

JUMO GmbH & Co. KG
 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 Instrument Co. Ltd.
 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

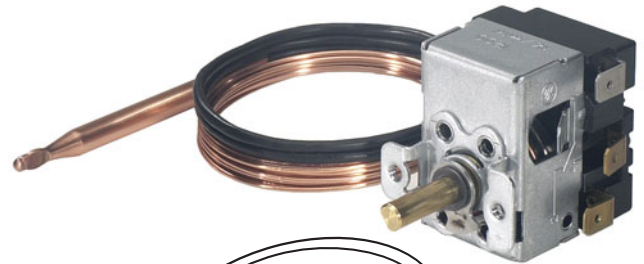
JUMO Process Control, Inc.
 8 Technology Boulevard
 Canastota, NY 13032, USA
 Phone: 315-697-JUMO
 1-800-554-JUMO
 Fax: 315-697-5867
 e-mail: info@jumo.us
 Internet: www.jumo.us



JUMO heatTHERM

Type 602030

- Temperature controller, as a panel-mounting thermostat
- Compensated for ambient temperature



for stock items
see page 3

Brief description

Thermostats control and monitor thermal processes. The JUMO heatTHERM, Type 602030, is a temperature controller TR.

The panel-mounting thermostat operates on the principle of liquid expansion. The electrical switching device is a snap-action switch.

The panel-mounting thermostat complies with RoHS and is free from cadmium.

Switching action

Temperature controller TR

If the temperature at the probe exceeds the selected setpoint, the snap-action switch is operated via the transmission mechanism and the circuit is opened or closed. If the temperature drops below the selected setpoint (by the amount of the switching differential), the snap-action switch returns to its initial position.

Temperature compensation

A deviation of the ambient temperature at the switch head and capillary from the +22°C calibration ambient temperature will result in a shift of the switching point. The temperature compensation reduces this switching point shift to a minimum.

Approvals

| DIN Reg. No. | Tests | | | |
|--------------|---|---|---|---|
| TR 116804 |  |  |  | You will find the Declarations of Conformity at: www.jumo.net , or ask for them to be sent. |

¹ mode of operation as per EN 60 730-2-9: Type 1 BL

JUMO GmbH & Co. KG
 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 Instrument Co. Ltd.
 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

JUMO Process Control, Inc.
 8 Technology Boulevard
 Canastota, NY 13032, USA
 Phone: 315-697-JUMO
 1-800-554-JUMO
 Fax: 315-697-5867
 e-mail: info@jumo.us
 Internet: www.jumo.us



Technical data

| | |
|----------------------------|--|
| Housing | sheet steel, zinc-plated |
| Base | black polyester resin compound |
| Fixing | 2 M4 screws, spaced 28 mm |
| Enclosure protection | IP00 to EN 60 529 |
| Limit temperatures | for transport and storage: -50 to +50°C in operation: +80°C max. |
| Nominal position (NL) | unrestricted |
| Weight | approx. 0.12 kg |
| Scale span | 250° \nless |
| Ambient temperature effect | A deviation from the ambient temperature at the switch head and capillary from the +22°C calibration ambient temperature will result in a switching point shift of about $-0.1^{\circ}\text{C}/^{\circ}\text{C}^1$ (measured for the control range +30 to +110°C and a capillary length of 3000 mm) |
| Electrical contact | snap-action switch with single-pole changeover contact break contact (SPST-NC), contacts 1-2: 16 (2.5) A, 230 V AC +10%, p.f. = 1 (0.6) 0.25A, 230 V DC +10% make contact (SPST-NO), contacts 1-4: 6.3 (2.5) A, 230 V AC +10%, p.f. = 1 (0.6) 0.25A, 230 V DC +10% A 6.3-0.8 to DIN 46244 5 to 11% of control range in upper third of control range: +2/-3%, at the start of the control range: $\pm 5\%$ of control range To ensure maximum switching reliability, we recommend a minimum loading of: AC / DC = 24 V, 20 mA |
| Contact type | |
| Contact rating | |
| Connection | |
| Switching differential | |
| Switching point accuracy | |
| Switching reliability | |
| Accessories | Type W8 to data sheet 60.6715 |
| Setpoint adjuster | |

