

SG Series Gauge Isolators



SERIES: SG

INLET CONNECTION: 1/4" or 1/2" Threaded¹

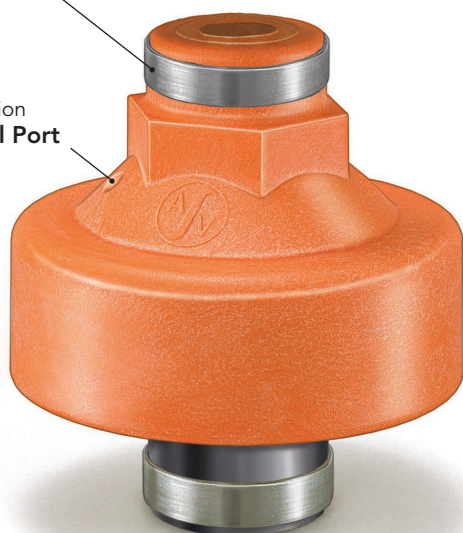
INSTRUMENT CONNECTION: 1/4" or 1/2" Threaded

DIAPHRAGM: PTFE



Stainless Steel Bands Prevent FNPT ports from splitting

Provision for **Fill Port**



Chemline **SG Series Gauge Isolators** allow inexpensive pressure gauges, or any other pressure instrument to be used in corrosive services. The upper chamber (gauge side) is filled with a stable fluid such as glycol or glycerine². A diaphragm separates it from the lower chamber which receives the media under pressure.

The 1/2" gauge connection allows use of the popular 4" and 4-1/2" diameter gauges. Pressure switches or transmitters may also be installed. Customers can easily fill isolators and install their own gauges.

Features

Easy to Mount Gauges

- It is easy to fill an isolator and field mount a gauge. No special equipment is required.
- Will accept popular 4" and 4-1/2" diameter gauges

Provision for Fill Port

- Housing may be drilled and tapped by customer for a threaded fill port. This is used for filling isolator using a vacuum filling station

High Chemical Resistance

- Choice of body materials for a wide range of applications
- PTFE bonded EPDM dished diaphragm for high chemical resistance and sensitivity

Heavy Duty Design for Safety

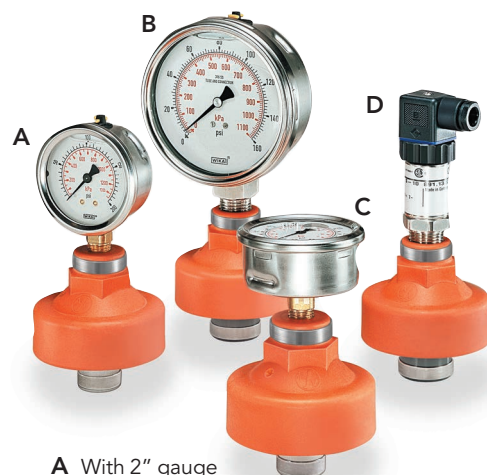
- PPG³ top chamber
- Heavy wall connection ports

Optional Gauges

- Isolators are available alone or with gauge mounted and prefilled with glycol²

NSF Approval⁴

- PVC isolators are certified to NSF/ANSI Standard 61 for contact with drinking water



A With 2" gauge

B With 4-1/2" gauge

C With 2" back mount gauge

D With pressure transmitter

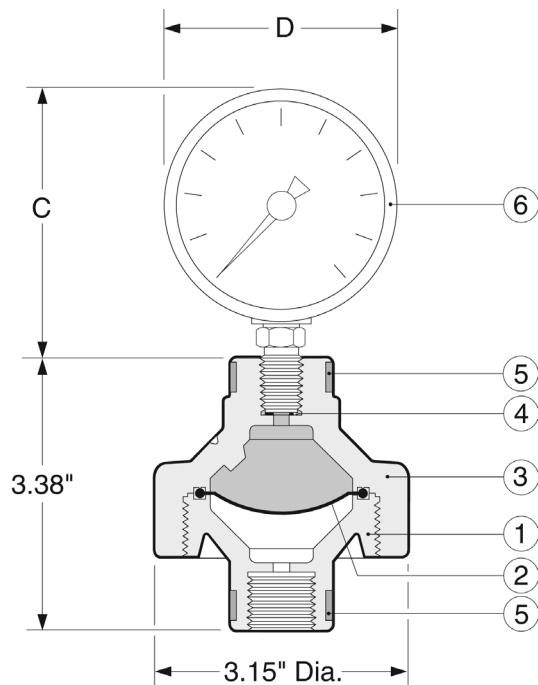
¹ Other available inlet connections are 1/2" socket or 1/2" to 1" flanged

² Other fluids are available for special applications such as chlorine service.

