



standard diving sleeve resistance thermometer Pt-100  
with and without neck tube

### Description

Fundamentals of ACS Universal RTD standardized, high-quality platinum resistance form of a nominal resistance of 100 ohms at 0 ° C, tolerance classes A, B, 1/3B (AA) - in accordance with DIN EN / IEC 60751st.

ACS Pt100 probes are characterized by high accuracy and reproducibility are made and extremely reliable. The sensing elements are embedded in the protective tube with magnesium oxide powder and sealed hermetically. Thus, a good heat transfer and vibration protection is achieved.

Standard measuring temperatures are -70 ° C. .. +300 ° C;

High temperature versions +500 ° C / +600 ° C, low-temperature versions, special materials, special process connections, OEM versions are also available.

The given measuring temperature refers to an average temperature at the probe tip.

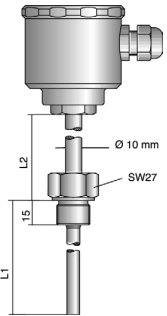
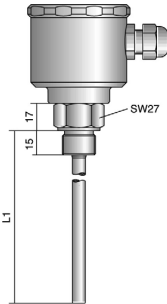
With cable versions, for example PTS / PTK and Pt100 sensors with connection head, possibly with integrated head transmitter, must be based on the respective maximum

temperature of the cable, heads, etc., with on-site isolation, use of Pt100 be used with extension into account. The measurement speed of the individual Pt100 sensor is highly dependent on operating conditions, the measured medium and the physical dimensions.

The immersion depth should be not less than 50 mm. Shorter probe lengths clarify please always experienced with the ACS staff.



| technical data                     |                                                                                                                                                                    |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| measuring element:                 | Platinum resistance element Pt100/Pt1000, others by request                                                                                                        |
| temperature ranges:                | at measurement tip: -70°C...+300°C<br>+500°C/ +600°C and low temperature versions by request                                                                       |
| tolerance:                         | AA, A, B - according to IEC 60751                                                                                                                                  |
| signal type:                       | - 1x Pt100: in 2-, 3-, 4-wire-switch                                                                                                                               |
|                                    | - 2x Pt100: in 2x 2-wire or 2x 3-wire-switch                                                                                                                       |
|                                    | - 3x Pt100: in 3x 2-wire-switch                                                                                                                                    |
| connection:                        | - with flying leads for head transmitter mounting                                                                                                                  |
|                                    | - head transmitter, 4...20 mA/ 0...10 V output, Standard, Ex, Profibus; others by request                                                                          |
| connection:                        | - connection area made out of aluminium, plastic or stainless steel                                                                                                |
|                                    | - fixed connection cable - PTFE shielded, silicone, PVC, glass silk protected with steel mesh, others by request<br>- Lemo-plug system, M12 plug system            |
| materials                          |                                                                                                                                                                    |
| materials (terms of process):      | - protection tubes made of seamless stainless steel: 1.4571 (AISI 316Ti)<br>- flanges, process connections: 1.4571 (AISI 316 Ti)<br>- special materials by request |
| Materialien (terms of connection): | - housing: aluminium, CrNi-steel, PP-polypropylene, POM-polyoxymethylene<br>- cable material -> see „connection“                                                   |



|                                             |                                                                                   |
|---------------------------------------------|-----------------------------------------------------------------------------------|
| <b>sensor</b>                               |                                                                                   |
| 1                                           | type                                                                              |
| 2                                           | 1x Pt100, 2-wire                                                                  |
| 3                                           | 1x Pt100, 3-wire (preferred)                                                      |
| 4                                           | 2x Pt100, 4-wire                                                                  |
| 5                                           | 2x Pt100, 2-wire (Doppel Pt100 with changeable measuring insert only from ø 8 mm) |
| 6                                           | 2x Pt100, 3-wire (Doppel Pt100 with changeable measuring insert only from ø 8 mm) |
| 7                                           | 1x Pt1000, 3-wire                                                                 |
| 8                                           | 3x Pt100, 2-wire (3x Pt100 with changeable measuring insert only from ø 8 mm)     |
| <b>accuracy</b> (price x 2 at double Pt100) |                                                                                   |
| B                                           | class B, up to +300°C (preferred type)                                            |
| A                                           | class A, up to +300°C                                                             |
| C                                           | class AA (formerly class 1/3B), up to +300°C                                      |
| Y                                           | special version e.g. high temperature etc. ....                                   |
| <b>process</b>                              |                                                                                   |
| 1                                           | connection                                                                        |
| 2                                           | male thread G1/2" (preferred)                                                     |
| 3                                           | male thread G1"                                                                   |
| 4                                           | male thread G3/4"                                                                 |
| 5                                           | union nut G3/4"                                                                   |
| J                                           | DIN lange DN 100                                                                  |
| F                                           | DIN lange DN 50                                                                   |
| E                                           | DIN lange DN 25                                                                   |
| V                                           | other process connections                                                         |
| <b>material, sensor diameter, process</b>   |                                                                                   |
| T                                           | side                                                                              |
| mm U                                        | 1.4571 / 3                                                                        |
| 5 mm K                                      | 1.4571 /                                                                          |
| N                                           | 1.4571 / 8 mm (preferred type)                                                    |
| L                                           | 1.4571 / 10 mm                                                                    |
| W                                           | 1.4571 / 12 mm                                                                    |
| P                                           | 1.4571 / 6 mm, reduced head 4 mm; 40 mm                                           |
| long M                                      | 1.4571 / 8 mm, reduced head 5 mm; 40 mm                                           |
| mm long O                                   | 1.4571 / 10 mm, reduced head 6 mm; 40 mm                                          |
| mm long R                                   | 1.4571 / 8 mm, reduced head 3 mm; 40 mm                                           |
| mm long Y                                   | andere                                                                            |
| <b>neck</b>                                 |                                                                                   |
| A                                           | without neck tube (preferred type)                                                |
| B                                           | with neck tube (standard L2 = 100 mm) (preferred)                                 |
| type) Y                                     | with neck tube upon request in mm                                                 |
| <b>connection</b>                           |                                                                                   |
| A                                           | head small                                                                        |
| B                                           | PP-head big                                                                       |
| 1                                           | plastic head Delrin® small                                                        |
| 2                                           | plastic head Delrin® big (preferred type)                                         |
| 3                                           | aluminium head small (not with sensor type 5 and 7)                               |
| 4                                           | aluminium head big                                                                |
| 5                                           | steel head big                                                                    |
| 7                                           | PTFE-head small                                                                   |
| 8                                           | PTFE-head big                                                                     |
| G                                           | aluminium head double sized                                                       |
| V                                           | others                                                                            |
| <b>measurement</b>                          |                                                                                   |
| F                                           | fixed (preferred type)                                                            |
| W                                           | changeable (at high temperature version always mandatory)                         |
| <b>connection</b>                           |                                                                                   |
| K                                           | connection with terminal socket (preferred type)                                  |
| M                                           | connection for headtransmitter 4-20mA/0-10V fixed                                 |
| value X                                     | connection headtransmitter UTN-500 software programmable                          |
| T                                           | connection for headtransmitter PTN-600 PROFIBUS PA-interface                      |
| D                                           | connection with wire ends for installation of headtransmitter                     |
| V                                           | 5-pole M12-plug                                                                   |
| G                                           | connection for 2x headtransmitter                                                 |
| length L1                                   | connection with 2x terminal socket                                                |
| length L2                                   | special version (preferred lengths: 50   100   150 mm)                            |
| length L2                                   | neck tube in (preferred length 100 mm)                                            |

order code

PT

A

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