Probe length L in mm

| Control range | +20 to 90°C | +30 to 110°C | +20 to 120°C | 0 to 200°C | +50 to 250°C | +50 to 300°C |
|---------------|-------------|--------------|--------------|------------|--------------|--------------|
| Probe dia. | | | | | | |
| 4 mm | 173 | 153 | 126 | 88 | 88 | 75 |
| 6 mm | 79 | 72 | 62 | -- | -- | -- |

¹ (change in switching point referred to change in ambient temperature)

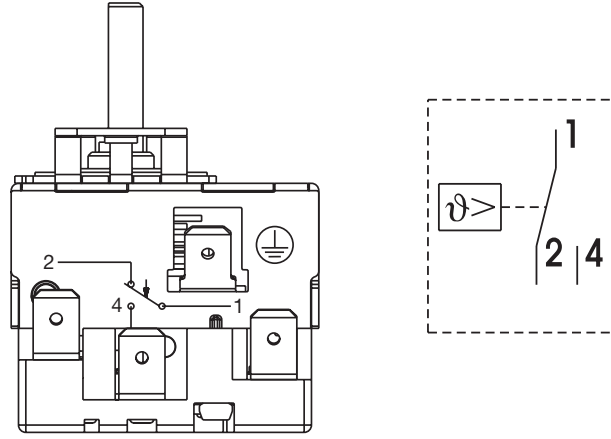
JUMO GmbH & Co. KG
 Delivery address: Mackenrodtstraße 14,
 36039 Fulda, Germany
 Postal address: 36035 Fulda, Germany
 Phone: +49 661 6003-0
 Fax: +49 661 6003-607
 e-mail: mail@jumo.net
 Internet: www.jumo.net

JUMO Instrument Co. Ltd.
 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

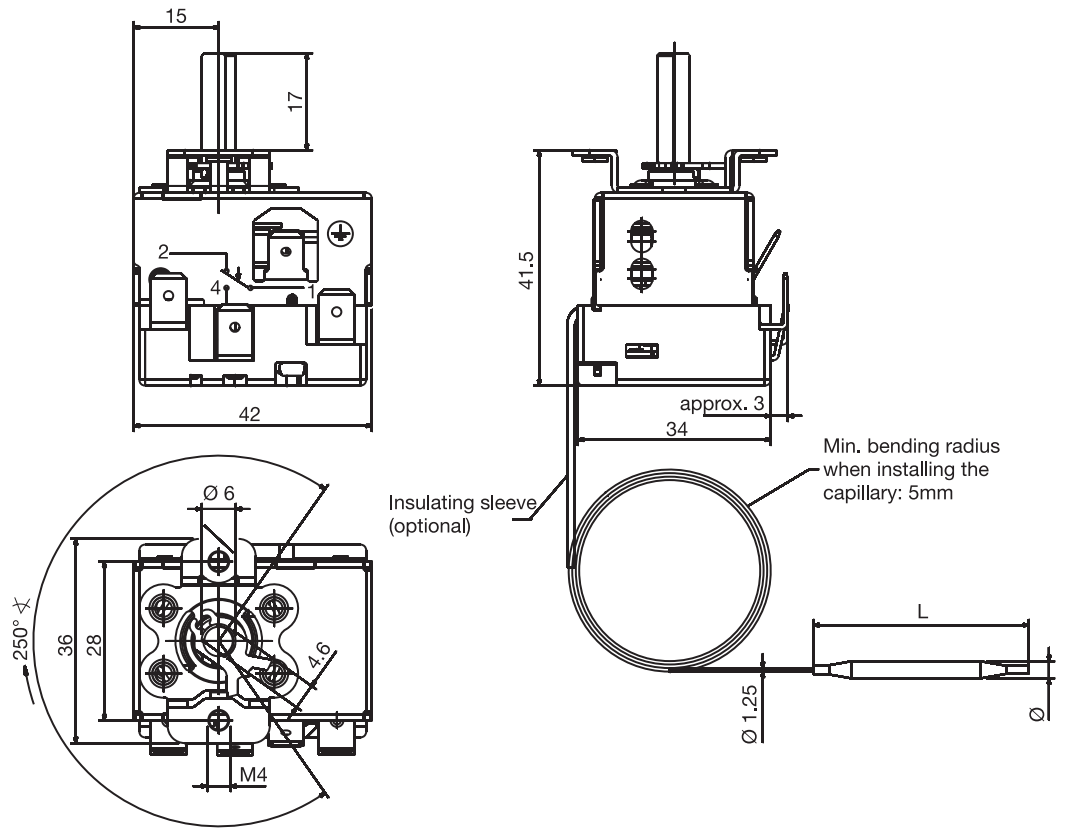
JUMO Process Control, Inc.
 8 Technology Boulevard
 Canastota, NY 13032, USA
 Phone: 315-697-JUMO
 1-800-554-JUMO
 Fax: 315-697-5867
 e-mail: info@jumo.us
 Internet: www.jumo.us



