

Product information

Controller

**Temperature Controller
 TTM-002, -004, -005, -009**



Characteristics

- 2-, 3-point- or continuous controller
- Measuring input for Pt100, thermocouple or voltage/current
- Measuring range programmable
- Control performance PID with auto-tuning
- Process output relay, electronic output 0/12 V or continuous 4..20 mA
- Alarm output relay, alarm function programmable

Technical data

Power supply

Supply voltage : 100..240 V AC or 24 V AC/DC
 Power consumption : < 10 VA at 240 V AC
 CE-conformity : EN 61326-1:2013; EN 61010-1:2010
 Certification : UL3121-1 (UL/CUL)

Measuring input

Pt100 : Pt100/JPt100 range -199(.9)..500(.0) °C
 2- or 3-wire connection

Thermocouple

Type J : Fe-CuNi -200..+850/-199.9..+850.0 °C
 Type K : NiCr-Ni -200..+1372/-199.9..+990.0 °C
 Type N : NiCrSi-NiSi -200..+1300/-199.9..+990.0 °C
 Type R : PtRh-Pt87/13 0..1700°C
 Type S : PtRh-Pt90/10 0..1700°C
 Type T : Cu-CuNi -200..+400/-199.9..+390.0 °C
 Type B : Pt30Rh/Pt6Rh 0..1800 °C
 break of sensor, built-in cold junction

Voltage

: 0/1..5 V DC -1999..+9999 Digit

Current

: 4..20 mA -1999..+9999 Digit

Sensor correction

: programmable

Accuracy

: ± 0.3 % +1 digit of the measuring range

Sampling rate

: 0.5 s

Output

Electronic : 0/12 V DC bistable, max. 20 mA

Relay : process output <250 V AC <250 VA <3 A
 alarm output <250 V AC <250 VA <2.4 A

Continuous

: 4..20 mA, burden max. 600 Ω

Display

Process value : LED 4-digit green 7.6, 10 or 12 mm

Set value : LED 4-digit red 5 or 8 mm

Decimal point

: programmable

Status indicator

: LED red or green

Case

Dimensions

HxWxD : 48x24x97 mm DIN48x24

TTM-002 : 48x24x97 mm DIN48x24

TTM-004 : 48x48x77 mm DIN48x48

TTM-005 : 48x96x77 mm DIN48x96

TTM-009 : 96x96x77 mm DIN96x96

Protection class

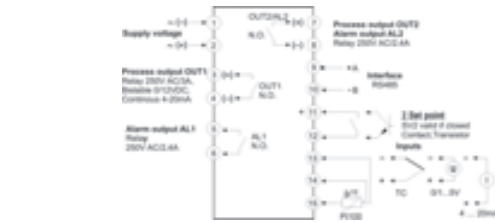
: front IP65

Terminals

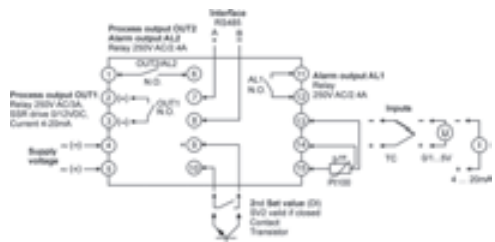
: screw terminals max 2.5 mm²

Connection diagram

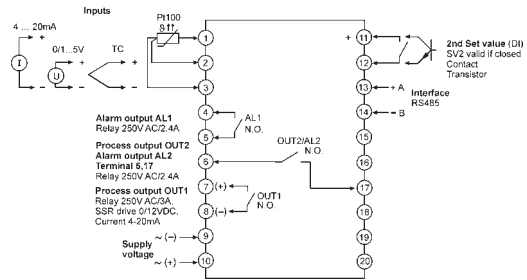
TTM-002



TTM-004



TTM-005/009



Ordering code

1. 2. 3. 4. 5. 6.
 TTM - [] - [] - [] - [] - [] - []

1. Model	
002	DIN 48x24
004	DIN 48x48
005	DIN 48x96
009	DIN 96x96
2. Input	
0	thermocouple; Pt100, JPt100
2	current, voltage
3. Process output OUT1	
R	relay SPST
P	electronic bistable 0/12 V DC for SSR relay
I	continuous, current 4..20 mA
4. Options	
AB	AL1 relay SPST (standard) OUT2 / AL2 relay SPST (3-point-controller)
5. Interface	
0	without interface
ME	serial interface RS485, 2. set value SV2
6. Supply voltage	
0	100..240 V AC
5	24 V AC/DC