input. A relay output, an alarm output and a DC logic output are also available.

Functions and features:

- On-Off or PID control
- Manual control
- 20 mm, 4 digit display, 2nd display optional
- Digital input filter with an adjustable time constant
- Custom 2-point linearization
- Digital input (remote start/stop or setpoint change)
- Temperature range alarm
- Auxiliary alarm output
- Additional logic output (SSR)
- Configurable outputs
- Autotuning function
- Cold junction compensation
- Input calibration
- 9 status LEDs
- Digital input filter with an adjustable time constant:
 - Custom linearization
 - Limit value monitoring
 - 9 status LEDs Configuration via the functional keys

Inputs:

- Universal input for resistance thermometers and thermocouples:
 - Resistance thermometers: Pt50, Pt100, Pt500, Pt1000, Ni100, Ni500, Ni1000
 - Resistance thermometers in 2-,3- or 4-wire circuit
 - Thermocouples: B, J, K, L (GOST), N, R, S, T
 - Cold junction compensation
- Digital input: potential free-contact



1 channel for controlling



1 universal analog input



Thermocouple

Resistance temperature detector



Powerful relay output 30 A



On-off control



PID controll



Cost effective



Ambient temperature

Areas of application

The TRM500 can be applied in furnaces, injection moulding machines, extruders, PET bottle manufacturing, shrink wrappers, dryers, etc.

Technical data:

Power supply	230 (96...264) V AC; 50 (47...63) Hz
Power consumption, max.	5 VA
Resistance thermometer	Pt50, Pt100, Pt500, Pt1000, Ni100, Ni500, Ni1000
Accuracy	0.25 %
Connection circuit	2-, 3-, 4-wire
Sampling rate for 3-wire	0.3 s
Sampling rate for 2-, 4-wire	0.2 s
Lead resistance, max.	15 ohm
Reference junction	internal
Thermocouple	B, J, K, L (GOST), N, R, S, T
Accuracy	0.50%
Sampling rate, max.	0.2 s
Lead resistance, max.	100 ohm
Digital input	potential free contact
ON, resistance, max.	70 ohm
OFF, resistance, min.	1000 ohm
Digital outputs	
OUT1 (Relay)	30A / 250 V AC (resistive), 20A / 30 V DC
OUT2 (Relay)	5A / 250 V AC (resistive), 3A / 30 V DC
OUT3 (Solid State Relay)	0 / 5 V, 40 mA
Dimensions	96 x 48 x 100 mm
IP Code	front IP54, enclosure IP20
Ambient temperature	-20...+50 °C
Humidity	up to 80% (non-condensing)
Weight	approx. 160 g

Dimensions

