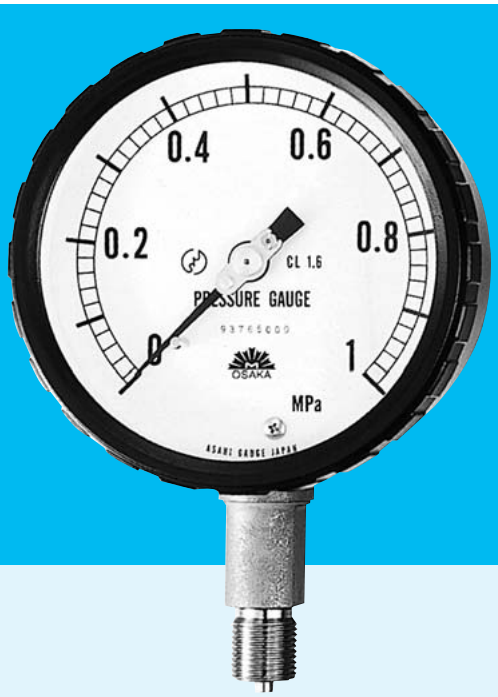
CATALOG No. 6015

PRESSURE GAUGE ACCESSORIES

The types and sizes of accessories required to install gauges vary according to specific gauge applications. Introduced here a full variety of gauge accessories by Asahi which virtually may meet almost all gauge application requirements. Please select accessories best suited to specific gauge applications to gain the best performance from the gauge to be mounted.



Accessory Designation

□ □ □ – □ □ □

Types of Connections

Code No.	Types
1	G male screw
2	G female screw
3	R male screw
4	R female screw
5	Pipe end (weldment)
7	Flange

Accessory Symbols

Code No.	Accessories
J	Fixed joint
P	P flange
UJ	Union joint
PJ	Pipe joint
S	Siphon
LB	10MPa tank siphon
HB	50MPa tank siphon
D	Dampener
GB	Gauge saver
GRL	Gauge saver
GRH	Gauge saver
C	Gauge cock
V	Gauge valve

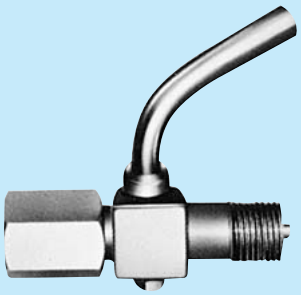
Connection Sizes

Code No.	Size
2	1/4
3	3/8
4	1/2

Types of Materials

Code No.	Names of Materials
B	Brass
S	Steel
U	Stainless steel

OSAKA
ASAHI GAUGE MFG. CO.,LTD.
JAPAN

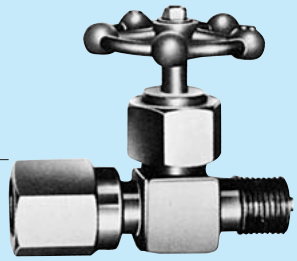


Gauge Cocks:

Used to temporarily shut off the pressure medium when the gauge is dismounted for maintenance then remounted. Recommended for relatively low-pressure media (less than 2MPa).

Gauge Valves:

Is of needle type allowing to be used over an entire range of pressures.



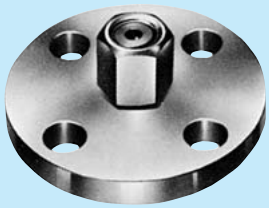
21V、23V

Joints:

A kind of adapter joints used to connect gauges to pressure medium intakes. Comes in various sizes and shapes to meet application requirements.

P Flanges, Flanged Joints

Flange sizes are available in compliance with JIS, ANSI and JPJ.



Siphon Pipes:

Used to radiate heat from the pressure medium, thereby protecting the gauge against unusually high heat.

Tank Siphons:

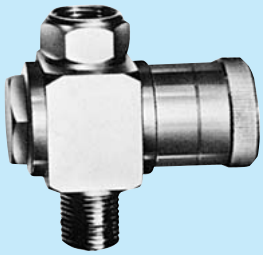
Just like siphon pipes, these are a kind of heat radiating tools, doubling as separators used in an oil-free water tanks.

