



HAM-LET METAL SEAT



- 3LE** - COMPACT MODEL METAL SEAT
- 3LD** - STANDARD METAL SEAT MODEL
- 3LT** - HIGH TEMPERATURE METAL SEAT



3LE SERIES COMPACT METAL SEAT MODEL

METAL DIAPHRAGM VALVES

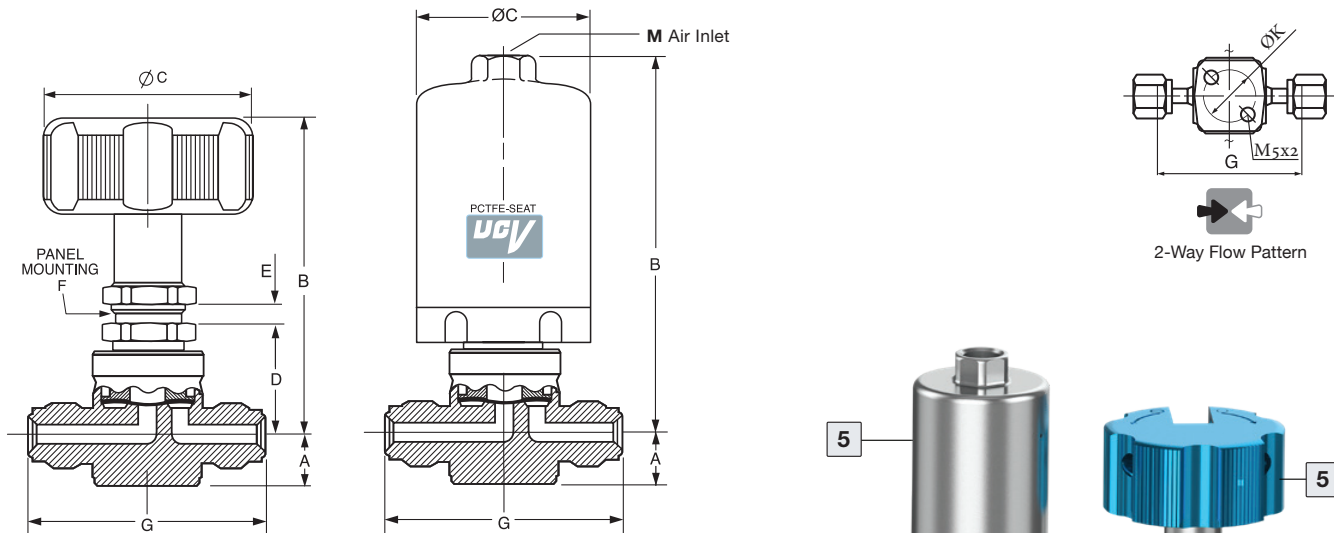
The highest-ranking grade of compact models from the Ultra-Clean Valve Series, made according to UHP specifications. The metal seat of these diaphragm-operated valves allows the valves to withstand high temperatures while being corrosion-resistant.

- Compact design for minimum footprint
- High-speed replacement of fluids in a gas or liquid state
- Electropolished surfaces



STANDARD CONFIGURATION DIMENSIONS

Part Number/ep	Size	End Connection	A	B	C	D	E	F	G	K	M
	inch		mm	mm	mm	mm	mm	mm	mm	mm	mm
3LES2R-BV-U	1/8"	Male HTC®	8	51	30	23	4	15	41	15	-
3LES4R-W-U	1/4"	Extended Butt Weld	11	52	30	24.5	4	17	47	17	-
3LES4C-BW-U	1/4"	Short Butt Weld	11	86.2	32	24.5	4	17	44.4	17	1/8"
3LES4C-FV-U	1/4"	Swivel Female HTC	11	86.2	32	-	-	-	66	17	1/8"



