

G SERIES

High Purity Brass Diaphragm Valves



PRODUCT APPLICATIONS

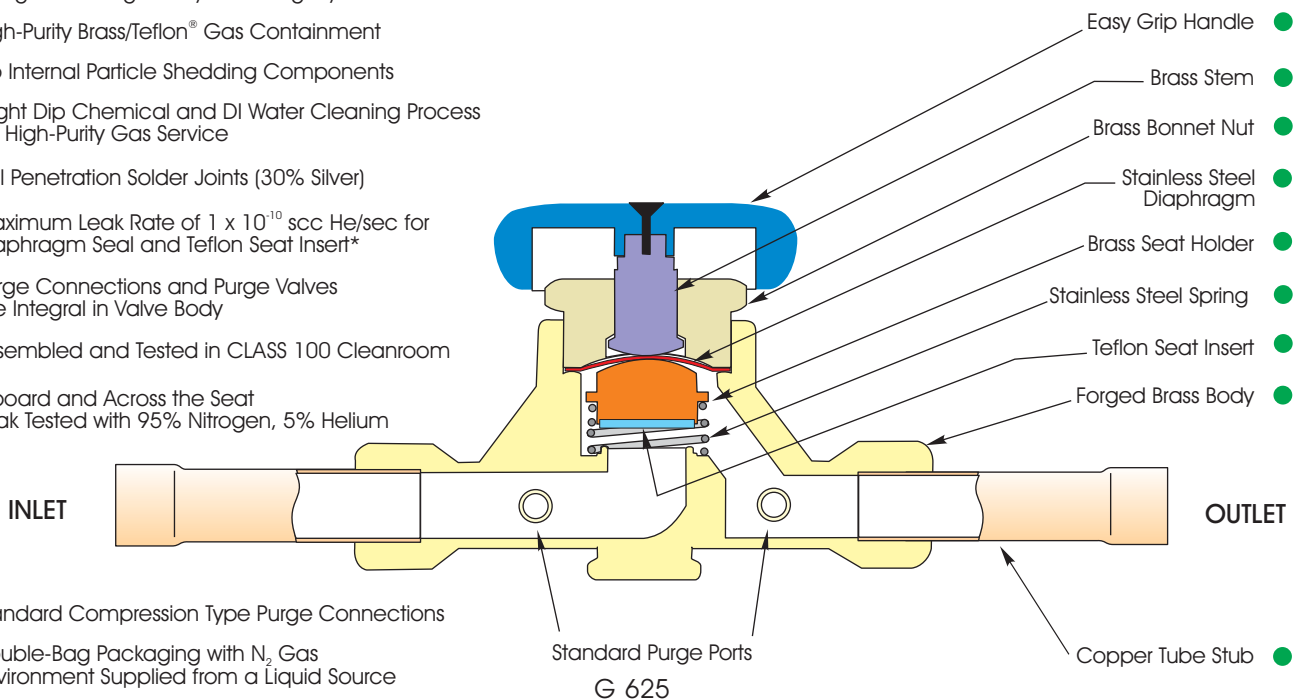
This G (diaphragm design) brass valve series is intended for bulk gas distribution service where containment, cleanliness and purity are of utmost importance. Applications for this valve include:

- High-purity gas distribution system control valves
- High-purity gas valves for point-of-use service
- Superior containment and cleanliness for your most critical valve applications
- Clean dry air and inert gas applications

PRODUCT FEATURES

- ▶ Designed for High Purity and Long Cycle Life
- ▶ High-Purity Brass/Teflon® Gas Containment
- ▶ No Internal Particle Shedding Components
- ▶ Bright Dip Chemical and DI Water Cleaning Process for High-Purity Gas Service
- ▶ Full Penetration Solder Joints (30% Silver)
- ▶ Maximum Leak Rate of 1×10^{-10} scc He/sec for Diaphragm Seal and Teflon Seat Insert*
- ▶ Purge Connections and Purge Valves are Integral in Valve Body
- ▶ Assembled and Tested in CLASS 100 Cleanroom
- ▶ Inboard and Across the Seat Leak Tested with 95% Nitrogen, 5% Helium
- ▶ Standard Compression Type Purge Connections
- ▶ Double-Bag Packaging with N₂ Gas Environment Supplied from a Liquid Source

