

Pressure Transducers

TP8



TP8 pressure transducers series, initially designed to solve food sectors problems, are today used in productive processes where pressures or levels of dense substances have to be measured at a max. Temperatures of 150°C

FLANGE standard coupling allows to easily performing sensor mounting and cleaning in order to avoid remains forming on measurement diaphragm.

The sensitive part, in contact with pressure, is entirely made of 17-4 pH stainless steel, which is corrosion-proof.

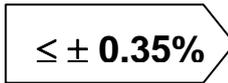
High vacuum thermal treatments which stainless steel is subjected to, ensure sensor perfect functioning even in presence of highly dynamic stresses.

Monolithic execution of measurement element, free from any assembling made through tight rings or gaskets, ensure a high stability with hysteresis and zero drift which are marginal.

Pressures are internally detected through a complete strain gauge bridge, which guarantees performances maintenance even in presence of peaks.

All pressure transducers are entirely LASER welded and completed resin encapsulated to ensure both insensitiveness and a hermetic tight high degree.

During the production cycle, pressure transducers are thermally compensated, tested and separately calibrated through completely automated stations which analyse and record all the parameters.



Linearity - Hysteresis



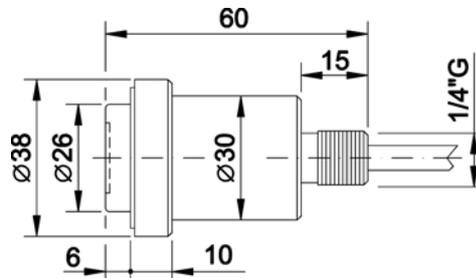
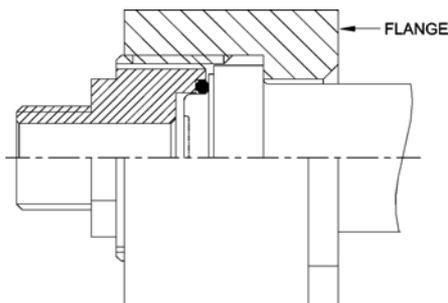
For highly dynamic stresses

**Protruding diaphragm
150°C high temperature**

Dimensions mm



TYPICAL INSTALLATION



Technical Data



| | |
|--|--|
| RELATIVE PRESSURE (R) | 5 - 10 - 20 bar |
| ABSOLUTE PRESSURE (A) | 10 - 20 - 50 - 100 - 250 bar 350 - 500 - 700 - 1000 bar |
| LINEARITY and HYSTERESIS | $\leq \pm 0.35\%$ |
| TEMPERATURE EFFECT for 1°C | |
| a) on zero | $\leq \pm 0.015\%$ |
| b) on sensitivity | $\leq \pm 0.015\%$ |
| NOMINAL SENSITIVITY | 2mV/V |
| SENSITIVITY TOLERANCE | $\leq \pm 0.1\%$ |
| NOMINAL POWER SUPPLY | 1-15V |
| MAX. SUPPOWER SUPPLY | 18V |
| LOADING RESISTANCE: | 28V |
| INSULATION RESISTANCE | $>2\text{ G}\Omega$ |
| ZERO BALANCE | $\leq \pm 0.5\%$ |
| RESPONSE FREQUENCY | From 15 to 87 kHz |
| LIMIT MECHANICAL VALUES RELATED TO NOMINAL PRESSURE: | |
| a) Service pressure | 100% |
| b) Max. Permissible pressure | 150% |
| c) Breaking pressure | $>300\%$ |
| d) Highly dynamic pressure | 75% |
| REFERENCE TEMPERATURE | +23°C |
| WORKING TEMPERATURE | -10/+150°C |
| STORAGE TEMPERATURE | -20/+150°C |
| PROCESS COUPLING | FLANGE |
| PROTECTION CLASS (EN 60529) | IP65 |
| SENSOR EXECUTION | INOX 17-4 pH |
| ELECTRICAL CONNECTION | 3m Silicon cable |

Electrical connections

| 2mV/V | OUTPUT | CABLE | |
|-------|--------------|---------|--|
| | EXCITATION+ | Red | |
| | EXCITATION - | Black | |
| | OUTPUT+ | White | |
| | OUTPUT- | Yellow | |
| | ----- | Shield* | |

* Connected to the transducer body.



NORDIC TRANSDUCER



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EN ISO 9001 (1994)
IQ-1100-01

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In order to improve the technical performances of the product, the company reserves the right to make modifications without notice.