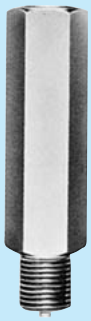
Dampeners:

Variable throttle devices used where pulsation is encountered.

Gauge Savers:

Prevents gauge damage due to sharp unusual pressure rise.





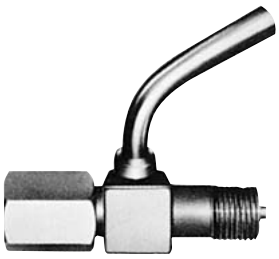
P Devices:

A special type of throttle devices used to protect diaphragm-seal pressure gauges against heavy pulsation.

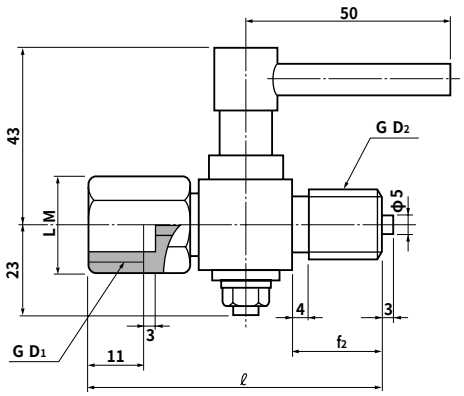
GAUGE COCKS

Specifications

Pressure limit: 2MPa
Max. test pressure: 3MPa
Use: Liquid less than 100℃
Materials: Brass, Stainless steel



Brass



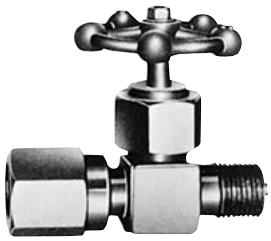
Stainless Steel

Model		$d_1 \times d_2$	f_1	f_2	ℓ	L×M
BS	21C-B33	$G\frac{3}{8} \times G\frac{3}{8}$	(13)	16	76	24×28
	44	$G\frac{1}{2} \times G\frac{1}{2}$	(14)	16	76	26×30
	23C-B33	$G\frac{3}{8} \times R\frac{3}{8}$	(13)	16	76	24×28
	44	$G\frac{1}{2} \times R\frac{1}{2}$	(14)	16	76	26×30
SUS	21C-U33	$G\frac{3}{8} \times G\frac{3}{8}$	(13)	22	76	26×30
	44	$G\frac{1}{2} \times G\frac{1}{2}$	(14)	22	78	26×30
	23C-U33	$G\frac{3}{8} \times R\frac{3}{8}$	(13)	22	76	26×30
	44	$G\frac{1}{2} \times R\frac{1}{2}$	(14)	22	78	26×30

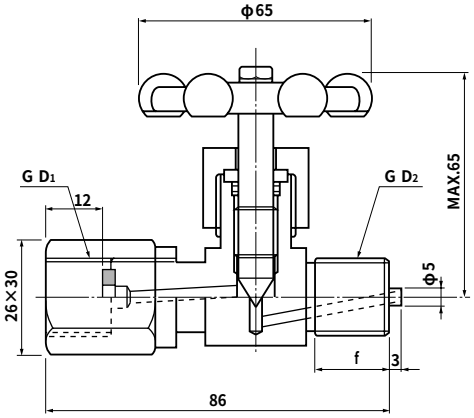
GAUGE VALVES

Specifications

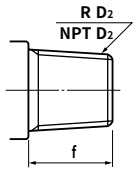
Pressure limit: 50MPa
Max. test pressure: 70MPa
Use: Liquid less than 200℃
Materials: Stainless steel

