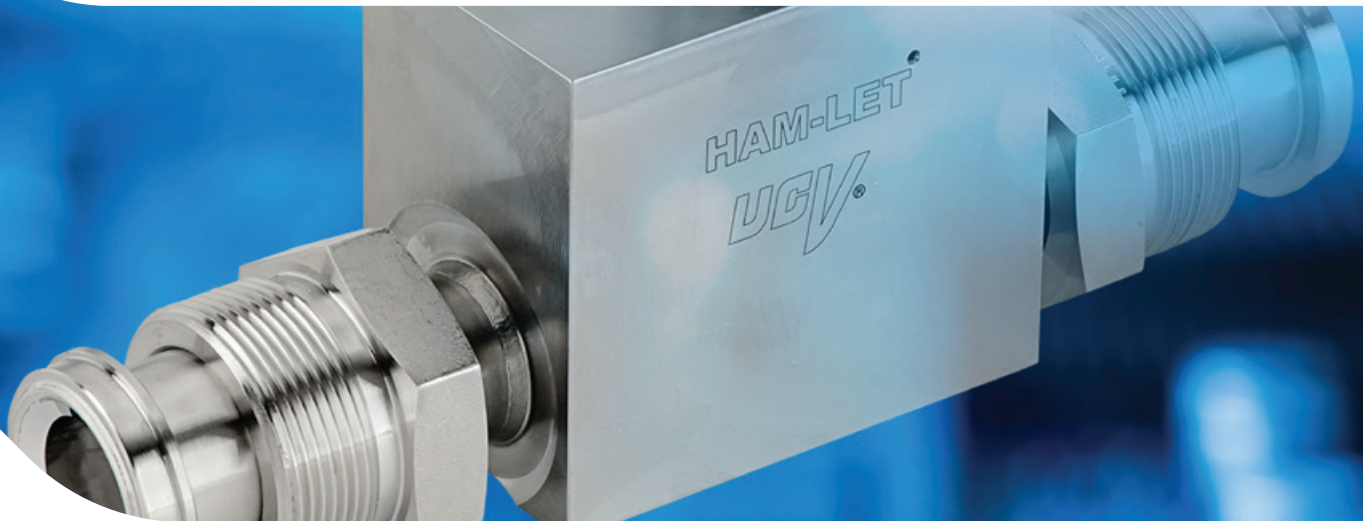


# HIGH FLOW DIAPHRAGM VALVES

**UCV**<sup>®</sup>



**2LDS12** - STANDARD MODEL

**HF** - HIGH FLOW



 **HAM-LET**  
Group<sup>®</sup>

# 2LDS12 SERIES STANDARD MODEL

## Metal Diaphragm Valves

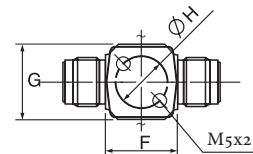
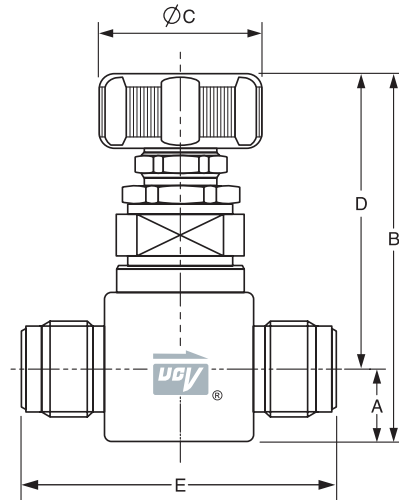
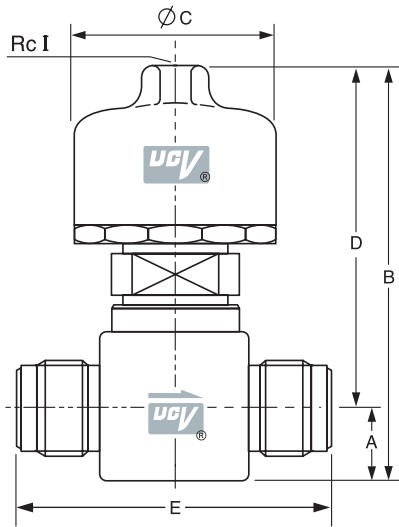
Standard models from the Ultra-Clean Valve Series are made according to UHP specifications. This model comes with end connections in 1/2" or 3/4" as a standard. This valve comfortably fits into high-flow applications.

