

Delivery address: Mackenrodtstraße 14,  
36039 Fulda, Germany  
Postal address: 36035 Fulda, Germany  
Phone: +49 661 6003-0  
Fax: +49 661 6003-607  
E-mail: mail@jumo.net  
Internet: www.jumo.net

JUMO House  
Temple Bank, Riverway  
Harlow, Essex CM 20 2TT, UK  
Phone: +44 1279 635533  
Fax: +44 1279 635262  
E-mail: sales@jumo.co.uk  
Internet: www.jumo.co.uk

885 Fox Chase, Suite 103  
Coatesville PA 19320, USA  
Phone: 610-380-8002  
1-800-554-JUMO  
Fax: 610-380-8009  
E-mail: info@JumoUSA.com  
Internet: www.JumoUSA.com



# JUMO ecoTRON M Electronic Microstat

Format 76 x 36 mm

## Brief description

The JUMO ecoTRON M is a compact, digital electronic thermostat for simple temperature control (heating or cooling). The temperature is acquired through a Pt100, Pt1000 or KTY2X-6 resistance thermometer in 2-wire circuit and visualized on a 3-digit backlit display.

The switching status is indicated via an LED.

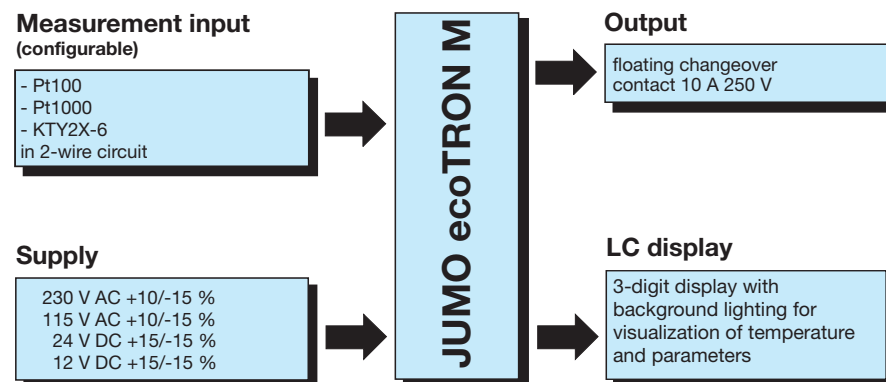
The instrument incorporates a simple defrosting function and a service hour counter which can, for instance, record the operating time of a cooling compressor.

The instrument can be operated from 4 keys on the front panel. The electrical connection is by screw terminals on the back of the instrument.



Type 701060 ...

## Block structure



## Features

- Configurable heating or cooling operation
- Adjustable switching differential
- Integrated defrosting function
- Service hour counter
- Symbols for operating mode, °C, °F, hours, minutes and seconds in display
- Parameter level protected by code
- Each parameter can be individually enabled for operation
- 10A relay
- Simple installation
- Selectable controller activation after power ON, e.g. for staggered starting of several equipment units
- UL approval applied for

## Displays and controls

<b>LC display</b>	3-digit 9-segment display, 13 mm high, with symbols for temperature unit, hr, min, sec, defrosting and heating, red background lighting	
<b>LED K1</b>	LED K1 comes on when the relay is energized. LED K1 goes out when the relay is de-energized.	
<b>Keys</b>	<ul style="list-style-type: none"> <li>▶ for start-stop</li> <li>Ⓟ programming</li> <li>▲ increase parameter value</li> <li>▼ decrease parameter value</li> </ul>	

## Technical data

### Measurement input

Designation	Range	Accuracy	Overrange / underrange
Pt100 EN 60 751	-200 to +500 °C	0.1%	is recognized
Pt1000 EN 60 751	-200 to +500 °C	0.1%	is recognized
KTY2X-6	-50 to 150 °C	1%	is recognized
Sampling time	250 msec		
Input filter	1st order digital filter; filter constant adjustable from 0 – 99.9sec		
Lead compensation	adjustable via the parameter Lead compensation resistor $\square F.r$		
Temperature offset	adjustable via the parameter $\square F.t$		
Features	temperature display can be changed to °F (Fahrenheit)		

### Environmental influences

Ambient temperature range	0 to +55 °C
Storage temperature range	-40 to +70 °C
Temperature error	≤100ppm per °C of range
Climatic conditions	≤75 % rel. humidity, no condensation
Care of the front panel	The front panel can be cleaned with all the usual rinsing and cleaning agents. Do not use solvents such as methylated spirit, white spirit, P1 or xylene!

