

Differential Pressure Transmitter DPTE for Gas and Compressed Air

CERTIFICATIONS



DESCRIPTION

The differential pressure transmitters DPTE are used for measurement of differential pressures and volume flow measurement.

The main applications are HVAC, dusting technology, medical technology, automatic pressure control of clean room, medical technology, and filter and dusting technology.

The measuring range is from 0...1 mbar to 0...2 bar. A piezoresistive silicon chip is used as measuring element and internal amplifier provide suitable output signal (e.g., 4...20 mA, 0...10V) with high accuracy up to 0.25%.

The differential pressure transmitters DPTE complies with electromagnetic compatibility requirements (EMC) as per EN 61326.



MEASURING RANGES / OPTIONS

Gauge pressure: 0...1 mbar up to 0...2 bar

FEATURES

- High reliability
- High accuracy
- Dynamic and static measurement possible
- Cost efficient design
- CE, RoHS-conform

APPLICATIONS

- HVAC
- Semiconductor
- Medical technology
- Filter and dusting technology
- Mine ventilation

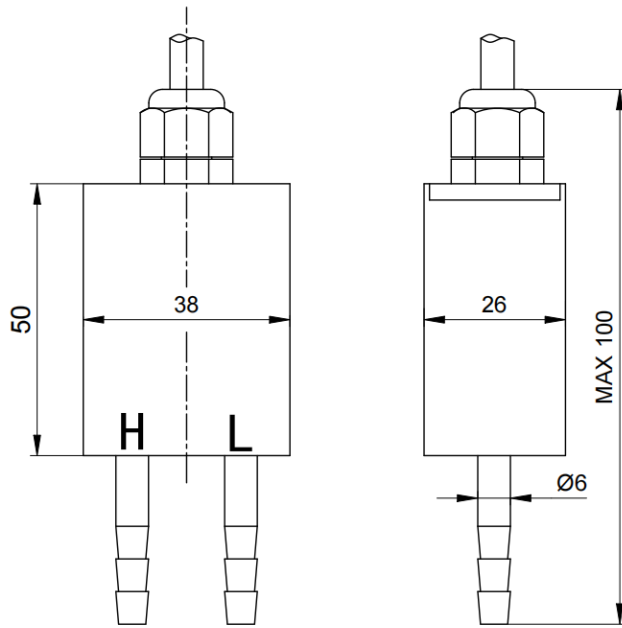
SPECIFICATIONS

Model	DPTE		Options
Pressure Type	Differential pressure		
Pressure Range (mbar)	0...1 mbar to 0...1000 mbar		0... 2000 mbar
Overpressure Limit	X 2		
Burst Pressure	X 3		
Accuracy¹	± 1.0% of FS		± 0.5% of FS ± 0.25% of FS
Response Time	≤ 5 ms		
Measuring Rate	200 Hz		
Output Signal 2-wire (A): 4...20 mA 3-wire (V): 0...10 VDC	Power Supply 8...36 VDC 12...36 VDC	Maximum Load R _A R _A ≤ (U _b – 10 V) / 0.02 A R _A > max. Output Signal / 1 mA	Other Signals on Request
Sensor Element	Piezoresistive		
Long-term Stability	≤ ±0.2 % of FS / year at Reference Conditions according to IEC 61298-2		
Case	Aluminium, 304		
Pressure Connection	2 tube connection for 6 mm tube		Other Pressure Connections On request
Media	Suitable for dry non-aggressive gases		
Electrical Connection / IP Rating	Cable with Free Ends IP 54		
Thermal Error on Compensated Range	≤ 0.2 % of FS / 10K in Compensated Range 0...60 °C		
Thermal Error on Zero	≤ 0.5 % of FS / 10 K		
Permissible Temperatures	Storage -20...85 °C	Medium -20...100°C	Environment -20...85 °C
Conformity Pressure Equipment Directive EMC Directive	CE, RoHS 97/23/EC 2004/108/EEC, EN 61326 Emission (Group 1, Class B)		
Weight	Approx. 0.20 kg		

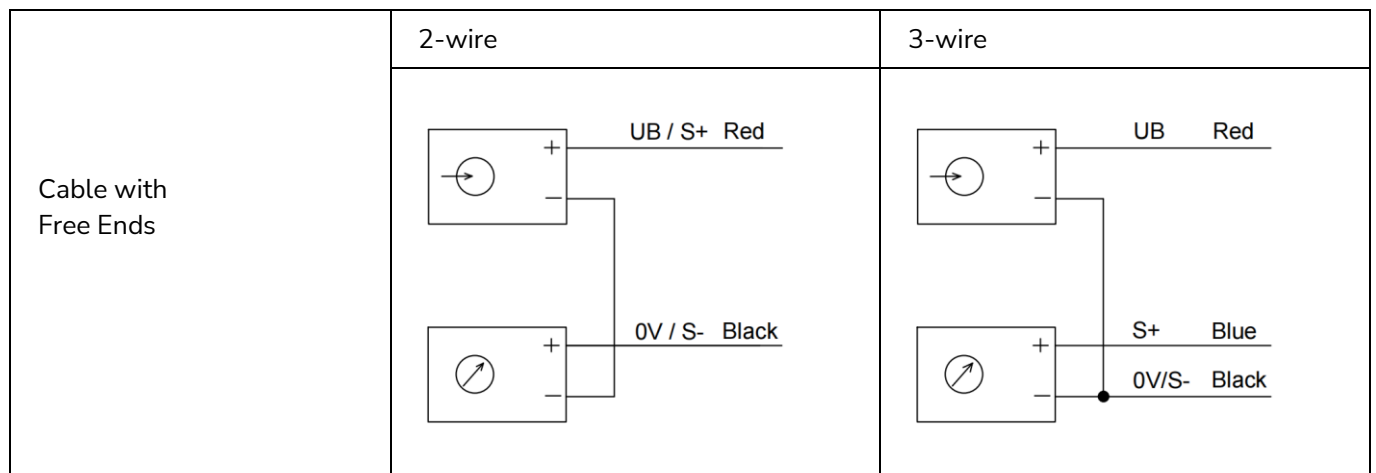
¹Including Non-Linearity, Hysteresis, Zero Point and Full Scale Error
(Corresponds to Error of Measurement per IEC 61298-2)

FS = Full Scale

DIMENSIONS (mm)



ELECTRICAL CONNECTION



ORDERING CODE PTD

DPTE-AAAA-B-CC-DDD

AAAA	Pressure Range (mbar)					
	0010	1	0400	40	4000	400
	0060	6	0600	60	6000	600
	0100	10	1000	100	1001	1000
	0160	16	1600	160	2001	2000
	0250	25	2500	250	Others on request	

B		
	1	4...20 mA, 2-wire (8-36 VDC)
	2	0...10 V, 3-wire (12-36 VDC)
	Others on request	

CC	Accuracy (% FS)	
	02	0.25
	05	0.5
	10	1.0
	Others on request	

DDD	Customized	
	111	Standard version
	XXX	Customer specific

Modifications reserved