

DTM5080

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

The DTM5080 temperature-logging module is simply inserted into the serial RS 232 interface of a PC. For use of the computer's USB connection a variant with a USB adapter can be obtained (specify on ordering). It is suitable for the logging of temperature resistance sensors such as Pt100/1000, Ni100/1000, as well as other resistance sensors up to a maximum value of 2.5 kΩ. The corresponding temperature or resistance value is outputted. The data-logging program that is also supplied validates the measured values and stores them as required. By means of control via simple ASCII characters data logging using programming languages such as C or Visual Basic is also not a problem. The module stands out primarily in terms of its very high accuracy, simplicity of operation, and a very favourable price. It has been designed for accurate measurements over a wide range of temperatures. When the sensor is connected up using 4-lead technology a high overall accuracy of the device can be achieved when used in conjunction with a high-precision sensor. The resolution of the device is 0.01°C.

The DTM5080 temperature-logging module is supplied with a standard Pt100 cable sensing device, Class B, 3.5x30mm, 1m cable, and a 2m extension cable for the RS 232 interface. For particular measurement problems we can also manufacture cost-effective, customer-specific sensing devices to your specifications.



TECHNICAL DATA

Input:	Pt100/Pt1000, Ni100/1000 as well as other resistance sensors, sensors interchangeable	Sensoren wechselbar
Type of connection:	4-lead circuit	
Measurement range:	Pt100 -200°C..845°C Pt1000 -50..400°C Ni100 -60..230°C Ni1000 -60..230°C	
Resolution:	0.01°C	
Measurement rate:	approx. 3 per second	
Linearisation accuracy:	± 0.02°C	
Typical system accuracy (without sensor):	<0.06°C	
Connection socket:	Binder 719 4-wire	Like DTM3000-Pt100
Operating temperature range:	0°C..70°C	
Power supply:	6mA	supplied from the interface
Dimensions:	32x58x16mm	W x H x D
Weight:	approx. 23g	

Connection layout for the RS 232 interface (9-pole)

2 TxD
3 RxD
5 GND
4 DTR Power supply
7 RTS Power supply

Connection layout of the resistance sensor