- Unique seat structure offers superb leak performance.
- Compact designs for minimum foot-print.
- Electropolished surfaces
- Forged body

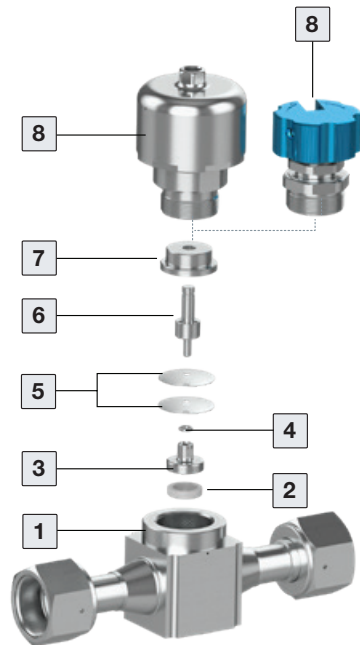


## STANDARD CONFIGURATION DIMENSIONS - mm

Part Number/ep	Size	End Connection	A	B	C	D	E	F	G	H	I
2LDS12R-BV	3/4	Male HTC®	23	109	45	86	97	46	45	35	
2LDS12R-FV	3/4	Swivel Female HTC®	23	109	45	86	146	46	45	35	
2LDS12R-W	3/4	Extended Butt Weld	23	109	45	86	146	46	45	35	
2LDS12C-BV	3/4	Male HTC®	23	118	56	95	97	46	45	35	1/8"
2LDS12C-FV	3/4	Swivel Female HTC®	23	118	56	95	146	46	45	35	1/8"
2LDS12C-W	3/4	Extended Butt Weld	23	118	56	95	146	46	45	35	1/8"



2-Way Flow Pattern



## SPECIFICATIONS

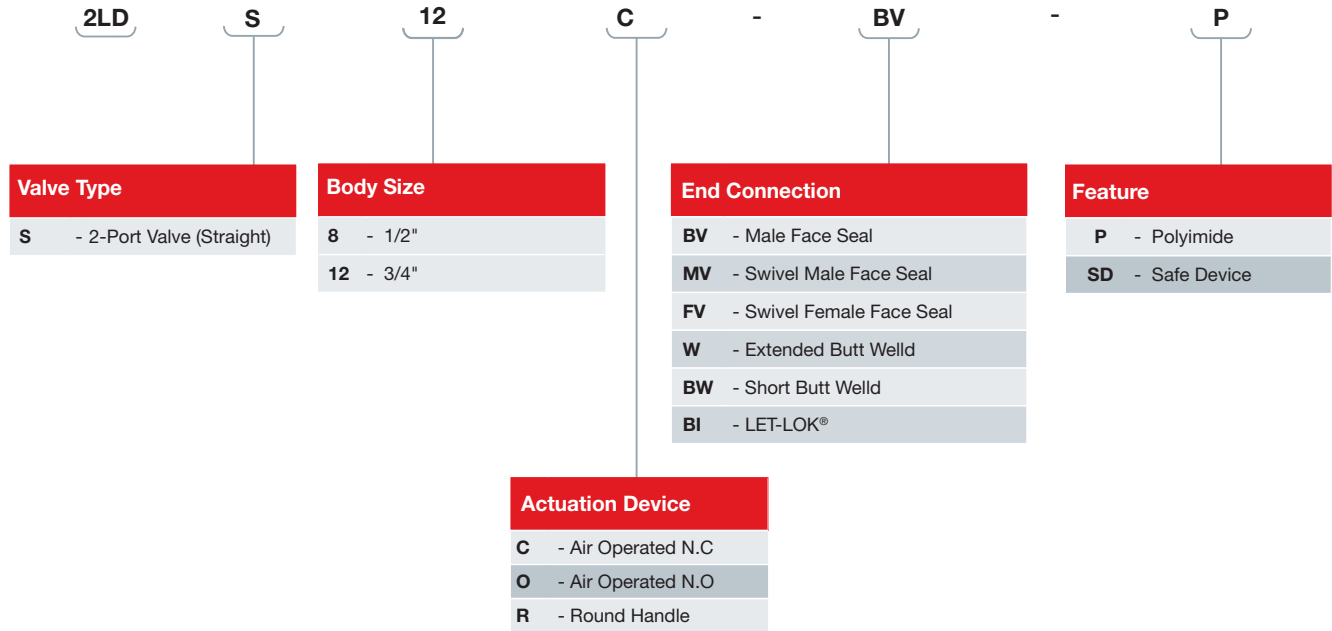
Size	Design Pressure	Burst pressure	Proof pressure	Temp.	Cv	Leak Rates	
						Inboard	Across Seat
3/4	1MPa (150 psi)	31MPa (4500 psi)	1.5MPa (225 psi)	-10 to 60°C	2.2	3X10 <sup>-12</sup> pa•m <sup>3</sup> /sec Helium	3X10 <sup>-9</sup> pa•m <sup>3</sup> /sec Helium

