

DV 315

Manual Regulating Chemical Liquid Valves

Common Type Precision Type



DV315 series is a manual liquid valve with flow regulation function. It has the characteristics of clean liquid inlet cavity structure and low ion precipitation, which can meet the high process application of semiconductor. And the product has the characteristics of corrosion resistance and heat resistance. Different structures can achieve ordinary regulation and multi-turn precision flow regulation, which can meet different application scenarios and cost requirements.

Easy installation and maintenance

- * All-plastic appearance structure, beautiful and corrosion-resistant
- * Miniaturized design, easy installation, no maintenance
- * UNF standard FlareLINK interface thread, higher adaptability and interchangeability
- * Mounting plate dimensions conform to SEMI standard F65-1101

High safety performance

- * Complies with FDA 177-1520 / 177-1550 dissolution testing requirements
- * Triple-sealed valve cavity diaphragm structure can effectively cut off leakage
- * The drive mechanism is molded with fluororesin, and the pressure bearing redundancy is high
- * Curved PTFE diaphragm is more ductile and has a longer life
- * High precision product with adjustable hand wheel limit locking function

Performance characteristics

- * Medium pressure 0... 5 bar
- * Temperature tolerance 5...120°C
(need to be selected according to the characteristics of different products and materials)
- * Rotary stroke ordinary type 2...5 revolutions
Precision model 18 revolutions
- * Precision multi-flow range of the same caliber is optional

Technical characteristics

Size	1/4", 3/8", 1/2"
Pressure	PN 5
Body material	PTFE PFA
Diaphragm	PTFE
Structure	PVDF / PPS / PEEK / PP-Natural
Connector	UNF : Flare LINK Insert Bushing
Floor	SEMI F65-1101

Flow capacity

Standard runner data are for 20°C water with 1 bar pressure difference

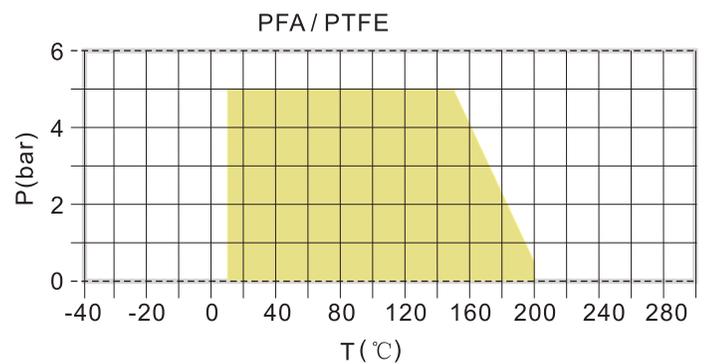
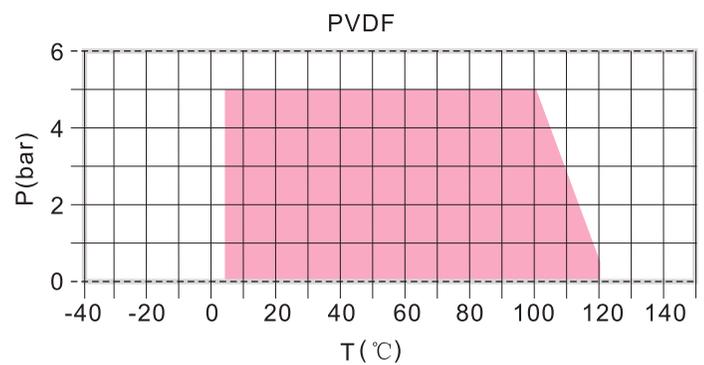
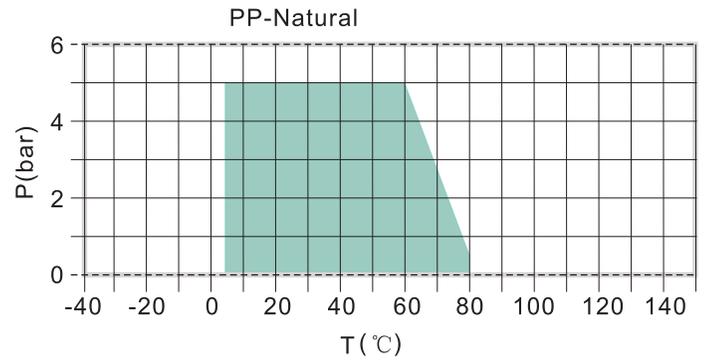
Inch	φ Mm	Kv 100 l/min	m /h ³
1/4"	4	4,70	0,28
3/8"	6	10,00	0,60
1/2"	9	22,00	1,32

$$Cv = kv \times 0,07 ; Fv = kv \times 0,0585$$

Kv (l/min) ; Cv (gal/min) US ; Fv (gal/min) GB

Pressure & temperature curve

All data based on water for considering 25 years safe life time





Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Operating temperature	°C	5... 120 (Excluding HF)
Ambient temperature	°C	0...80
Material	Valve body	PFA
	Diaphragm	PTFE
	Actuating element	PVDF
	Baseplate	PVDF
	Bolt	SS Coating

Product code

Size (Inch)	Flow	Insert Bushing	Flare LINK
		PFA-UHP	PFA-UHP
1/4	0...3000	315.3302406	315.3300406
1/4	0...1500	315.3152406	315.3150406
1/4	0...500	315.3052406	315.3050406

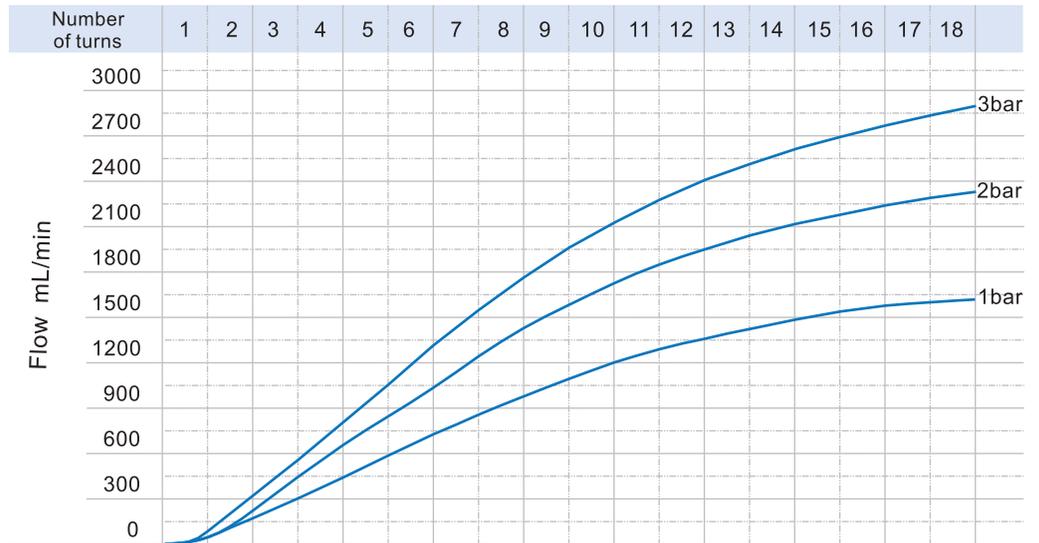
Coding directive

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Model									
Feature	3	1	5						
Precision type				3					
Flow rate									
0...3000						30			
0...1500						15			
0...500						05			
0...100						01			
Connection									
Flare LINK								04	
Insert Bushing								24	
Caliber	1/4"								
									06

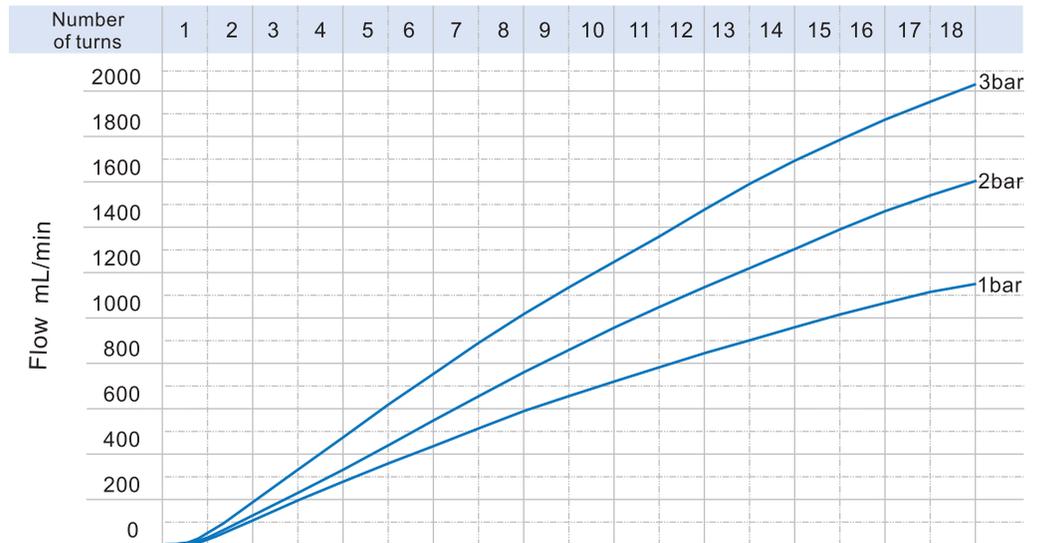
Linear graph of relative flow

The relative flow linear coefficient refers to the flow change as a function of the valve opening stroke.

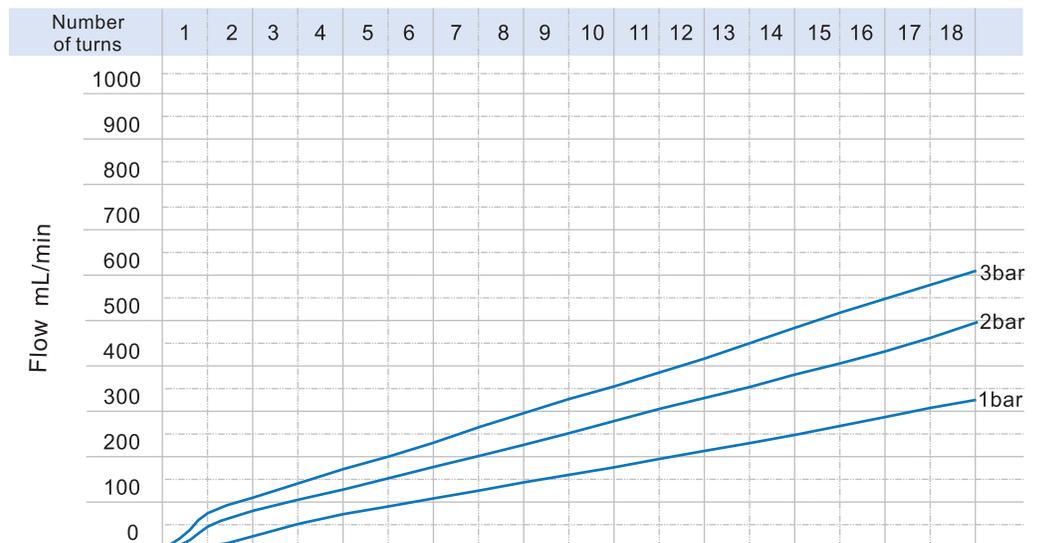
3000 Type Data
38-25-40



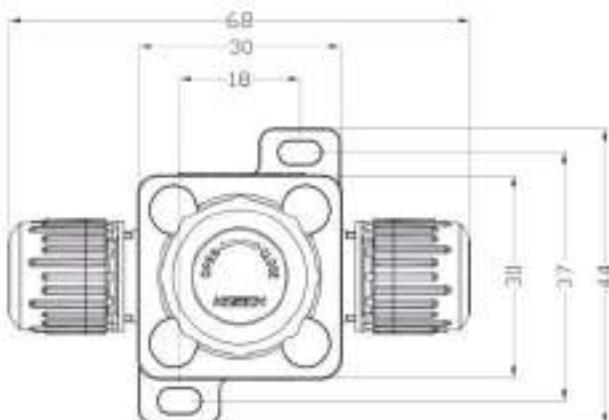
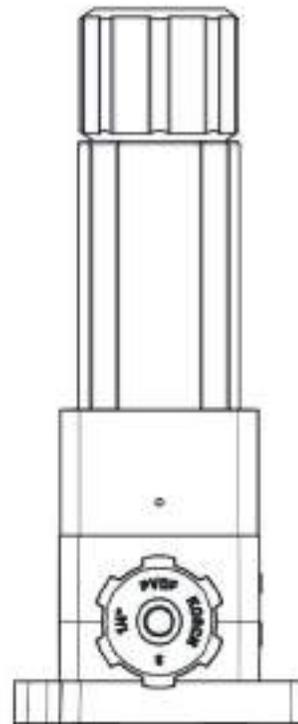
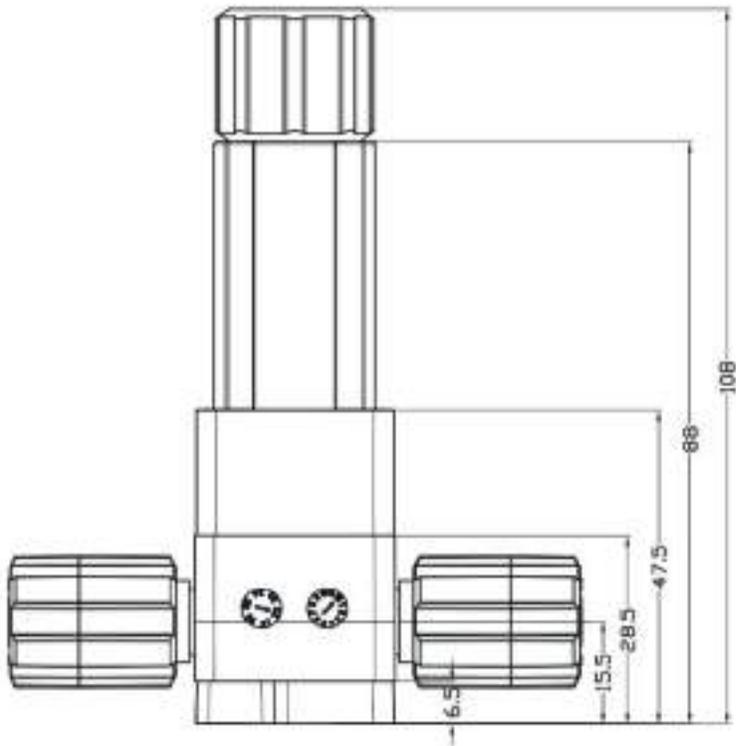
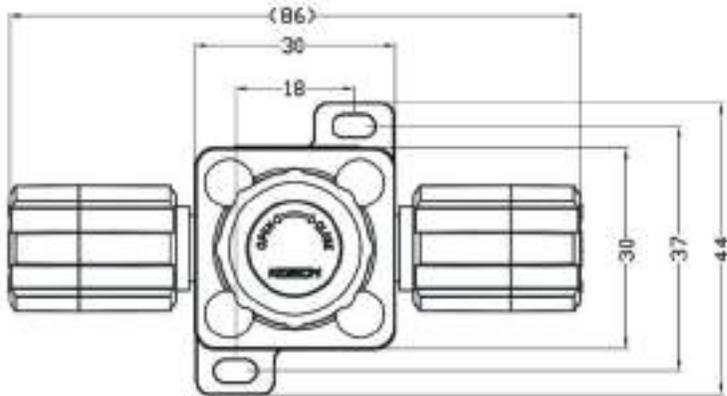
1500 Type Data
38-30-50



