

Temperature Sensor Pt100

TempSCAN



Application

- in pharmaceutical plants
- temperature measurement in fermenter connection

Application Examples

- process monitoring
- controlling of CIP-/ SIP process und the sterilisation
- temperature control

Hygienic Design

- measurement point easy to sterilize
- CIP-/ SIP-cleaning up to 150°C
- food compatible materials according to FDA
- sensor is completely made of stainless steel
- type of protection IP69K

Features

- short response time
- probe and connection e-polished Ra <0,8µm (standard)
- fermentation connection made of 316L (1.4435)
- deliverable with or without transmitter in the connecting head

Options / Accessories

- electrical connection by M12 plug-in
- ex factory cable for M12 plug-in
- transmitter with different ranges, output 4-20mA
- programmable transmitter mpu-4p, programming adapter mpu-p
- transmitter PROFIBUS PA mpu-10, HART-protocol mpu-H, EX-proofed mpu-4-ex
- material certificate according to EN 10204-3.1.B
- accuracy certificate, DKD-certificate



TFP-90/52/025.m/M12

Specification

| | | |
|--------------------|--------------------------|-------------------------------------------|
| Process connection | fermenter | DN25 with external screw G1 1/4" |
| Probe length | standard | 25mm |
| Materials | connection head with nut | stainless steel V2A, (1.4305) |
| | weld-in socket | V4A, e-polished (1.4435, 316L), Ra <0,8µm |
| | sealing | O-ring made of EPDM |
| Temperature range | ambient | -50...+90°C |
| | sensor tip | -50...+250°C |
| Process pressure | | max. 10bar |
| Type of protection | | IP69K |
| Sensing resistor | according to ITS 90 | 1xPt100, class A |

| | | |
|-----------------------|------------------|----------------------------------------------|
| Electrical connection | cable entry | PG (M16x1,5) 2pol. 1,5mm ² |
| | cable connection | M12 plug-in V2A, (1.4305) |
| Response time | | T ₅₀ ≤ 3s T ₉₀ ≤ 8s |
| Transmitter | | |
| Temperature ranges | standard | -10...+40, 0...100°C, 0...150°C |
| Accuracy | | <±0,2% of full scale |
| Temperature drift | zero, span | <0,02% of full scale |
| Electrical connection | supply | 12...36VDC |
| | output | 4-20mA 2-wire loop |

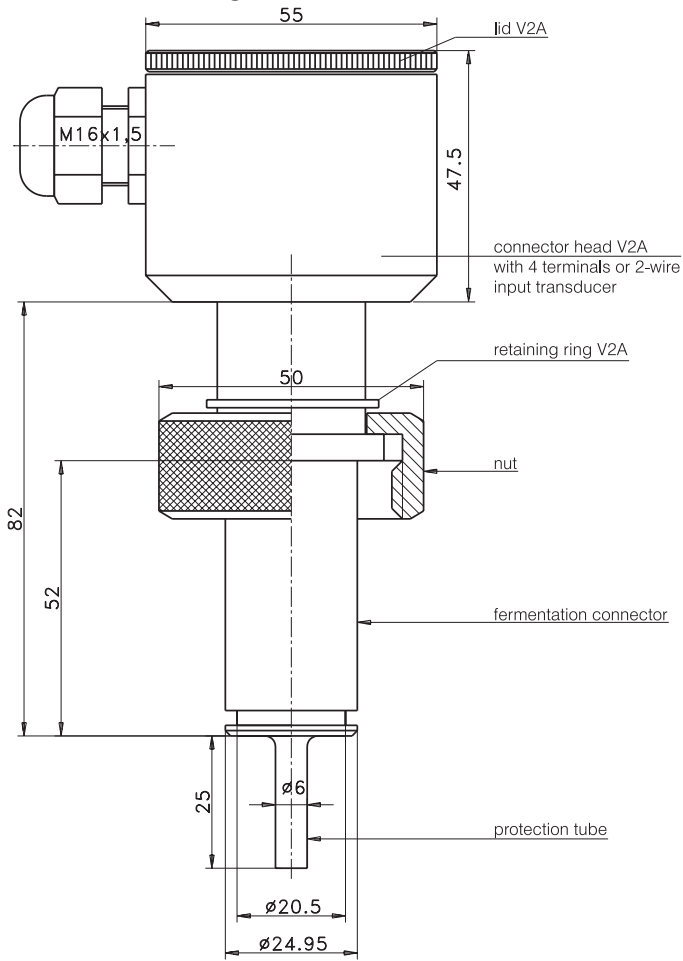
Order Designation

| Temperature sensor | weld-in socket [mm] | Probe length [mm] | Transducer | Ranges [°C] | Electrical connection |
|--------------------|---------------------|-------------------|------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------|
| TFP-90 | 46 52 | 025 | without* mpu-4 mpu-4p mpu-10 (Profibus) mpu-H (HART) mpu-4-ex mpu-H-ex | -10...+40, 0-50°C 0...100°C, 0-150°C 0...200°C | PG* M12 |

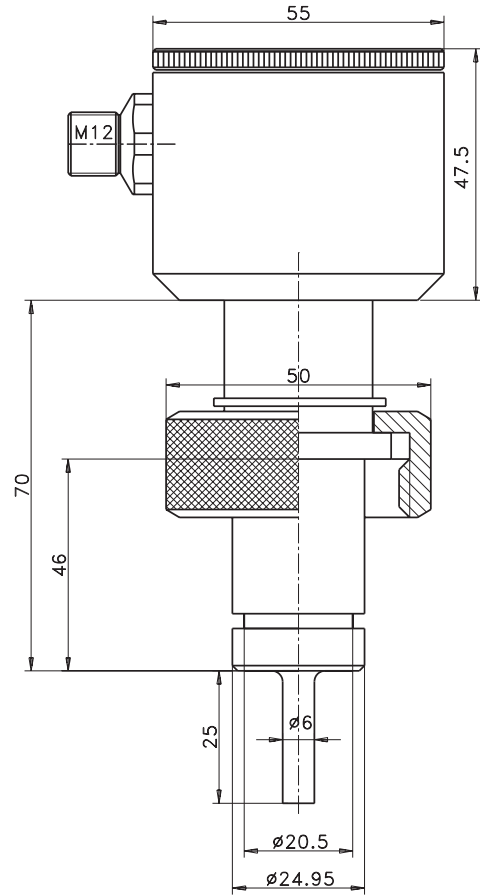
Order example: **TFP-90 / 52 / 025 / mpu-4 / 0...150°C** *standard, no declaration necessary



Dimensioned Drawing



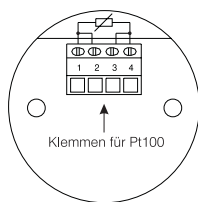
TFP-90/052/25



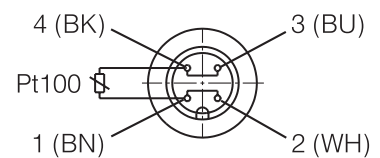
TFP-90/046/25... /M12

Electrical Connection

without transmitter



Electrical Connection of M12 plug-in



with transmitter mpu-...

