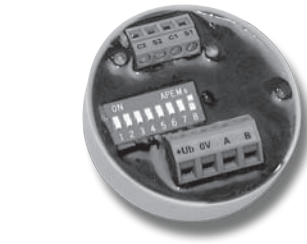


TEMP-02U

General

The temperature module reads in two temperatures by means of the built-in temperature sensor TF-E.

These values can be further processed in the master module to enable temperature-sensitive controls and adjustments.



Areas of application include:

- Switch cabinet temperature monitoring,
- Outside temperature recording,
- Room temperature recording etc.

Inputs / Outputs

- 2 temperature sensors connections

Function displays

- 1 red LED indicates the operating voltage.
- 1 flashing yellow LED indicates communication with the master via the subnet

Connection

- 1 connection for the subnet (BUS A and B, RS-485)
- 1 connection for the operating voltage (UB, 0V)

Design

- Encapsulated in plastic yellow cover for installation in conventional under-plaster boxes or external devices

Special function DIP switch 1

- Baud rate
 - Switch OFF data transfer rate 38400 baud
 - Switch ON data transfer rate 9600 baud

Measuring range by configuration in the GLT software

Measuring ranges through configuration in the GLT software

The temperatures are transferred to Merker using the TRFAD command like the analogue value of an analogue input module. Input AE1 refers to sensor 1 and input AE2 to sensor 2. The digital inputs of the temperature module can also be read.

Bits 1 and 2 display the sensor standby signals (E1 = 1 -> sensor 1 ready, E2 = 1 -> sensor 2 ready). These bits are only set to 1 when a functional sensor

is connected to the relevant input.

Inputs 3 and 4 (E3 for sensor 1 and E4 for sensor 2) display the minus sign of the sensor temperatures. The sign bit of a sensor is set when the temperature measured at the sensor is less than 0° C, irrespective of the sensor's configured measuring range.

Note:

The sign of the sensor temperature can be read at the digital inputs E3 (sensor 1) and E4 (sensor 2).

Config. as Modul	Reference Temper. 1	Reference Temper. 2	Reference Temper. 3	Merker Measurement 1	Merker Measurement 2	Merker Measurement 3	Comment	Resolution
TF1	no measure- ment	0° C	+105° C	0	0	105	1° C / Digit	limited below 0° C
TF2	-50° C	0° C	+105° C	50	0	105	1° C / Digit	Sign bit must be analysed
TF3	-50° C	0° C	+105° C	0	50	155	1° C / Digit	Offset of +50 °C which means analysis of sign bit is not neces- sary
TF4	-50° C	0° C	+105° C	-50 (206)	0	105	1° C / Digit	Representation as 8-bit number with a sign (Twos comple- ment -128 to +127)
TF5	no measure- ment	0° C	+105° C	0	0	210	0,5° C / Digit	limited below 0° C
TF6	-50° C	0° C	+105° C	100	0	210	0,5° C / Digit	Sign bit must be analysed
TF7	-25° C	0° C	+100° C	0	50	250	0,5° C / Digit	Offset of +25 °C this means that analysis of sign bit is not neces- sary

Technical data

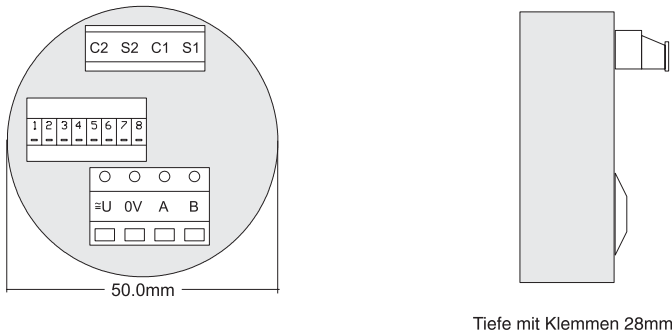
Type	TEMP-02U
Art. Nr.	80080300
Operating voltage	12-27V DC / 16-24V AC
Power consumption	max. 22mA (DC) 35mA (AC)
measuring range	2 inputs for feeler connection of -50° C to +105° C
Temperature feeler	max. 2x TF-E
Subnet (RS-485)	max. 5,6V limited by Z-diodes
Dimension	Durchmesser x Höhe: 50 x 28 mm
Weight	ca. 90 g
Connection	Screw terminals 2,5 mm ² for BUS, pluggable screw terminals 1,0mm ² for sensors
Operating temperature	-10...+50 °C
Storage temperature	-25...+70 °C
Humidity	0...85 % r.F. non condensing
Protection grade	IP 40
ESD immunity	Category 2 according to IEC-1000-4-2 (4 kV static)
EMV immunity	Use in typical industrial enviroment. Category 3 according to IEC-1000-4-4 (Test was carried out within a whole system)
CE sign	yes

Terminal assignment

Terminal 1	
\equiv Ub	Gate voltage
0V	0V gate voltage
A	Subnet (BUS-A, RS-485)
B	Subnet (BUS-B, RS-485)

Terminal 2	
C1	GND sensor 1 (black wire feeler 1)
S1	Data sensor 1 (brown wire feeler 1)
C2	GND sensor 2 (black wire feeler 2)
S2	Data sensor 2 (brown wire feeler 2)

View



Wiring diagram