500 Type Data
38-35-55



1/4 Size





Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Operating temperature	°C	5...80
Ambient temperature	°C	0...60
Material	Valve body	PFA
	Diaphragm	PTFE
	Actuating element	PP-Natural
	Baseplate	PVDF
	Bolt	SS Coating

Product code

Size (Inch)	Insert Bushing		Flare LINK	
	PFA-UHP	PFA	PFA-UHP	PFA
1/4	315.763.2406	315.763.2406C	315.763.0406	315.763.0406C
3/8	315.763.2410	315.763.2410C	315.763.0410	315.763.0410C
1/2	315.763.2412	315.763.2412C	315.763.0412	315.763.0412C

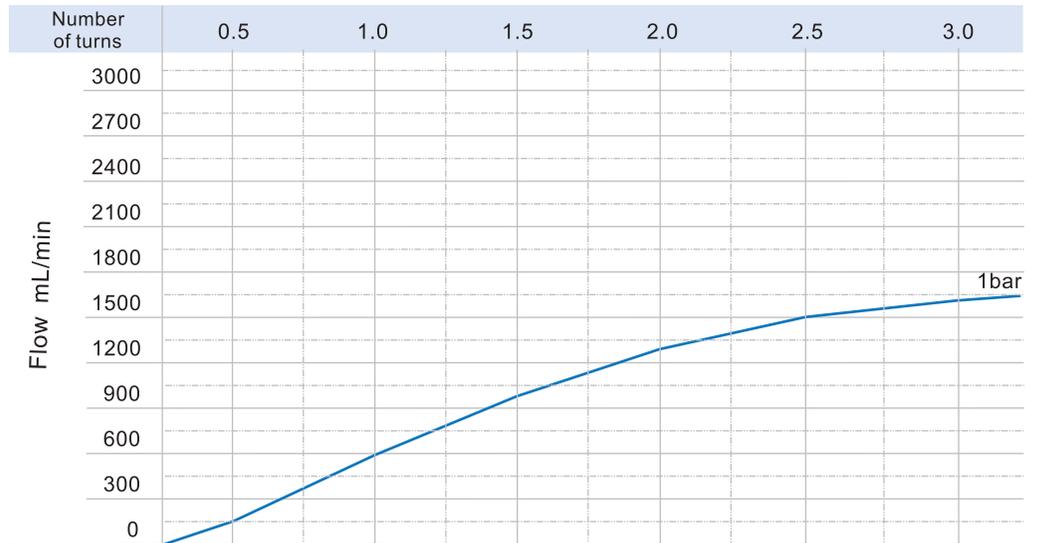
Coding directive

	□	□	□	□	□	□	□	□	□
Model									
Feature	3	1	5						
Common type				763					
Connection									
Flare LINK							04		
Insert Bushing							24		
Caliber									
1/4"									06
3/8"									10
1/2"									12

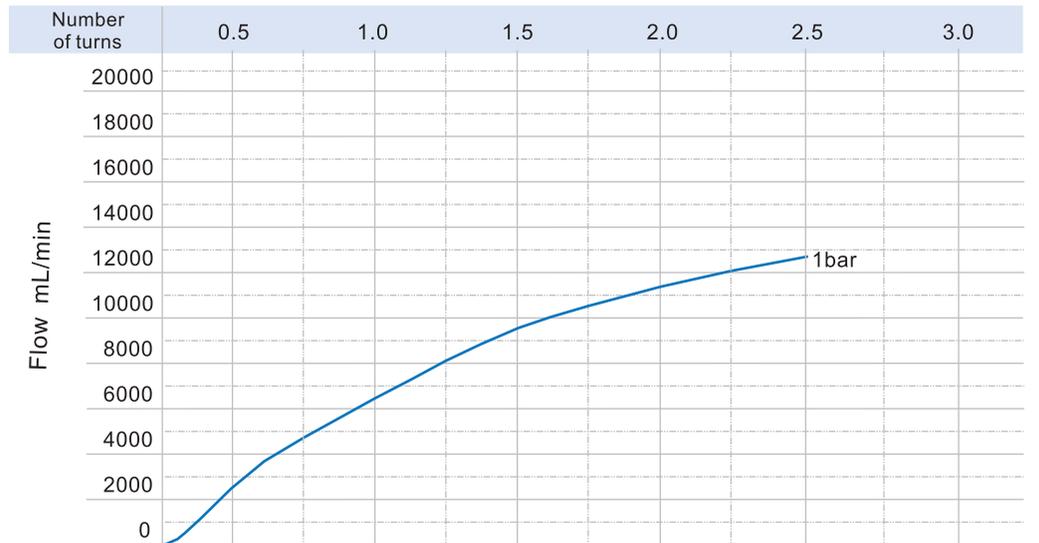
Linear graph of relative flow

The relative flow linear coefficient refers to the flow change as a function of the valve opening stroke.

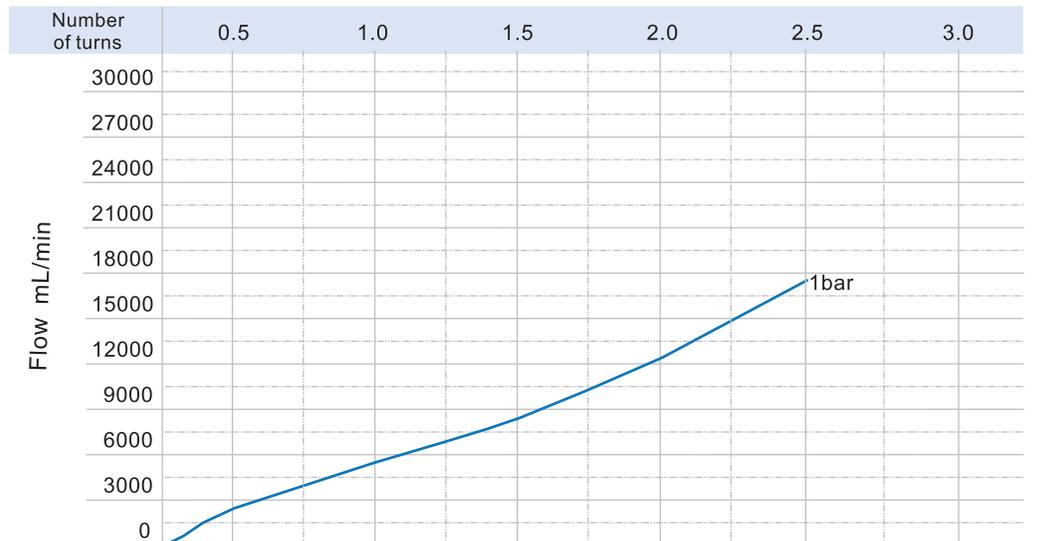
1/4 Type Data
38-25-H4



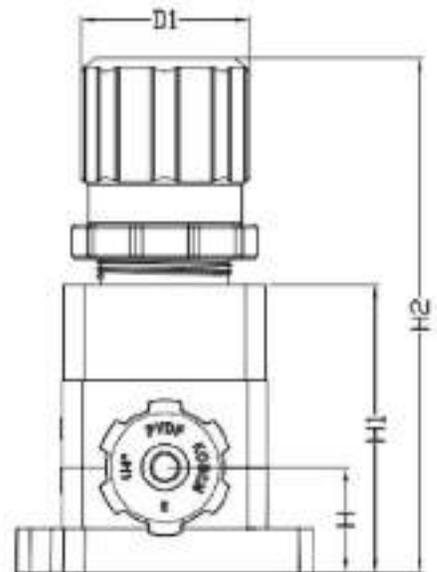
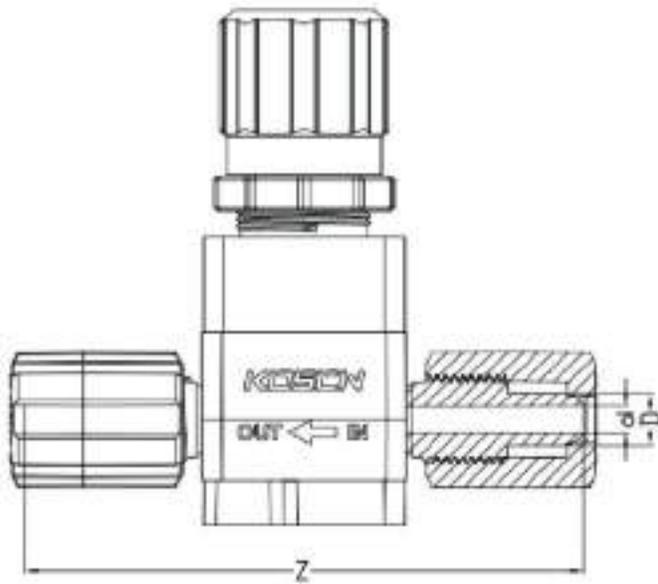
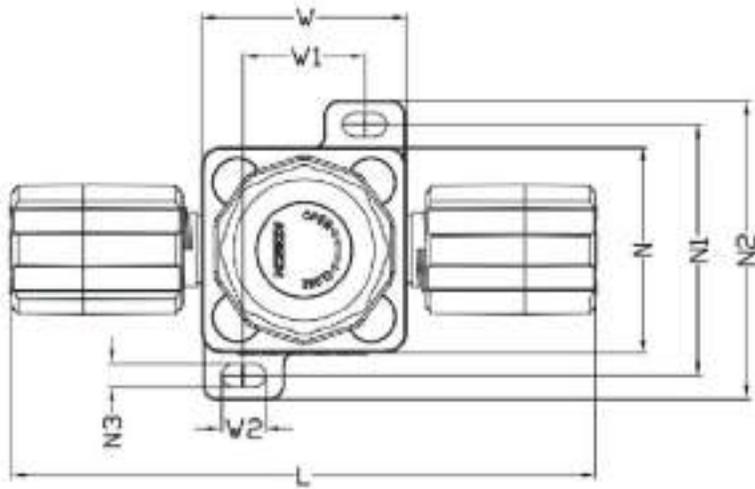
3/8 Type Data
95-70-H6



1/2 Type Data
95-77-H5



DV315 V-Type , Common , SIZE



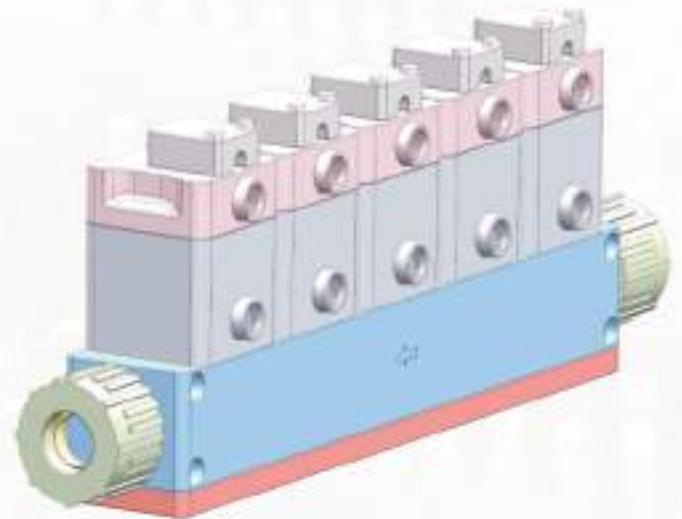
Unit: mm

Inch	D	d	D1	H	H1	H2	N	N1	N2	N3	W	W1	W2	L	Z
1/4	7,7	4,0	25	15,5	43	80	30	37	44	3,7	30	18,0	6	86,0	81,5
3/8	10,5	6,4	33	21,0	66	115	36	49	61	6,5	37	21,5	10	94,5	89,5
1/2	13,9	9,5	33	21,0	66	115	36	49	61	6,5	37	21,5	10	98,5	92,5



DVM 319

Multiway Valveblocks



The DVM series multi-function valve is a compact control valve that can be customized. Through the combination of different control modules to achieve application requirements, it can realize the combination functions of shunt, regulation, control, etc. The position feedback module can be extended. Low metal ion pollution and low Particulate characteristics are widely used in the semiconductor industry.

