Digital thermometer DTM 5080

Cost-effective digital temperature logging module for the RS232 and USB interface for sensing devices with temperature resistance sensors

The DTM 5080 temperature-logging module is simply inserted into the serial RS232 interface of a PC. For use of the computers USB connection a variant with an USB adapter can be obtained (specify on ordering). It is suitable for the logging of temperature resistance sensors such as Pt100/Pt1000, Ni100/Ni1000 as well as other resistance sensors up to a maximum value of 2,5kO. The corresponding temperature or resistance value is output. An included data acquisition program records the measured values and stores them if required. Due to the control via simple ASCII characters, data recording by means of programming languages such as C or Visual Basic is also no problem. The module is characterized above all by very high accuracy and simple handling. It is designed for accurate measurements over a wide temperature range. By connecting the sensor in 4-wire technology, a high overall accuracy of the device can be achieved in conjunction with a precise sensor. The resolution of the device is 0.01°C.

The DTM 5080 is delivered with a standard cable probe Pt100, Kl. B, 3,5x30mm, 1m cable, and a 2m extension cable for the RS232- interface as well as the evaluation software. For special measuring problems we also manufacture customized probes according to your specifications.

Input	
Pt100/Pt1000, Ni100/Ni1000 as soon as other resistance sensors, sensor replaceable	
Kind of connection	
4 wire circuit	
Measuring range	
Pt100 -200 ...+845°C	
Pt1000 -50 ...+400°C	
Ni100 -60 ...+230°C	
Ni1000 -60 ...+230°C	
resistance range 1 0..380W	
resistance range 2 0..2,500 kW	
Resolution	
0.01°C	
Linearization accuracy	
± 0.02°C	

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System accuracy	
without sensor typ. <0,06°C	
Female connector	
Binder 719 4-pole	
Operating temperature range	
0°C ...+70°C	
Power supply	
6mA out from interface	
Sampling rate	
approx. 3/s	
Case dimension (HxWxD)	
32 x 58 x 16 mm	
Weight	
approx. 23g	