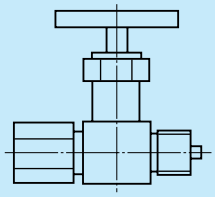


21V、23V

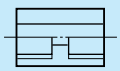


Model SUS	$d_1 \times d_2$	f	L×M
21V-U33	$G\frac{3}{8} \times G\frac{3}{8}$	16	26×30
44	$G\frac{1}{2} \times G\frac{1}{2}$	18	26×30
23V-U33	$G\frac{3}{8} \times R\frac{3}{8}$	16	26×30
44	$G\frac{1}{2} \times R\frac{1}{2}$	18	26×30
23V-U49	$G\frac{1}{2} \times NPT\frac{1}{2}$	18	26×30

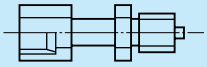




Example



Union Joint

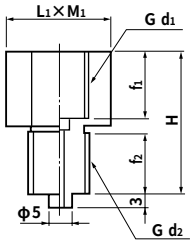


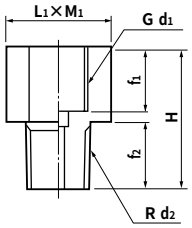
The above-shown connection can be achieved by selecting an appropriate joint.

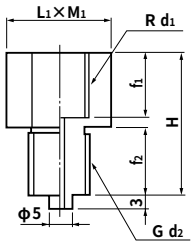
JOINTS

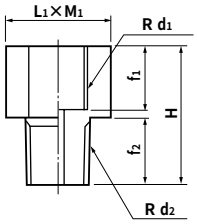
Specifications
Materials: Brass, Stainless steel

Female × Male Joint



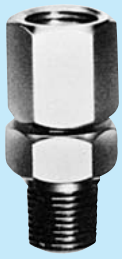


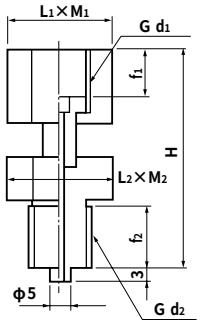


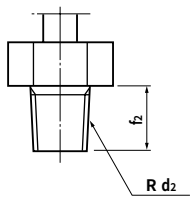


Model		$d_1 \times d_2$	f_1	f_2	H	$L_1 \times M_1$
BS	SUS					
21J-B23	21J-U23	G¼×G⅜	14	18	36	24×28
24	24	G¼×G½		20	38	
32	32	G⅜×G¼	16	16	36	
34	34	G⅜×G½		20	40	
42	42	G½×G¼	18	16	38	26×30
43	43	G½×G⅜		18	40	
23J-B22	23J-U22	G¼×R¼	14	16	34	19×22
23	23	G¼×R⅜		18	36	24×28
24	24	G¼×R½		20	38	
32	32	G⅜×R¼	16	16	36	
33	33	G⅜×R⅜		18	38	
34	34	G⅜×R½		20	40	
42	42	G½×R¼	18	16	38	26×30
43	43	G½×R⅜		18	40	
44	44	G½×R½		20	42	
41J-B22	41J-U22	R¼×G¼	14	16	34	19×22
23	23	R¼×G⅜		18	36	24×28
24	24	R¼×G½		20	38	
32	32	R⅜×G¼	16	16	40	
33	33	R⅜×G⅜		18	38	
34	34	R⅜×G½		20	40	
42	42	R½×G¼	18	16	38	26×30
43	43	R½×G⅜		18	40	
44	44	R½×G½		20	42	
43J-B23	43J-U23	R¼×R⅜	14	18	36	24×28
24	24	R¼×R½		20	38	
32	32	R⅜×R¼	16	16	36	
34	34	R⅜×R½		20	40	
42	42	R½×R¼	18	16	38	26×30
43	43	R½×R⅜		18	40	