Easy installation and maintenance

- * A combination of functions and a very compact installation size
- * Miniaturized design, easy installation, no maintenance
- * The interface standard has high versatility and can be interchanged with market products
- * Modular design makes repair and maintenance more convenient

High safety performance

- * Complies with FDA 177-1520 / 177-1550 dissolution testing requirements
- * Triple-sealed valve cavity diaphragm structure can effectively cut off leakage
- * Pneumatic control can be used in high-frequency occasions ≤ 20 times /Min

High Flexibility

- * Wetted material PTFE, PFA
- * Diaphragm material PTFE
- * Mechanism material PVDF, PP-Natural, PPS
- * Interface form FlareLINK, Insert Bushing
- * Pneumatic expandable manual limit and position feedback sensor



Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
NC/NO control pressure	kgf/cm ²	4,0...5,0
DA control pressure	kgf/cm ²	3,0...4,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Configurable sensors	VDC	24 (PNP or NPN)
Operating temperature	°C	5...80
Ambient temperature	°C	0...60 (sensor 0...50)
Material	Valve body	PTFE
	Diaphragm	PTFE
	Actuating element	PVDF / PPN
	Baseplate	SS316L
	Bolt	SUS Coating

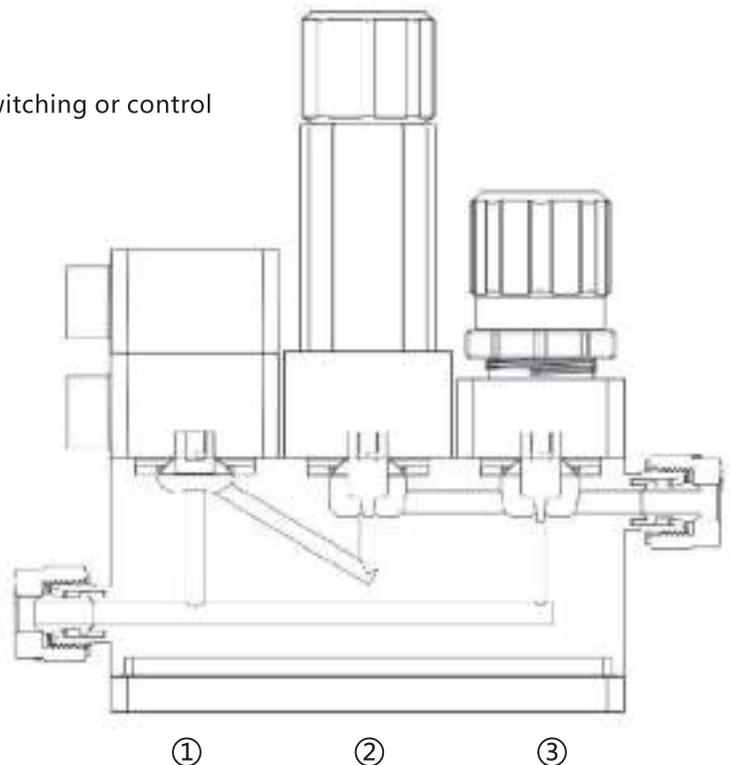
Product code

Size (Inch)	Flow	Insert Bushing		Flare LINK	
		PTFE		PTFE	
Precision drip regulating valve					
1/4	0...1500	319.6068212M			
1/4	0...3000	319.6068212			

Function Description

Three seat, For flow regulation, and different flow switching or control

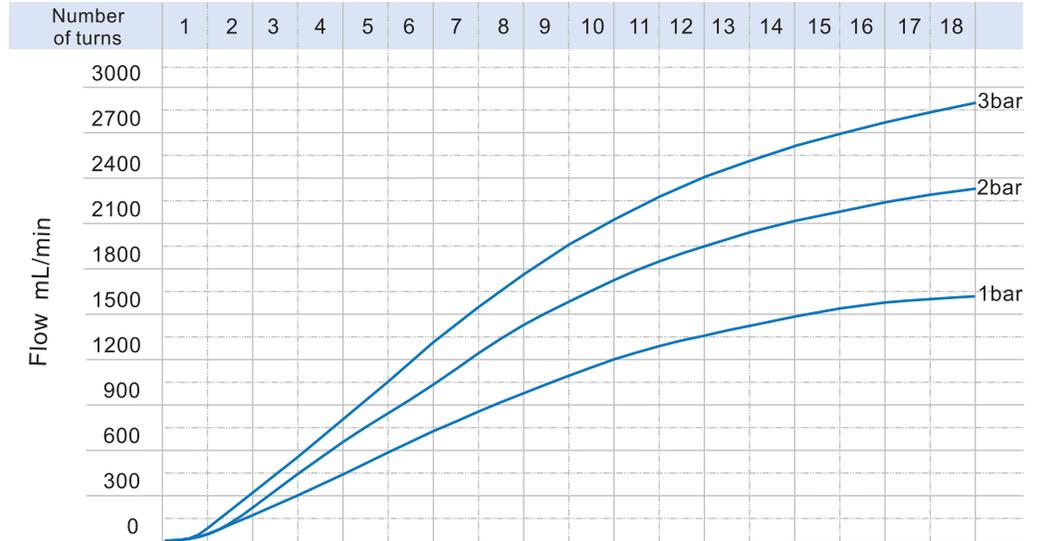
- ① Valve position:
Pneumatic on-off function
- ② Valve position:
Large flow manual precision adjustment function
- ③ Valve position:
Small flow manual adjustment and cutting function



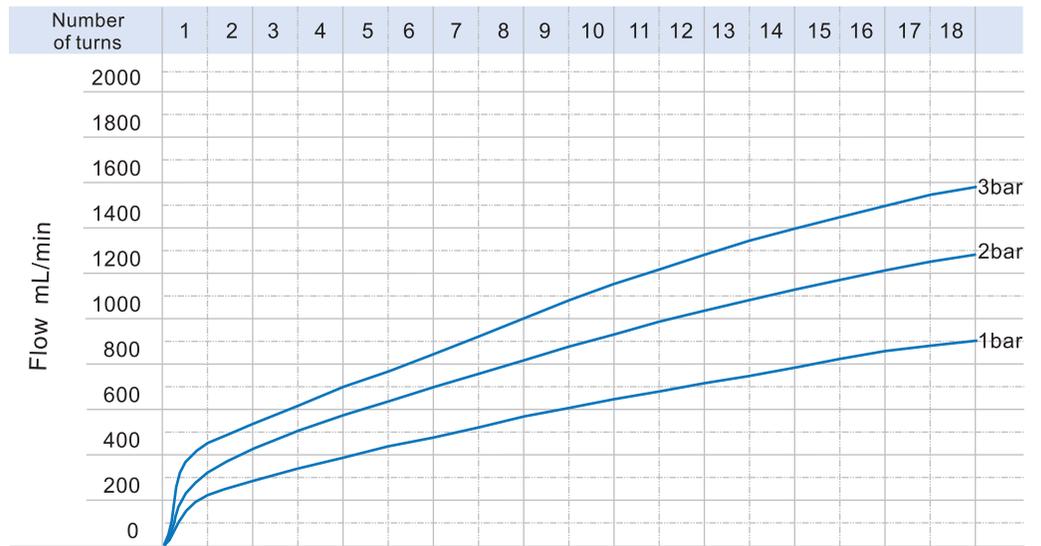
Linear graph of relative flow

The relative flow linear coefficient refers to the flow change as a function of the valve opening stroke.

3000 Type Data

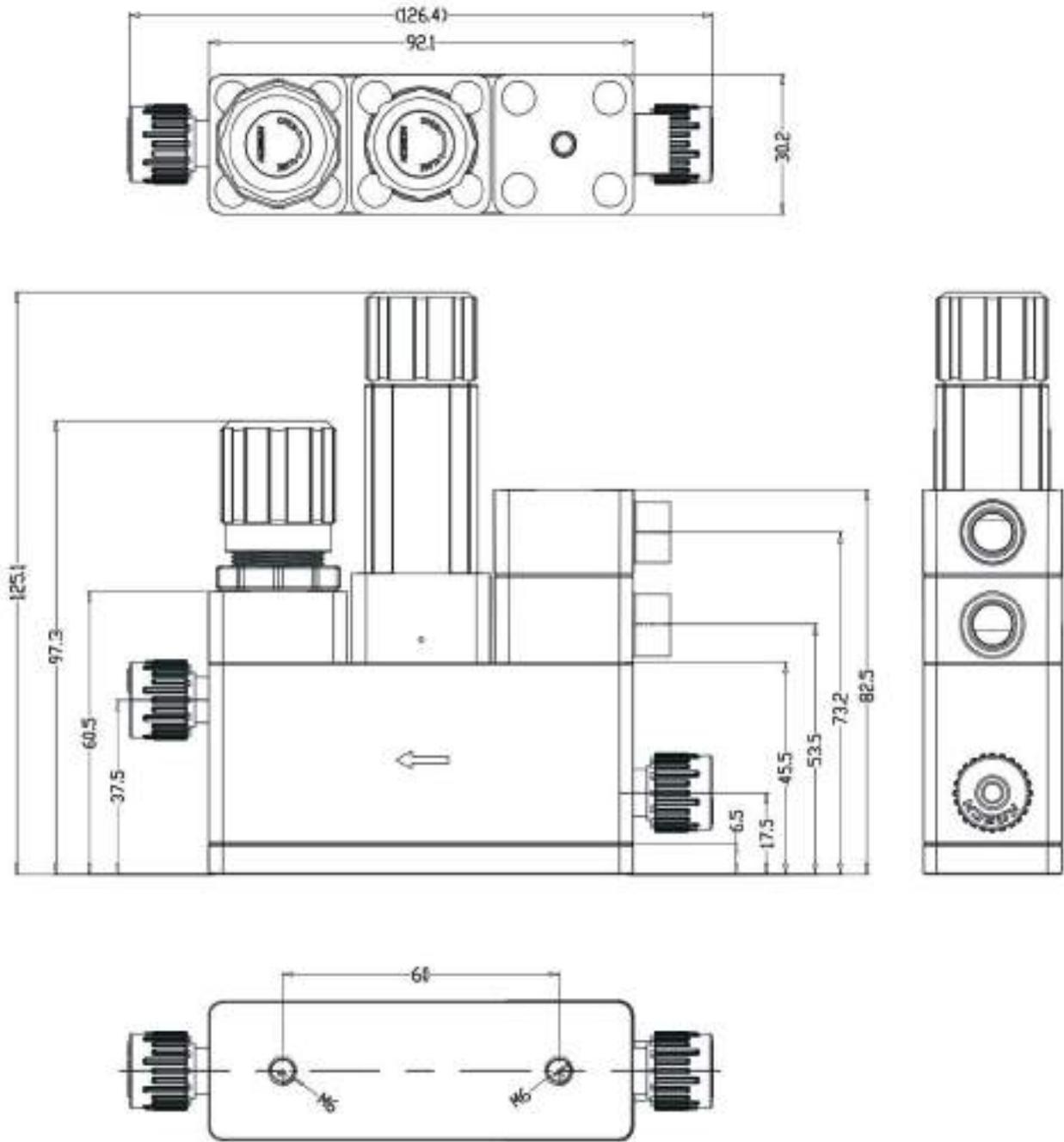


1500 Type Data
20-21-40



DVM319 , PRECISION DIRP REGULATING VALVE

1/4 Size





Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
NC/NO control pressure	kgf/cm ²	4,0...5,0
DA control pressure	kgf/cm ²	3,0...4,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Siphon capacity	cm ³	0,12...0,55
Operating temperature	°C	5...100
Ambient temperature	°C	0...60
Material	Valve body	PTFE
	Diaphragm	PTFE
	Actuating element	PVDF / PPN
	Baseplate	SS316L
	Bolt	SUS Coating

Product code

Size (Inch)	PFA Insert Bushing		PTFE Flare LINK		Siphon Capacity
	NC+NC	NC+NO	NC+NC	NC+NO	
Two seat siphon valve					
1/4 Double regulate	319.7067207	319.7067233	319.7068007	319.7068033	0.12
1/4 Single regulate	319.7067220	319.7067235	319.7068020	319.7068035	0.12
3/8 Double regulate			319.7108010	319.7108034	0.55
3/8 Single regulate			319.7108021	319.7108036	0.55

Function Description

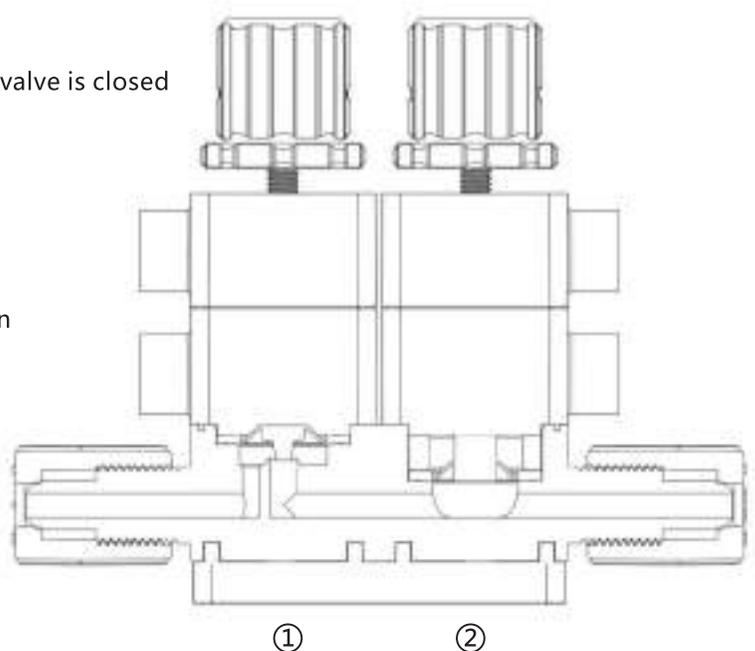
For siphoning the liquid behind the valve after the valve is closed

① Valve position:

- Pneumatic on-off function
- Valve opening adjustment is optional

② Valve position:

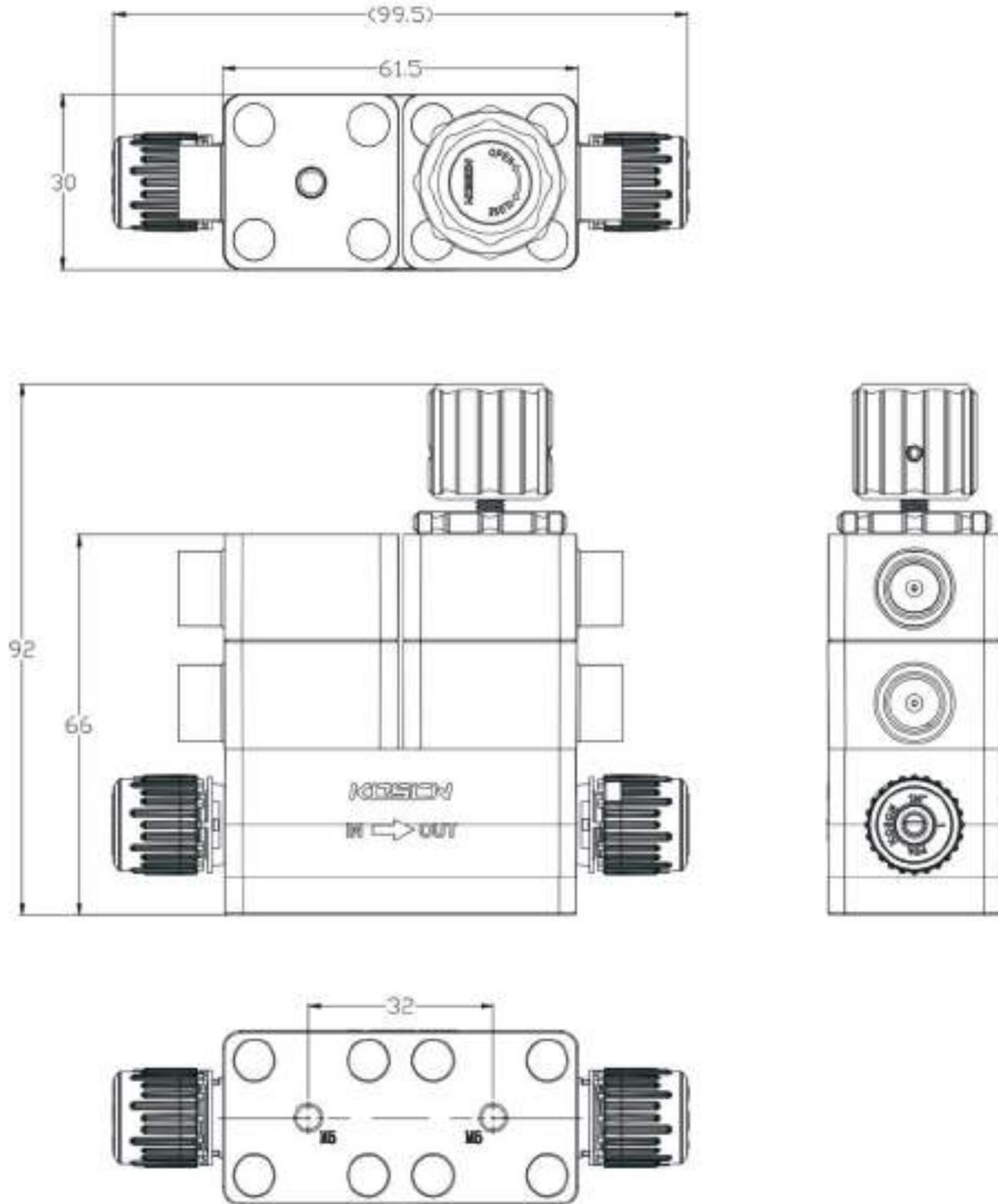
- Valve chamber negative pressure siphon function
- The siphon volume can be adjusted manually



DVM319 , SIPHON VALVE

1/4 Size

* More specifications can be obtained from the factory or agent for 3D model drawings





Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
NC/NO control pressure	kgf/cm ²	4,0...5,0
DA control pressure	kgf/cm ²	3,0...4,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Siphon capacity	cm ³	0,12
Operating temperature	°C	5...100
Ambient temperature	°C	0...60
Material	Valve body	PTFE
	Diaphragm	PTFE
	Actuating element	PVDF / PPN
	Baseplate	SS316L
	Bolt	SUS Coating

Product code

Size (Inch)	Flow	Insert Bushing	Flare LINK	Siphon capacity
		PTFE	PTFE	
Precision regulate siphon valve				
1/4	0...500	319.6068211S		0.03
1/4	0...1500	319.6068211M		0.08
1/4	0...3000	319.6068211		0.12

Function Description

Three seat, For flow regulation,

And for siphoning the liquid behind the valve after the valve is closed

① Valve position:

Pneumatic on-off function

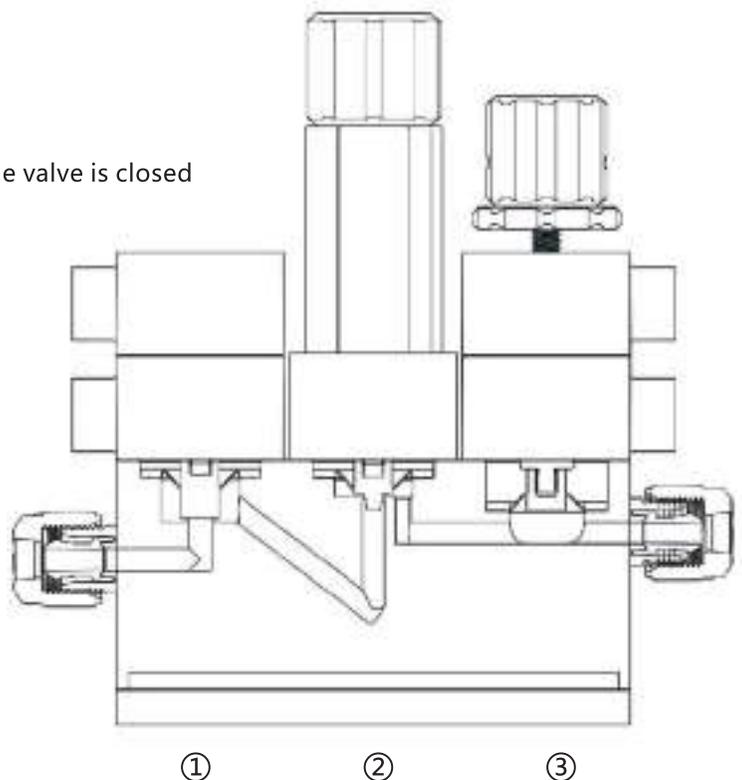
② Valve position:

Flow manual precision adjustment function

③ Valve position:

Valve chamber negative pressure siphon function

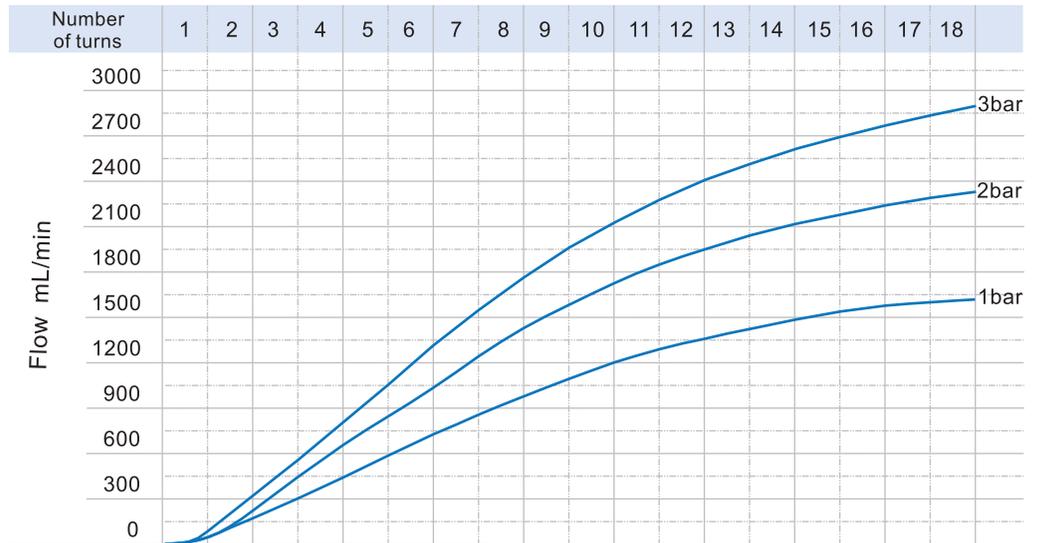
The siphon volume can be adjusted manually



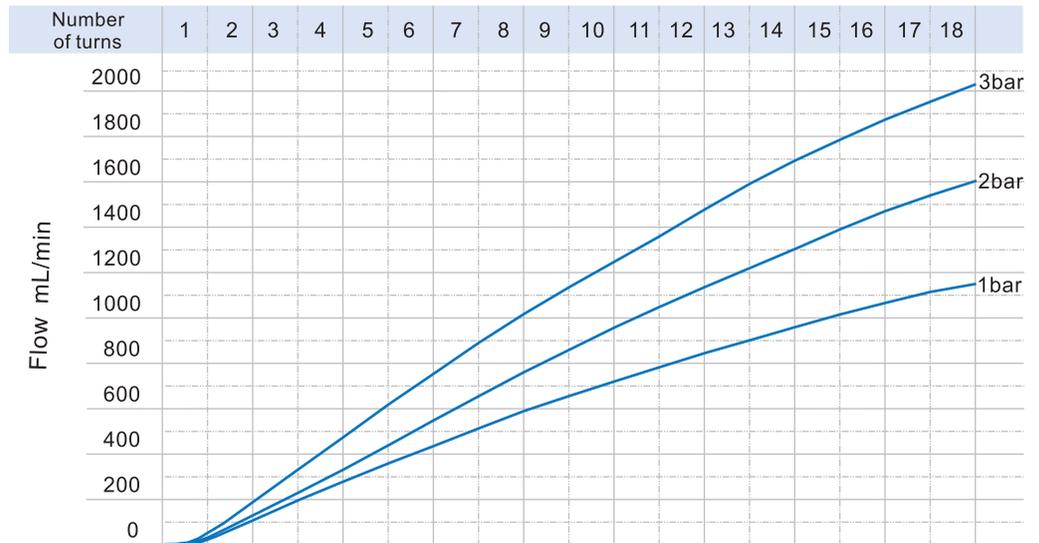
Linear graph of relative flow

The relative flow linear coefficient refers to the flow change as a function of the valve opening stroke.

