

2-point control

Electronic
temperature control

RAKE712...

in protective housing, for mounting on an immersion tube



Registered under DM/066 622

Electronic temperature control with adjustable thermal differential

Application

Replacement for electromechanical thermostats where tight tolerances and / or an adjustable thermal differential are required.

For applications in boilers and on heating-, ventilation- and air conditioning equipment. The device is mounted on an immersion tube.

Features

- If nominal value is reached, the change-over switch is activated
- The nominal value is not sensitive to temperature changes on the housing (max. ± 1 K)
- Single-pole relays with change-over switch
- Time factor for the sensing element acc. EN 14597

Type summary

| Type | Order-no. | Range [°C] | Immersion length | Type | Order-no. | Range [°C] | Immersion length |
|---------------|-----------|------------|------------------|---------------|-----------|------------|------------------|
| RAKE712.0000M | 011-6001 | -20...40 | 100mm | RAKE712.0040M | 011-6041 | 80...140 | 100mm |
| RAKE712.0001M | 011-6002 | -20...40 | 150mm | RAKE712.0041M | 011-6042 | 80...140 | 150mm |
| RAKE712.0002M | 011-6003 | -20...40 | 200mm | RAKE712.0042M | 011-6043 | 80...140 | 200mm |
| RAKE712.0003M | 011-6004 | -20...40 | 280mm | RAKE712.0043M | 011-6044 | 80...140 | 280mm |
| RAKE712.0004M | 011-6005 | -20...40 | 450mm | RAKE712.0044M | 011-6045 | 80...140 | 450mm |
| RAKE712.0005M | 011-6006 | -20...40 | 600mm | RAKE712.0045M | 011-6046 | 80...140 | 600mm |
| RAKE712.0020M | 011-6021 | 30...90 | 100mm | RAKE712.0060M | 011-6061 | 130...190 | 100mm |
| RAKE712.0021M | 011-6022 | 30...90 | 150mm | RAKE712.0061M | 011-6062 | 130...190 | 150mm |
| RAKE712.0022M | 011-6023 | 30...90 | 200mm | RAKE712.0062M | 011-6063 | 130...190 | 200mm |
| RAKE712.0023M | 011-6024 | 30...90 | 280mm | RAKE712.0063M | 011-6064 | 130...190 | 280mm |
| RAKE712.0024M | 011-6025 | 30...90 | 450mm | RAKE712.0064M | 011-6065 | 130...190 | 450mm |
| RAKE712.0025M | 011-6026 | 30...90 | 600mm | RAKE712.0065M | 011-6066 | 130...190 | 600mm |

Technical data

| | | |
|-----------------|---|------------------------------|
| Power supply | Voltage | 230 V~ -15...+10 %, 50 Hz |
| | Power consumption | approx. 3 VA |
| Switching power | Nominal voltage range | 12...250 V~ 10...300 V DC |
| | Nominal current range I (I _M) | 0.1...8(4) A |

| | | |
|-------------------|--|---|
| Application range | Adjustable cut-off temperature ϑ_{off} Thermal switching differential Base value - with DIP switch adjustable values from 1K to 15K | see „Type summary“ 0.5 K to 15.5 K 0.5 K DIP1 = +1 K DIP2 = +2 K DIP3 = +4 K DIP4 = +8 K |
| | Ambient temperature on housing Max. sensing element temperature Ambient temperature for storage and transport | 0...50 °C (T50) 200 °C -25...+70 °C |
| Sensor | Sensor Type Measuring range | Pt1000 class B (EN 60751) -20...+200 °C |
| Calibration | Calibration tolerance Time factor in water / in oil | ± 1 K <45 s / <60 s |
| Specification | Protection mode of housing Housing socket Housing cover Length R of immersion tube Electrical connection Cable bushing Weight without packaging and immersion tube | IP66 acc. EN 60529 Polyamide reinforced (PA), temperature stability up to 120 °C Polycarbonate (PC), temperature stability up to 120 °C 100, 150, 200, 280, 450 or 600 mm Screw terminals M20 and M16 approx. 255 gr. |

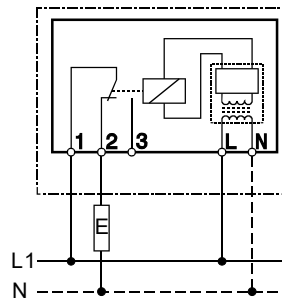
Fitting notes

See the mounting instructions inside the package.

The immersion tube material depends on the installation (medium, tank material etc.) and must be specified by the user.

To comply with the time factor requirements acc. EN 14597 the immersion tubes must conform to drawing H 1 7111 3459 (see also data sheet "Immersion tube 1130").

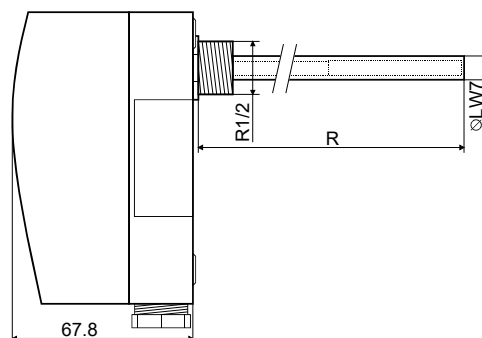
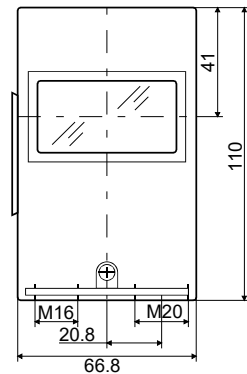
Wiring diagram/ status indicators



Supply status 1 LED yellow

Relays status contacts 1-2 1 LED red

Dimension drawing



Socket 005-1054
Cover 005-0551.3