HAM-LET METAL SEAT

- ✓ Suitable for hazardous gases
- ✓ Up to 250 °C
- ✓ Air operated and Manual valves

3LD - STANDARD METAL SEAT MODEL

3LS - HIGH PRESSURE METAL SEAT

3LD

STANDARD METAL SEAT MODEL

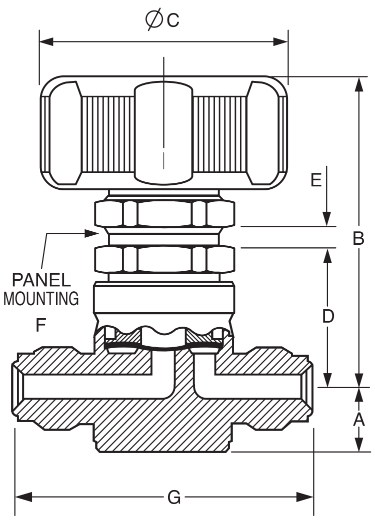
METAL DIAPHRAGM VALVES

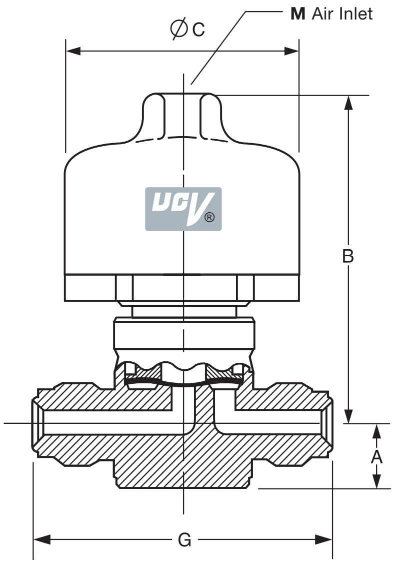
Standard models from the Ultra-Clean Valve Series, made according to UHP specifications.
The metal seat of these diaphragm-operated valves allows the valves to withstand high temperatures while being corrosion-resistant. Available in connection joint sizes of 1/4", 3/8" and 1/2", as a standard.

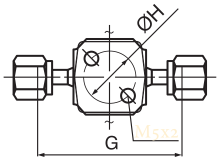
- High-speed replacement of media in a gas or liquid state
- Extensive records of proven performance on corrosive gases (such as HCl and F2)
- Design can be customized to meet specific needs
- Electropolished surfaces

STANDARD CONFIGURATION DIMENSIONS

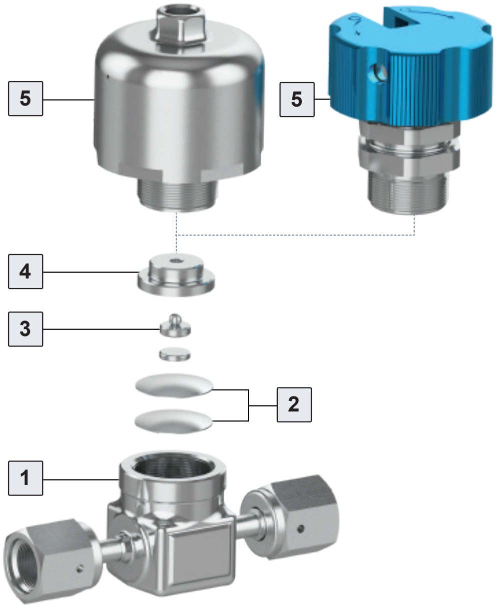
Part Number/ep	Size	End Connection	A	B	C	D	E	F	G	H	K
	inch		mm	mm	mm	mm	mm	mm	mm	mm	mm
3LDS4R-BV	1/4	Male HTC®	11	63	45	29	4	23	58	25	-
3LDS4C-W	1/4	Extended butt weld	11	89	34	-	-	-	89	25	1/8"
3LDS4C-BW	1/4	Short butt weld	11	89	34	-	-	-	44.4	25	1/8"
3LDS6R-W	3/8	Extended butt weld	17.5	67.5	45	32.5	4	23	105	28	-
3LDS8C-FV	1/2	Swivel female HTC	17.5	92.5	40	-	-	-	100	28	1/8"
3LDS8C-W	1/2	Extended Butt Weld	17.5	92.5	40	-	-	-	105	28	1/8"