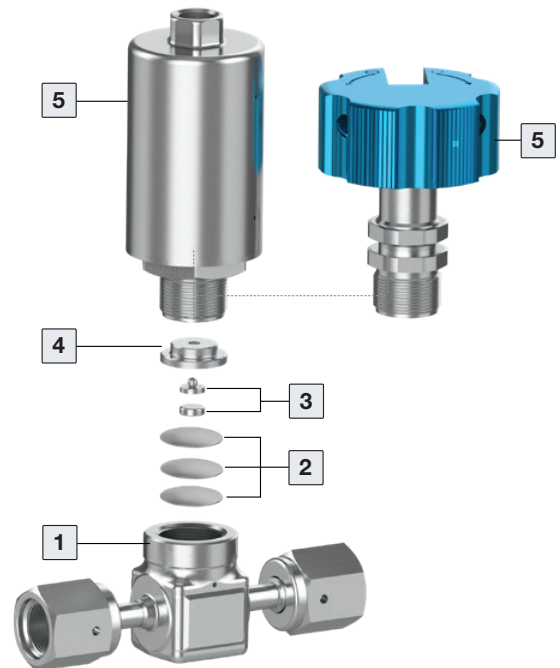
SPECIFICATIONS

Size	Design Pressure	Burst Pressure	Proof Pressure	Temp.	Cv	Leak Rates	
						Inboard	Across Seat
1/8"	1MPa (150 psi)	31MPa (4500 psi)	1.5MPa (225 psi)	-10 to 150°C	0.05	3X10 ⁻¹² pa•m³/sec Helium	1X10 ⁻⁹ pa•m³/sec Helium
1/4"					0.1		

STRUCTURE

Item No.	Parts	Material
1	Body	Stainless steel, 316L Var or Vim/Var ⁽¹⁾
2	Diaphragm	Co-Cr-Ni Alloy
3	Act. Button Set	304 Stainless Steel
4	Act. Button Holder	Stainless Steel, ASTM 630 H900
5	Actuation Device	Aluminum

⁽¹⁾ Per SEMI F20-0305



3LD STANDARD METAL SEAT MODEL

METAL DIAPHRAGM VALVES

Standard models from the Ultra-Clean Valve Series, made according to UHP specifications.

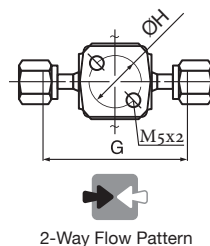
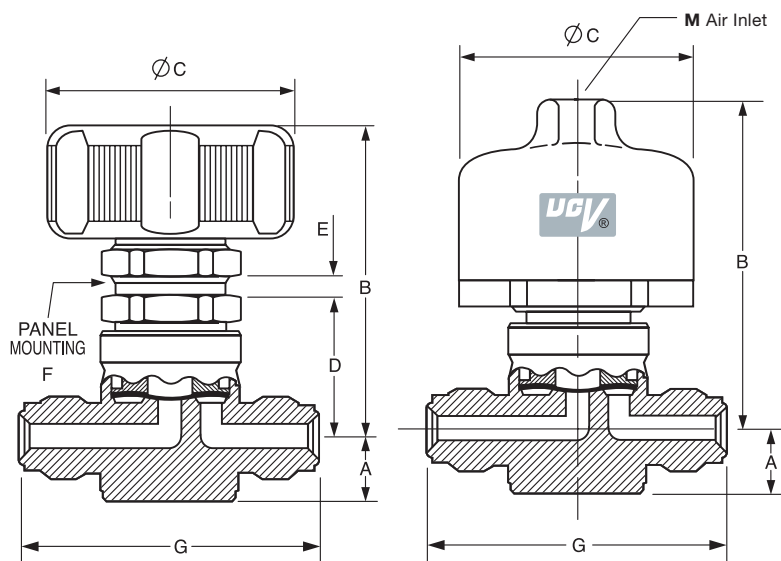
The metal seat of these diaphragm-operated valves allows the valves to withstand high temperatures while being corrosion-resistant. Available in connection joint sizes of 1/4", 3/8" and 1/2", as a standard.

