

DUPLEX SERIES Ultra-High Purity Duplex Diaphragm Valves



PRODUCT APPLICATIONS

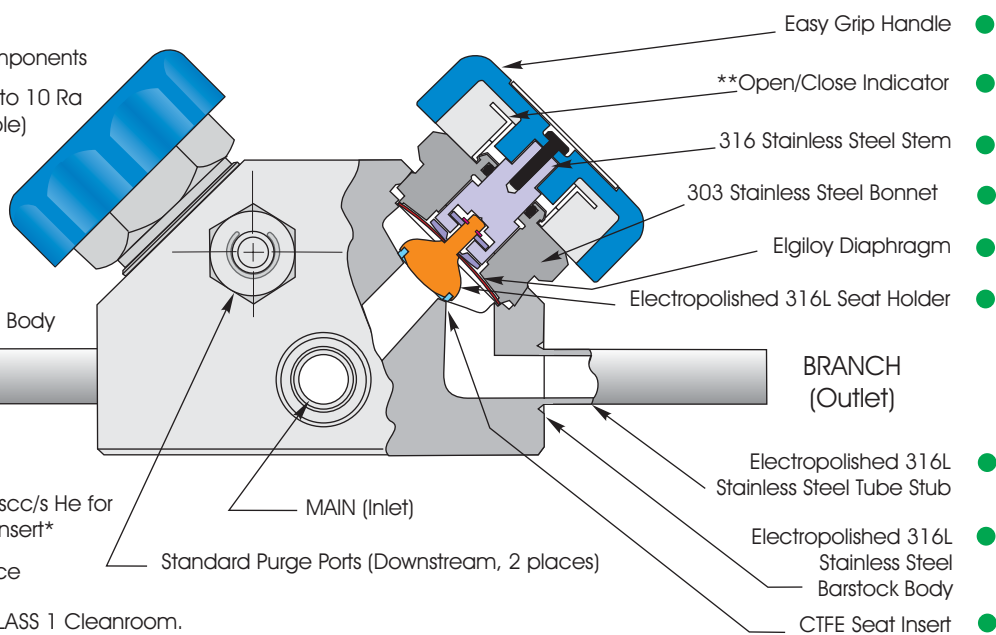
This compact Duplex (diaphragm design) valve series is intended for bulk gas distribution service where containment, cleanliness and purity are of utmost importance. Applications for this valve include:

- Ultra-high purity gas system control valves
- Ultra-high purity gas control for point-of-use or service for hookups
- Superior containment and cleanliness for your most critical valve applications
- Suitable for inert and most toxic gases

PRODUCT FEATURES

- ▶ Diaphragm Design for Ultra-High Purity and Long Cycle Life
- ▶ Ultra-High Purity Stainless/CTFE Gas Containment
- ▶ Eligoy Tied-Diaphragm for Maximum Flow and High Life Cycle
- ▶ Springless, Packless Design
- ▶ No Internal Particle Shedding Components
- ▶ Electropolished Wetted Surfaces to 10 Ra (Optional surface finishes available)
- ▶ Assembled and Tested in CLASS 10 Cleanroom
- ▶ Valve Bodies and Tube Stubs are Serialized for Material Certification
- ▶ Purge Connections are Integral in Body
- ▶ Inboard and Across the Seat Leak Tested with 100% Helium
- ▶ Maximum Leak Rate of 1×10^{-10} scc/s He for Diaphragm Seal and CTFE Seat Insert*
- ▶ Cleaned for High-Purity Gas Service
- ▶ Purged and Final Packaged in CLASS 1 Cleanroom. Double-Bag Packaging with N₂ Gas Environment Supplied from Liquid Source

