

HIGH STRENGTH MICRO PRESSURE SENSOR

Overview

The TPS series pressure transmitter has extremely robust structure and stable sensor with sputtering thin-film-on-steel technology, as a result, they have proven themselves in a multitude of demanding applications in harsh environment. Superior precise manufacturing ensure the transmitters work perfectly, especially in areas where high requirements are placed on long-term stability, vibration resistance, electromagnetic compatibility, shock resistance or temperature insensitivity, measuring range from 0 ~ 5bar... 2,500bar [100...to 36,000psi].



Applications

- Hydraulic pump, distribution valve, hydraulic actuator
- Automotive powertrain control
- Industrial automation control
- Special equipment
- Aerospace
- Robot
- Test equipment
- Ultramicro equipment integration and pipeline pressure monitoring

Features



- Exquisite and compact design with high precision
- Excellent long-term stability
- Thin-film-on-steel sensor technology
- Completely welded steel sensor system without additional seals
- Dry seals without oil filling, high stability, no potential leakage
- Superior anti-interference, vibration resistance, electromagnetic compatibility, shock resistance and advanced insulation film material resistant to very high over pressures
- Integrated structure, suitable for various fluid media
- Low temperature drift, low latency

Technical Data

Measuring principle	Thin-film-on-steel	Accuracy	± 0.5% FS
Measuring range	0 ~ 5bar... 400bar	Long term stability	≤ 0.2% FS/year
Output signal	0 ... 20mV (±2mV) 0.5 ... 4.5VDC	Rise time	≤1ms
Supply Voltage	8~32VDC	Durability	≥10 ⁷ times
Current input	≤5mA	Pressure Media	Fluids compatible with 17-4PH
Electrical connection	Teflon straight out	Media temperature	-40°C ... +125°C
Sensor	17-4PH	Ambient temperature	-40°C ... +125°C
Over pressure	Page 2 of 2	Storage temperature	-40°C ... +125°C
Burst pressure	Page 2 of 2	Sealing	O-Ring/ED
Process connection	M6X1.0	Structural	SW8 (Head)

Rev.B

05/2023

Ordering information

Example: TPS.06.45.M6.60.40MPA

TPS

06

45

M6

60

40MPA

Type code TPS Pressure Transmitter

Mechanical connection 06 SW8 06

Output signal 45 0.5 ... 4.5 VDC 45

Pressure connection M6 M6 male M6

Electrical 60 Teflon straight out 60

Measuring range	Measurement Range	Over pressure	Burst pressure	
	0...0.5 MPa	3 X Range	20 X Range	
	0...1.0 MPa	3 X Range	20 X Range	
	0...1.6 MPa	3 X Range	15 X Range	
	0...2.5 MPa	3 X Range	15 X Range	
	0...4 MPa	2 X Range	10 X Range	
	0...6 MPa	2 X Range	10 X Range	
	0...10 MPa	2 X Range	10 X Range	
	0...16 MPa	2 X Range	5 X Range	
	0...25 MPa	2 X Range	5 X Range	
	0...40 MPa	2 X Range	5 X Range	40MPA

1) Additional request. Contact Factory

Dimension & Electrical Connection

unit: mm weight: ≈11g

