

UNIPLX SERIES Ultra-High Purity Uniplex Diaphragm Valves



PRODUCT APPLICATIONS

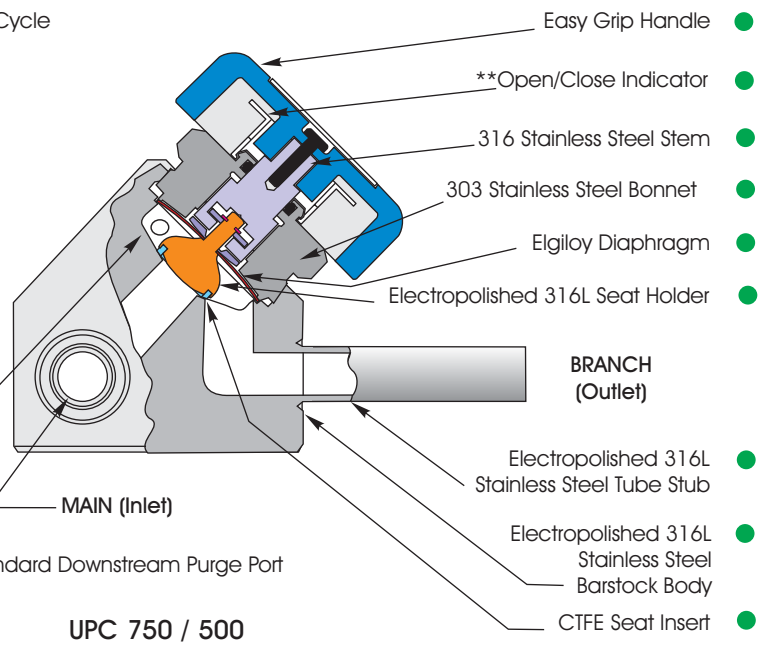
This compact Uniplex (diaphragm design) valve series is intended for bulk gas distribution service where containment, cleanliness and purity are of utmost importance. Applications for this valve include:

- 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
- ▶ Egiloy Tied-Diaphragm for Maximum Flow and High Life Cycle
- ▶ Springless, Packless Design
- ▶ No Internal Particle Shedding Components
- ▶ Electropolished Wetted Surfaces to 10 Ra Max (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
- ▶ Available with Air-actuator
- ▶ 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 a Liquid Source

CONSTRUCTION MATERIALS



*Excluding Permeation of CTFE

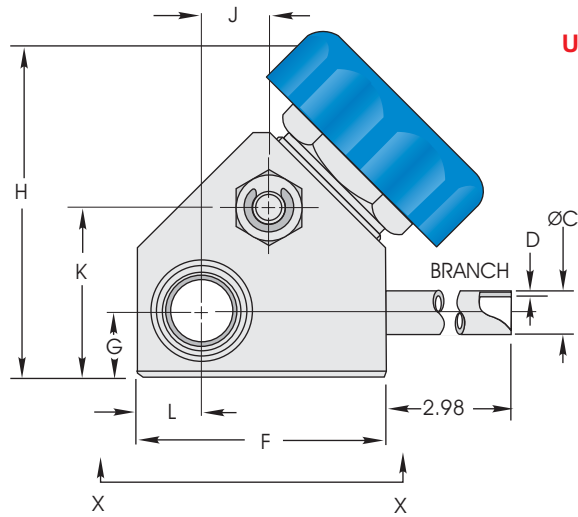
UNIPLX SERIES - Technical Data

CONSTRUCTION MATERIAL	Wetted Areas	Egiloy, 316L Stainless Steel, CTFE	HELIUM LEAK TEST	Inboard/across the seat	1×10^{-10} scc/s He max.	Rated
	Non-Wetted Areas	316L Stainless Steel, 303 Stainless Steel			1×10^{-9} scc/s He max.	Std. Production
MAXIMUM OPERATING PRESSURE	UPC /UPV Series	Vacuum to 375 psi (25 BAR)	Helium leak test performed with 100% helium			
MAXIMUM OPERATING TEMPERATURE	UPC/UPV 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)	UPC Series	2.96	STANDARD FINISH	Electropolished to 10 Ra (0.25 μm) on all wetted surfaces		
	UPV 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 Air-actuated versions		