CONSTRUCTION MATERIALS



DPC 750 / 500

*Excluding Permeation of CTFE

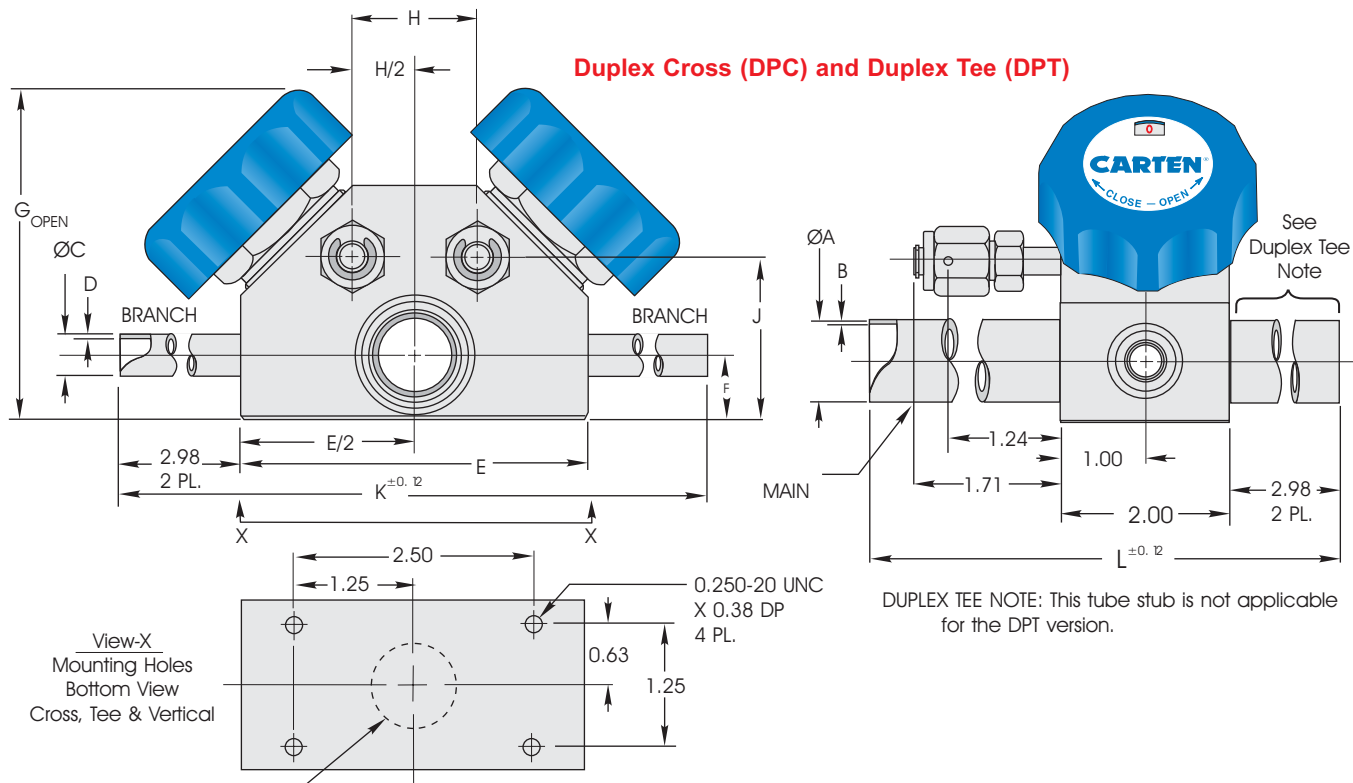
DUPLEX SERIES - Technical Data

CONSTRUCTION MATERIAL	Wetted Areas	Eligoy, 316L Stainless Steel, CTFE	HELIUM LEAK TEST	Inboard/across the seat	1x10 ⁻¹⁰ scc/s He max.	Rated
	Non-Wetted Areas	316L Stainless Steel, 303 Stainless Steel			1x10 ⁻⁹ scc/s He max.	Std. Production
MAXIMUM OPERATING PRESSURE	DPC / DPV /DPT Series	Vacuum to 375 psi (25 BAR)	Helium leak test performed with 100% helium			
MAXIMUM OPERATING TEMPERATURE	DPC / DPV /DPT Series	180° F (82°C)	CLEANLINESS	Assembled and tested in CLASS 10 cleanroom. Purged and final packaged in Class 1 cleanroom. Double-bag packaging (2 mil nylon inner bag, 6 mil polyethylene outer bag) with N ₂ gas environment supplied from a liquid source		
FLOW COEFFICIENT (C _v)	DPC Series	2.96	STANDARD FINISH	Electropolished to 10 Ra (0.25 μm) on all wetted surfaces		
	DPV / DPT Series	3.10	OPTIONS	Surface finish - 5 Ra, 20 Ra Particle, moisture, THC and O ₂ testing SEM and ESCA testing, Auger analysis Fitting type and location Material: VAR; VIM / VAR, Vespel® seat Handle color (Std. white) JIS tube stubs and tube length		