### Output

Relay	150,000 operations at 10A 250V AC resistive load 800,000 operations at 3A 250V AC 50Hz resistive load
-------	--

### Supply

Supply voltage	230V AC +10/-15%, 115V AC +10/-15% 12V DC +15/-15%, 24V DC +15/-15%
Power consumption	<3VA

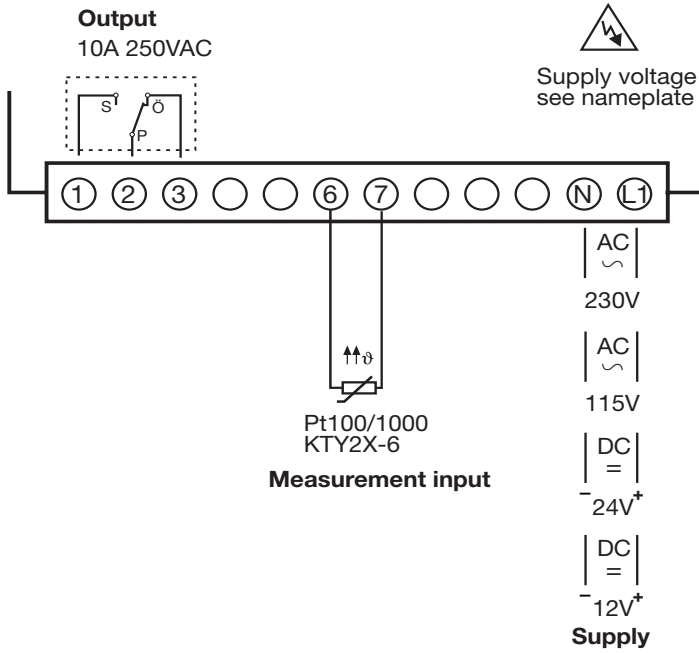
### Housing

Material	polycarbonate
Mounting	in panel cut-out with bezel seal
Operating position	unrestricted
Weight	approx. 160g
Protection	front: IP65, rear: IP20
Flammability class	UL 94 V0

### Electrical data

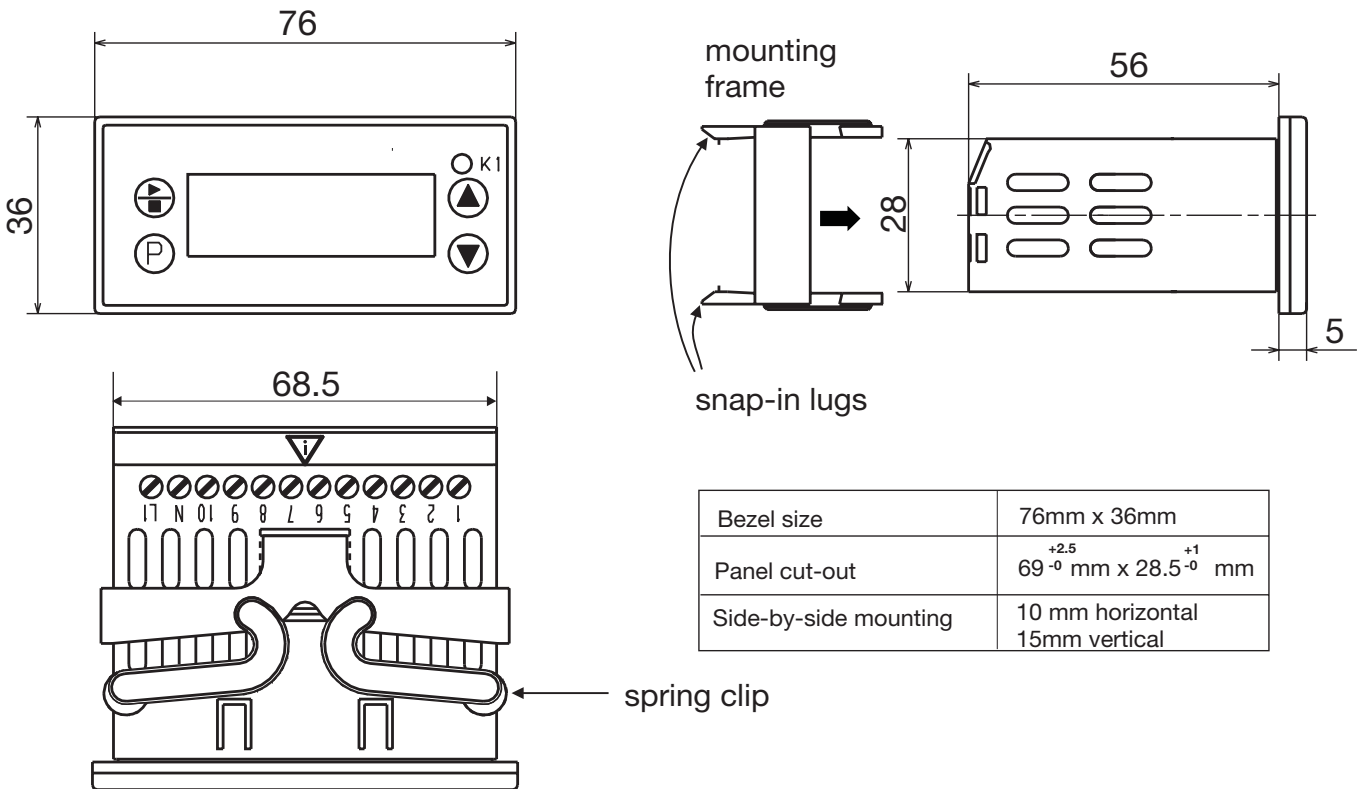
Data backup	EEPROM
Connection	via screw terminals for wire cross-sections up to max. 4 mm <sup>2</sup> solid wire and 2.5 mm <sup>2</sup> stranded wire
Electromagnetic compatibility interference emission immunity to interference	product family standard: EN 61 326 Class B to industrial requirements
Operating conditions	The instrument is designed for panel mounting to EN 60 730.
Electrical safety	to EN 61 010, Part 1 overvoltage category III, pollution degree 2

