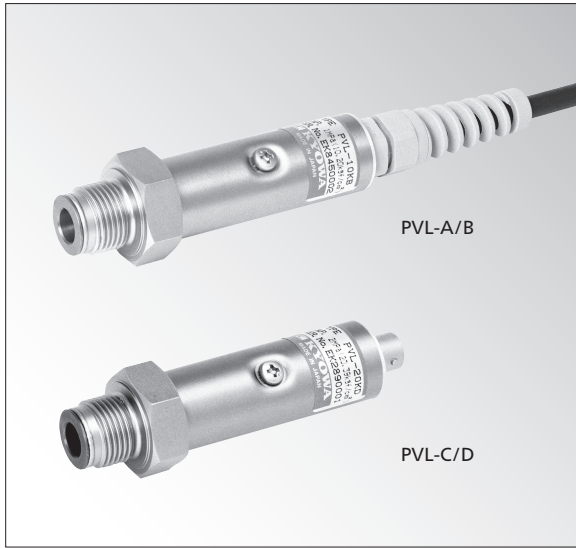


Voltage-output Pressure Transducer

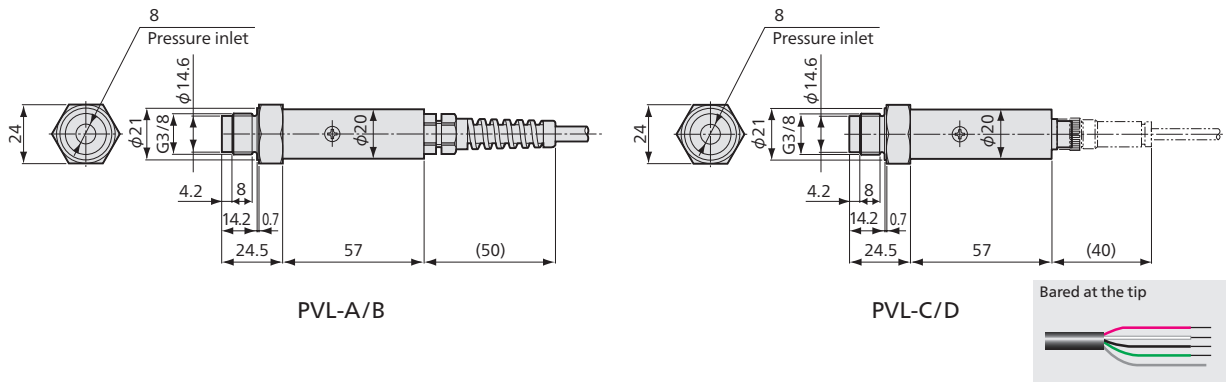


Excellent Noise Resistance Type with a Built-in Amplifier

- 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 0 V output as true 0 V (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 provide high vibration resistance, environmental resistance and stability.

Dimensions



Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within $\pm 0.5\%$ RO for 0.5 to 2 MPa Within $\pm 0.3\%$ RO for 5 to 50 MPa
Hysteresis	Within $\pm 0.5\%$ RO for 0.5 to 2 MPa Within $\pm 0.3\%$ RO for 5 to 50 MPa
Rated Output	PVL-A/C: 1 to 5 V PVL-B/D: 0 to 5 V

Environmental Characteristics

Safe Temperature	-20 to 70°C
Compensated Temperature	-10 to 60°C
Temperature Effect on Zero	Within $\pm 0.05\%$ RO/°C for 0.5 to 2 MPa Within $\pm 0.03\%$ RO/°C for 5 to 50 MPa
Temperature Effect on Output	Within $\pm 0.05\%$ /°C for 0.5 to 2 MPa Within $\pm 0.03\%$ /°C for 5 to 50 MPa

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, sensitivity Deviation $\pm 10\%$
Power Supply	12 VDC (10.5 to 15 V), 30 mA or less
Cable	PVL-A/B: 4-conductor (0.14 mm ²) chloroprene shielded cable 6 mm diameter by 30 cm long, bared at the tip PVL-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 the case.)

Mechanical Properties

Safe Overloads	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-5KA	PVL-5KB	PVL-5KC	PVL-5KD	500 kPa
PVL-10KA	PVL-10KB	PVL-10KC	PVL-10KD	1 MPa
PVL-20KA	PVL-20KB	PVL-20KC	PVL-20KD	2 MPa
PVL-50KA	PVL-50KB	PVL-50KC	PVL-50KD	5 MPa
PVL-100KA	PVL-100KB	PVL-100KC	PVL-100KD	10 MPa
PVL-200KA	PVL-200KB	PVL-200KC	PVL-200KD	20 MPa
PVL-300KA	PVL-300KB	PVL-300KC	PVL-300KD	30 MPa
PVL-500KA	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-5000A → 3-68