



The temperature transmitter that fits in your sanitary process

Temperature Transmitter

Application

The Alfa Laval temperature transmitter is designed to fulfil the demands in Sanitary and pharmaceutical production. The main features are:

- Wetted parts in AISI316L, stainless steel
- Compact, and hygienic design (3A / FDA and EHEDG compliant)
- Measuring range: -20 to 150°C
- Build-in transmitter with 4-20 mA output
- High accuracy

Standard range

The Alfa Laval temperature transmitter features as standard a stainless steel field housing in excellent finish, suitable for sanitary applications. All process connections are as standard hygienic connections with high cleanability and bacteria tightness, as an option wetted parts can be electropolished down to Ra >0.4µm. The design of the sensor tip ensures low response times and accurate measurements. The output can be supplied either as a standard 4-20 mA, 4-20 mA/HART® output or Profibus DP interface.



TECHNICAL DATA

Temperature Transmitter accuracy

- 0 to 100 °C < ± 0.39 °C
- 0 to 150 °C < ± 0.48 °C
- 10 to 100 °C < ± 0.39 °C
- 20 to 150 °C < ± 0.48 °C

Measuring ranges

- 0 to 100 °C
- 0 to 150 °C
- 10 to 100 °C
- 20 to 150 °C

- Resolution: 12 bit
- Protection class: IP 67
- Max media pressure: 16 bar

Electrical data

- Power supply: 6.5 to 36 Vdc
- Output: 4-20 mA, 2 wire
Profibus DP
4-20 mA HART, 2 wire
- Connection: M12 plug or M16 cable gland

The integrated 4 to 20 mA loop powered transmitter features as standard galvanic isolation between input and output.

Certificates

- 3.1 certificate (option)
- Calibration certificate, 5 point calibration (option)

PHYSICAL DATA

Sensor length (L): From 50 mm to 300 mm

Materials

- Wetted parts: AISI 316L
- Fieldhouse: AISI 304

Weight

Sensor: Approx. 500 gr.

Operating temperature

- Wetted parts: -50 to 250°C
- Ambient temperature: -20 to 85°C

Process connections

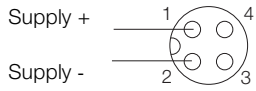
- Clamp DN38 (ISO2852) / Clamp DN40 (DIN32676)
- Clamp DN50 (ISO2852) / Clamp DN51 (DIN32676)
- G1/2"
- CFF (Clamp front flush)
- DN25 (DIN11851)
- DN40 (DIN11851)
- DN50 (DIN11851)

Response time (measured in water)

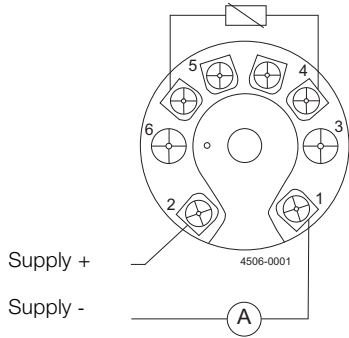
- Sensor tip ø6 mm: 3.0 sec.
- Sensor tip ø4 mm: 2.5 sec.
- Sensor tip ø3 mm: 1.3 sec.

Electrical connections

M12 plug:

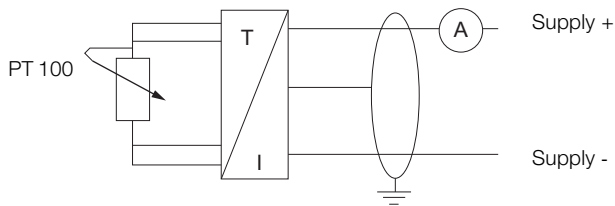


Cable gland M16 connection:

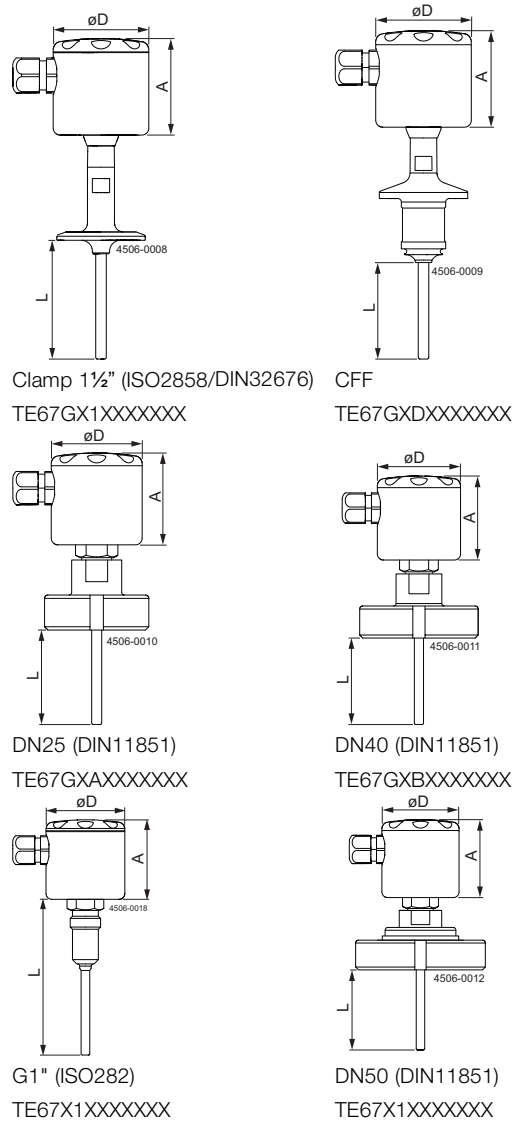


Working principle

The Alfa Laval temperature transmitter relies on a fast response Pt100 sensor tip. The sensor element is as standard a DIN A sensor element which is connected with 4 wires to the built in transmitter. This ensures full resistance compensation and enables reliable and accurate measurements of process temperatures with a standard analogue output of 4-20 mA.



Dimensions (mm)



A	D
58	ø55

Alfa Laval reserves the right to change specifications without prior notification. ALFA LAVAL is a trademark registered and owned by Alfa Laval Corporate AB.

ESE01610EN 1208

© Alfa Laval

How to contact Alfa Laval

Contact details for all countries are continually updated on our website. Please visit www.alfalaval.com to access the information direct.