

Voltage-output Pressure Transducer

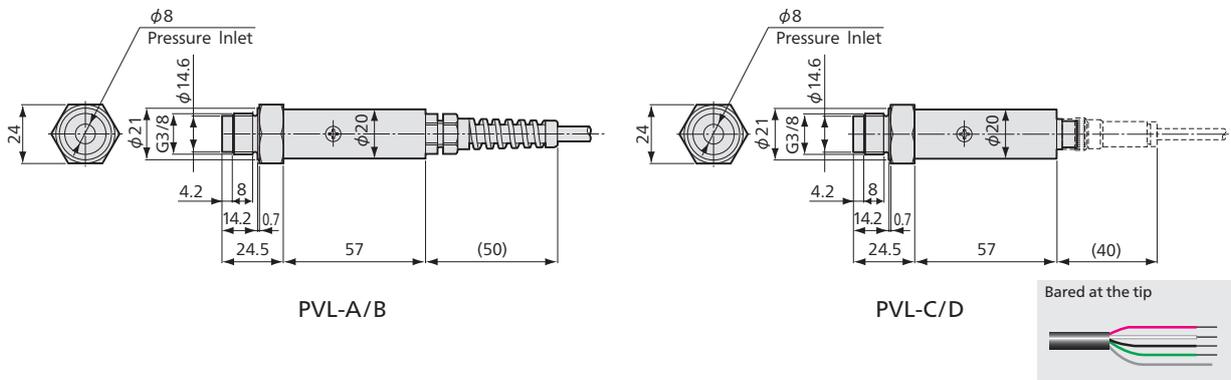


Excellent Noise Resistance Type with a Built-in Amplifier

- Voltage output in a range of 0 to 5 V or 1 to 5 V
- High frequency response
- Compact and lightweight
- Applicable to highly viscous pressure medium
- Wide range of rated capacities
- Built-in negative power supply achieves to indicate 0V output as true 0V (PVL-B/D)

PVL series pressure transducers detect pressures by strain gage and then amplify these slight voltage signals by a built-in amplifier. The pressure sensor part is simply integrated structure and has high reliability. Also, the amplifier is fully tuned. Therefore, PVL series not only provide high vibration resistance, environmental resistance and stability but also without adjustment.

■ Dimensions



Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 0.5\%$ RO (PVL-5 to 20 K) Within $\pm 0.3\%$ RO (PVL-30 to 500 K)
Hysteresis	Within $\pm 0.5\%$ RO (PVL-5 to 20 K) Within $\pm 0.3\%$ RO (PVL-30 to 500 K)
Rated Output	PVL-A/C: 1 to 5 V PVL-B/D: 0 to 5 V

Environmental Characteristics

Safe Temperature Range	-20 to 70°C
Compensated Temperature Range	-10 to 60°C
Temperature Effect on Zero Balance	Within $\pm 0.05\%$ RO/°C (PVL-5 to 20 K) Within $\pm 0.03\%$ RO/°C (PVL-30 to 500 K)
Temperature Effect on Output	Within $\pm 0.05\%$ /°C (PVL-5 to 20 K) Within $\pm 0.03\%$ /°C (PVL-30 to 500 K)

Electrical Characteristics

Output	See table above.
SN Ratio	50 dB or more
Load Resistance	1 kΩ or more
Frequency Response (Built-in Amplifier)	DC to 1 kHz
Power Supply	12 VDC (10.5 to 15 V), 30 mA or less
Cable	PAL-A/B: 4-conductor (0.14 mm ²) chloroprene shielded cable 6 mm diameter by 30 cm long, bared at the tip PAL-C/D: 4-conductor (0.18 mm ²) vinyl shielded cable, 4.6 mm diameter by 3 m long, bared at the tip (Shield wire is not connected to mainframe.)

Mechanical Properties

Safe Overload Rating	150%
Material	Case: SUS (Metallic finish) Liquid-contacting part: SUS 630
Weight	Approx. 85 g (Excluding cable)
Degree of Protection	IP52 (IEC 60529)
Mounting Screw	G3/8, male

Standard Accessories Gasket (Mild copper)

For every rated capacity, mechanical natural frequency is the same as PGM-H(2-88).

Models				Rated Capacity
Cable-integrated		Connector-equipped		
1 to 5V output	0 to 5V output	1 to 5V output	0 to 5V output	
—	PVL-5KB	PVL-5KC	PVL-5KD	500 kPa
—	PVL-10KB	PVL-10KC	PVL-10KD	1 MPa
—	PVL-20KB	PVL-20KC	PVL-20KD	2 MPa
—	PVL-50KB	PVL-50KC	PVL-50KD	5 MPa
—	PVL-100KB	PVL-100KC	PVL-100KD	10 MPa
PVL-200KA	PVL-200KB	PVL-200KC	PVL-200KD	20 MPa
—	PVL-300KB	—	PVL-300KD	30 MPa
—	PVL-500KB	PVL-500KC	PVL-500KD	50 MPa

● Dynamic measurement

PVL Recommended products for combination

Universal Recorder
EDX-200A
→ 3-55

Universal Recorder
EDX-100A
→ 3-63

Memory Recorder/Analyzer
EDX-3000B
→ 3-69