

Pneumatic Diaphragm Valve for High Pressure



Catalog No. U-VCDH
JAN.2013



Materials of Construction

No.	Description	Materials
1	Body	316L SS Single Melting
		316L SS Double Melting
		316L SS
2	Seat	PCTFE
3	Diaphragm	Elgiloy
4	Actuator	ALUMINUM

Specification

Size	1/4"
Orifice Size	2.5
Cv Value	0.1
Max. Working Pressure	210 bar (3045 psig)
Max. Working Temperature	-10~65°C
Actuator Pressure Rating	4 ~ 7 kgf/cm ²
Internal Leakage Allowance - He (Holding Time - Min 30 sec)	≤1x10 ⁻⁹ atm.cc/s
External Leakage Allowance - He (Holding Time - Min 1 min)	≤1x10 ⁻⁹ atm.cc/s

Internal Surface Finish Levels

Grade		BA	EP
Surface Roughness	Average	< 0.4 μm	< 0.125 μm
	Maximum	< 1.6 μm	< 0.4 μm

Helium Leak Test

Every VCDH series valves are inboard helium leak tested to a rate of 1x10⁻⁹ cm³/sec at seat and all seals.

Particle Contribution Test

According to ASTM F1394-92.

Moisture Contribution Test

According to SEMA-90120397B-STD.

Cleaning

All components are precisely cleaned with 18MΩ deionized water after the passivation procedure in accordance with our own UHP cleaning process (UNIP-705-38) Reference specification : SEMI E49.6.

Assembling

According to SEMI E49.6.

Packaging

Each component is double bagged to ensure component cleanliness and to protect them from environmental contamination.

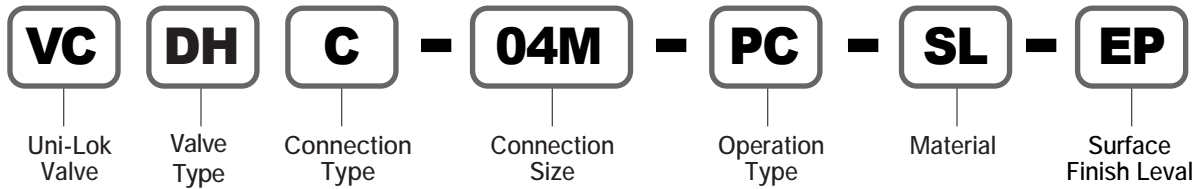
Referenced specification : SEMI E49.1.

Important Notification

Proper installation, materials compatibility, operation and maintenance of these valves are the responsibility of the user. The total system design must be taken into consideration to ensure optimal performance and safety.

Overall process of testing, cleaning, assembling and packaging for every VCDH series valves are performed in a certified clean room.

How To Order



Valve Type	
DH	Pneumatic Diaphragm Valve for High Pressure

Connection Type	
C-*M	Male UCR
C-*F	Female UCR
WS-*T	Butt Weld-Tube

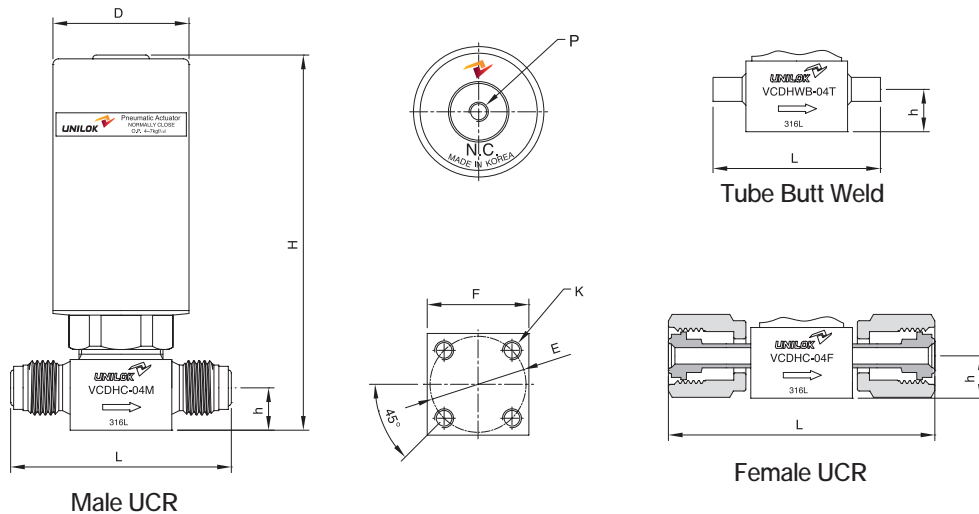
Connection Size		
Fractional(Inch) Tube O.D. Designation		
Tube O.D.	inch	1/4
	mm	6.35
Designator		04T
UCR (Metal Face Seal) Size Designator		
UCR Size		1/4
Designator		04M / 04F

Operation Type	
PC	Pneumatic-Normal Close

Materials	
DM	316L SS-Double Melting
SM	316L SS-Single Melting
SL	316L SS

Surface Finish Level	
BA	Bright Annealing
EP	Electro Polishing

Ordering Information & Dimensions



Part No.	End Connections		Dimensions (mm)							
	Inlet	Outlet	L	h	H	D	P	F	E	K
VCDH	C-04M-	Male UCR	58.4	11.2	99.2	36	M5	26.9	25.4	M5
	C-04F-	Female UCR	70.5							
	WB-04T-	Tube Butt Weld	44.3							

Dimensions are for reference only and are subject to change without prior notice.



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