³ Glass reinforced polypropylene

⁴ PVC isolators are certified under NSF/ANSI Standard 61 for contact with drinking water

SG Series Gauge Isolators



PARTS

No.	Part	Pcs.	Materials
1	Body	1	PVC, PP, PVDF
2	Diaphragm	1	PTFE
3	Bonnet	1	PPG ¹
4	Gasket ²	1	EPDM
5	Stainless Steel Bands	2	304 SS
6	Optional Gauge	1	See below

¹ PPG = Glass reinforced polypropylene

² On request (for BSP threaded configurations)

OPTIONAL GAUGES

- Chemline offers the gauges listed below mounted to isolator and prefilled with glycol, glycerine or special fluid for chlorine applications. These gauges have dials and cases filled with either glycerine (standard), glycol or silicone for corrosion resistance and dampening.
- Chemline SG gauge isolators are not recommended for vacuum applications. They will not affect the gauge accuracy as low as approximately 3 psi. The accuracy depends on the process conditions and the gauge installed on it.

OTHER OPTIONS

- Flanged inlet connections

DIMENSIONS (Gauge Isolator with optional gauge installed) INCHES

Optional Gauge Ordering No.	Gauge Diameter	Gauge Connection	Housing	Bourdon Tube	Window	Accuracy	Dimensions	
							C	D(max.)
P025-xx	2-1/2"	1/4"	304 SS	Brass	Polycarbonate	±1.5% of span	3.1	2.5
P025-xx-SS	2-1/2"	1/4"	304 SS	316 SS	Polycarbonate	±1.5% of span	3.1	2.5
P025-xx-SS/BM	2-1/2" Back Mount	1/4"	304 SS	316 SS	Polycarbonate	±1.5% of span	1.6	2.5
P025-xx-BM	2-1/2" Back Mount	1/4"	304 SS	Brass	Polycarbonate	±1.5% of span	1.6	2.5
P040-xx-SS	4"	1/2"	304 SS	316 SS	Safety Glass	±1% of span	4.5	4.0
P045-xx-SS	4-1/2"	1/2"	PBTP Plastic ²	316 SS	Acrylic	±0.5% of span	6.3	5.8

xx denotes the maximum gauge pressure i.e., 30, 60, 100, 160 or 200 psi. See data page for recommended working pressures.

² PBTP = glass filled polyester.

WORKING PRESSURES PSI

Material	10 – 20°C 50 – 68°F	30°C 86°F	40°C 104°F	50°C 122°F	60°C 140°F	70°C 158°F	80°C 176°F	90°C 194°F	100°C 212°F	120°C 248°F	Net Weights Pounds ³
PVC	150	100	80	45	15	–	–	–	–	–	1.0
PP	150	125	100	80	65	45	–	–	–	–	0.7
PVDF	150	150	150	125	105	85	70	60	45	30	1.3

Temperature Ranges: PVC 0 to 60°C (32 to 140°F), PP 10 to 80°C (50 to 176°F), PVDF –30 to 120°C (–22 to 248°F).

NR = Not Recommended. ³ Weights are for unfilled 1/2" x 1/2" isolators without gauges. 1/2" x 1/4" isolators are 20% lighter.

WEIGHTS

ORDERING EXAMPLE

Chemline Gauge Isolators	SG	A	005-	002	P	G
Body Material	A – PVC B – PP K – PVDF					
Inlet Size	002 – 1/4" 005 – 1/2"(Standard)					
Instrument Connection	002 – 1/4" 005 – 1/2"					
Diaphragm	P – PTFE bonded EPDM					
Filling & Mounting	G –Add only if isolator is supplied filled with glycol and gauge or pressure instrument is mounted by Chemline. Separate gauge item numbers are listed above.					

Example: Chemline SG Series Gauge Isolator, PVC, 1/2" x 1/4" FNPT inlet x instrument connections, PTFE diaphragm, with glycol and gauge.

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