# Temperature and Humidity Sensor
# With Serial Interface
# RS485/Modbus RTU
# S15S-TH-MQ
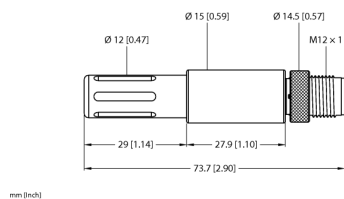


| Type | S15S-TH-MQ |
|---|---|
| ID | 3812242 |

| Wireless data | |
|---|---|
| Function | Temperature/humidity sensor |
| Device type | Sensor |

| I/O data | |
|---|---|
| Communication protocol | RS485 |
| | Modbus RTU |

| Electrical data | |
|---|---|

| Mechanical data | |
|---|---|
| Design | Cylinder, threaded, S15S |
| Housing material | Metal/plastic, Black |
| Electrical connection | Connector, M12 × 1 |
| Antenna connection | No radio participant |
| Ambient temperature | -40…+70 °C |
| Relative humidity | 0…100% |
| Protection class | IP67 |
| | IP68 |

| Tests/approvals | |
|---|---|

- Temperature and humidity measurement rate: 3 s
- Relative humidity measurement range: 0…100 %
- Resolution: 0.1 %, average accuracy: 3 %
- Temperature measuring range: -40…+85 °C
- Resolution: 0.1 °C, average accuracy: 0.7 °C
- Operating voltage: 10…24 VDC or 3.6…5.5 VDC
- RS485 interface, supports Modbus RTU

## Wiring Diagram



```
1 = 10 V DC…30 V DC
2 = RS485 / D1 / B / +
3 = GND
4 = RS485 / D0 / A / −
5 = n.c.
```
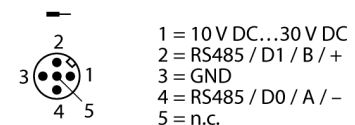
## Functional principle

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.

## 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 |  |