- 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"



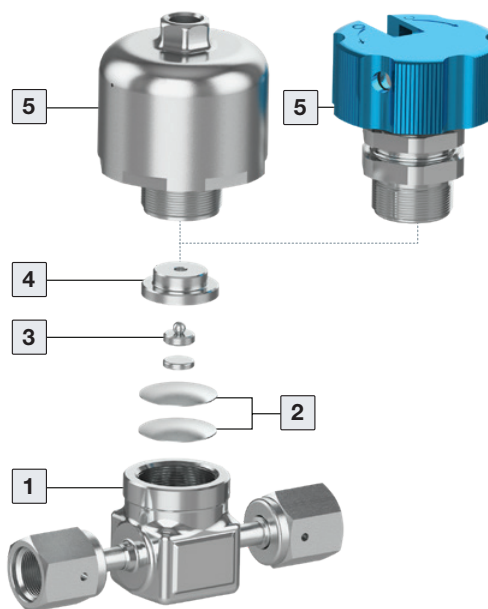
SPECIFICATIONS

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 to 150°C	0.3	3X10 ⁻¹² pa•m³/sec Helium	2X10 ⁻⁸ pa•m³/sec Helium
3/8"					0.7		
1/2"					0.7		

STRUCTURE

Item No.	Parts	Material
1	Body	Stainless steel, 316L Var or Vim/Var ⁽¹⁾
2	Diaphragm	Co-Cr-Ni Alloy
3	Act. Button	304 Stainless Steel
4	Act. Button Holder	Stainless Steel, ASTM 630 H900
5	Actuation Device	Aluminum

⁽¹⁾ Per SEMI F20-0305



3LT SERIES HIGH-TEMPERATURE METAL SEAT

METAL DIAPHRAGM VALVES

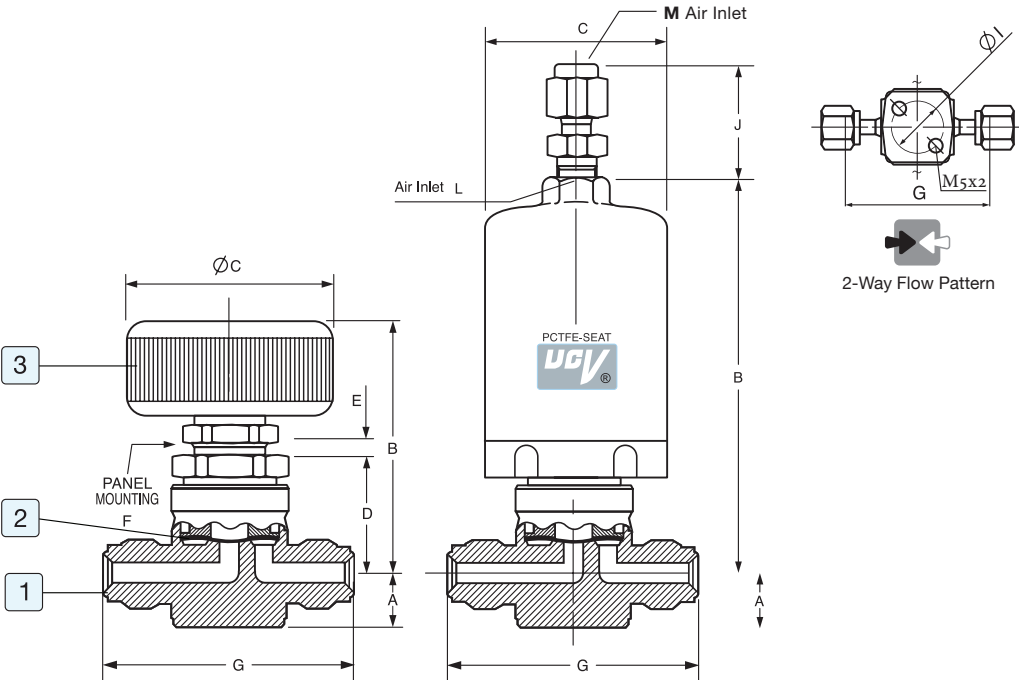
The highest-ranking grade of high-temperature models from the Ultra-Clean Valve Series, made according to UHP specifications. The metal seat of these diaphragm-operated valves allows the valves to withstand high temperatures up to 250°C.