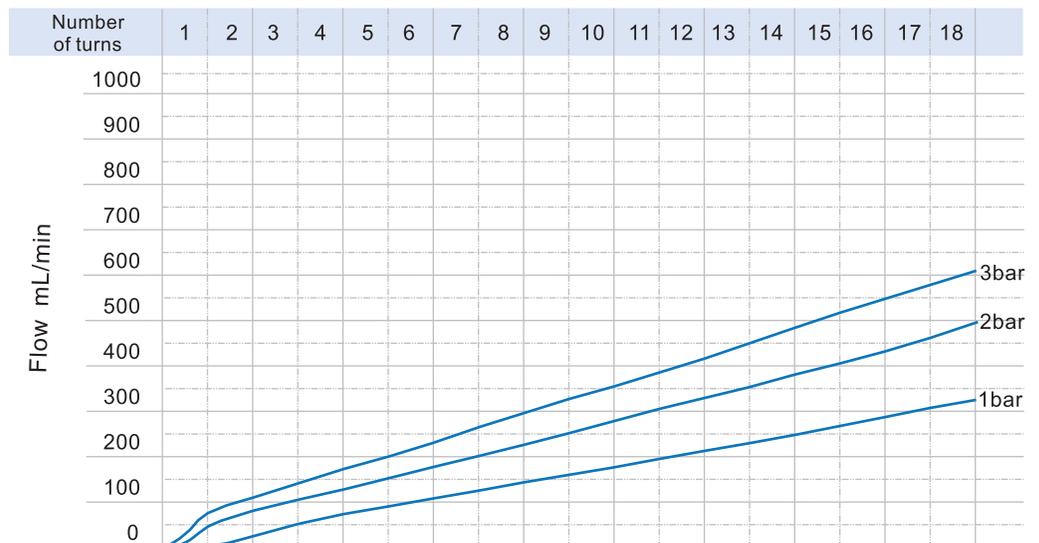
3000 Type Data
38-25-40



1500 Type Data
38-30-50

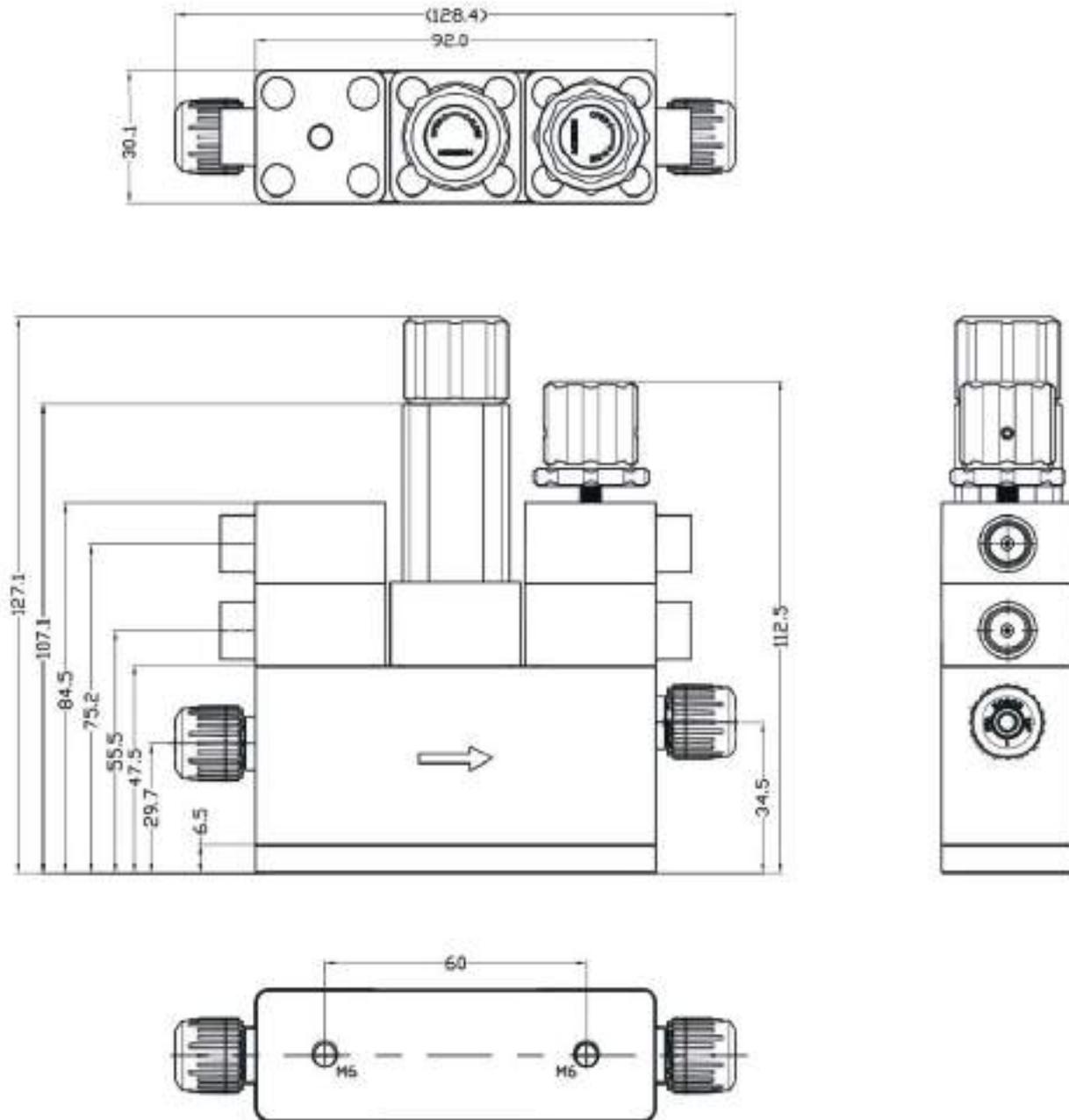


500 Type Data
38-35-55



DVM319 , PRECISION REGULATE SIPHON VALVE

1/4 Size



DVM319 , LOW-OUT MULTI WAY VALVE



Performance data

Item	Unit	Data
Service pressure	bar	0...0,05
Backpressure	bar	0...5,0
NC/NO control pressure	kgf/cm ²	4,0...5,0
DA control pressure	kgf/cm ²	3,0...4,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Configurable sensors	VDC	24 (PNP or NPN)
Operating temperature	°C	5...120
Ambient temperature	°C	0...60 (sensor 0...50)
Material	Valve body	PTFE
	Diaphragm	PTFE
	Actuating element	PVDF
	Baseplate	PVDF / SUS
	Bolt	SUS Coating

Product code

Size (Inch)	Quantity of seat	Entrance direction	Interface form	Mode					CODE	
				①	②	③	④	⑤		
Low-Out multiway valve										
1/2	2	Left	Insert Bushing	NC	NO	-	-	-	319.2128206L	
1/2	2	Right	Insert Bushing	NC	NO	-	-	-	319.2128206R	
3/4	2	Left	Insert Bushing	NC	NO	-	-	-	319.2198219L	
3/4	2	Right	Insert Bushing	NC	NO	-	-	-	319.2198219R	

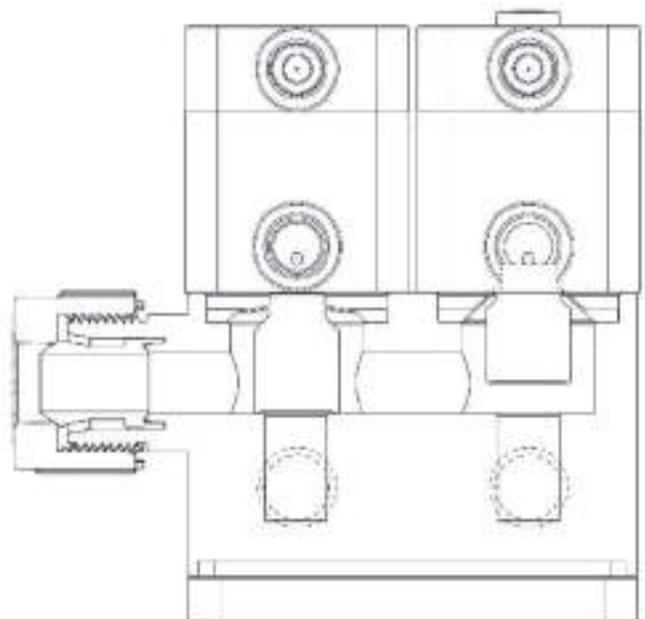
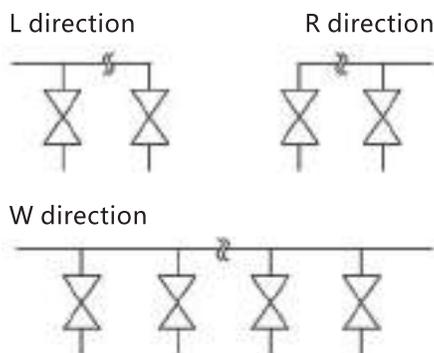
Function Description

Multi-way valve, one into multiple out, high into low out

Ensure the effect of liquid emptying

Position feedback sensor is optional

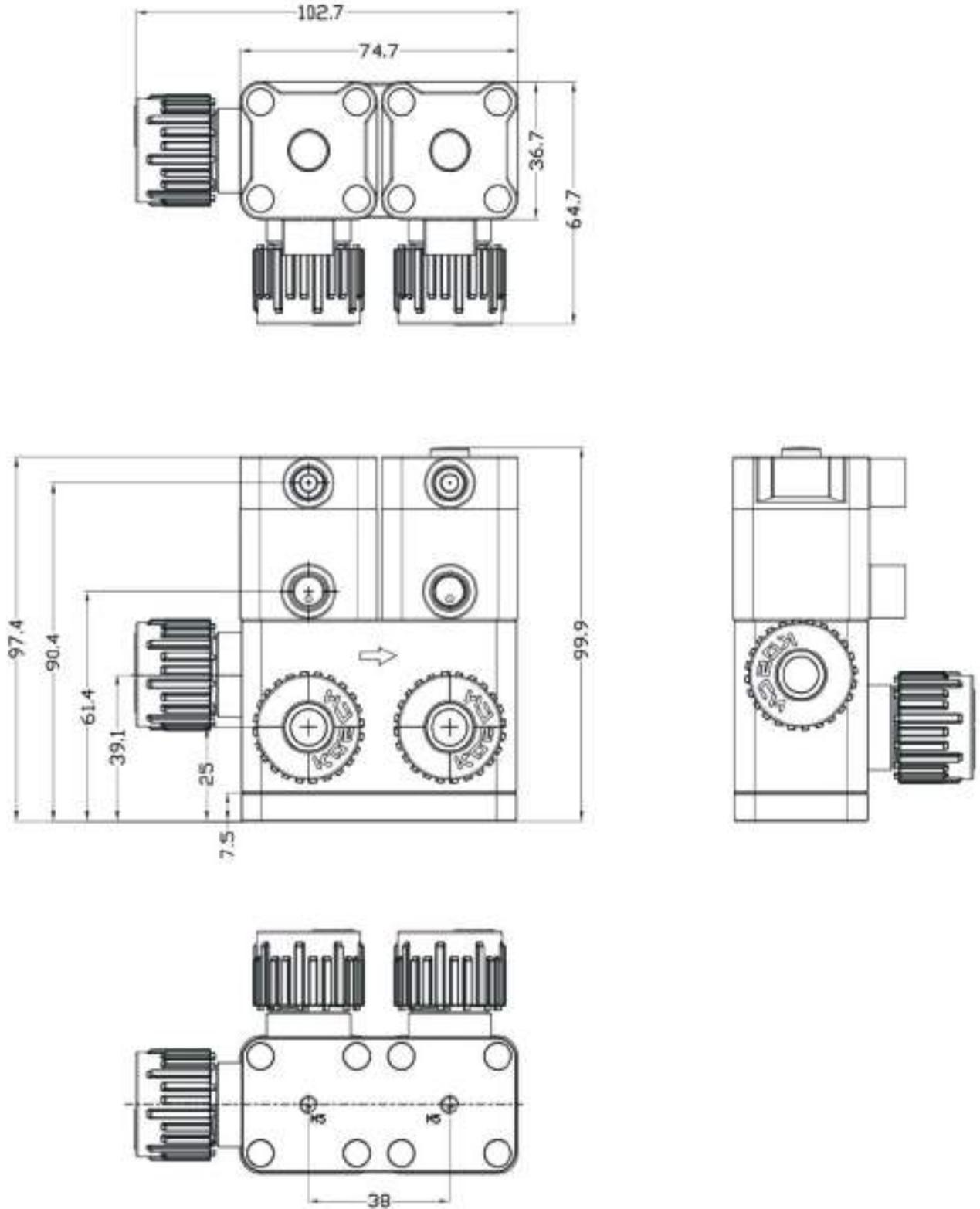
* Not suitable for pressure scenarios above 0.5bar



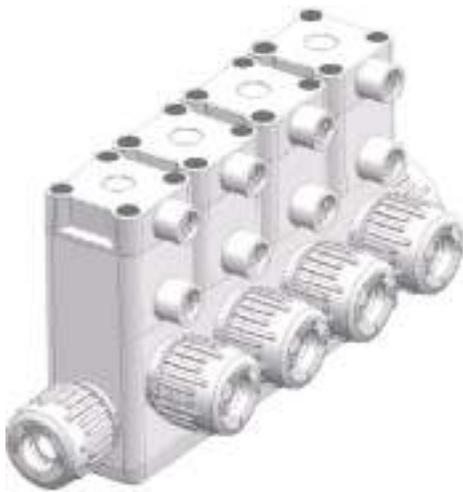
DVM319 , LOW-OUT MULTI WAY VALVE

1/2 Size

* More specifications can be obtained from the factory or agent for 3D model drawings



DVM319 HIGH-OUT MULTI WAY VALVE



Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
NC/NO control pressure	kgf/cm ²	4,0...5,0
DA control pressure	kgf/cm ²	3,0...4,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Configurable sensors	VDC	24 (PNP or NPN)
Operating temperature	°C	5...120
Ambient temperature	°C	0...60 (sensor 0...50)
Material	Valve body	PTFE
	Diaphragm	PTFE
	Actuating element	PVDF
	Baseplate	PVDF / SUS
	Bolt	SUS Coating

Product code

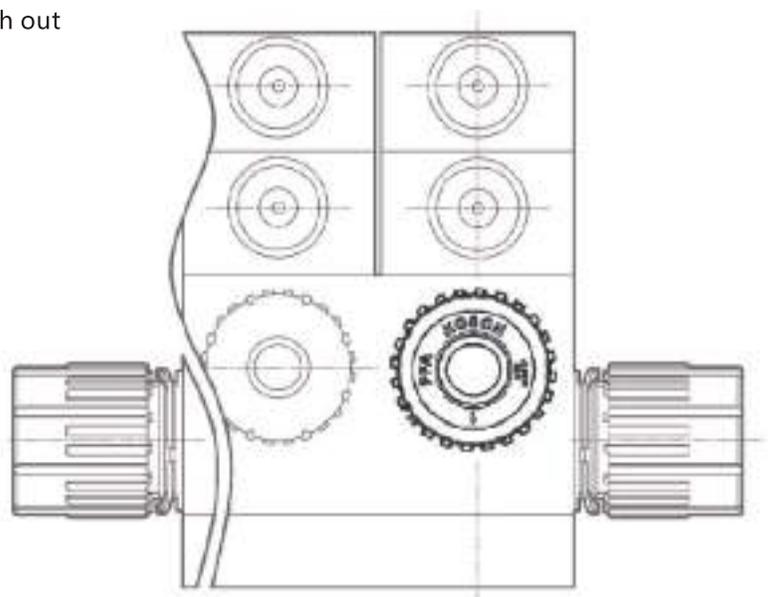
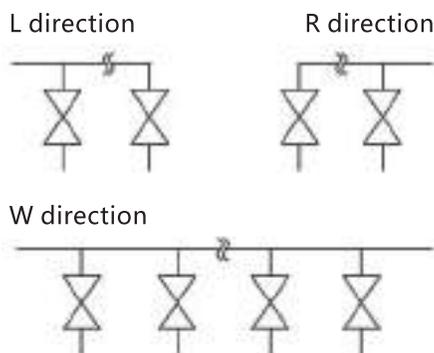
Size (Inch)	Quantity of seat	Entrance direction	Interface form	Mode					CODE
				①	②	③	④	⑤	
HIGH-Out multiway valve									
1/2	4	Left	Insert Bushing	NC	NC	NC	NC	-	319.4128208L
1/2	4	Right	Insert Bushing	NC	NC	NC	NC	-	319.4128208R
1/2	4	W	Insert Bushing	NC	NC	NC	NC	-	319.4128208W

