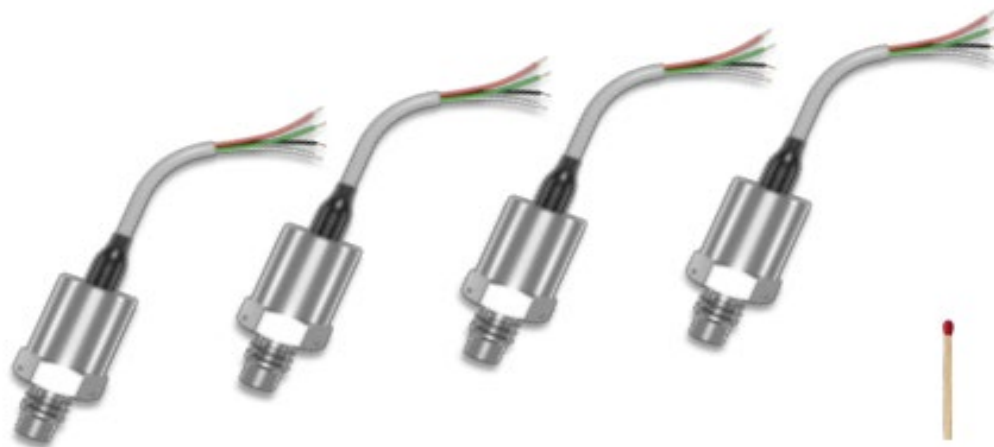


Products Overview

PWT08 Series

Miniature Pressure Sensor

Dabey Technology's PWT08 series of pressure sensors is a wide-temperature-range, miniature, multifunctional high-precision pressure sensor. Utilizing advanced micro-fabricated silicon technology MEMS chips, special oil-filled medium isolation, robust anti-interference circuit design, and a solid stainless-steel interface, the PWT08 series stands out as a high-precision, reliable pressure sensor suitable for various measuring media, and further provides electronic circuits with a frequency bandwidth of 10KHz. The front design of the pressure core allows this series to be compact in size, have a wide range of measurement, and strong resistance to pressure. The sensor can provide a variety of different electrical output signals and output methods, capable of measuring both absolute and sealed gauge pressure types.



Performance Parameters

Main Performance Indicators

Specification	Description
Range	Absolute Pressure: Selectable between 0~70MPa Sealed Gauge Pressure: Selectable between 0~70MPa
Units	MPa/ bar/kPa/hPa/ psi/mmHg "Custom units available upon request
Accuracy (Integrated Non-linearity, Hysteresis, Repeatability)	A1:0.2%FS'BFSL A2:0.1%FS'BFSL "Custom accuracy available upon request
Overload Pressure ²	2xFS
Burst Pressure ³	3xFS
Working Principle	Four-arm Wheatstone bridge silicon-based MEMS chip
Chip Resonant Frequency	>400KHz

Mechanical Performance

Specifications	Description
Pressure connection	See selection table, customizable
Vibration Impact on Sensor Accuracy	<1ppmFS/g
Impact connection	Maximum 20g at 10-2500Hz; Impact time not exceeding 20ms
Housing Material	Standard 316L/17-4PH stainless steel ("Other materials available upon request)
Measuring Medium	All fluids compatible with 316L/17-4PH stainless steel
Weight	≤15g; weight of cable and electrical connectors is additional and depends on selection

Electrical performance

Power Supply/Output	See selection table, customizable
Circuit Bandwidth	10Khz
Actual Frequency Response	Depends on system installation
Power-up Time	ED <200ms
Zero and Full-Scale Output Range	ED See temperature performance "Custom requirements available upon request
Insulation Resistance	≥100MO@500VDC
Dielectric Strength	Leakage current ≤ 5mA@50VACRMS
Maximum Operating Current	ED <25mA
Output Impedance	ED <1500
Long-term Stability	Typical value ±0.1%FS
Electrical Connection	See selection table, customizable

Temperature Performance⁴

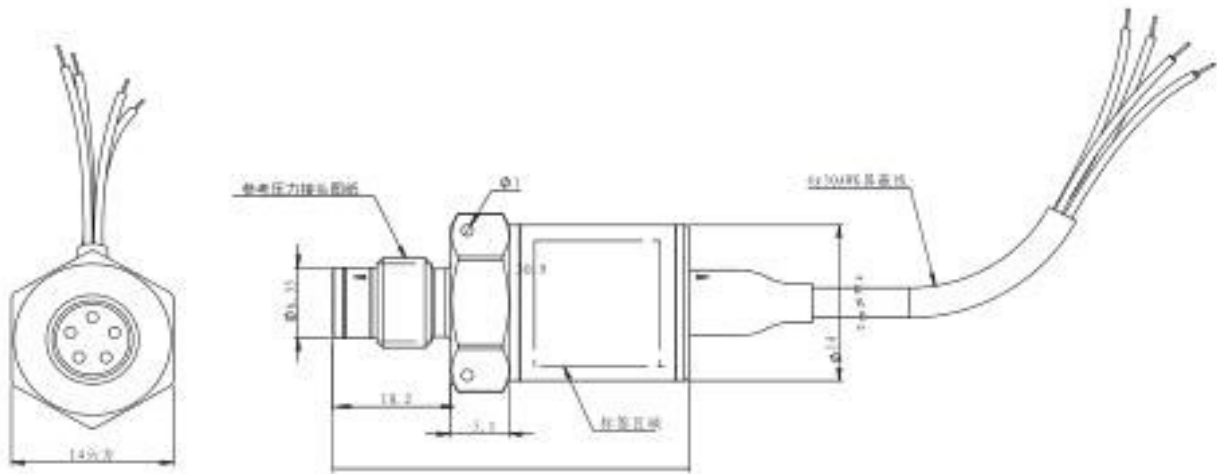
Specifications	Description
Temperature Compensation Range	Selectable within the range of -55°C to 150°C
Storage Temperature Range	-55°C -150°C
Total Temperature Range Error	ED<0.25%FSV100°C

Electrical Interface Definition

Electrical connector	Pin Definition	Electrical Output
		ED
E8	Red	Vin+
	Green	Vout+
	White	
	Black	Vin-

- 1: Custom compound ranges can be specially ordered, for example, (5-100)KPaA.
- 2: Pressure overload below this limit does not affect product performance.
- 3: This is the safe upper limit for the sensor; exceeding this value may cause leakage or deformation.
- 4: Temperature performance refers to the performance within the compensated temperature range.
- 5: FS = Full Scale (Full Range).
- 6: Errors are based on the best-fit straight line (BFSL).

Outline Drawing



Pressure fittings & Recommended installation drawings