2-Way Flow Pattern



SPECIFICATIONS

Size	Design Pressure	Burst Pressure	Proof Pressure	Temp.	Cv	Leak Rates	
						Inboard	Across Seat
1/4"	1MPa (150 psi)	31MPa (4500 psi)	1.5MPa (225 psi)	-10 to150ºc	0.3	$3X10^{-12}$ pa•m³/sec Helium	$2X10^{-8}$ pa•m³/sec Helium
3/8"					0.7		
1/2"					0.7		

MATERIALS OF CONSTRUCTION

Item No.	Parts	Material
1	Body	SST, 316L Var or Vim/Var[1]
2	Diaphragm	Co-Cr-Ni alloy
3	Act. button	304 SST
4	Act. button holder	SST, ASTM 630 H900
5	Actuation device	Aluminum

[1] Per SEMI F20-0305

3LS SERIES

HIGH PRESSURE METAL SEAT

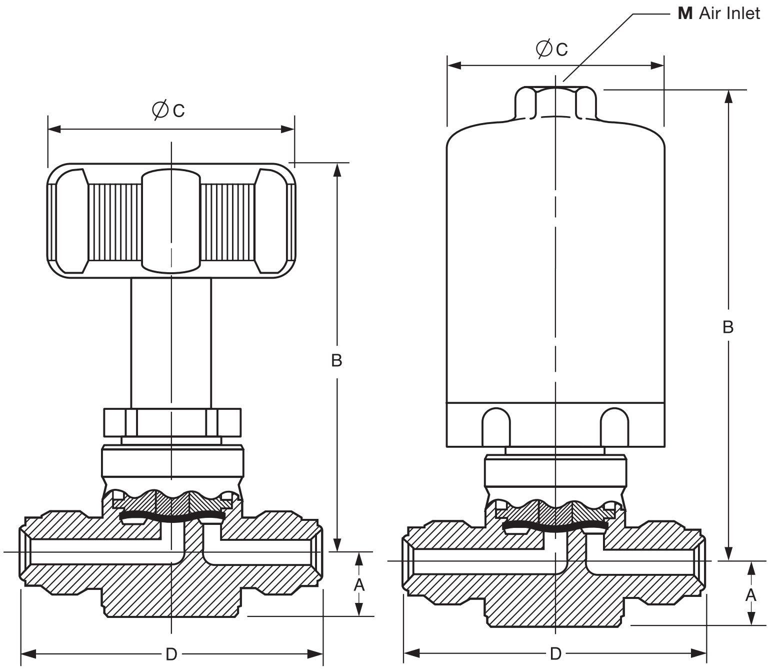
METAL DIAPHRAGM VALVES

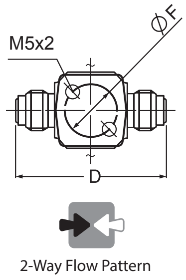
The highest-ranking grade of high-pressure-high-flow models from the Ultra-Clean Valve Series are made according to UHP specifications. They are the ultimate metallic diaphragm-operated valves with resins completely removed from their gas-contact areas. With their compact designs, these valves comfortably fit into high-pressure high-flow applications.

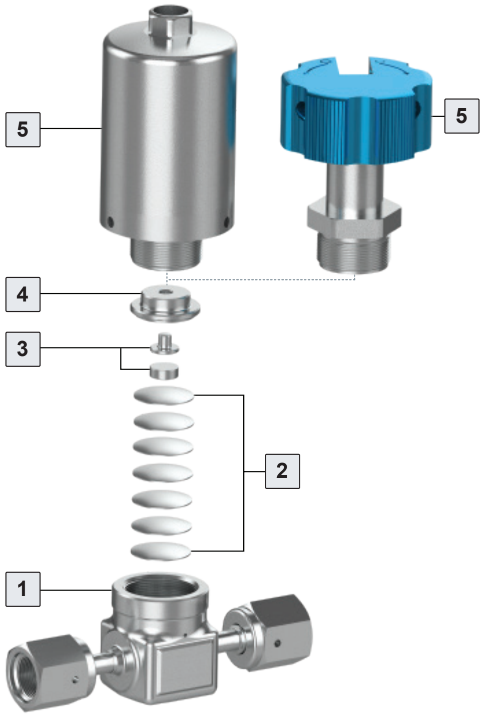
- Can be used as shut-off valves for high-pressure fluids at up to 21 MPa/3060 psi
- Compact design for minimum footprint
- Extensive records of proven performance on corrosive gases (such as HCl and F2)
- Electropolished surfaces