Function Description

Multi-way valve, one into multiple out, low into high out

Standard valve runner structure

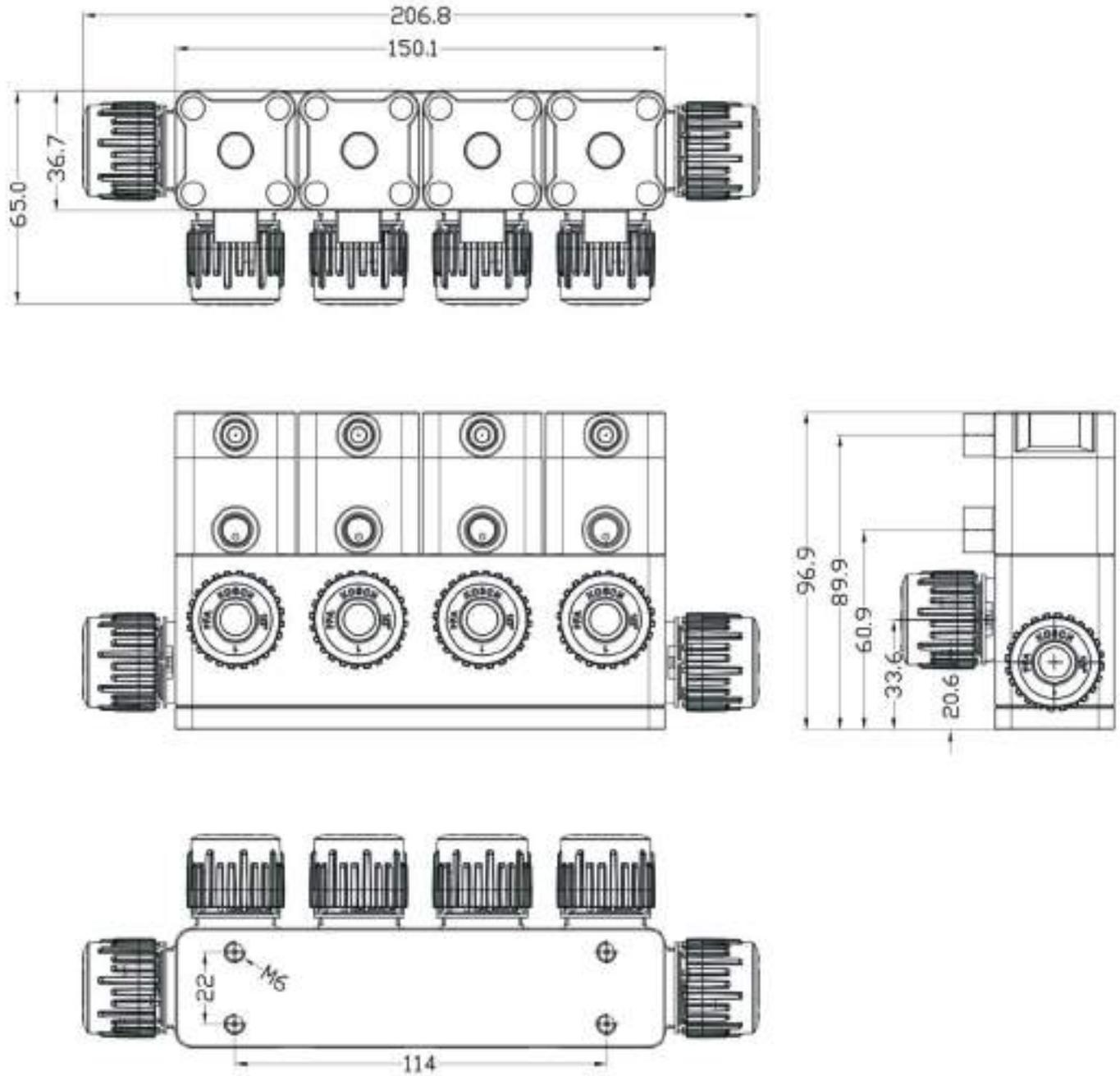
Position feedback sensor is optional

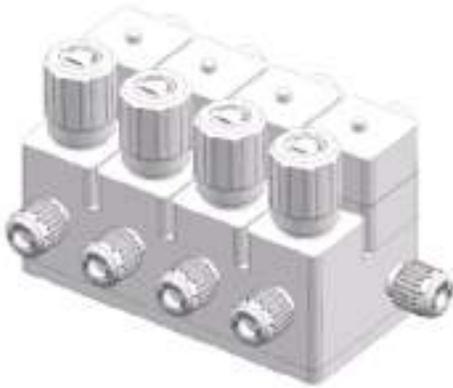


DVM319 HIGH-OUT MULTI WAY VALVE

1/2 Size

* More specifications can be obtained from the factory or agent for 3D model drawings





Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
NC/NO control pressure	kgf/cm ²	4,0...5,0
DA control pressure	kgf/cm ²	3,0...4,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Configurable sensors	VDC	24 (PNP or NPN)
Operating temperature	°C	5...80
Ambient temperature	°C	0...60 (sensor 0...50)
Material	Valve body	PTFE
	Diaphragm	PTFE
	Actuating element	PVDF / PPN
	Baseplate	PVDF / SUS
	Bolt	SUS Coating

Product code

Size (Inch)	Quantity of seat	Interface form									CODE
			①	②	③	④	⑤	⑥	⑦	⑧	
By-pass multiway valve											
1/4	8	Insert Bushing	NO	Manual	NO	Manual	NO	Manual	NO	Manual	319.X068218

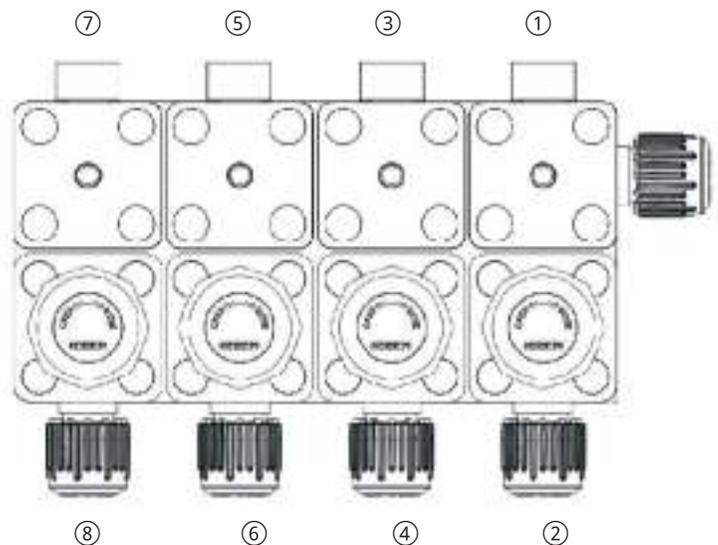
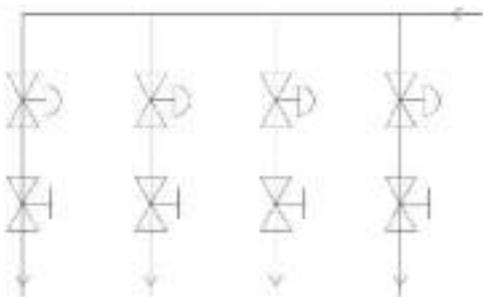
Function Description

Independent submodules in series combination of manual and pneumatic

Multiple submodules can be combined into multiple points

The main flow path can be larger than the branch flow path

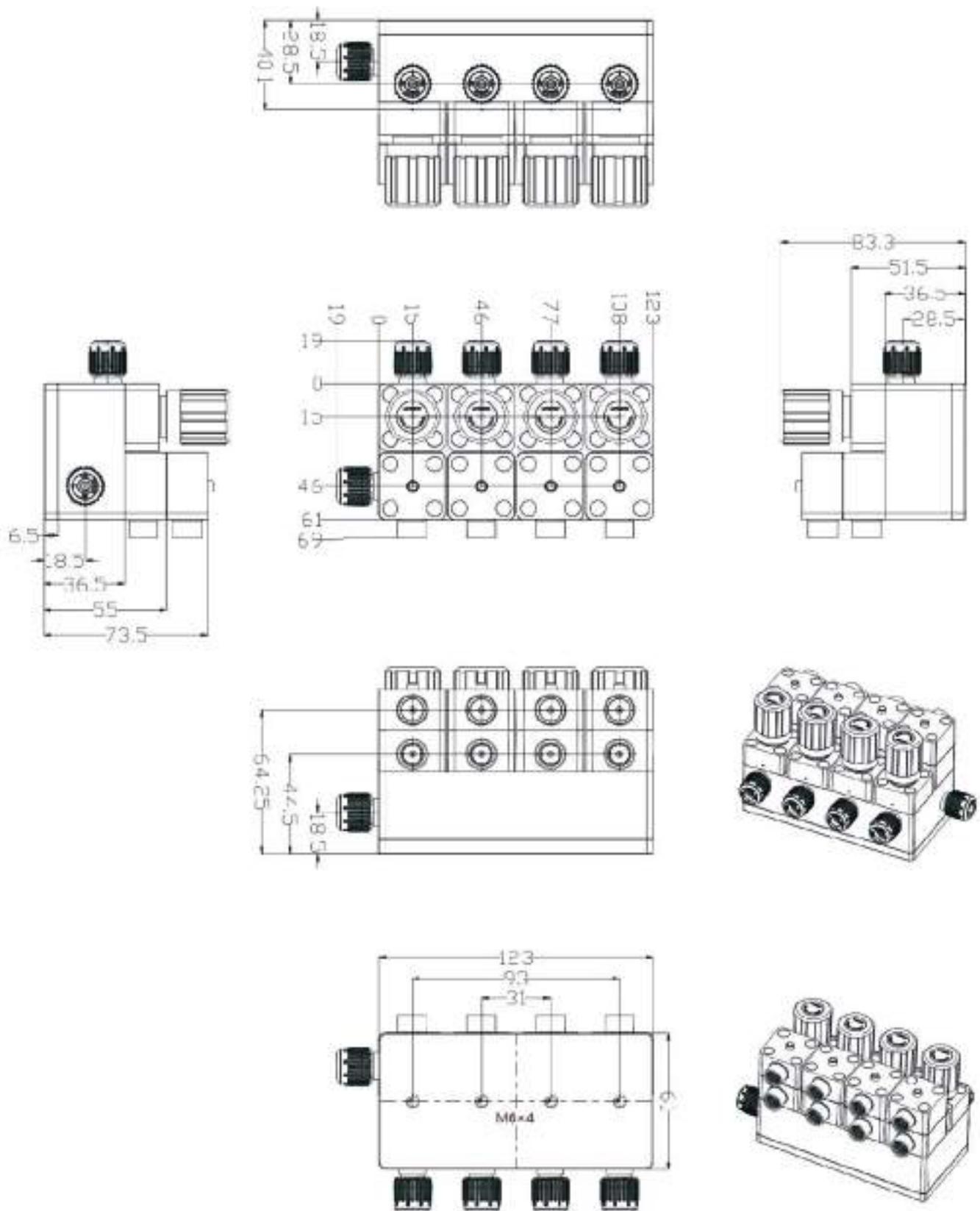
Position feedback sensor is optional



DVM319 , BY-PASS MULTI WAY VALVE

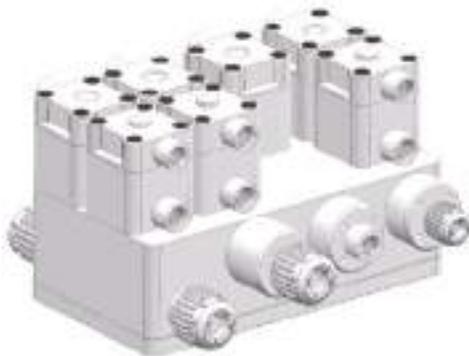
1/4 Eight seat Size

* More specifications can be obtained from the factory or agent for 3D model drawings



DVM319 , MANY MODULES MULTI WAY VALVE

Performance data



Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
NC/NO control pressure	kgf/cm ²	4,0...5,0
DA control pressure	kgf/cm ²	3,0...4,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Configurable sensors	VDC	24 (PNP or NPN)
Operating temperature	°C	5...120
Ambient temperature	°C	0...60 (sensor 0...50)
Material	Valve body	PTFE
	Diaphragm	PTFE
	Actuating element	PVDF
	Baseplate	PVDF / SUS
	Bolt	SUS Coating

Product code

Size (Inch)	Quantity of seat	Interface form	Mode	CODE
1/4-3/8	10	Insert Bushing	NC×4 + NO×3 + CHECK ×3	319.X108216

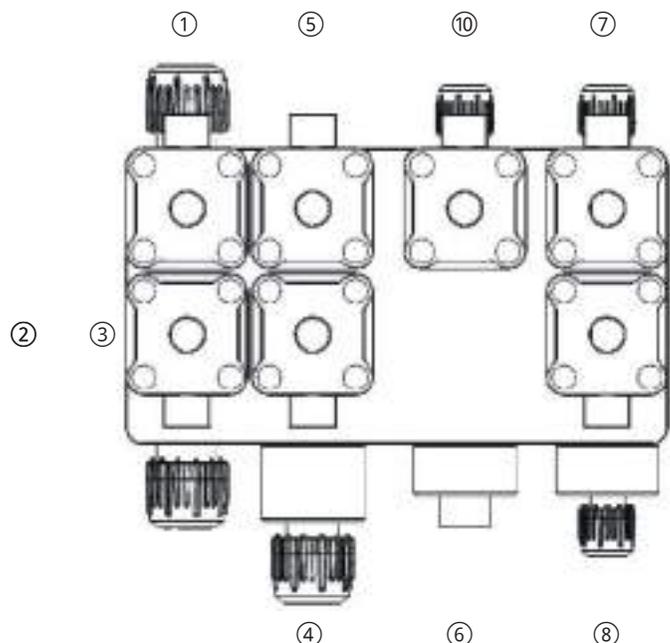
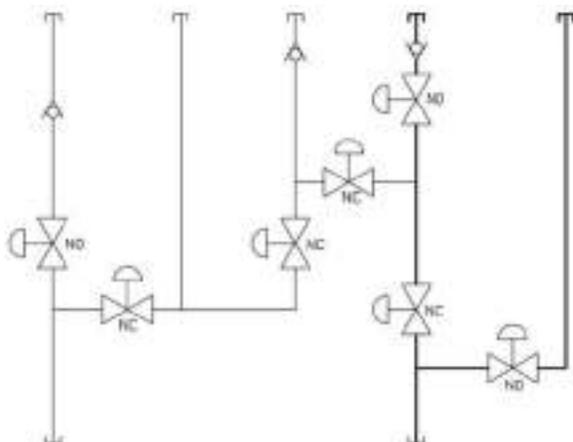
Function Description