## STRUCTURE

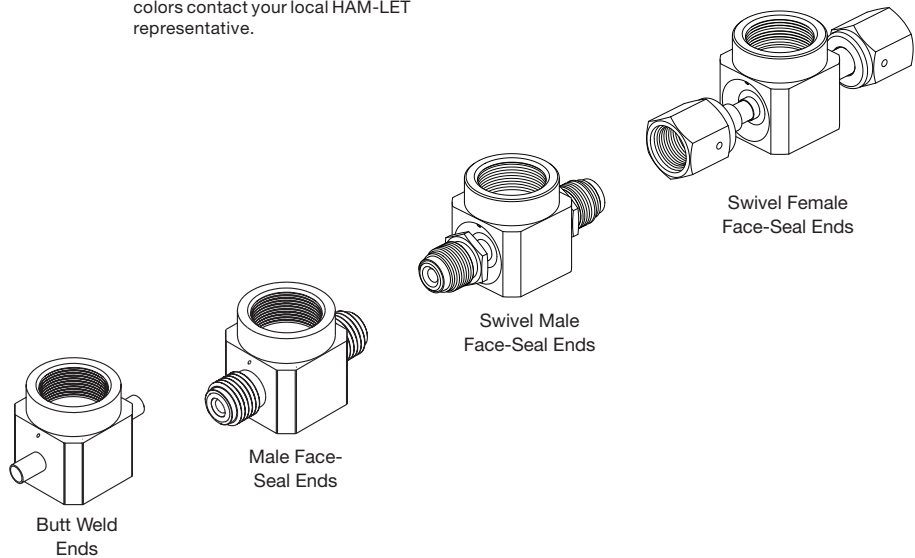
Item No.	Parts	Material
1	Body	316L Stainless Steel
2	Seat	PCTFE/PI (Polyimide)
3	Seat Holder	316L Stainless Steel
4	Gasket	316L Stainless Steel
5	Diaphragm	Co-Cr-Ni Alloy
6	Stem	SS17-4PH
7	Stem Holder	SS17-4PH
8	Handle/Act	Aluminum

# ORDERING INFORMATION - STANDARD PERFORMANCE

Valve Description Example:



Blue Handle is standard. For other colors contact your local HAM-LET representative.



■ Standard seat: PCTFE.

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

### 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.

# HF SERIES HIGH FLOW

The HF UCV series provides a high-quality solution for high flow applications. With 3/4" body size, the HF series, same as other UCV products, can be supplied with various end connections to match the end user's tubing system: compression tubing, male/female face seal, tube butt weld. In addition, the valve is available in manual and air operated (normally opened/closed) versions.



## SPECIFICATIONS

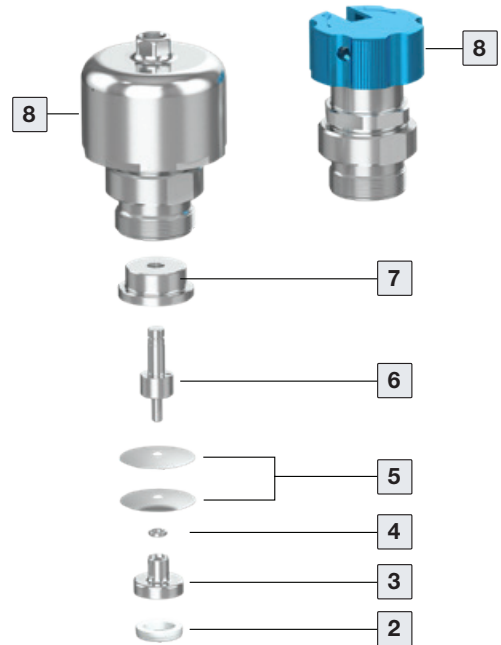
Structure	Direct-seal, metal-diaphragm valve without seal packing, manually and pneumatically operated
Design Pressure	Vacuum to 250 psi (17.2 Bar)
Burst Pressure	4500 psi (310.2 Bar)
Proof Pressure	375 psi (25.8 Bar)
Operating Temperature: Standard	14 to 140°F, -10 to 60°C (PCTFE Seat)
Operating Temperature: Available	14 to 302°F, -10 to 150°C (PFA Seat)
Leakage: Inboard Leakage	≤ 3x10 <sup>-11</sup> atm cc He/sec
Across the seat	≤ 1x10 <sup>-9</sup> atm cc He/sec
Particle	No particles detected above 0.1µm.
CV value	2.8
Surface Finish Ra (Ave)-Standard	5µin
Actuator Air Supply (Pneumatic)	5 - 6 Bar
Air Connection (Pneumatic)	Thread NPT 1/8"

