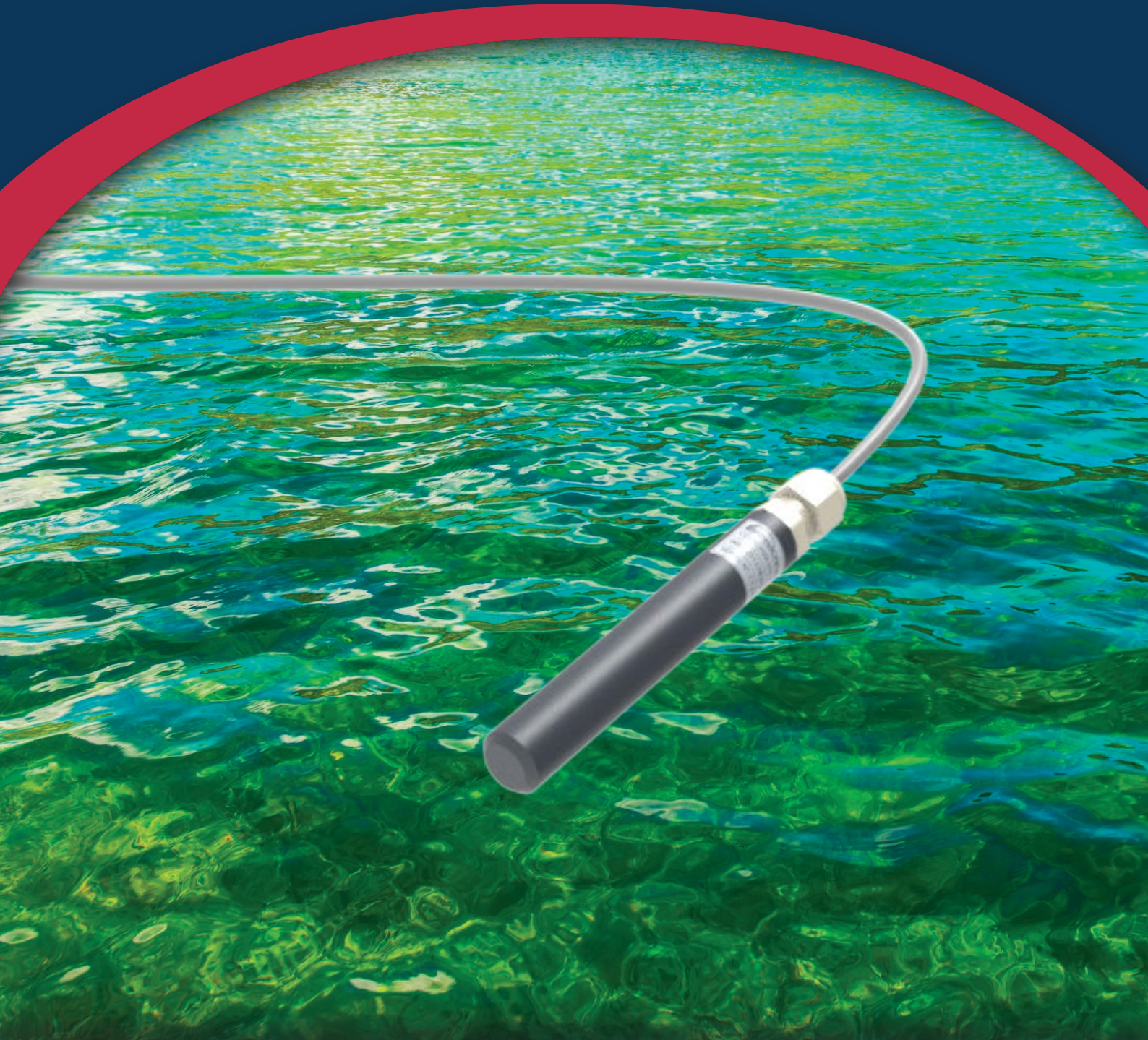


# WATER TEMPERATURE SENSOR

t020 TTA



- High precision
- Robust but low weight
- Overvoltages protection

# Description

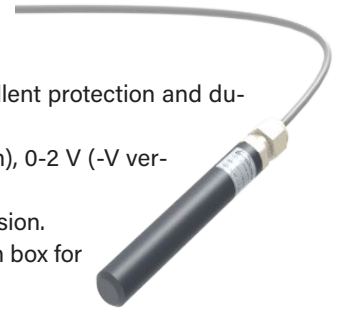
The TTA sensor has been designed to collect the water temperature measurement with high precision and reliability. The sensitive element is a Pt100 thermometer with response curve according to the standard DIN 43760 1/3.

The sensor's body is made of PVC, a material which ensure to the instrument a reduced weight but an excellent protection and durability at the same time.

The probe is available with different types of electrical outputs: 4-wire Pt100 (-N version), 4-20mA (-I version), 0-2 V (-V version) or serial RS485-Modbus (-S version) .

For the "-I/-V/-S" versions the probe requires a junction box to be installed out of the water for signal conversion.

The sensor is provided along with 15m of power and signal cable (+4m of cable for connection to the junction box for the "-I/-V/-S" versions).



## Main Features

- **High precision**
- **Robust but low weight**
- **Excellent long-term stability**
- **Overvoltages protection**

## Technical Specifications\*

### Measurement performance

#### Temperature [°C]

Transducer	Pt100 1/3 DIN 43760
Measurement range	-30 ÷ +60
Resolution	0.1
Accuracy	1/3 DIN 43760

### Operating conditions

Temperature	-30°C ÷ +60°C
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### Outputs

Natural	4 wires Pt100
RS485-Modbus	Temperature
Voltage	0 ÷ 2 V ↔ -30 ÷ 60 °C
Current	4 ÷ 20 mA ↔ -30 ÷ 60 °C

### Power supply and Consumption (-I/-V/-S versions)

Supply voltage	7 ÷ 30 Vdc
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Power consumption (mA)	Min	Typical	Max
RS485-Modbus / 0 ÷ 2 V	-	1	3
4 ÷ 20 mA	5	-	25

### Mechanical specifications

Probe dimensions	Ø = 15 mm; Length = 120 mm
Probe body material	PVC
Weight	0.2 kg
Protection class	IP68

### Ordering codes

Natural output	PSM-t020-TTA-N
Current output	PSM-t020a-TTA-I
Voltage output	PSM-t020b-TTA-V
RS485-Modbus serial output	PSM-t020c-TTA-S

\*Changes on technical performances can be applied upon request of specific calibration