Multi-combination, multi-function module valve

Manual, pneumatic, one-way and other different functions in series and parallel combination

Position feedback sensor is optional

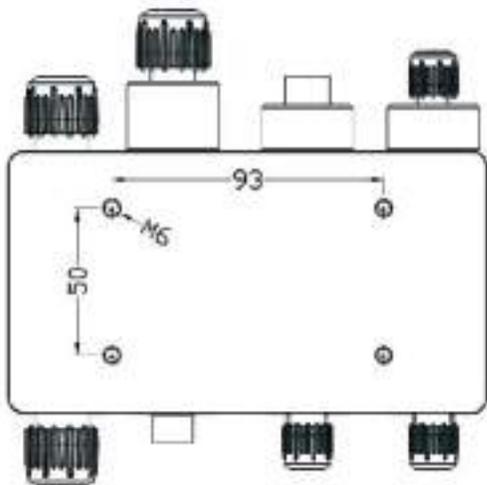
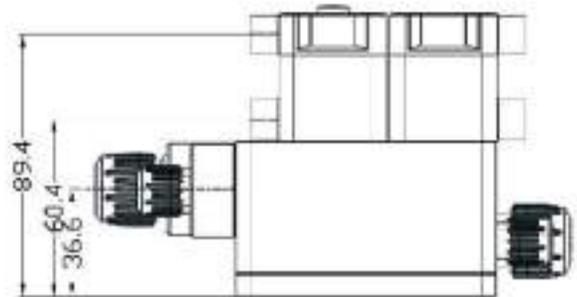
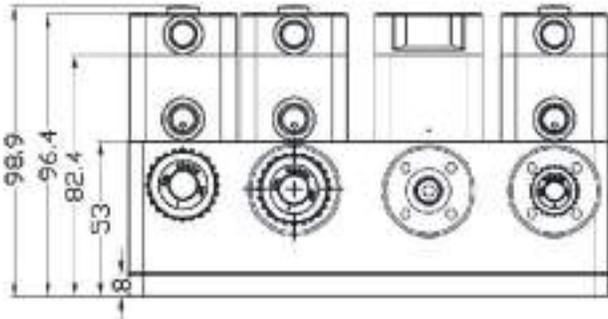
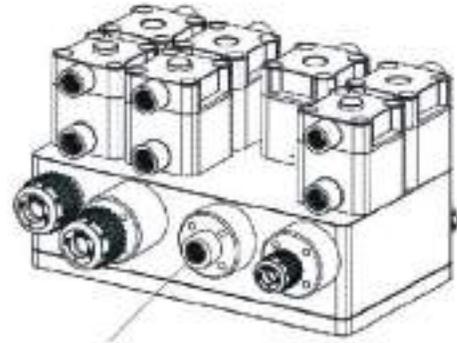
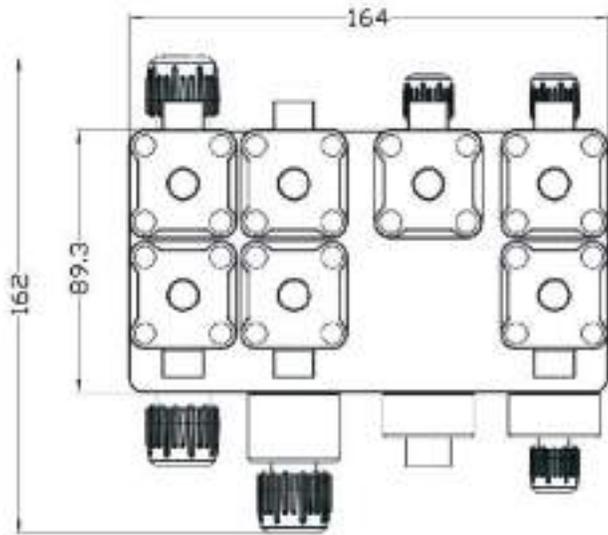
The function is not universal when used in specific application scenarios



DVM319 , MANY MODULES MULTI WAY VALVE

1/4-3/8 Ten seat Size

* More specifications can be obtained from the factory or agent for 3D model drawings



DV319 , SELECTION GUIDE

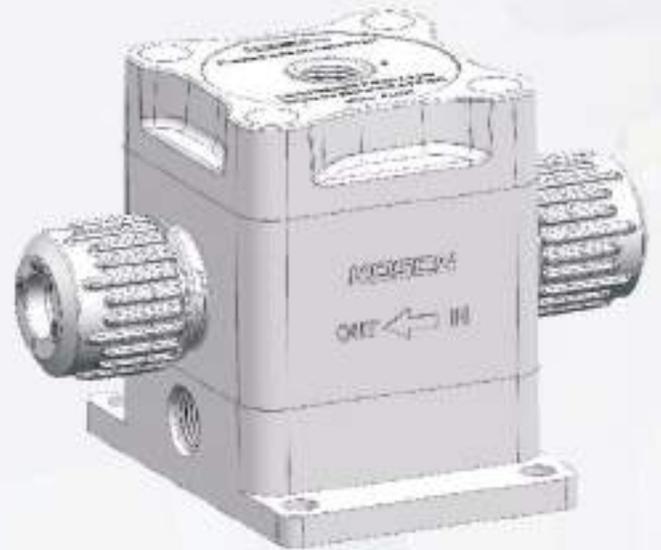
DVM Selection guide

	<input type="checkbox"/>										
	3	1	9								
Number of valve seats											
2 seats				2							
3 seats				3							
4 seats				4							
5 seats				5							
6 seats				A							
7 seats				B							
8 seats				C							
Specific function - 3 seats				6							
Specific function - 2 seats				7							
9 seats				9							
Compound type				X							
Interface size											
1/4				06							
3/8				10							
1/2				12							
3/4				19							
Valve body material											
PFA					7						
PTFE					8						
Connection mode											
FlareLINK						0					
Insert Bushing						2					
NPT						9					
Serial number											
Unique identification code							XX				
Entrance direction											
Left								L			
Right								R			
Bilateral								W			
Limit switch											
PNP									A0		
NPN									A1		
Number of switches											
1 group										1	
2 group										2	
3 group										3	
4 group										4	
5 group										5	



PV 317

Pressure Reducing Valve



KOSCN PV317 pressure reducing valve is a functional valve that adjusts the variable pressure of the chemical liquid and pure water supply department to a stable pressure by manual or pilot air source control. That is to balance the pressure pulsation, to ensure that the pressure behind the valve is constant. It has stable and low vibration control characteristics, and has good repeatability of regulating pressure. This series is not intended for use as a standard safety feature for pressure vessels.

Easy installation and maintenance

- * Compact design, easy installation, no maintenance
- * Pilot operated control port on top for easy connection
- * UNF standard thread, fit and interchangeability is higher

High safety performance

- * The ultimate withstand pressure can reach 10bar
- * Can effectively balance the pressure pulsation, to ensure that the outlet pressure is constant
- * Meet FDA 177-1520/177-1550 dissolution test requirements
- * UHP's ultra-pure products comply with SEMI F057 standards
- * Pilot valve with clean filter device

Performance feature

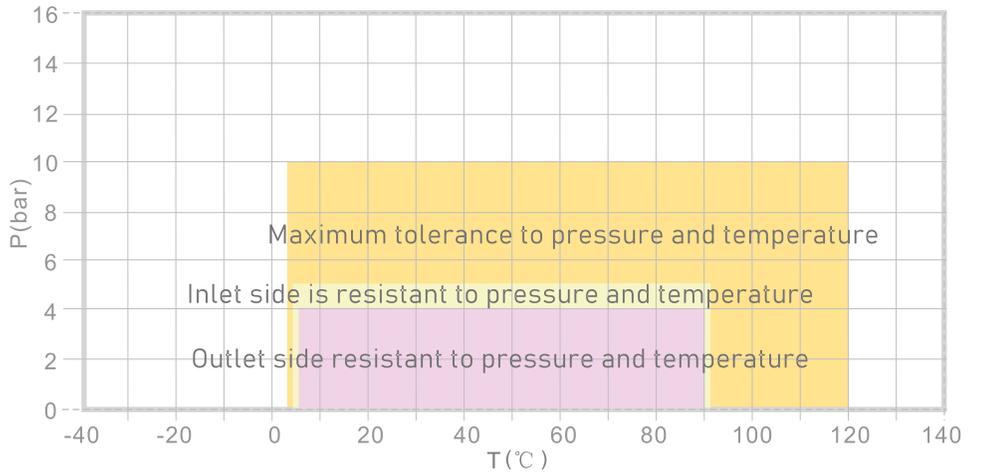
- * Pressure setting 0.2... 4.0 bar
- * Maximum and minimum secondary pressure difference 0.05 bar
- * Hysteresis pressure 0.05bar
- * Pilot operated pressure reducing valve control pressure P MAX 6 bar

Technical characteristics

Pressure temperature curve

All data based on water for consider -ring 25 years safe life time

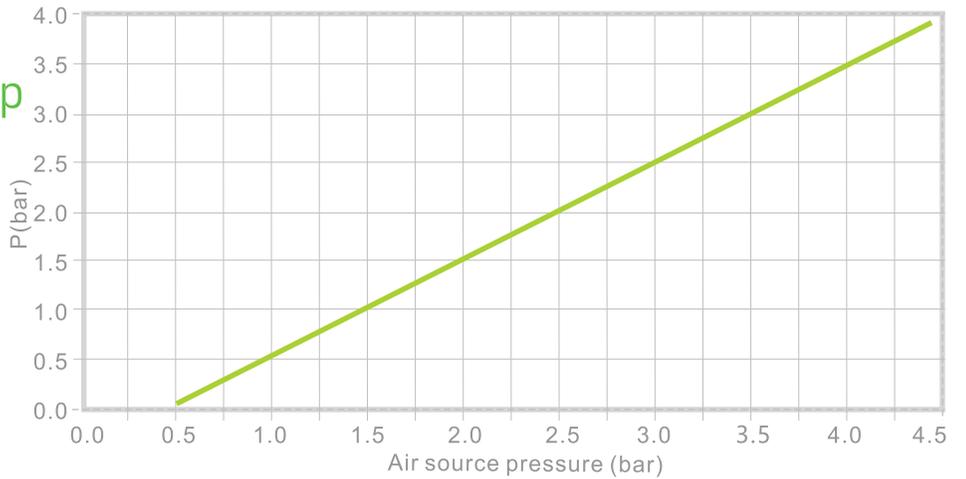
Other liquids request to reduce the temperature and pressure accordingly



Pilot-operated pressure relationship

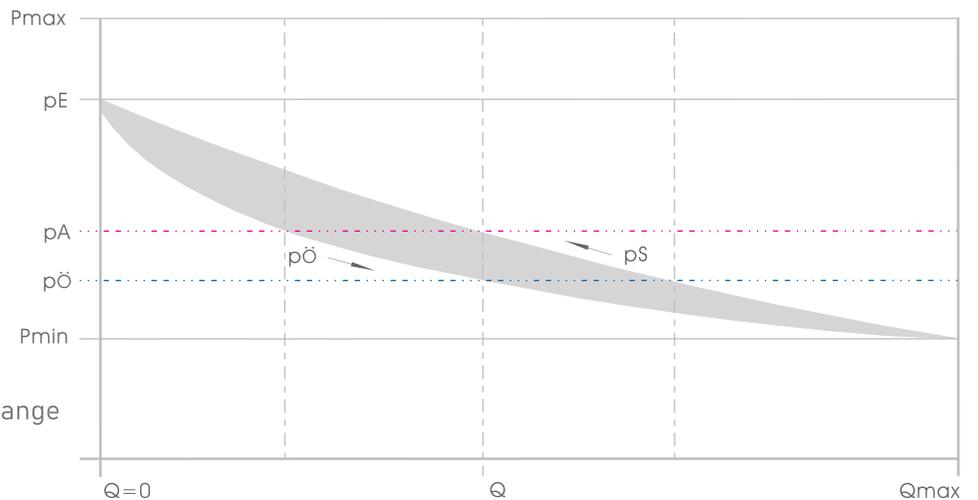
Based on 5bar clean water medium at the entrance

The pilot input pressure and the outlet pressure reduction are relatively linear



Operating characteristics

- Pmax Maximum pressure
- Pmin Minimum pressure
- pE Set pressure
- pA Working pressure
- pÖ Opening pressure
- pS Closing pressure
- pÖ - pS Lag pressure
- pA - pE Pressure drop of flow change

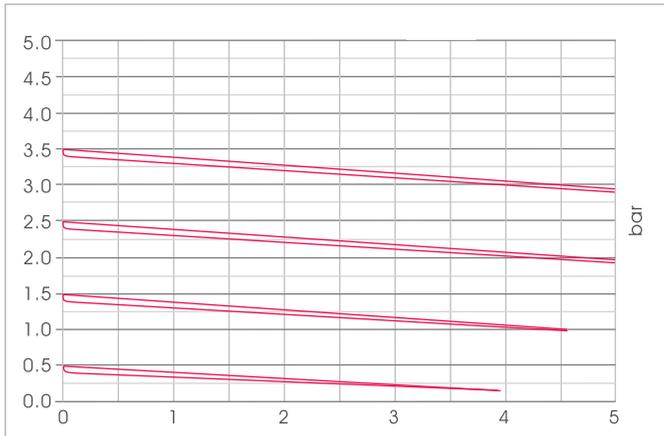


Working pressure and relative flow rate

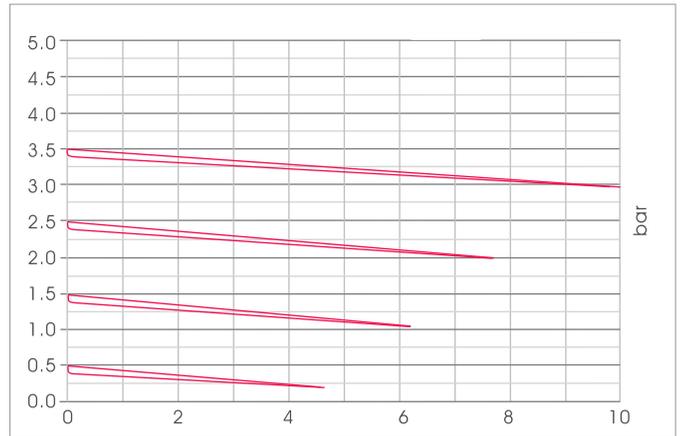
The curve shows the data of pressure change with flow rate. The starting point of the curve is the set pressure at the flow rate $Q = 0$ l/Min.

