

# Screw-in RTD sensor with replaceable insert ET521

4-20 mA  
0-10 V

RS485  
Modbus

A4  
steel



## Description

ET521 screw-in RTD thermometers with terminal head and replaceable measuring insert are designed for measuring temperatures in liquids and gases under demanding conditions.

Applications include heating installations, ovens, furnaces and plant engineering, as well as industrial automation.

The protection tube with welded screw fitting functions as an integrated thermowell and the measuring insert can be replaced without interrupting the process.

Depending on the application needs, platinum RTD elements with specific nominal resistance and accuracy class for temperatures up to +500 °C, common thermistors, protection tubes of different size, various terminal heads, process connection fittings and outputs can be ordered.

## Specifications

### Measuring insert with sensing element

- 1.4404/AISI316L stainless steel, 06 mm various sizes according to protection tube, screw-mountable to terminal head, compression springs for better heat contact with the bottom

### of protection tube

- Pt100 or Pt1000 RTD sensing element, class B, A according to EN 60751, measurement range -50 ... +250 °C or -50 ... + 500 °C

### Protection tube

- Thermowell integrated with terminal head
- 1.4404/AISI316L stainless steel 010 mm, E75 ... 350 mm (tubes in stock: E = 75/ 100 / 130 / 160 / 200 / 250/ 300/350mm)
- extension neck {length H = 30 ... 180 mm} for prevention of terminal head overheating

### Welded screw fitting

- 1.4401/AISI316 stainless steel
- G1/2 welded screw fitting as standard, G1/4, M20x1,5 or other threads by order

### Terminal heads

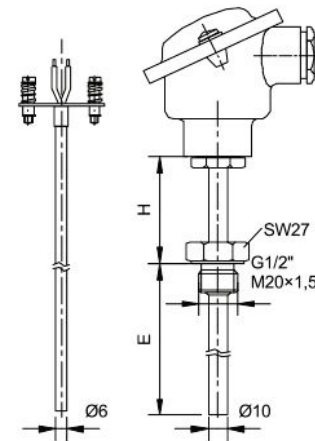
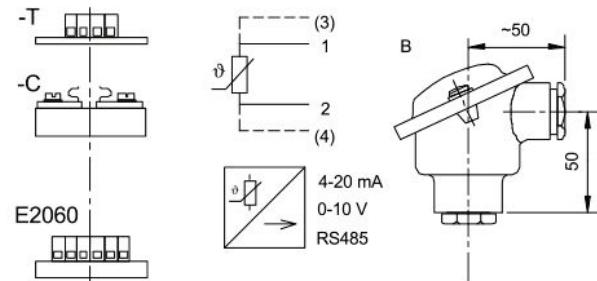
- Types: B: standard aluminium DIN 43729
- protection class IP55, on request up to IP67
- allowed temperature without transmitter: -40 ... +100 °C, with transmitter -40 ... +75 °C

### Output

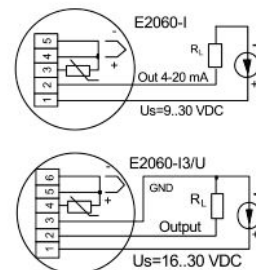
- Ceramic terminal block (-C) for 2-, 3- or 4-wire connection
- In-head transmitter option
- E2060 series transmitters mountable into terminal heads (see: sheet 2.00)-to provide 4-20 mA / 0-10 V analog output or digital RS485 Modbus RTU interface

## Features

- Measurement range from -50 to 500 °C
- Pt100, Pt1000 resistance sensor
- Double RTD sensing element option
- Variety of DIN B type and miniature terminal head
- AISI 316 s/s protection tube with welded screw fitting acts as an integrated thermowell
- Head-mountable transmitters available to provide 0-10 V/ 4-20 mA or RS485 Modbus RTU communications



### Analog connections



### Digital connections