Female union × Male Joint





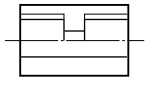


Model		$d_1 \times d_2$	f_1	f_2	H	$L_1 \times M_2$	$L_2 \times M_2$
BS	SUS						
21UJ-B22	21UJ-U22	G¼×G¼	14	16	66	19×22	19×22
23	23	G¼×G⅜		18	68		24×28
24	24	G¼×G½		20	70		26×30
32	32	G⅜×G¼	16	16	68	24×28	19×22
33	33	G⅜×G⅜		18	70		24×28
34	34	G⅜×G½		20	72		26×30
42	42	G½×G¼	18	16	70	26×30	19×22
43	43	G½×G⅜		18	72		24×28
44	44	G½×G½		20	74		26×30
23UJ-B22	23UJ-U22	G¼×R¼	14	16	66	19×22	19×22
23	23	G¼×R⅜		18	68		24×28
24	24	G¼×R½		20	70		26×30
32	32	G⅜×R¼	16	16	68	24×28	19×22
33	33	G⅜×R⅜		18	70		24×28
34	34	G⅜×R½		20	72		26×30
42	42	G½×R¼	18	16	70	26×30	19×22
43	43	G½×R⅜		18	72		24×28
44	44	G½×R½		20	74		26×30

• Special joints other than listed above are available upon request.

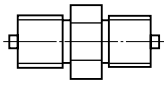
• Special Profile Examples

Female-Male Joint



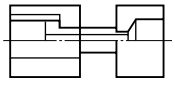
22J

Male-Female Joint



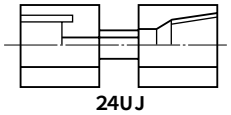
11J

Female Union-SW



25UJ

Female Union Joint



24UJ

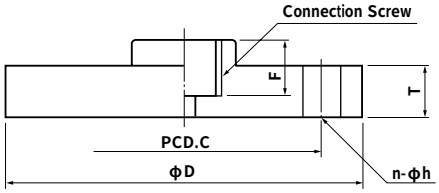
P Flanges, Flanged Joints

Specifications

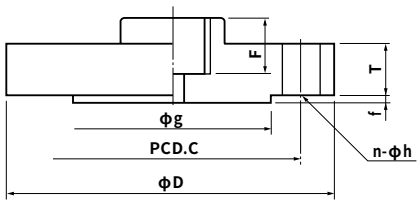
- In addition to the above, R and NP screws are available.
- Flange sizes are available in compliance with JIS, ANSI and JPJ.

Connection Screw	F
G 1/4	14
G 3/8	16
G 1/2	18

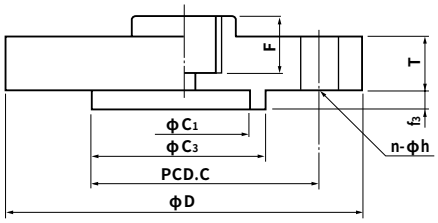
□7P–□□ **FF**



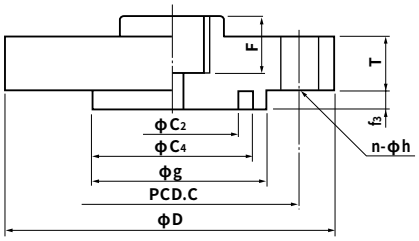
□7P–□□ **RF**



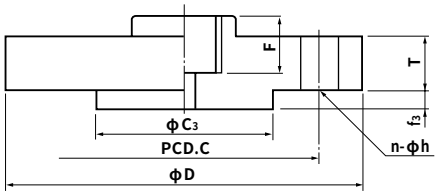
□7P–□□ **TF**



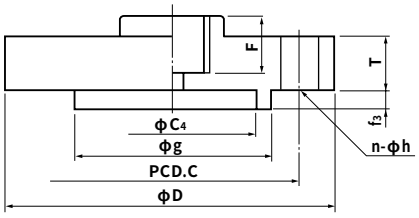
□7P–□□ **GF**



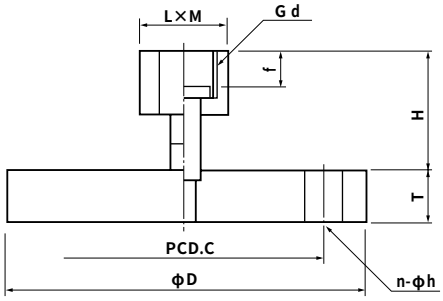
□7P–□□ **MF**



□7P–□□ **MF** (F)



27UPJ–□□ □



d	f	H	L×M
G⅜	16	40	24×28
G½	18	42	26×30

- The above H dimensions are for standard specifications, and other H dimensions are available upon request.
- In addition to P flanges, RF, TF, GF, MF and MF(F) flanges are available.

