

# PROGRAMMABLE RAIL-MOUNT TRANSMITTER

## type TMD-11



- for use with RTD sensors: Pt100 or Ni100
- 2, 3 or 4-wire sensor connection arrangement
- high accuracy of temperature measurement
- RS485 interface and MODBUS-RTU communication protocol, speed 4800÷115200bps**
- up to 247 sensors on a common bus
- separate signaling of receiving (RX LED) and transmitting (TX LED)
- signaling of the transducer status (ST) LED
- configuration button (FN) - default transmission settings
- for mounting on 35 mm wide rail, according to DIN EN 50022-35

The TMD-11 transmitter is designed to measure the temperature using Pt100 or Ni100 RTD sensors. Measurement results and configuration of the transmitter is via RS-485 using a MODBUS-RTU communication protocol. Up to 247 transmitters can be connected to one bus.

The transmitter has a high processing accuracy, low temperature drift and high resistance to interference. It can work with any automation system based on RS-485 and MODBUS-RTU communication protocol, especially with multi-channel temperature logger WRT-16M . To configure the transmitter the TmdCfg program running on Windows® is employed.

This can be downloaded free of charge from the [www.czaki.pl](http://www.czaki.pl).

TMD-11 can be connected to a computer's USB port using the interface IF-485U.

### TECHNICAL DATA

Sensor type	Pt100, Ni100	(EN 60751)
Connection arrangement	2, 3 or 4-wire	
Measuring range	-200 ... 850°C	(Pt100)
	-60 ... 180°C	(Ni100)
Bias current Pt100, Ni100	0,2 mA	
Processing accuracy	$\pm(0,05^\circ\text{C} + 0,05\% \text{ of actual reading})$	
Temperature drift	< 0,005% of actual reading / °C	
Response time	< 0,1s	
Averaging time	< 0,3÷60s (factory set 1 s)	
Communication standard	RS-485	
Communication protocol	MODBUS-RTU, ASCII	
Bus address	1 ... 247	
Transmision speed	4800, 9600, 19200, 38400, 57600, 115200 bps	
Transmision parameters	8E1, 801, 8N1	( 8 data bits + parity + stop )
<b>Configuration mode - default settings</b>	<b>19200 bps, 8 data bits, parity: even, 1 stop bit, address: 244</b>	
Galvanic isolation	no	
Power supply	10 ... 36 V DC / 0,2 W	
Ambient temperature	-5 ... +60°C	
Humidity	< 90% without condensation	
Dimensions ( height x width x depth) /weight	98 x 17,5 x 56,4mm	/ ca. 50 g

### ORDERING CODE

TMD-11