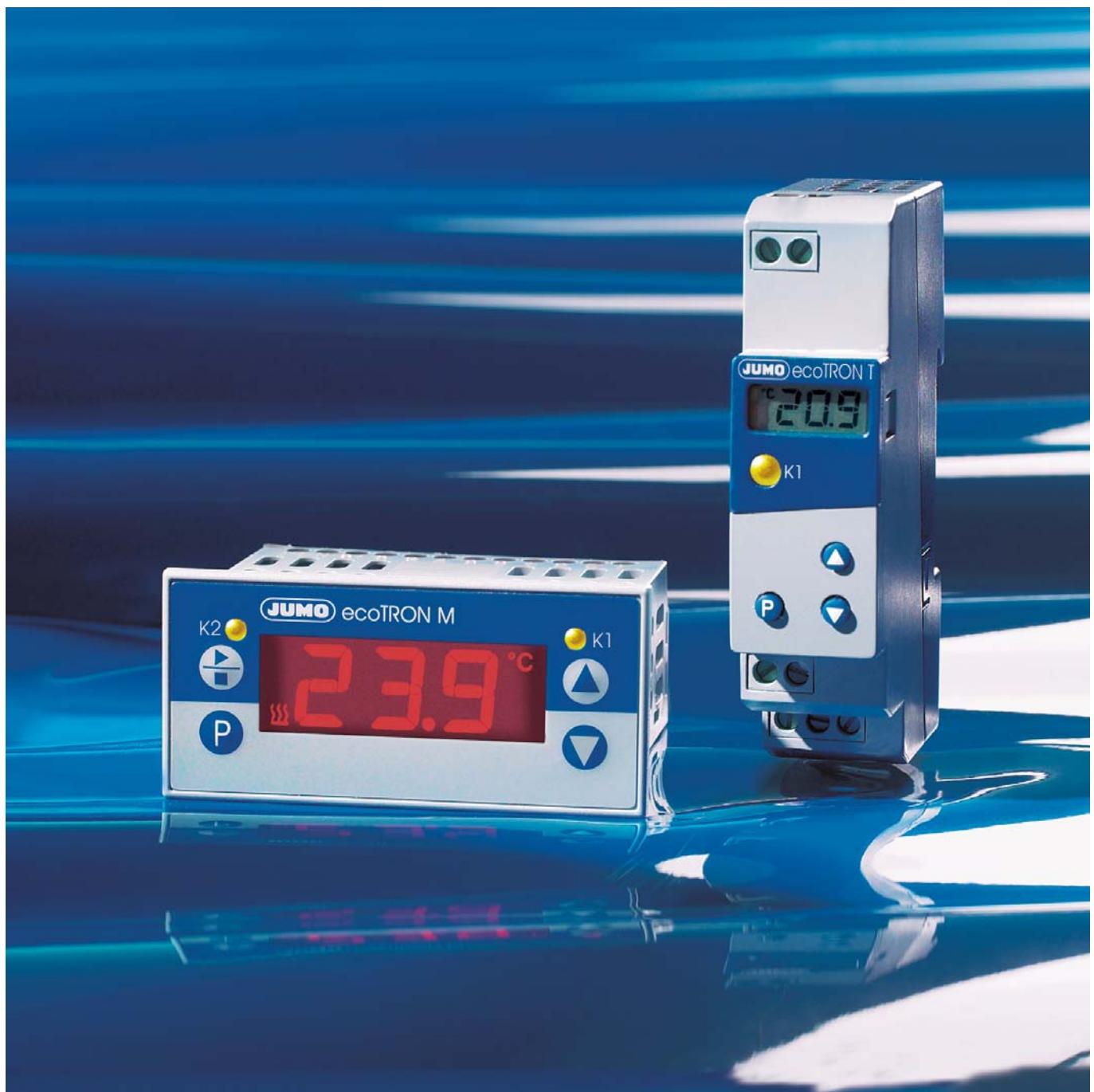

JUMO ecoTRON M / T
Digital Thermostats and Electronic Microstats



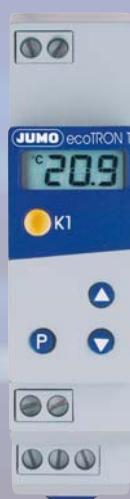
JUMO ecoTRON M



Compact electronic microstat

(for heating or cooling)