Connection diagram



Dimensions



shipment: 3 working days after receipt of order

Stock items

minimum order quantity: 10 items

| Sales No. | Type | Control range °C | Capillary mm | Process connection | Probe dia. x length mm |
|-------------|--------|------------------|--------------|--------------------|------------------------|
| 60/60002993 | 602030 | +20 to +90 | 2000 | A | 6 x 79 |
| 60/60003134 | | 0 to +200 | | | 4 x 88 |
| 60/60003135 | | +50 to +300 | | | 4 x 75 |

Instrument versions that differ from the stock models are available on request, minimum order quantity: 500 items

JUMO GmbH & Co. KG
 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 Instrument Co. Ltd.
 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

JUMO Process Control, Inc.
 8 Technology Boulevard
 Canastota, NY 13032, USA
 Phone: 315-697-JUMO
 1-800-554-JUMO
 Fax: 315-697-5867
 e-mail: info@jumo.us
 Internet: www.jumo.us



Order details

Panel-mounting thermostat JUMO heatTHERM, type 602030

| | |
|-------------------|---|
| Order code | (1) Basic type |
| 602030 | Panel-mounting thermostat JUMO heatTHERM, with single-pole snap-action switch |
| | (2) Basic type extension |
| 01 | Temperature controller (TR) with changeover contact |
| | (3) Control range |
| 041 | +20 to + 90°C |
| 052 | +30 to +110°C |
| 042 | +20 to +120°C |
| 028 | 0 to +200°C |
| 063 | +50 to +250°C ² |
| 064 | +50 to +300°C ² |
| | (4) Capillary length |
| 1000 | 1000 mm |
| 2000 | 2000 mm |
| 2500 | 2500 mm |
| 3000 | 3000 mm |
| | special length (specify in plain text, in 1000 mm steps, max. length: 5000 mm) |
| | (5) Material of capillary |
| 40 | Cu (copper) 1.25 mm dia. |
| | (6) Insulation of capillary |
| 00 | without |
| 13 | with |
| | (7) Insulation length (starting from housing) |
| 0 | without |
| 450 | 450 mm |
| ... | special length (specify in plain text, in mm, max. length: 800 mm) |
| | (8) Process connection (PA)¹ |
| 10 | A = plain cylindrical probe  |
| 20 | U = screw-in pocket  |
| | (9) Thread for process connection |
| 00 | no thread (process connection A) |
| 13 | external thread G 1/2 |
| | (10) Material of process connection |
| 00 | only with process connection A |
| 46 | CuZn (brass) |
| 01 | St (steel) |
| 20 | CrNi (stainless steel 1.4571) |
| | (11) Fitting length S (immersion tube length) |
| 000 | no pocket |
| 100 | 100mm |
| 150 | 150mm |
| 200 | 200mm |
| 300 | 300mm |
| 400 | 400mm |
| | special length (specify in plain text) |
| | (12) Diameter D (immersion tube dia.) |
| 0 | no pocket |
| 8 | 8 mm |
| | (13) Diameter d (probe diameter) |
| 4 | 4 mm |
| 6 | 6 mm |
| | (14) Extra codes (TZ) |
| 000 | no extra code |

Special versions on request!

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--------|-----|-----|-----|-----|-----|------|-----|-----|------|------|------|------|------|----|---|----|---|----|---|-----|---|---|---|---|---|-----|
| Order code | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | | | | | | | | | | | | | |
| Order example | 602030 | / | 01 | - | 052 | - | 2000 | - | 40 | - | 13 | - | 450 | - | 10 | - | 00 | - | 00 | - | 000 | - | 0 | - | 6 | / | 000 |

¹ see data sheet 60.6710 for additional probe mountings

² no VDE approval