## Connection diagram



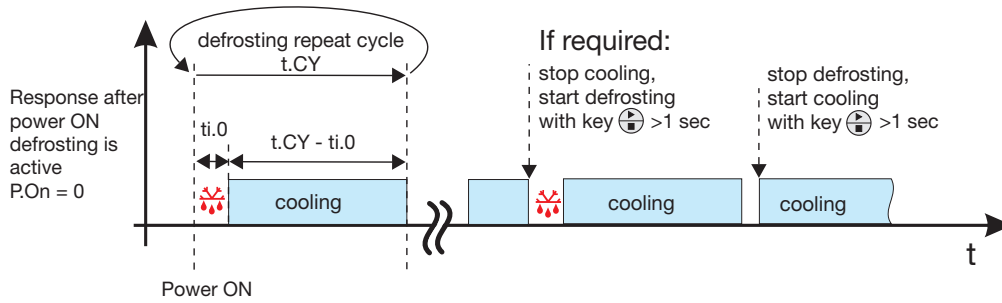
## Dimensions

Type 701060/888-02

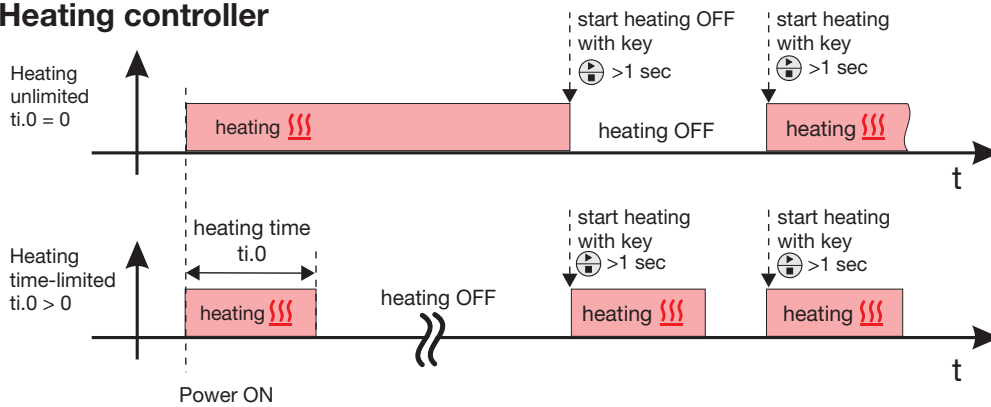


## Timing functions

### Cooling controller



### Heating controller



## Order details

- 701060 (1) **Basic version**  
JUMO ecoTRON M
- (2) **Measurement input (configurable)**
- 003 Pt100 in 2-wire circuit
- 005 Pt1000 in 2-wire circuit
- 606 KTY2X-6
- 888 factory-set, configurable
- 999 configured to customer specification
- (3) **Supply**
- 02 230V AC +10/-15% 48 – 63Hz
- 05 115V AC +10/-15% 48 – 63Hz
- 18 24V DC +15/-15%
- 20 12V DC +15/-15%

Order code  (1) /  (2) -  (3)

Order example 701060 / 888 - 02

factory-set