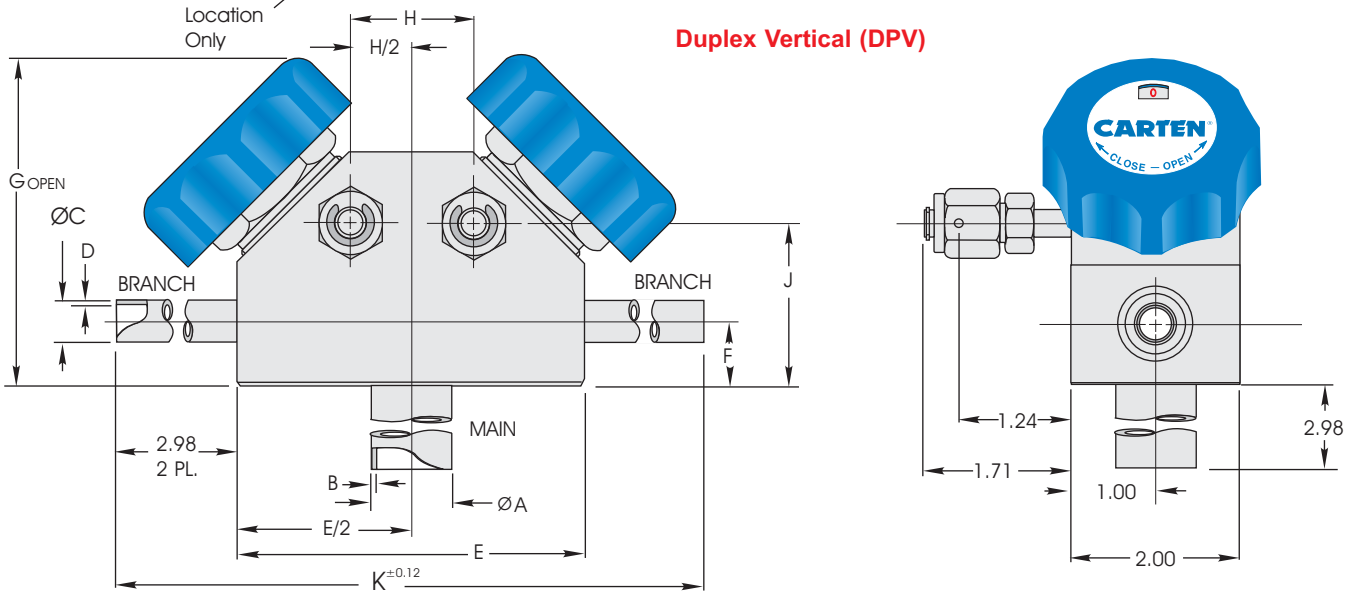
Specifications are subject to change without notice
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**The open/close indicator provides open/close status at the fully open or closed positions. It is not intended to act as a metering or proportioning system.

Valve Dimensions - Duplex Cross (DPC), Duplex Vertical (DPV) Valves, and Duplex Tee (DPT) Valves



DUPLEX TEE NOTE: This tube stub is not applicable for the DPT version.



Note: Additional main and branch tube sizes are available on request.

Catalog No.		A*	B*	C*	D*	E	F	G	H	J	K	L	Approx. Weight
DPC	750/500	0.750	0.065	0.500	0.049	4.16 (105.6mm)	0.75 (19.1mm)	3.80 (96.5mm)	1.50 (38.1mm)	1.92 (48.8mm)	10.12 (257.0mm)	7.96 (202.2mm)	6.3 Lb (2.85 Kg)
DPV	750/750	0.750	0.065	0.750	0.065	4.16 (105.6mm)	0.75 (19.1mm)	3.80 (96.5mm)	1.50 (38.1mm)	1.92 (48.8mm)	10.12 (257.0mm)	7.96 (202.2mm)	6.3 Lb (2.85 Kg)
DPC	1000/500	1.000	0.065	0.500	0.049	4.16 (105.6mm)	0.75 (19.1mm)	3.80 (96.5mm)	1.50 (38.1mm)	1.92 (48.8mm)	10.12 (257.0mm)	7.96 (202.2mm)	6.3 Lb (2.85 Kg)
DPV	1000/750	1.000	0.065	0.750	0.065	4.16 (105.6mm)	0.75 (19.1mm)	3.80 (96.5mm)	1.50 (38.1mm)	1.92 (48.8mm)	10.12 (257.0mm)	7.96 (202.2mm)	6.3 Lb (2.85 Kg)
DPC	1500/500	1.500	0.065	0.500	0.049	4.86 (118.4mm)	1.25 (31.7mm)	4.40 (111.8mm)	2.00 (50.8mm)	2.67 (67.8mm)	10.58 (268.7mm)	8.46 (214.9mm)	10.2 Lb (4.62 Kg)
DPV	1500/750	1.500	0.065	0.750	0.065	4.86 (118.4mm)	1.25 (31.7mm)	4.40 (111.8mm)	2.00 (50.8mm)	2.67 (67.8mm)	10.58 (268.7mm)	8.46 (214.9mm)	10.2 Lb (4.62 Kg)
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*Metric tube sizes and wall thicknesses are available on 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.