CONSTRUCTION MATERIALS



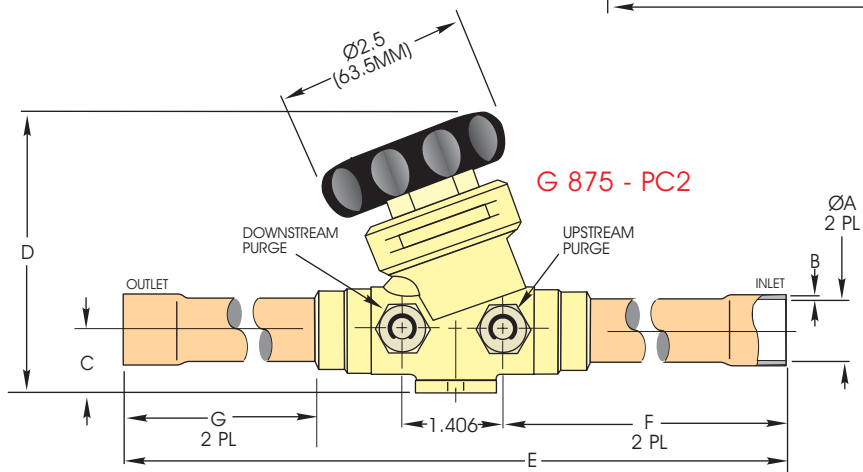
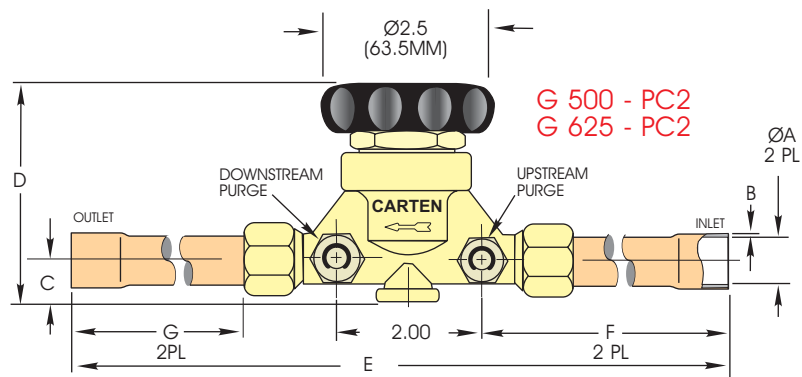
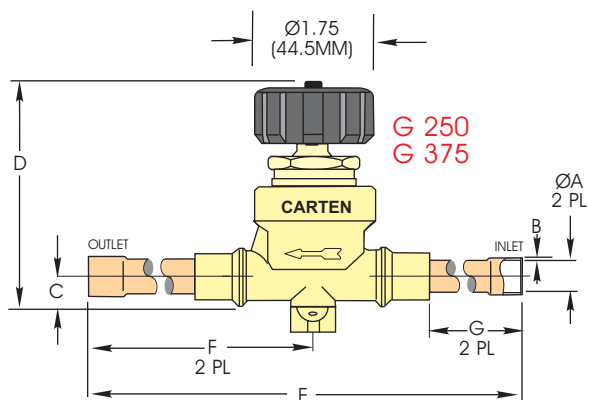
*Excluding Permeation of Teflon

G SERIES - Technical Data

CONSTRUCTION MATERIAL	Wetted Areas	Copper/Brass, Teflon, Stainless Steel, Silver Solder	HELIUM LEAK TEST	Outboard/across the seat	1x10 ⁻¹⁰ scc/s He max.	Rated
	Non-Wetted Areas	Brass			1x10 ⁻⁶ scc/s He max.	Std. Production
MAXIMUM OPERATING PRESSURE	G Series	Vacuum to 250 psi. (17 BAR)	Leak test performed with 5% helium and 95% nitrogen			
MAXIMUM OPERATING TEMPERATURE	G Series	180° F (82° C)	CLEANLINESS	Assembled and tested in CLASS 100 cleanroom Double-bag packaging (6 mil polyethylene inner and outer bag) with N ₂ gas environment supplied from a liquid source		
FLOW COEFFICIENT (C _v)	G 250	.88	OPTIONS	Stainless Ultra-Seal® type purge connection Single purge valve/connection Tube extension length or fittings Straight or swaged copper tube extensions Stainless steel tube extensions		
	G 375	.88				
	G 500	1.78				
	G 625	2.83				
	G 875	6.86				

Specifications are subject to change without notice.
Ultra-Seal is a registered trademark of the Parker Hannifin Corporation
Teflon is a registered trademark of the Dupont Company

G SERIES - Valve Dimensions



CATALOG NO.	A*	B*	C	D	E	F	G	Body Width	Approx. Weight
G 250	0.252	0.025	0.593 (15.0mm)	2.84 (72.1mm)	6.00 (52.4mm)	3.00 (76.2mm)	1.63 (41.4mm)	1.31 (33.2mm)	0.75 Lb 0.34 Kg
G 375	0.377	0.030	0.593 (15.0mm)	2.84 (72.1mm)	5.87 (49.0mm)	2.94 (74.6mm)	1.56 (39.6mm)	1.31 (33.2mm)	0.75 Lb 0.34 Kg
G 500	0.502	0.035	0.560 (14.2mm)	3.25 (82.5mm)	10.75 (273.0mm)	4.38 (111.2mm)	3.13 (79.5mm)	1.75 (44.4mm)	1.75 Lb 0.79 Kg
G 625	0.627	0.040	0.560 (14.2mm)	3.25 (82.5mm)	10.75 (273.0mm)	4.38 (111.2mm)	3.13 (79.5mm)	1.75 (44.4mm)	1.75 Lb 0.79 Kg
G 875	0.877	0.045	0.812 (20.5mm)	4.06 (103.1mm)	10.81 (274.5mm)	4.70 (119.3mm)	3.50 (88.9mm)	2.05 (52.0mm)	2.0 Lb 0.9 Kg

* Metric tube sizes and wall thicknesses are available upon request

NOTE 1: All tolerances are ± 0.06 in. unless otherwise stated.

NOTE 2: Dimensional drawings shown are for reference only. Please contact the manufacturer for customer drawings showing updated dimensions.

REV 99-1

CARTEN CONTROLS INC.