Among its many industrial applications:

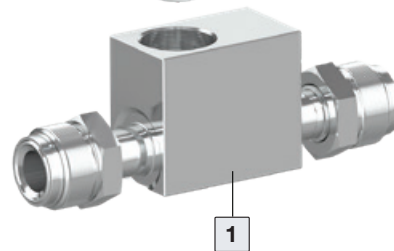
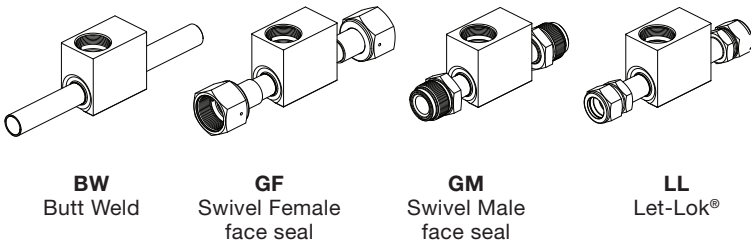
- Semiconductor.
- LCD, LED and the photovoltaic market.
- Inert and Toxic gases.
- Valve Manifold boxes and panels.
- Special gas systems in fab – Bulk Gas Distribution

## STRUCTURE

Item No.	Parts	Material
1	Body	316L Stainless Steel
2	Seat	PCTFE/PI (Polyimide)
3	Seat Holder	316L Stainless Steel
4	Gasket	316L Stainless Steel
5	Diaphragm	Co-Cr-Ni Alloy
6	Stem	SS17-4PH
7	Stem Holder	SS17-4PH
8	Handle/Act	Aluminum



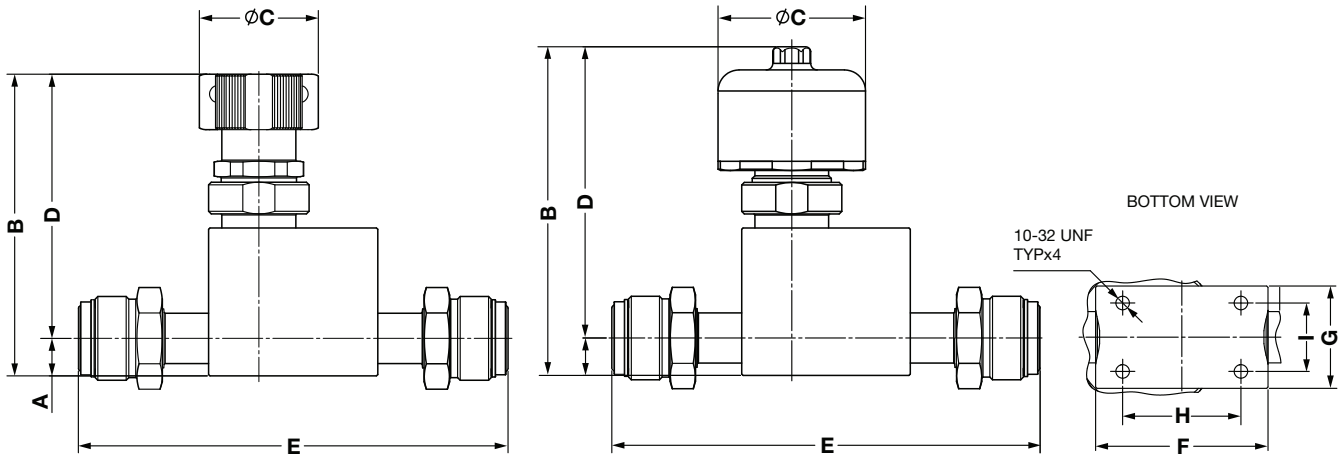
## END CONNECTION TYPE



# HIGH FLOW DIAPHRAGM VALVE HF SERIES

## CONFIGURATION DIMENSIONS

DESCRIPTION	A	B	C	D	E	F	G	H	I
HF20-12LKC-GM12	14.2	124.8	56	110.6	162.6	64	38	43.9	25.4
HF20-12LKC-W12	14.2	124.8	56	110.6	216	64	38	43.9	25.4
HF20-12LKR-GM12	14.2	114.2	45	100	162.6	64	38	43.9	25.4
HF20-12LKR-W12	14.2	114.2	45	100	216	64	38	43.9	25.4



## ORDERING INFORMATION HF SERIES