STANDARD CONFIGURATION DIMENSIONS

Part Number/EP	Size	End Connection	A	B	C	D	F	G	H
	inch		mm	mm	mm	mm	mm	mm	inch
3LSS4R-W	1/4	Extended butt weld	11	71	45	89	25	M5	-
3LSS4R-BW	1/4	Butt weld	11	71	45	44.4	25	M5	-
3LSS4C-FV	1/4	Swivel female HTC	11	89	40	70.6	25	M5	1/8
3LSS4C-BV	1/4	Swivel female HTC	11	89	40	58	25	M5	1/8







SPECIFICATIONS

Size	Design Pressure	Burst Pressure	Proof Pressure	Temp.	Cv	Leak Rates	
						Inboard	Across Seat
1/4"	21MPa / (3060 psi)	83MPa (12000 psi)	31MPa (4500 psi)	-10 to 150°c	0.25	3 X 10^{-12} Pa m^3/sec Helium	7 X 10^{-10} Pa m^3/sec Helium
1/2"					0.27		

MATERIALS OF CONSTRUCTION

Item No.	Parts	Material
1	Body	SST, 316L Var or Vim/Var[1]
2	Diaphragm	Co-Cr-Ni alloy
3	Act. botton set	304 SST
4	Act. botton holder	SST, ASTM 630 H900
5	Actuation device	Aluminum

For more information, please contact one of our field representatives.

[1] Per SEMI F20-0305

ORDERING INFORMATION - METAL SEAT

VALVE DESCRIPTION EXAMPLE:

3LD S 4 C - BV - LD

Valve Series	
3LD	Standard metal seat
3LS	High pressure metal seat

Valve Type	
S	2-Port valve (straight)

Body Size	
4	1/4"
6	3/8"[1]
8	1/2"

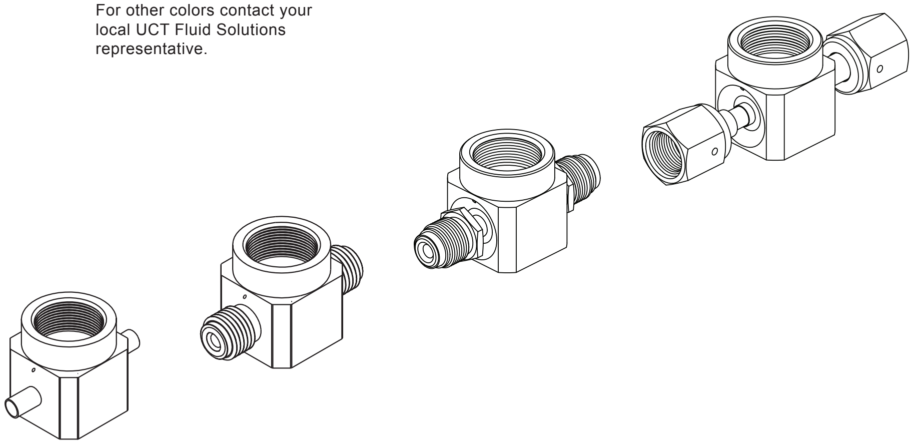
Actuation Device	
C	Air operated N.C
O	Air operated N.O
R	Round handle
Q	Oval handle 1/4" turn

For other colors contact your local UCT Fluid Solutions representative.

End Connection	
BV	Male face seal[1]
MV	Swivel male face seal[1]
FV	Swivel female face seal[1]
W	Extended butt weld
BW	Short butt weld
BI	LET-LOK®

Feature	
LD	Lock device
SD	Safe device

For your convenience, port conversion for forged valves to current HM series:
A = 30 | **B** = 35 | **C** = 34 | **D** = 31 | **E** = 32 | **F** = 33



- Standad seat: PCTFE.

Warning! For your safety

The system designer and user have the sole responsibility for selecting products suitable for their special application requirements, ensuring their safe and trouble-free installation, operation, and maintenance. Application details, material compatibility and product ratings should all be considered for each selected product. Improper selection, installation or use of products can cause property damage or personal injury.

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[1] For 1/2", 1/4" End connections only


UCV®