

# Temperature Sensor

IP 66 rated, Stainless Steel Construction

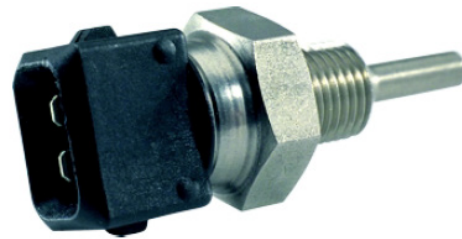


The Hydratronics temperature sensor is designed for measurement, control and regulation of air, gases and liquids. It has excellent long-term stability, responds quickly to temperature changes and have near to linear characteristics. Easy to fit thanks its compact size. IP 66 rating and a housing of stainless steel that makes the sensor resistant to environmental factors.

The sensing element is an n-conducting silicon crystal with a positive temperature coefficient.

## Features

- Fast response to temperature changes
- IP 66 protection class
- Near to linear characteristics
- Compact and easy to fit
- Stainless steel housing
- N-conducting silicon crystal sensing element
- Polarity independent



## Electrical data

**Maximum operating voltage:** 25 V,  $t < 10$  msec

**Maximum operating current:** 5 mA

**Peak operating current:** 10 mA  $< 10$  msec

**Operating current, nominal:** 1 mA

**Resistance:** 2000  $\Omega$  +/- 1% @ 25°C and 1 mA

**Nominal supply voltage:** 5 V

**Insulation voltage to GND:** 100 V

**Thermal time constant, 63 % of  $\Delta T$ :**

t(oil) = 4 sec: t (air) = 40 sec

## Measuring range

**Temperature measuring range:** -50°C - 150°C

## Hardware data

**Material:** Stainless steel BSS 303/DIN 1.4305

**Weight:** 20 g

**Environmental protection:** IP 66

**Mounting:** Max. tightening torque 30 Nm

**Note:** When the temperature sensor is operated with long supply leads, it should be protected through the parallel connection of a  $> 10$  nF capacitor to prevent damage to the sensor though induced coltage peaks.

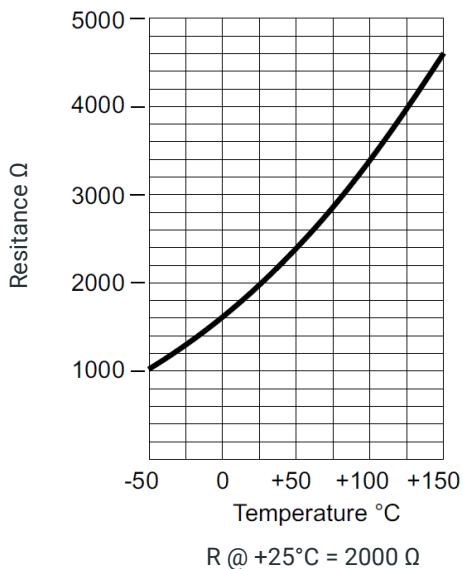
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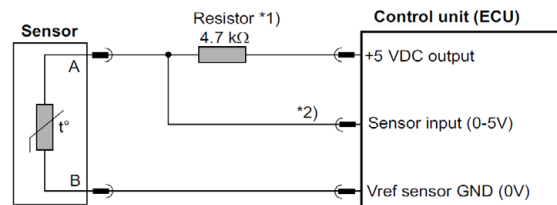


## Resistance versus temperature

Sensor resistance  $R = f(\text{temperature } ^\circ\text{C}) @ 1\text{mA}$



## Electric connection to control unit



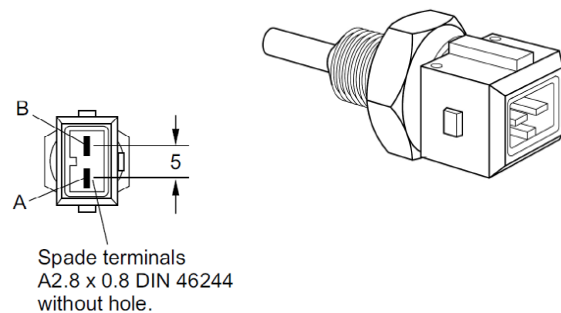
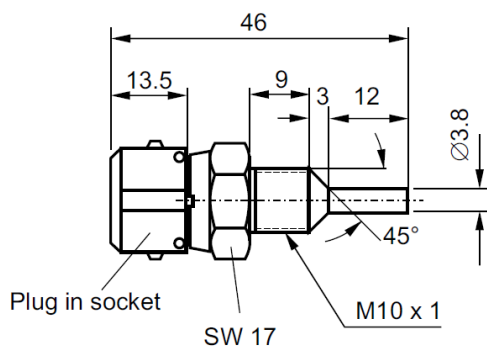
## Electric mating connector

**Contacts (2x):** AMP 925 590-1

**Contact housing:** AMP-Junior Timer 827 551-3

**Rubber boot (cover):** Bosch 1 280 703 026

## Dimensions (mm)



## Ordering information

Model	Part-no.
Temperature Sensor	8104 4010