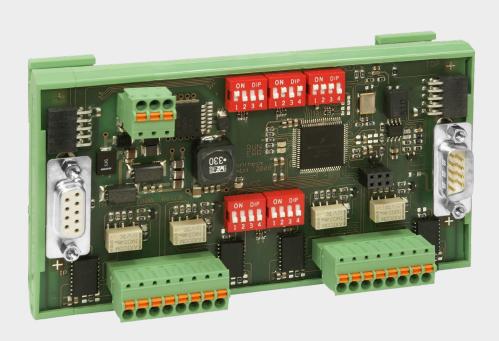# TM-PT100/1000-L

Temperature measurement module

TM-PT100/ 1000-L

Temperatures can easily be measured with the TM-PT100/1000-L with up to eight sensors. It contains possibilities for 4-wire and 2-wire technologie and thus provides a great amount of industrial-suitedness.

Key Features

CANopen according to CiA Draft Standard DS 301 and 401

CAN baud rate up to 1 Mbit/s

Small dimensions

Free choice of connection technology (4-wire/2-wire) and resistance sensors (PT100/PT1000)

Up to 8 measuring sensors per Module

Simple top hat rail mounting

Housing

The compact housing is made for being in a control cabinet. It contains a top hat rail mount and a front cover with all interfaces for better overview in the control cabinet. The technician will note the convenience while working at the bus cabling.

LEDs and switches

All inputs and outputs can be monitored with the help of LEDs. In addition to that, you can configure the baud rate of up to 1 Mbit/s and module address with DIP switches at the front cover. An additional DIP switch is meant for switching between 4-wire and 2-wire.

Measuring

The data is collected with four (4-wire) or eight (2-wire) sensors. You can choose between PT100 and PT1000 sensors and set the measurement speed to slow-mode with 100 ms or quick mode with 10 ms per channel and cycle.

Technical Data

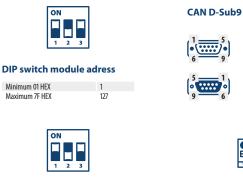|	
CPU	16-bit microcontroller
CAN	1× CAN interface acc. to ISO 11898, galv. isolated, connection with D-Sub9 plug and socket (bridged), assignment acc. to DIN 41652
CAN protocol	DS 301 and 401
Number of modules/bus	127
Setting	of module address via 2 DIP switches of baud rate via DIP switch Resistance sensor selection via DIP switch Selection of the connection technology via DIP switch
Connection system	Rigid lines 0.20 – 1.50 mm² Flexible lines 0.20 – 1.50 mm²
Connection type	Spring connection and gold contacts
Connection technology	Optional 4-wire and/or 2-wire
Operating system display	1× LED green for operating mode (run) 1 × LED red for error status (err) 1 × LED green for VCC
Dimensions (l×w×h)	137 mm × 77 mm × 37 mm
Weight	140 g without clamps
Type of installation	Top hat rail
Storage temperature	−30 °C up to +70 °C
Operating temperature	0 °C up to +60 °C (extended temperature range is optionally available)
Humidity	90 % non-condensing
Confirmity to EMC requirements	EN 61000-6-4 and EN 61000-6-2 (Industrial sector)
Supply voltage (VB)	12 V DC up to 30 V DC
Power consumption	30 mA
All in- and outputs active, including LEDs	350 mA

Signal processing

A STAR 12 microcontroller handles the sensors and the CAN protocol. TM-PT is also suited for control tasks via PWM/IO-interface.

CAN Interfaces

The integrated CAN interface is designed in accordance to DS 301 and 401 for a flexible use in different places and tasks in the CAN bus network. All Sontheim CAN interfaces comply to ISO 11898.

Pin assignment

DIP switch module adress

Minimum 01 HEX	1
Maximum 7F HEX	127

CAN D-Sub9

1	–
2	CAN low
3	CAN GND
4	–
5	–
6	–
7	CAN high
8	–
9	–

DIP switch baud rate (in Kbit/s)

0	50
1	125
3	250
4	500
5	1000

Clamp block

1	E 1.0	Sensor 1
2	E 1.1	Sensor 2
3	E 1.2	Sensor 3
4	E 1.3	Sensor 4
5	E 1.4	Sensor 5
6	E 1.5	Sensor 6
7	E 1.6	Sensor 7
8	E 1.7	Sensor 8

Order information

V965101000	TM-PT100/1000-L

Mobile Automation

Industrial Automation

Diagnostics

Connectivity

We are looking forward to your enquiry!

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