

Pressure Transmitter with Integrated Amplifier and Integrated Temperature Measurement – DTAI Series



The DTAI first of all offers the user the comfort of operating a DAI in combination with temperature measurement. One process connection suffices in order to measure both values. These model offers mA and V output signals for further processing. The popular and most commonly used 2-wire and 4-20 mA configuration provide unequalled interference in critical environments.

- Liquid filled measuring system
- Maximum reliability through new membrane technology
- Standard G-coating to counteract adhesive materials
- Combined pressure- and temperature measurement
- Robust design with G-Armor flexible components
- Applications with process medias of up to 400°C (750°F) possible
- Pressure ranges from 0-50 and 0.2000 bar (0-725 and 29,000 psi)
- Interference resistant signals over long distances
- Stable output signals

Technical specifications DTAI Series	
Pressure range	0-50 und 0-2000 bar (0-725 to 29,000 psi)
Accuracy incl. linearity, hysteresis, and reproducibility in % to full-scale	0,5%, 0,25% or 0,15%
Reproducibility in % to full-scale	± 0,1%
Membrane coating	G-Coating
Resolution	infinite
Max. pressure overload without influence on operating value	2 x range up to 1000bar (14,500 psi) 1,5 x pressure range over 1000 bar (14,500 psi)
Bridge resistance	3500 Ohm Wheatstone Bridge
Supply voltage	19 - 32V DC
Output signal	mA or V
Transmission medium	mercury or non-mercury
Process connection	1/2"20 UNF or M18 x 1,5
Calibration point	80%
Isolation resistance	1000MOhm at 50V
Max. temperature at diaphragm	400°C (750°F)
Max. temperature at terminal head during operation	-40°C to 125°C (-40 °F to 260 °F)
Zero point deviation against diaphragm temperature changes at the diaphragm % / °C (% / 1, 8 °F)	± 0,003%
Zero point deviation against temperature changes at terminal head in % / °C (% / 1, 8 °F)	± 0,003%
Ingress protection housing Ingress protection connector	IP65 IP55
Max torque	1/2"20 UNF 30 Nm (500 inch/lbs) M18x1,5 50 Nm

Product variations (examples)



Special designs

Special designs, for example shaft length according to customer specifications

Configuration options

- Accuracy 0,5% / 0,25% / 0,15% of full scale
- 0-20mA, 4-20mA or 0-10V output signals
- Mercury filled or Non-Mercury NTX™ series
- 1/2"20 UNF or M18 x 1,5 process connection
- Special diaphragm materials and coatings available
- Thermocouple and RTD'S available as option for temperature measurement
- Special shaft lengths and cable exits (fixed connection IP68) possible
- Length of flexible component selectable
- Thermocouples Typ J, L, and K
- PT 100 measuring resistor (2, 3 or 4 Wire configuration)