- integrated defrosting function
- operating hours counter
- Symbols for operating modes, °C, °F, hours, minutes and seconds in display
- easy operation using four keys
- bezel 76 mm x 36 mm, depth behind panel 56 mm
- enclosure protection: front IP 65, rear IP 20



Compact digital thermostat

(for heating or cooling)

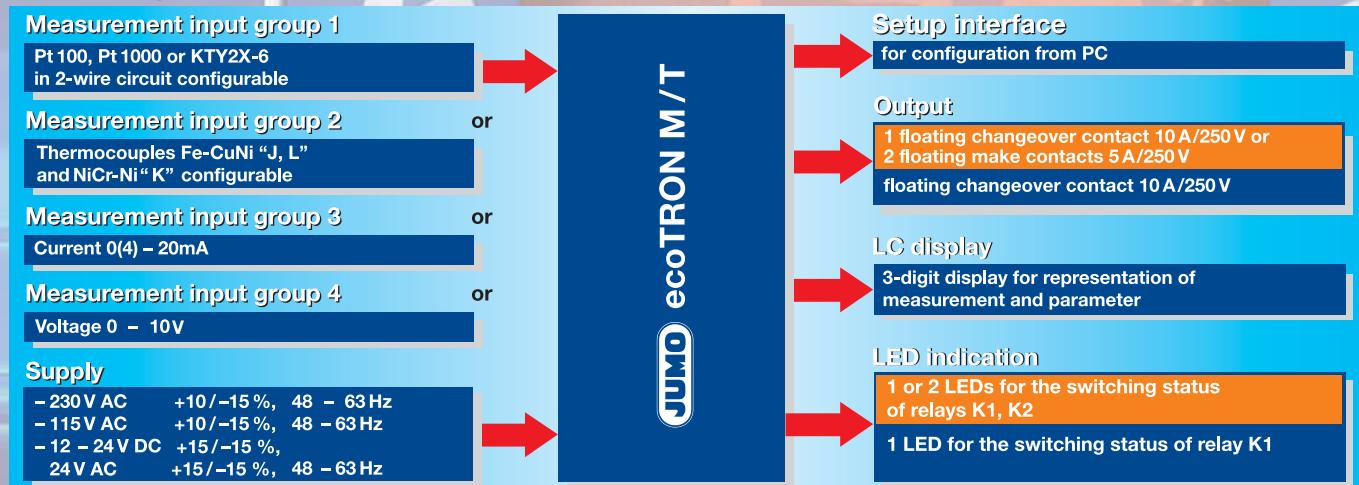
- 10 A relay (changeover contact)
- 3-digit LC display with special characters for °C and °F
- easy operation using three keys
- dimensions 90 mm x 22,5 mm x 60 mm
- enclosure protection: front IP 65, rear IP 20

Common features

- heating or cooling is configurable
- Limit monitoring
- available for resistance thermometer, thermocouple, standard current or voltage signals, according to choice
- choice of a 10 A relay or two 5 A relays
- time-delayed switch-on after power-on is selectable, e. g. for staggered starting of several equipment units

- Parameter level protected by code
- Setup program for configuration and archiving via PC
- customized linearization via tabular function in the setup program
- UL approval applied for

