



Screw-in Pt100 for the food industries with flush hygienic seal or metal seal

## Description

Basics of ACS Universal RTD form standardized, high-grade platinum measuring resistors with a nominal resistance of 100 ohms at 0 ° C, the tolerance classes AA, A, B - IEC 60751st

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

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

High temperature versions measure up to +500 ° C / +600 ° C. Low temperature versions, special materials, process connections and OEM versions are also available.

The given measuring temperature refers to a medium temperature at the probe tip.

For cable versions, for example PTS / PTC and PT100 sensors with connection head, possibly with built-in head transmitter, must be made to the respective maximum temperature of the cable, heads, etc. by use of on-

site isolation or Pt100 with neck tube into consideration. The measured speed of the individual Pt100 sensor is highly dependent on the operating conditions, the medium to be measured and the mechanical dimensions. The immersion depth should not be less than 50 mm. Shorter probe lengths, please always clarify with the experienced ACS employees.



technical data	
Measuring element:	Platinum resistance element Pt100 / Pt1000, others on request
Temperature ranges:	at the tip: -70 ° C .. +300 ° C +500 ° C / +600 ° C and low temperature version on request
Tolerance:	AA, A, B - IEC 60751
Signal:	- 1x Pt100: 2 -, 3 -, 4-wire circuit
	- 2x Pt100: in 2x 2x 2-wire or 3-wire circuit
	- Pt100 3x: 3x in 2-wire circuit
Connections:	- Free wire ends for self-installation of a head transmitter
	- Head Transmitter, 4 .. 20mA / 0 .. 10V output, standard, Ex, , Profibus, others on request
<ul style="list-style-type: none"> <li>- terminal compartment in aluminum, plastic or stainless steel housing</li> <li>- Fixed connection cable - shielded PTFE, silicone, PVC, Fiberglass with steel mesh, others on request</li> <li>- Lemo System, M12 system</li> </ul>	
materials	
Materials (process side):	<ul style="list-style-type: none"> <li>- protective tubes made of seamless stainless steel 1.4571 (AISI 316Ti)</li> <li>- Flanges, process connections: 1.4571 (AISI 316 Ti)</li> <li>- Special materials on request</li> </ul>
Materials (connection side):	<ul style="list-style-type: none"> <li>- Housing: aluminum, stainless steel, polypropylene PP, POM polyoxymethylene</li> <li>- Cable Material, see "Connection"</li> </ul>

# Order code PTL



### sensor type

- 1 1x Pt100, 2-wire
- 2 **1x Pt100, 3-wire** (preferred type)
- 3 1x Pt100, 4-wire
- 4 2x Pt100, 2-wire (double Pt100 only from  $\varnothing$  8 mm)
- 5 2x Pt100, 3-wire (double Pt100 only from  $\varnothing$  8 mm)

### accuracy class (bei 2-fold Pt100 price x 2)

- B class B, up to +200°C
- A class A, up to +200°C** (preferred type)
- C class AA (formerly class 1/2B), up to +200°C
- Y Special version for example High temperature, etc.

### process connection for weld-in

- (weld to be ordered separately, see page 50)
- 4  $G\frac{1}{2}"$   $G\frac{1}{2}"$  „with O-ring Viton ® seal for socket or SEM 12 SEM 32
  - 5  **$G\frac{1}{2}"$  with EPDM O-ring seal for socket or SEM 12 SEM 32** (preferred type)
  - X  $G\frac{1}{2}"$  with any other O-ring seal for socket or SEM 12 SEM 32
  - 6  **$G\frac{1}{2}"$  metal sealing sleeve for SEM or SEM-22-42** (preferred type)
  - Y special version

### material, probe diameter, process side

- K 1.4571/ 6 mm
- N 1.4571/8 mm (with exchangeable measuring insert)** (preferred type)
- L 1.4571/ 10 mm
- P 1.4571/ 6 mm, reduced tip 4 mm; 40 mm long
- M 1.4571/ 8 mm, reduced tip 5 mm; 40 mm long
- O 1.4571/ 10 mm, reduced tip 6 mm; 40 mm long
- R 1.4571/ 8 mm, reduced tip 3 mm; 40 mm long
- Y others

### neck tube

- A without neck tube** (Vorzugstyp)
- B with neck tube (Standard L2 =100 mm)** (preferred type)
- Y with neck tube of choice in mm

### connection head

- A PP-head small
- B PP-head big
- 1 plastic head of Delrin ® small
- 2 plastic head of Delrin ® big
- 3 aluminum head small (not with sensor type 5)
- 4 aluminum head big
- 5 stainless steel head big** (preferred type)
- 7 PTFE-head small
- 8 PTFE-head big
- Y other designs

### measuring insert

- F securely mounted
- W interchangeable** (at high temperature version always mandatory) (preferred type)

### connection

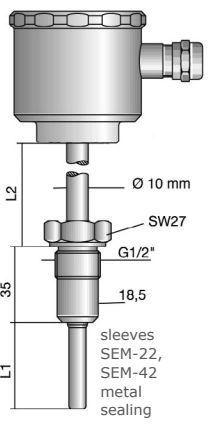
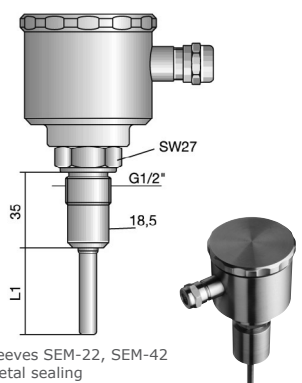
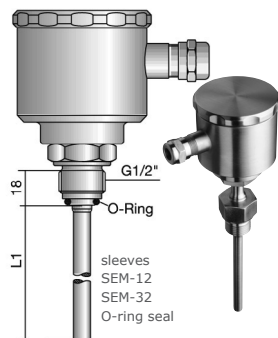
- K connection with terminal block (preferred type)
  - M connection for head transmitter 4-20mA/0-10V fixed value**
  - X connection head transmitter UTN-500 software programmable
  - T connection for head transmitter PTN-600 PROFIBUS PA Interface control
  - D connection with wire ends for self-installation of head transmitter
  - Y Special version
- Signal converter only  
with connection head  
"big" possible

### length L1 probe in mm

(preferred lengths: 50 | 100 | 150 mm)

### length L2 neck tube in mm

(preferred length 100 mm)



order code

<b>PTL</b>	mm	mm
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