Temperature Controller TTM-00xW Series



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 configurable**

Technical data

Power supply

Supply voltage	: 100..240 V AC, -15%, +10% or 24 V AC/DC, +-10; 50/60 Hz
Power consumption	: < 10 VA at 240 V AC
Conformity	: CE
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..+400.0 °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	: 0.25 s

Output

Electronic	: 0/12 V DC bistable, max. 20 mA, > 600 Ω
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

Interface

Phyiscally	: RS485
Protocol	: Toho / MODBUS (RTU, ASCII)
Baud rates	: 1200, 2400, 4800, 9600, 19200 bps

Display

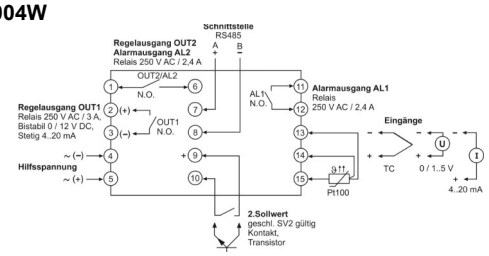
Process value	: LED 4-digit white 10 or 14 mm
Set value	: LED 4-digit green 8 mm
Decimal point	: programmable
Status indicator	: LED red or green

Case

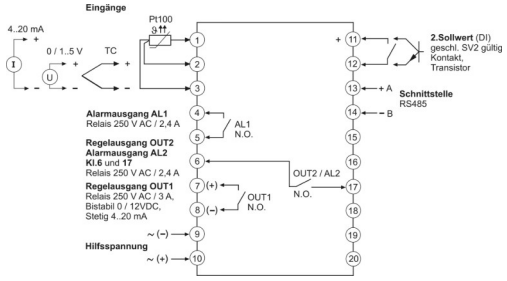
Dimensions HxWxD	
TTM-004W	: 48x48x77 mm DIN48x48
TTM-005W	: 48x96x76.5 mm DIN48x96
TTM-009W	: 96x96x77 mm DIN96x96
Protection class	: front IP65
Terminals	: screw terminals max 2.5 mm²

Connection diagram

TTM-004W



TTM-005W / 009W



Ordering code

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

1.	**Model**	
	004W	DIN 48x48
	005W	DIN 48x96
	009W	DIN 96x96
2.	**Input**	
	0	Thermocouple; Pt100, JPt100
	2	current, voltage
3.	**Process output OUT1**	
	R	relay SPST
	P	Elelectronic 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