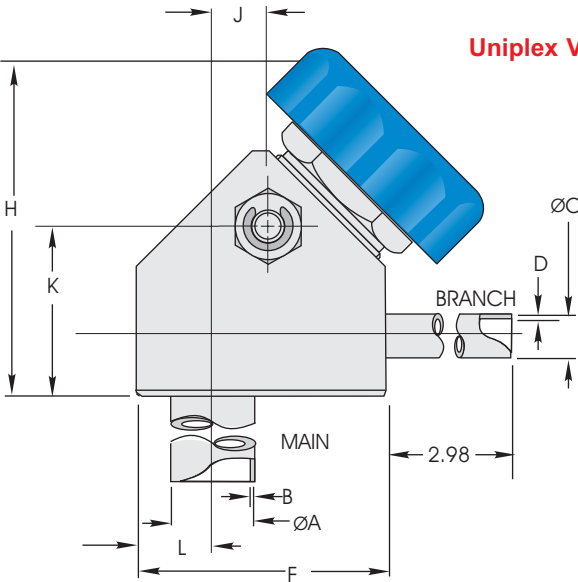
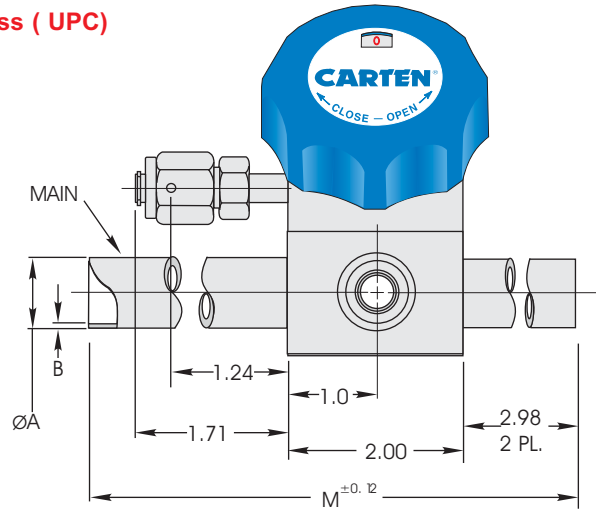
Specifications are subject to change without notice
Vespel is a registered trademark of the DuPont Company

**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.

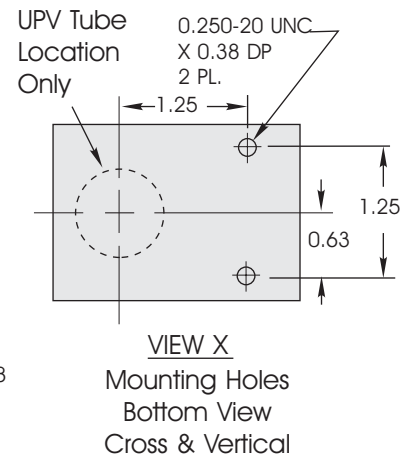
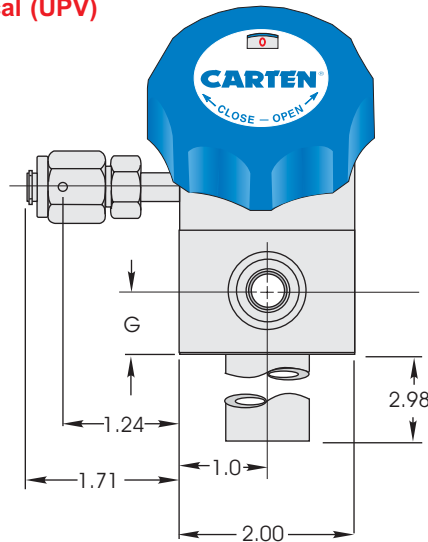
Valve Dimensions - Uniplex Cross (UPC) and Uniplex Vertical (UPV) Valves



Uniplex Cross (UPC)



Uniplex Vertical (UPV)



Catalog No.	A*	B*	C*	D*	F	G	H	J	K	L	M	Approx. Weight
UPC	750/500	0.750	0.065	0.500	2.83	0.75	3.81	0.75	1.92	0.75	7.96	4.2 Lb
UPV												(1.90 Kg)
UPC	750/750	0.750	0.065	0.750	2.83	0.75	3.81	0.75	1.92	0.75	7.96	4.2 Lb
UPV												(1.90 Kg)
UPC	1000/500	1.000	0.065	0.500	2.83	0.75	3.81	0.75	1.92	0.75	7.96	4.2 Lb
UPV												(1.90 Kg)
UPC	1000/750	1.000	0.065	0.750	2.83	0.75	3.81	0.75	1.92	0.75	7.96	4.2 Lb
UPV												(1.90 Kg)
UPC	1500/500	1.500	0.065	0.500	3.56	1.25	4.60	1.00	2.67	1.25	8.46	7.6 Lb
UPV												(3.44 Kg)
UPC	1500/750	1.500	0.065	0.750	3.56	1.25	4.60	1.00	2.67	1.25	8.46	7.6 Lb
UPV												(3.44 Kg)
UPC	2000/500	2.000	0.065	0.500	3.56	1.25	4.60	1.00	2.67	1.25	8.46	7.6 Lb
UPV												(3.44 Kg)
UPC	2000/750	2.000	0.065	0.750	3.56	1.25	4.60	1.00	2.67	1.25	8.46	7.6 Lb
UPV												(3.44 Kg)

*Metric tube sizes and wall thicknesses are available on request.

NOTE 1: Additional main and branch tube sizes are available on request.

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

NOTE 3: All tolerances are ± 0.06 in. unless otherwise stated

REV. 99-1

CARTEN CONTROLS INC.