

HASTELLOY® Pressure Sensor for Corrosive Special Gas



In semiconductor production processes, various halogen series reactive and corrosive special gases are used such as HBr and HCl. These gases generate corrosive product by reacting with small amount of water attached to inner surface of stainless steel of pressure sensor or gas filter used in gas supply piping system. This corrosive product generates particle and causes process contamination of semiconductor process. Pureron has developed PC-601 series pressure sensor for corrosive special gas application using HASTELLOY® which has far superior corrosion resistance than stainless steel SUS316L.

High Corrosion Resistance

- HASTELLOY® having far superior corrosion resistance than stainless steel SUS316L against the halogen series reactive, corrosive special gases such as HBr and HCl used for gas contacting area. Electrochemical polishing also applied effective against corrosive special gas.

High Accuracy / High Reliability

- High accuracy and high reliability with 0.25% maximum deviation from best fit line affected by linearity, hysteresis repeatability.

Wide Measurement Range

- Wide pressure range available; gauge pressure 0 to 172.4KPa (1.76kgf/cm²) to 20,684KPa (210.9kgf/cm²), absolute pressure from 0 to 2,586 torr.

Long Lifetime

- Cycle duration test, 1,000,000 times or more, conducted in each range.

Specification

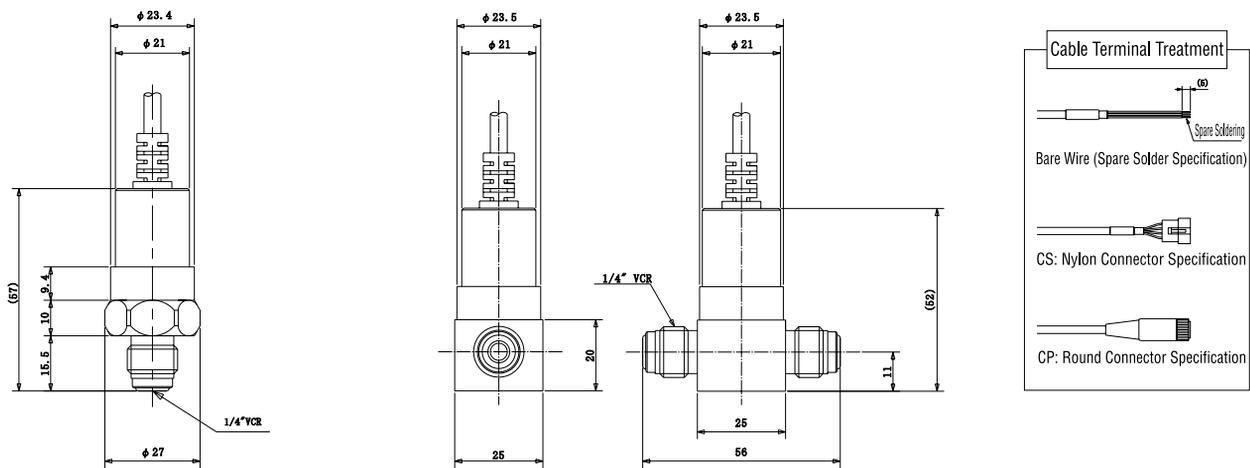
Model	Gauge Pressure ※							Absolute Pressure		
	PSI	25G	50G	100G	200G	500G	3000G	15A	25A	50A
Pressure Range	KPa	0 to 172.4	0 to 344.7	0 to 689.5	0 to 1,378.9	0 to 3,447.3	0 to 20,684	0 to 103.4	0 to 172.4	0 to 344.7
	kgf/cm ²	0 to 1.76	0 to 3.52	0 to 7.03	0 to 14.06	0 to 35.16	0 to 210.9	-	-	-
	torr	-	-	-	-	-	-	0 to 776	0 to 1,293	0 to 2,586
Accuracy (% Full Scale)	±0.5%			±0.25%				±0.5%		

※Gauge pressure type applicable for conpled usage.

Overload Pressure	Full Scale ×2
Excitation (Power Supply) Voltage	DC 5V (max DC 6V)
Storage Temperature	-20 to 93°C (no power distribution)
Guaranteed Temperature	-1 to 71°C
Temperature Drift	±0.05% FS/°C
Signal Output	100mV (20mV/V) ※50mV (10mV/V) for 25G/50G
Span	100mV ± 15mV ※50mV ± 15mV for 25G/50G
Offset	0mV ± 10mV
External Leakage	2×10 ⁻¹¹ Pa·m ³ /sec
Gas (Fluid) Contacting Area	HASTELLOY®
Joint	1/4" VCR®, Swagelok®, and others

Dimensional Outline Drawings

PC-601A-VR-[Pressure Range]-M PC-601T-VR-[Pressure Range]-M



How to Order

PC - 601 **A** - **VR** - **100G** - **M** - **CS**

A : Straight
T : T Angle
VR : 1/4"VCR®
SW : 1/4"Swagelok®

25G : 0 to 172.4KPa
50G : 0 to 344.7KPa
100G : 0 to 689.5KPa
200G : 0 to 1,378.9KPa
500G : 0 to 3,447.3KPa
3000G : 0 to 20,684KPa
15A : 0 to 103.4KPa
25A : 0 to 172.4KPa
50A : 0 to 344.7KPa

M : Male Screw (Standard)
F : Female Screw

Blank : Bare Wire (Spare Solder Specification)
CS : Nylon Connector Specification
CP : Round Connector Specification
 ※Standard length 50cm

●Extension cable separately available (see P. 85)

※Specification is subject to change without notice.