PVL

Voltage-output Pressure Transducer



Pressure transducers with built-in amplifiers for excellent noise resistance

- **Rated capacity: 500 kPa to 50 MPa**
- **Available with detachable or integrated cable**
- **Negative power supply built-in for 0 V output as true 0 V (PVL-B, D)**

Pressure transducers with built-in amplifiers to amplify slight voltage detected by the pressure transducer (strain gage), to obtain voltage output.
Feature a simple, reliable integrated design with the pressure amplifier fully tuned, for superior vibration resistance, environmental resistance, and stability.

*For every rated capacity, mechanical natural frequency is the same as PGM-H (page 1-131).

Specifications

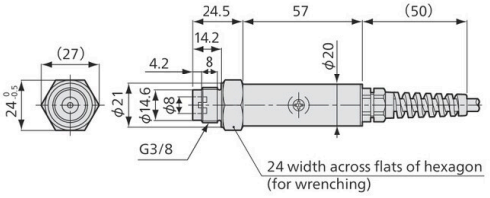
Performance	
Rated Capacity	See table below.
Nonlinearity	Within ±0.3% RO (5 to 20K: Within ±0.5% RO)
Hysteresis	Within ±0.3% RO (5 to 20K: Within ±0.5% RO)
Voltage Output	PVL-A/C : 1 to 5 V
	PVL-B/D : 0 to 5 V
Environmental Characteristics	
Safe Temperature	−20 to 70℃
Compensated Temperature	−10 to 60℃
Temperature Effect on Zero	Within ±0.03% RO/℃ (5 to 20K: Within ±0.05% RO/℃)
Temperature Effect on Output	Within ±0.03%/℃ (5 to 20K: Within ±0.05%/℃)
Electrical Characteristics	
SN Ratio	50 dB or more
Load Resistance	1 kΩ or more
Frequency Response (Built-in Amplifier)	
	DC to 1 kHz (Sensitivity deviation: ±10%)
Power Supply	12 VDC (10.5 to 15 V), 30 mA or less
Cable	PVL-A/B:
	4-conductor (0.14 mm²) chloroprene shielded cable,
	6 mm diameter by 30 cm long, bared at the tip
	(Shield wire is not connected to the case.)
	PVL-C/D:
	4-conductor (0.18 mm²) vinyl shielded cable,
	4.6 mm diameter by 3 m long
	Sensor side:
	Terminated with a connector plug R06-P5F
	Measuring instrument side: 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: SUS630
Weight	Approx. 85g (Excluding cable)
Degree of Protection	IP52 (JIS C 0920/IEC 60529)

■Standard Accessories Gasket (Mild copper)

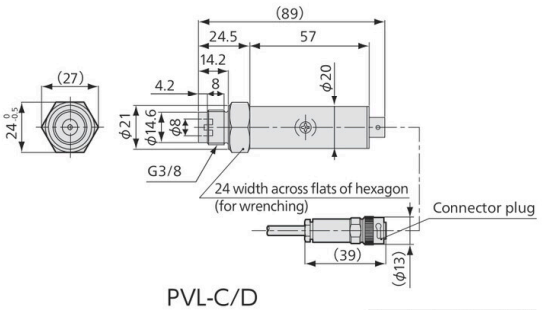
■Models

Model				Rated Capacity
Cable Integrated Type		Connector Type		
1 to 5 V Output	0 to 5 V Output	1 to 5 V Output	0 to 5 V 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

■Dimensions



PVL-A/B



PVL-C/D

