φ28

GW28
# Pressure Gauge for Semiconductor Industry

Outline

GW28 is designed for offering excellent performance even with highly pure semiconductor gas process media or in environmental atmosphere surrounded by corrosive gas. The gauge is suitable for the use in semiconductor process application, especially for highly-pure process media measurement with great care of air-tightness and air-cleanliness.

Features

- Being a small diameter, 28 mm in size, this model contributes to space-saving by its integrated mounting.
- Since wetted part of GW28 consists of simple construction with diaphragm, unlike a conventional C-shaped bourdon tube, cleaning and a gas flushing are easily available to user.
- Internal volume around wetted part is reduced to approximately half as compared to conventional small bourdon tube type gauge eliminating pocket substantially preventing gas from staying at the part.

∗To maximize performance, please select the pressure range with your common operating pressure should be 30 to 65% of the pressure range. Furthermore, please ensure that the wetted parts materials listed are suitable for the use against measuring gas or liquid.
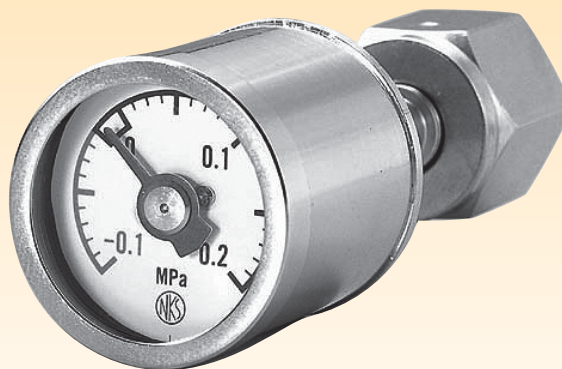
List of grade

Grade	BA (Bright Annealing)	EP (Electro Polishing)
Wetted parts material	SUS316L	SUS316L (Gas contact surface polished)
Cleaning level	Class Ⅳ (ANSI B40, 1M-1979)	10 and under particles of 0.2 μm or greater
Leak test	1.01×10^{-9} Pa·m^3/s and under	
Cleaning	① Coarse cleaning ② Ultrasonic cleaning ③ Finish cleaning ④ N$_2$ gas flushing	
Work area	① General work area ② Clean room (Class 10,000) ③ Clean bench (Class 100)	
Adjustment test media	N$_2$ gas	
Packing form	Sealed polyethylene bag	

NAGANO KEIKI

GW28

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Specification

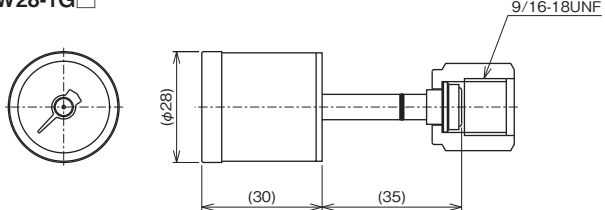| Item	Description
Fluid	Air or liquid
Mounting	Back connection··· D-frame (Center back screw, stem)
Size	ϕ28
Connection	9/16-18UNF
Material	Bourdon tube, Connecting part SUS316L Case SUS304 Movement SUS
Enclosure	Indoor use
Welding	Argon arc welded
Pressure range	-0.1 to 0.2MPa -0.1 to 0.4MPa -0.1 to 0.7MPa -0.1 to 1MPa
Maximum allowable pressure	100% of pressure range
Operating temperature	-5 to 45℃
Accuracy	±3%F.S.
Leakage (Helium leak rate)	1.01×10^{-9} Pa・m^3/s and under
Cleaning level	EP Grade: 10 particles and under with the diameter 0.2 μm or greater. BA Grade: Class IV (ANSI B40, 1M-1979)
Weight	Approx. 85 g

Dimensions
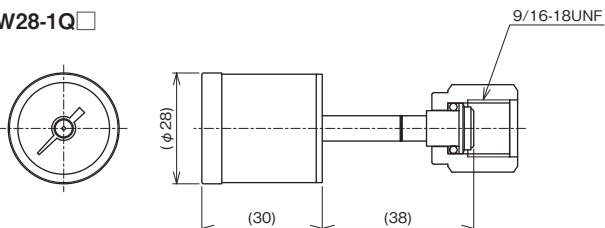
Unit: mm

GW28-1E□

9/16-18UNF
(ϕ28)
(30) (51)

GW28-1G□

9/16-18UNF
(ϕ28)
(30) (35)

GW28-1Q□

9/16-18UNF
(ϕ28)
(30) (38)

Construction

Pointer
Displacement transmission mechanism
Diaphragm
Displacement
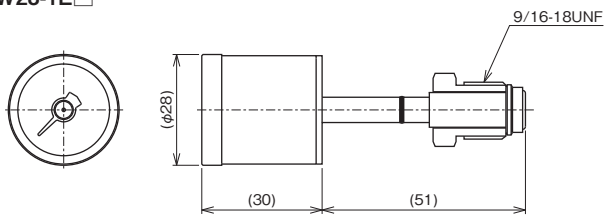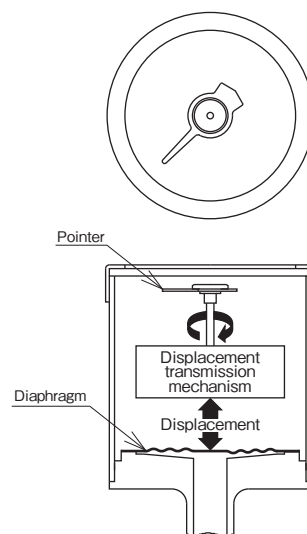
Model number configuration

Please specify the model number, each specs and the range for ordering.

Model
G W 2 8 — **1** ☐ ☐ — **1** **0** **0** **0** ✕ ✕ ✕ ✕ ✕ ✕ ✕
Pressure Gauge for ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮
Semiconductor Industry

Model number				Selective spec.	Additional spec. (Option)
① Mounting	**1**			D-frame Back connection (Center back screw, stem)	
	② Connection	**E**		9/16-18UNF (1/4CVC Male nut)	
		G		9/16-18UNF (1/4CVC Female nut)	
		Q		9/16-18UNF (1/4UJR Female nut, With pure ring)	
		☐		Other specifications	
		③ Grade	**3**	BA Grade	
			4	EP Grade	
	④ Pressure range	**1**		-0.1 to 0.2, 0.4, 0.7, 1MPa Compound gauge	
	⑤ Accuracy	**0**		Standard (±3.0%F.S.)	
	⑥ Pointer	**0**		Standard type	
	⑦ Glass	**0**		Standard	
	⑮ Document	**0**		Nil	
		1		Required (Please specify the desired documents separately.) Submission drawings, instruction manual, inspection procedure, mill test report, strength calculation, attended inspection	

Please specify the pressure range and units separately besides selection of range code.

＊Specify "X" if there is no specification item.