

## Data Sheet for KM-MICROx temperature controller

Compact electronic inline-thermostat for mounting on the heating hose or in series with the supply line.  
FAT control algorithm and wide-range technology



## **Short Description**

With the completely newly developed temperature controllers of the series KM-MICROx, it was possible to integrate a long-lasting switching element in triac technology into a small housing and still achieve a correspondingly high switching capacity.

The wide-range technology allows the controller to operate in a wide voltage range.

With a separate IR control panel, the setpoint temperature can be set on-site.

The controller uses the FAT algorithm. FAT stands for Fast-Adaptive-Tuning, a completely new control algorithm that adapts the control behavior automatically and continuously to the controlled system. So the heaters are always operated optimally with a variety of control behavior. The usual setting of the parameters in PID controllers or the initiation of an autotuning process are eliminated. Due to the multicolored LED, the status of the controller can be viewed from a further distance.

## **Technical Data**

Housing:	aluminium profile with hard end caps. Dimensions: 170 x 40 x 20 mm ( L x W x H )
Power Supply:	Wide-Range 90 - 250 VAC 50/60Hz
Switching Current:	up to 10 A ohmic load is secured across a built-in safety fuse Nominal Output @ 230V – 1100W max. (5min) - 1600W Nominal Output @ 115V – 550W max. (5min) -800W
Thermal Protection:	+85 °C (Electronic temperature, self-resetting)
Sensor Inputs:	R version: PT100 (2-wire) T version: thermocouple K All floating inputs with sensor short circuit protection (only R version) and sensor breakage protection
Set Point Range:	-25...600°C Pt100 -200...1350°C Typ K
Control Behaviour:	FAT control algorithm (Fast Adaptive Tuning)
Circuit Breaker:	Triac
Operation:	by IR-control panel Art-Nr: 65502000

Status Display: 4-coloured LED to represent the operating status  
Flashing red = excessive temperature  
Flashing blue = insufficient temperature (heating phase)  
Green = target = actual temperature  
Rapid yellow flashing = sensor error (probe break/short circuit)  
Rapid red flashing = device error

Ambient Temperature: -20°C to +45°C  
Protection Class: I  
Protection Type: IP67  
Weight: ca. 0.4kg

## Device Models:

Model KM-MICROR/T Model No.: 69511002 = R and 69521002 =T  
Mains connection via 1.5 m cable with shock-proof plug  
Heating connection via flange receptacle  
6+PE switching current max. 10 A  
Selectable Pt100 sensor (R) or Typ K thermocouple (T)

Other heating connections with corresponding adapter cables are available on request

### equipment:

IR control panel for displaying and setting the setpoint and actual display Art-No: 65502000  
2x mounting clips for KM-MICROx with 25cm Velcro tape for mounting on heating hoses up to max. NW 20 Art-No: 69500001  
2x mounting clips for KM-MICROx with 50cm Velcro tape for mounting on heating hoses up to max. NW 50 Art-No: 69500002

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