Block diagram

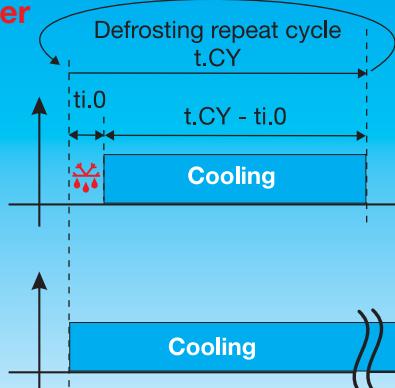


■ applies only to JUMO ecoTRON M

Timing functions for the JUMO ecoTRON M

Cooling controller

Cyclic cooling with defrosting
 $t_{i.0} \geq 1$
 $t_{CY} \geq 1$



If required:
 Stop cooling, start defrosting with key $\oplus > 1$ sec

Stop defrosting, start cooling with key $\oplus > 1$ sec

One-off defrosting
 $t_{i.0} \geq 1$
 $t_{CY} = 8:00:00$

Cooling

Start one-off defrosting with key $\oplus > 1$ sec

Cooling

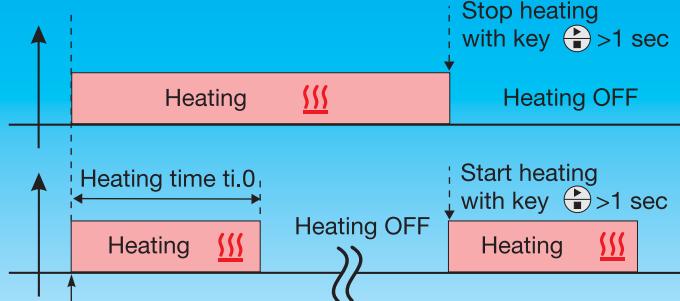
Cooling

t

The cooling controller makes a distinction between the functions "Cyclic cooling with defrosting" and "One-off defrosting". The example "Cyclic cooling with defrosting" shows the controller starting with a defrosting phase after power ON. Cooling is initiated after the end of the defrosting phase. The example "One-off defrosting" illustrates that defrosting can only be initiated manually by pressing the start/stop key.

Heating controller

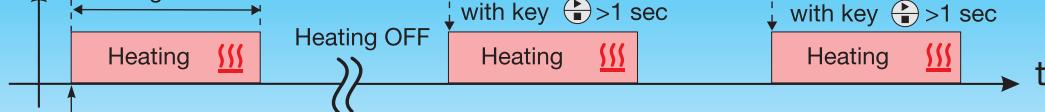
Heating, no time limit
 $t_{i.0} = 8:00:00$



Stop heating with key $\oplus > 1$ sec

Start heating with key $\oplus > 1$ sec

Heating, with time limit
 $t_{i.0} \geq 1$



The starting action after power ON is set via parameter P.On

The heating controller distinguishes between "Heating, no time limit" and "Heating, with time limit". The example "Heating, no time limit" illustrates that the control action can be manually canceled or restarted by using the start/stop key. The example "Heating, with time limit" shows the controller remaining inactive after the end of the heating period until it is manually started from the start/stop key. The heating process can be canceled at any time using the start / stop key.

Operating time counter

The operating time counter is used for plant maintenance or for registering operating times (active relay time).

The operating time counter features three parameters:

- "t. Si" service interval
- "t. S" current service counter
- "t. h" operating time counter (totalizer)

When the selected service interval is reached, this is shown in the display. A maximum of 9900 operating hours can be counted.

Main areas of application

- Refrigeration
- Air conditioning
- Heating and ventilation
- Baking ovens and fryers
- Solar and heat pumps
- Incubators and warming ovens
- Transformer and storage temperature monitoring

Fax reply

(for fax number see address below)

PR 70055 GB „**JUMO** ecoTRON M/T“

- Please send me full information
(Data Sheet 70.1050, 70.1060)

Sender:

Name _____

Please send me

- your product guide (PR 00046 GB)
 your free CD "Products"

Company _____

Address _____

- Please arrange a personal discussion

Phone _____

with _____

Fax _____

Phone _____

e-mail _____

Date/time _____

Date _____

stamp and signature _____



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