Temperature and Humidity Sensor
With Serial Interface
RS485/Modbus RTU
M12FTH3Q
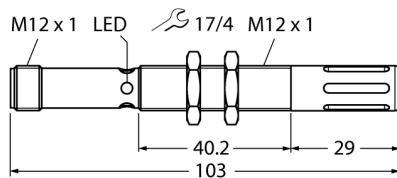
Type	M12FTH3Q
ID	3025898

Wireless data	
Function	Temperature/humidity sensor
Device type	Sensor

I/O data	
Communication protocol	Modbus RTU
	RS485

Electrical data	
Operating voltage U_B	12…24 VDC

Mechanical data	
Design	Tube, M12FTH
Housing material	Metal, Grey
Electrical connection	Connector, M12 × 1
Antenna connection	No radio participant
Ambient temperature	-40…+85 °C
Relative humidity	0…100%
Protection class	IP67

Tests/approvals

- Robust metal housing
- Ambient temperature: -40…+85 °C
- Protection class IP67
- Relative humidity: 0…100 %
- Resolution: 0.1 %
- Temperature measuring range: -40…+85 °C
- Resolution: 0.1 °C
- Operating voltage: 10…24 VDC or 3.6…5.5 VDC
- RS485 interface, supports Modbus RTU

Wiring Diagram

1	3.6…5.5/10…24 VDC
2	RS485/D1/B+
4	RS485/D0/A-
5	n. c.
3	GND
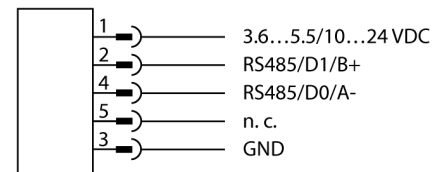
Functional principle

This sturdy sensor in a metal housing was developed to monitor vibrations and the temperature of moving machine parts. The data can be transferred to a controller via the RS485 interface, allowing an imminent failure of the machine to be detected at an early stage and corrective action to be taken. The rugged housing is IP67-rated and allows the detection of vibrations on two axes. The sensor can be mounted or stuck on the machine with the relevant accessories.

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Function accessories

Type code	Ident no.		Dimension drawing
BWA-HW-006	3081325	Converter cable, RS485 to USB 2.0 converter, female connector, M12 × 1, 5-pin, male connector, USB type A, length 1 m; supplies the connected device with 10 V. An external power supply via a Y-splitter (6634679) is recommended for the connected device	

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