Best suited for use as MOCVD changeover valves.



STANDARD CONFIGURATION DIMENSIONS

Part Number/ep	Size	End Connection	A	B	C	D	E	F	G	I	J	L
	inch		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm
3LTS8D-BV	1/2"	Male HTC®	17.5	67.5	45	32.5	4	23	76	28	-	-
3LTS8C-W	1/2"	Extended Butt Weld	17.5	92.3	40	-	-	-	105	28	29.2	1/8"
3LTS8C-BW	1/2"	Short Butt Weld	17.5	92.3	40	-	-	-	55	28	29.2	1/8"



SPECIFICATIONS

Size	Design Pressure	Burst Pressure	Proof Pressure	Temp.	Cv	Leak Rates	
						Inboard	Across Seat
1/2"	1MPa (150 psi)	31MPa (4500 psi)	1.5MPa (225 psi)	-10 to 250°C	0.7	3X10 ⁻¹² pa•m³/sec Helium	2X10 ⁻⁶ pa•m³/sec Helium

STRUCTURE

Item No.	Parts	Material
1	Body	316L Stainless Steel
2	Diaphragm	Co-Cr-Ni Alloy
3	Handle/Act	Aluminum

(1) Per SEMI F20-0305

ORDERING INFORMATION - METAL SEAT

Valve Description Example:

3LD

Valve Series
3LD - Standard Metal Seat
3LE - Compat Metal Seat
3LT - High Temp Metal Seat

S

Valve Type
S - 2-Port Valve (Straight)
A - 2-Port Valve (Angle)

4

Body Size
4 - 1/4"
6 - 3/8"
8 - 1/2"

C

Actuation Device
C - Air Operated N.C
O - Air Operated N.O
R - Round Handle
Q - Oval Handle 1/4 turn

BV

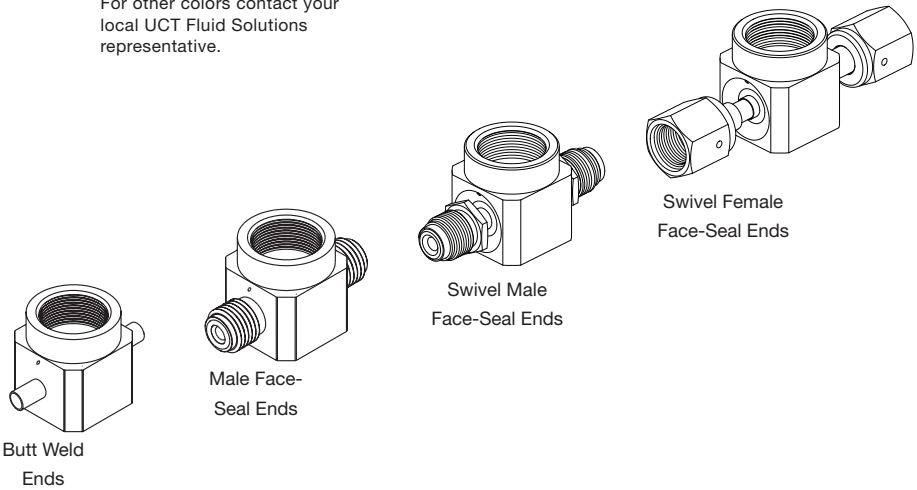
End Connection
BV - Male Face Seal*
V - Male Face Seal for EV/EVH series*
MV - Swivel Male Face Seal*
FV - Swivel Female Face Seal*
W - Extended Butt Weld
BW - Short Butt Weld
BI - LET-LOK®

LD

Feature
LD - Lock Device
SD - Safe Device

* For 1/2", 1/4" End connections only

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



■ Standard 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.

