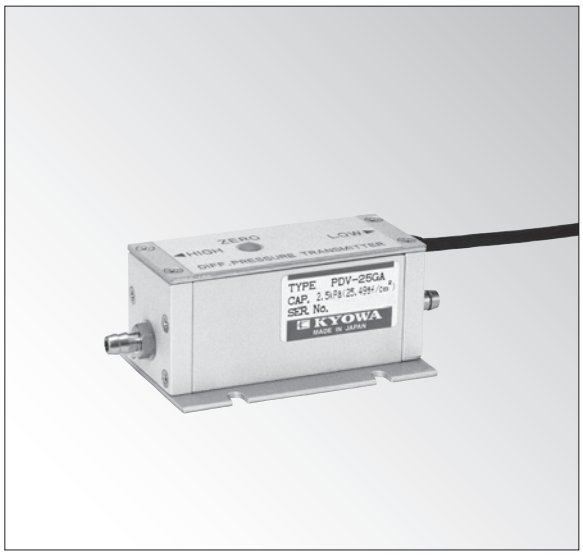
PDV-A

●For wind pressure measurement
●1 to 7 kPa

Minute Differential Pressure Transducer



For wind pressure measurement Built-in amplifier

●High frequency response
●Highly accurate
●High sensitivity
●Noise resistant
●Voltage output of ±5 V
●Compact & lightweight

PDV-A series pressure transducers have diffusional semiconductor strain gages on a silicone diaphragm. PDV-A transducers detect pressures as resistance variation and then amplify this signal by built-in amplifier.

(Note 1) Use the transducer with general air.
(Note 2) If water or any other liquid enters the low-pressure line the transducer gets out of order.

Specifications

Performance

Rated Capacity	See table below.
Nonlinearity	Within ±0.5% RO
	(25GA: Within ±0.7% RO)
Hysteresis	Within ±0.3% RO
Rated Output	5 V
Rated Output Accuracy	Within ±1.0% RO
	(Sensitivity error due to load direction)
	(50GA: Within ±1.5% RO)
	(70GA: Within ±2.0% RO)

Environmental Characteristics

Safe Temperature	-20 to 70°C
Safe Humidity	20 to 85% (At 0 to 50°C)
Compensated Temperature	0 to 50°C
Temperature Effect on Zero	Within ±0.08% RO/°C
	(10GA: Within ±0.1% RO/°C)
Temperature Effect on Output	Within ±0.08%/°C
	(10GA: Within ±0.1%/°C)
Pressure Medium	General air (Non-corrosive gas)

Electrical Characteristics

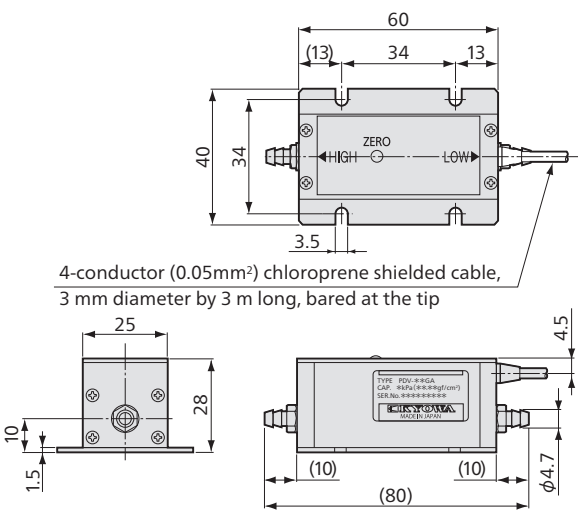
Load Resistance	5 kΩ or more
Power Supply	12 VDC (11 to 15 V), 30 mA or less
Cable	4-conductor (0.05 mm²) chloroprene shielded cable, 3 mm diameter by 3 m long, bared at the tip

Mechanical Properties

Safe Overloads	300% (10GA: 600%)
Maximum Line Pressure	100 kPa
Natural Frequencies	Approx. 1.7 kHz
Weight	Approx. 100 g (Excluding cable)
Posture Effect	Zero drift: Within ±0.3% RO
	(10GA: Within ±0.8% RO)
	when inclined by 90° referring to horizontal condition
Internal Volume	High side: Approx. 0.2×10^{-6} m³ (0.2 mL)
	Low side: Approx. 1×10^{-6} m³ (1 mL)
Pressure Connection	4.7 mm diameter barb fitting

Models	Rated Capacity
PDV-10GA	1 kPa
PDV-25GA	2.5 kPa
PDV-50GA	5 kPa
PDV-70GA	7 kPa

■Dimensions



To Ensure Safe Usage

●Avoid dew condensation or freeze because the transducer is not drip-proof.
●When using for a pressure meter, apply pressure to the high side and open the low side to the atmosphere.
●For atmospheric observation, prepare piping to prevent rainwater from entering the pressure inlet.