P Flange and Flanged Joint Designation

Example: P Device, RF type, JIS10k, 15A flange, connection screw G 3/8, material SUS

2 7P – U 3 JIS 10k 15 R F

- R F — Flange type
- 3 — Connection screw size
- U — Materials
- 2 — Connection screw standard

PF female.....2
3/8.....3
PT female.....4
Stainless Steel.....U
Brass.....B
1/2.....4

Flanged joint JIS20k40AGF flange Connection screw PF1/2 Material SUS

27UPJ – U 4 JIS 20k 40 GF

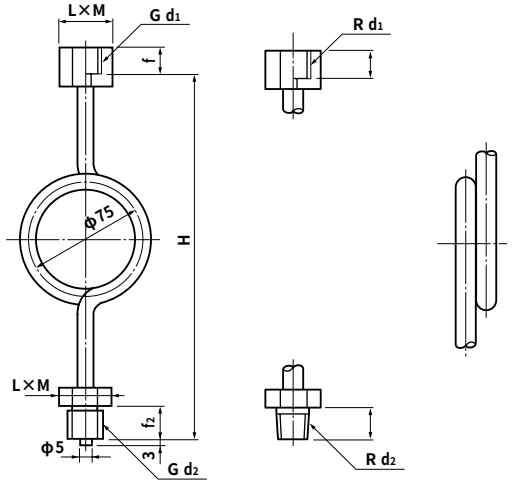
SIPHON PIPES

Specifications

Pressure limit: 20MPa
Max. test pressure: 24MPa
Use: Liquid less than 350℃
Materials: Steel, Stainless steel

In addition to the above, double-siphon, flanged, L-shape, 1/2B-pipe types are available in special specifications.

形番 Model		$d_1 \times d_2$	f_1	f_2	H	L×M
SS	SUS					
21S-S33	21S-U33	$G\frac{3}{8} \times G\frac{3}{8}$	16	18	236	24×28
23S-S33	23S-U33	$G\frac{3}{8} \times R\frac{3}{8}$				
21S-S44	21S-U44	$G\frac{1}{2} \times G\frac{1}{2}$	18	20	238	24×28
23S-S44	23S-U44	$G\frac{1}{2} \times R\frac{1}{2}$				



* Siphon pipes are primarily used in measuring steam pressures.
Before use, fill the siphon with water to safeguard the gauge.

SS will be equipped with a 1/2B pipe.

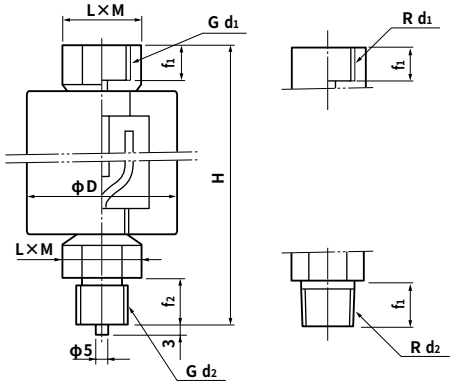
TANK SIPHON

Specifications

	LB	HB
Pressure limit:	10MPa	50MPa
Max. test pressure:	12MPa	60MPa
Tank capacity:	100 cc	80 cc

