

Product Information

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 50081-2, EN 50082-2, IEC 1010-1
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

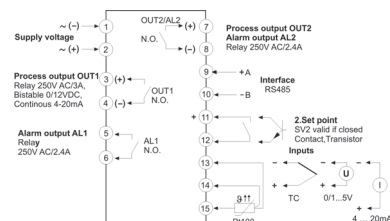
Process value : LED 4-digit green 7.6, 10 or 12 mm
Set value : LED 4-digit red 5 or 8 mm
Decimal point : programmable
Status indicator : LED red or green

Case

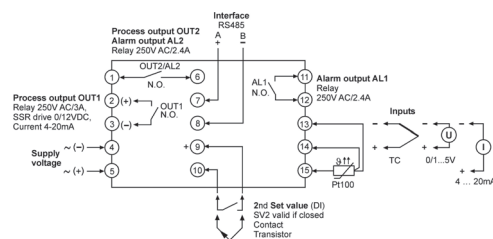
Dimensions : HxWxD
TTM-002 : 48x24x97 mm DIN48x24
TTM-004 : 48x48x77 mm DIN48x48
TTM-005 : 48x96x77 mm DIN48x96
TTM-009 : 96x96x77 mm DIN96x96
Protection class : front IP65
Terminals : screw terminals max 2.5 mm²

Connection diagram

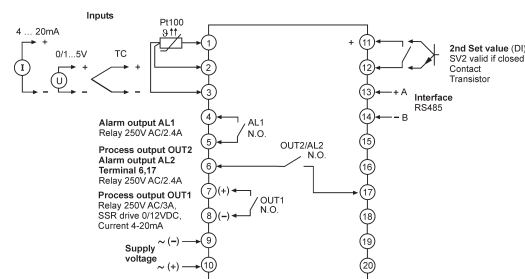
TTM-002



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