

Low absolute pressure sensors

- ranges 0-10mbar and 0-25mbar
- accuracy 0.2%
- 2-wire 4-20mA output
- welded-stainless steel construction
- very rugged
- IP65 protection
- wet air and aggressive vapours compatible

Description

The AS_LP series pressure sensors provide accurate measurement of absolute pressure in very low ranges from 10 to 25 mbar full scale. The standard output is 2-wire 4 to 20mA current loop, voltage output being an option.

Operation

A high-resolution contactless inductive position detector measures the position of a diaphragm exposed to the process media differential pressure. The detector is sealed from the media. The detector operation is insensitive to the media allowing the sensor operation with any media chemically compatible with its construction materials. The sensing element, the transducer, the electronics and the mechanical parts are optimised for every single application.

Performances

The AS_LP series design favour ruggedness and reliability and makes it suitable for demanding industrial applications. The micro-processor based electronics enhances compensations quality as well as it potentially offers a gateway to digital communications. The AS_LP series combine well-proven techniques with state of the art design.



actual size

Applications

- Leak testing
- Oven monitoring
- Lyophilisation

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AS_LPdocen01a

Represented by

AS_LP series

Low absolute pressure sensors

Pressure measurement specification

- **standard ranges:** 0 to +10mbar , 0 to +25mbar
- **overpressure:** 3bara
- **compatible media:** see physical description
- **supply voltage:** 6.5V to 30V (voltage output: 8V)
- **standard output signal:** 4-20mA 2-wire
- **optional output signal:** 0 - 5V 3-wire
- **load impedance:** $R_c(k\Omega)_{max} = (Valim-6.5) \times 0.05$
for voltage output $R_{cmin} = 10k\Omega$
- **operating temperature range:** -40 to +70°C
- **humidity:** 0 - 100%
- **user settings:** user-accessible digital encoders
 - **zero:** +/-50%
 - **gain:** +/-10% min
 - **damping:** from 0 to 10 sec

Performance data

- (values referenced to full scale)
- **precision (non-linearity, repeatability, hysteresis):** 0.2%
 - **resolution:** 4.10⁻⁴, min 0.1Pa
 - **long-term stability:** +/- 0.15% typ. over a year at reference conditions
 - **mounting position effect:** 20Pa/90° tilt, correctible by setting
 - **compensated temperature range:** 0 à 50°C
 - **temperature effects:** ≤2.10⁻⁴/°C on zero and sensitivity
 - **consumption:** ≤ 3.7 mA (basic)
 - **protection:** reverse excitation protected
 - **response time:** 20msec (excepting damping)
 - **CE-compliance:** EMC-emission to EN61000-6-3 and
EMC-immunity to EN61000-6-2 (EN61000-6-1 for voltage output)
 - **insulation resistance:** >1GOhm@500V

Physical description

- **housing:** 316L stainless steel
- **construction:** EB-welded
- **sensing element:** beryllium copper and brass
- **pressure port:** ISONW16 (=KF DN16 or Pneurop)
- **environmental protection:** IP 65
- **electrical connection :** DIN43650 (plug supplied)
- **weight:** 1100g

Options

- calibration certificate
- non-standard pressure range
- voltage output (0 to 5V)
- expanded compensated temperature range

Ordering information

for example: **AS 25 T4**

25 = positive full scale in mbar

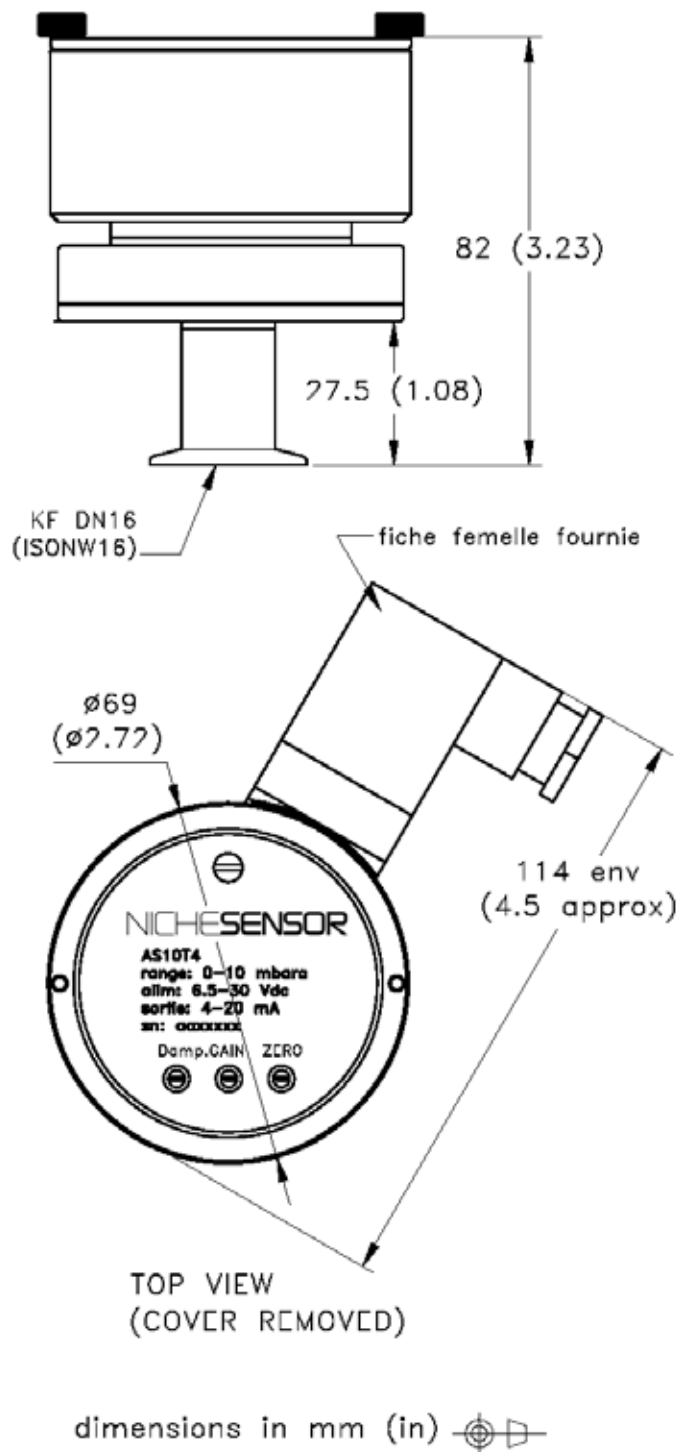
T meaning current output

4 meaning 4mA at zero pressure

> 4 to 20mA output for 0 to 25mbar pressure sensor

Related products

DS_ULP and DS_MP series ; aluminium DT series



specifications subject to change without notice