Use: Liquid less than 350℃
Materials: Stainless steel

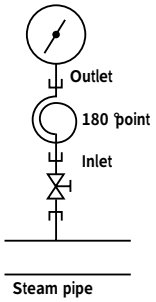
Model SUS	$d_1 \times d_2$	Range	L×M	f_1	f_2	D	H
21LB-U33	$G\frac{3}{8} \times G\frac{3}{8}$	10MPa Lessthan	26×30	16	18	60	142
43LB-U33	$R\frac{3}{8} \times R\frac{3}{8}$						
21HB-U33	$G\frac{3}{8} \times G\frac{3}{8}$	10～50MPa				56	206
21HB-U33	$R\frac{3}{8} \times R\frac{3}{8}$						
21LB-U44	$G\frac{1}{2} \times G\frac{1}{2}$	10MPa Lessthan	29×34	18	20	60	146
43LB-U44	$R\frac{1}{2} \times R\frac{1}{2}$						
21HB-U44	$G\frac{1}{2} \times G\frac{1}{2}$	10～50MPa				56	210
43HB-U44	$R\frac{1}{2} \times R\frac{1}{2}$						

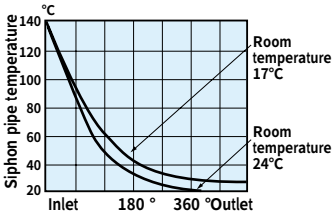


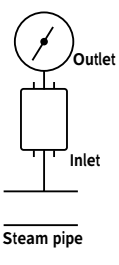
* Tank siphon is primarily used to replace a pressure liquid to be measured with other. Prior to installation, pour liquid through the top of the tank siphon until the tank is filled and the liquid begins to flow out of the bottom hole. Next, install the tank siphon on a steam line, the mount the pressure gauge.

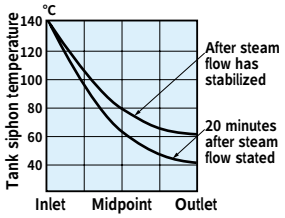
Cooling Performance

How high cooling performance a siphon pipe can provide depends on its diameter, wall thickness, length, room temperature and humidity. Shown above is one example of cooling performance provided by a siphon pipe in measuring steam pressures.







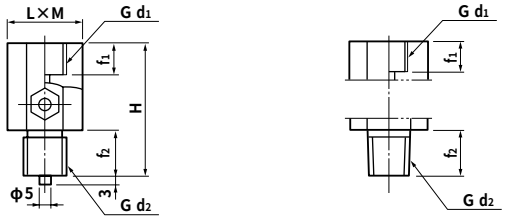


The cooling performance of a tank siphon is lower than that of a siphon pipe. Shown above is one example of how high cooling performance a tank siphon can provide.

DAMPENERS

Specifications
Materials: Brass,
Stainless steel

Pressure Limit	Model		$d_1 \times d_2$	f_1	f_2	H	L×M
	BS	SUS					
BS 35MPa SUS20MPa	21D-B22	21D-U22	G¼×G¼	14	16	50	27×31.2
	23D-B22	23D-U22	G¼×R¼				
	21D-B33	21D-U33	G⅜×G⅜	16	18	56	27×31.2
	23D-B33	23D-U33	G⅜×R⅜				
	21D-B44	21D-U44	G½×G½	18	20	59	27×31.2
	23D-B44	23D-U44	G½×R½				
SUS70 ~150MPa	—	21DH-U44	G½×G½	18	20	60	32×37
	—	23DH-U44	G½×R½				

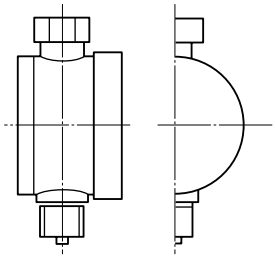


GAUGE SAVERS

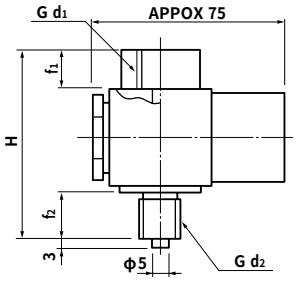
Specifications
Materials: Brass,
Stainless steel

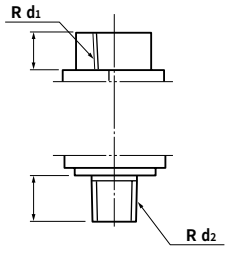
Type	Model	$d_1 \times d_2$	Range	f_1	f_2	H
	SUS					SUS
GRL	21GRL-U33	G⅜×G⅜	0.3~5MPa	16	18	82
	43GRL-U33	R⅜×R⅜				
	21GRL-U44	G½×G½		18	20	86
	43GRL-U44	R½×R½				
GRH	21GRH-U33	G⅜×G⅜	5.1~30MPa	16	18	82
	43GRH-U33	R⅜×R⅜				
	21GRH-U44	G½×G½		18	20	86
	43GRH-U44	R½×R½				
GB	21GB-U33	G⅜×G⅜	5kPa~ 0.25MPa	16	18	121
	43GB-U33	R⅜×R⅜				
	21GB-U44	G½×G½		18	20	123
	43GB-U44	R½×R½				

GRL. GRH



GB

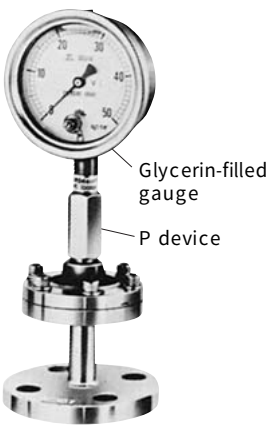




GRL. GRH

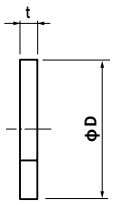
The Gauge Saver shuts off an excess pressure above the specific scale range to protect the gauge against damage due to overload.

P DEVICE

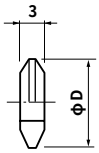


The combined use of a glycerin-filled gauge and a P device provides highly stable gauge performance against pulsation and mechanical vibration.
The combined use of a diaphragm-seal gauge and a P device is also available.

GASKETS

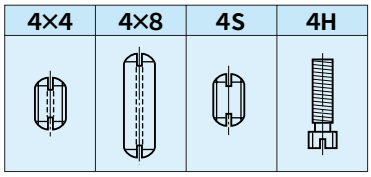


Model	Connection Screw	D	t	Materials
FL 2	G1/4	11	2.5	Leather
3	G3/8	14		
4	G1/2	18		
FB 2	G1/4	11	2	Copper
3	G3/8	14		
4	G1/2	18		
FC 2	G1/4	11.5	1.5	Asbestos
3	G3/8	14.5		
4	G1/2	18.5		
FT 2	G1/4	11	2	Teflon
3	G3/8	14		
4	G1/2	18		
FA 2	G1/4	11	2	Aluminum
3	G3/8	14		
4	G1/2	18		

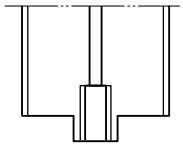


Model	Connection Screw	D	Materials
LA 2	G1/4	11	Stainless Steel
3	G3/8	14.6	
4	G1/2	18	

THROTTLE

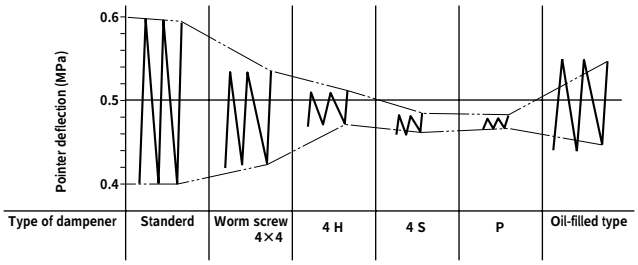


Should the gauge leak gas being measured from the element, the device automatically functions to prevent it from leaking out of the gauge.



Pulsation Test Data
(Dampener Performance Date)

Test method:
Install a standard dampener and a gauge in parallel. Then plot the minimum and maximum readings.
Pulsation amplitude: 0.4~0.6MPa
Frequency: 4 times/second
Operating oil: machine oil
(viscosity 0.36)
Room temperature: 18℃



NOTE) Specifications in this cata-log are subject to change without notice.