Outlet pressure: bar

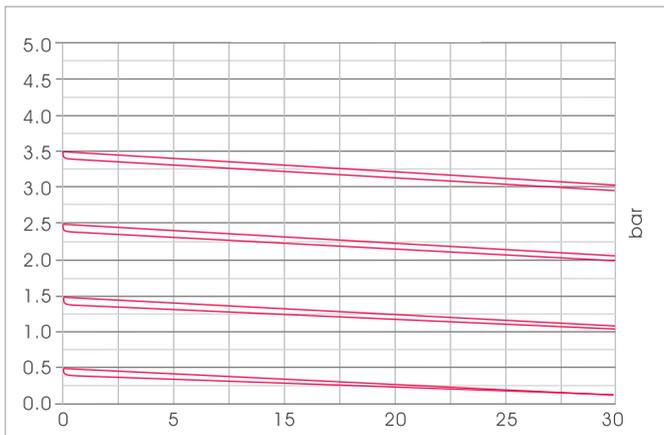
1/4"



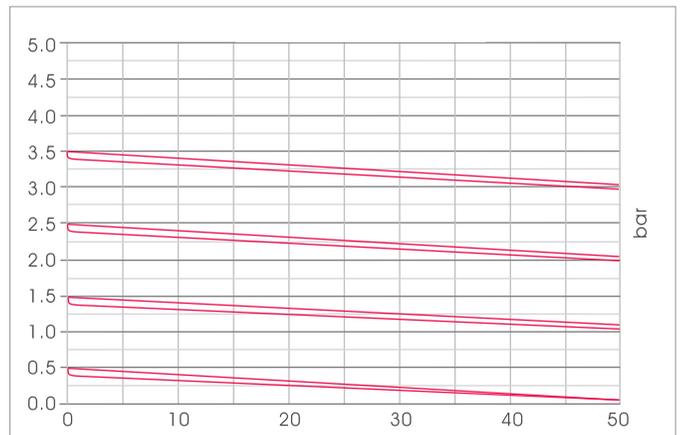
3/8"



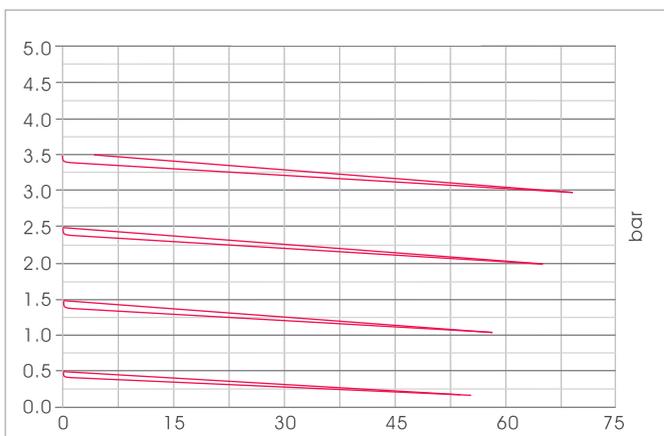
1/2"



3/4"



1"



+ Order code

PV 317 Pressure reducing valve

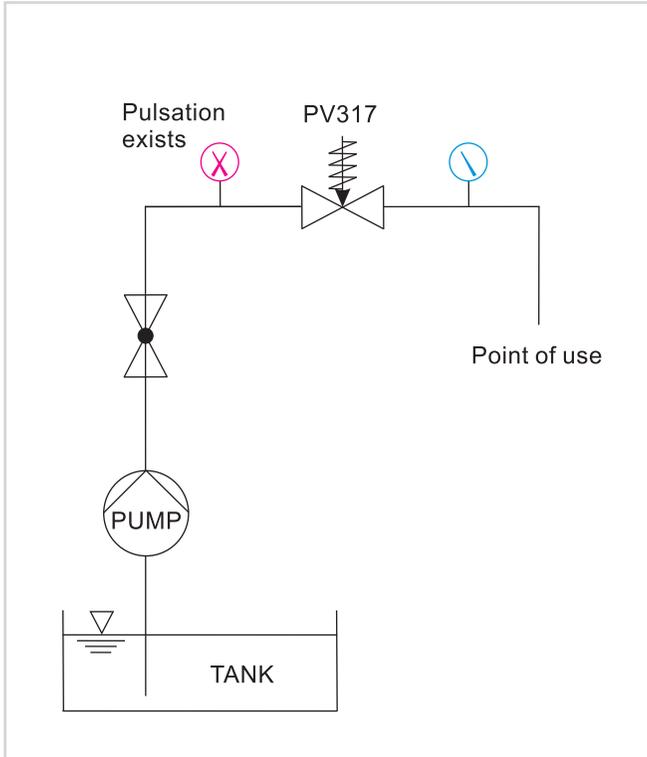
<input type="checkbox"/>										
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Product series		3	1	7						
Valve body material										
	PVDF				6					
	PFA				7					
	PTFE				8					
Diaphragm material										
	PTFE					7				
Control mode										
	Manual						0			
	Pneumatic pilot						3			
Connection mode										
	Flare LINK: PVDF NUT							0		
	Insert Bushing							2		
	Flare LINK: PFA NUT							4		
	Thread							9		
Connection standard										
	ANSI UNF								4	
	BSP/G								6	
Interface size										
	1/16"									02
	1/8"									03
	3/16"									04
	1/4"									06
	3/8"									10
	1/2"									12
	3/4"									19
	1"									26
	1-1/4"									31
	1-1/2"									38
	40A									50
	50A									63

✚ Installation examples

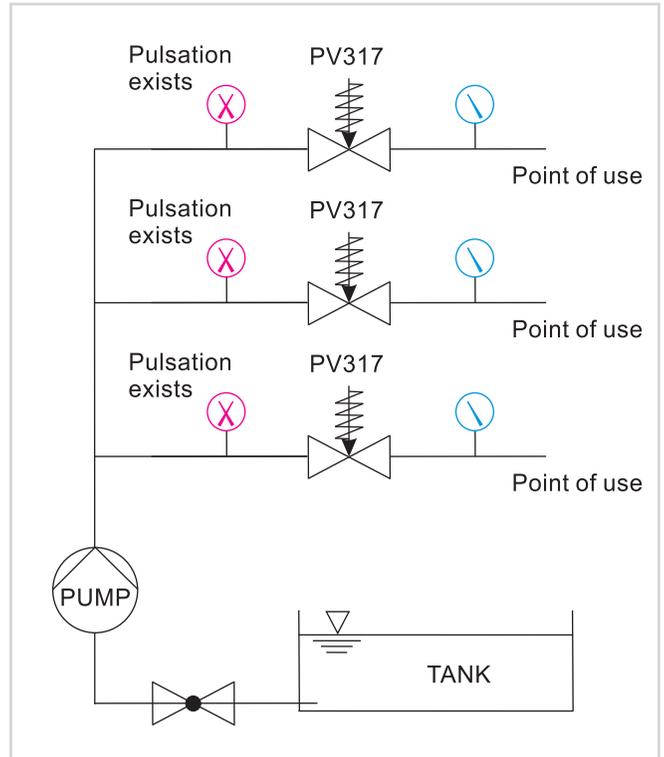
Pulsation prevented

The pressure reducing valve is installed on the main road to ensure the stable pressure at the outlet and the stable flow supply.



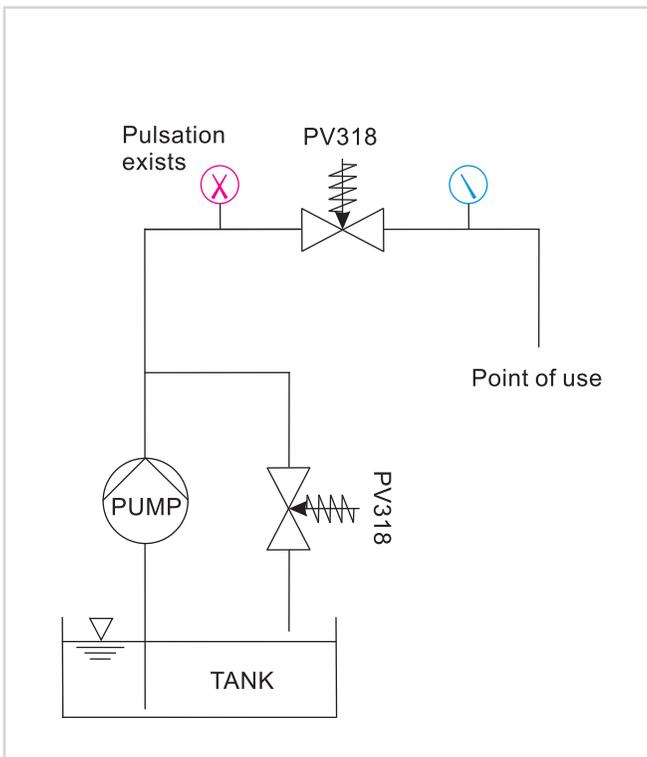
Constant flow rate supply

Flow rate variation prevented with hydraulic head pressure.

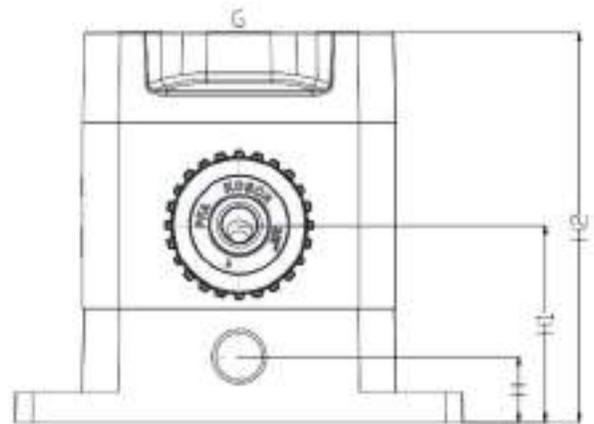
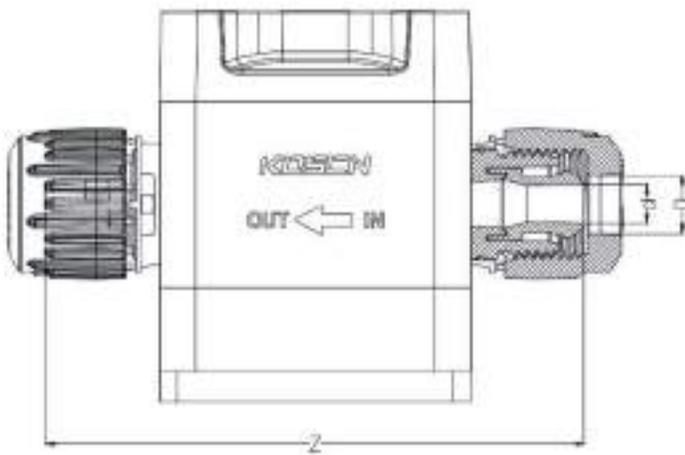
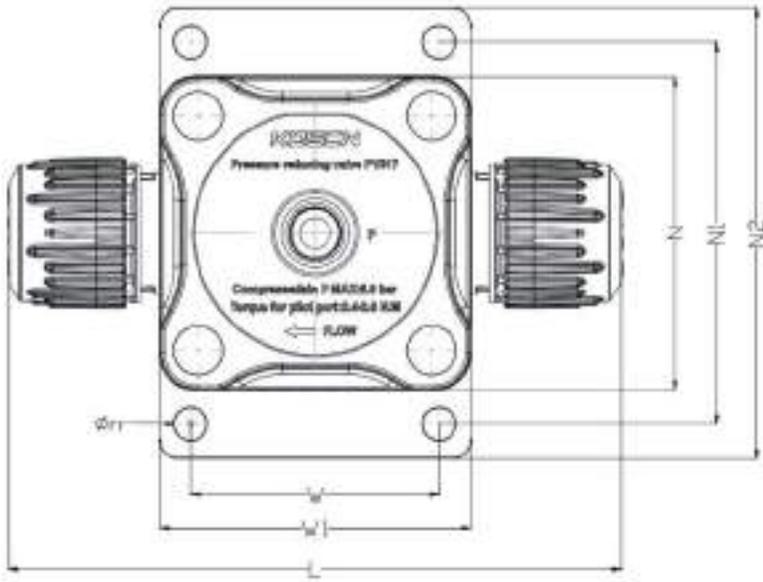


Steady back pressure

It is required to produce good back pressure occasions, balance pressure pulsation, reduce pressure peak, overflow and back pressure combined application is the best solution.



Size



Unit: mm

Inch	D	d	H	H1	H2	N	N1	N2	W	W1	L	Z	n	G
1/4	7,7	4,0												
3/8	10,5	6,4	11	33	65	52	64	75	42	52	102	90	5.5	1/8
1/2	13,9	9,5	11	33	65	52	64	75	42	52	109	96	5.5	1/8
3/4	20,5	15,9												
1	29,0	22,2												



Chemical Liquid Valves

DV 310 Pneumatic

DV 311 Manual



KOSCN Control Valves DV is a miniaturized and compact control valve with excellent corrosion resistance, heat resistance, and a wide range of applications. The inner wall is smooth and the ion extraction is low, which is especially suitable for occasions with high cleanliness requirements. Different material options are closer to application scenarios and application costs, making them more cost-effective.

Easy installation and maintenance

- * All-plastic appearance structure, beautiful and corrosion-resistant
- * Miniaturized design, easy installation, no maintenance
- * UNF standard FlareLINK interface thread, higher adaptability and interchangeability
- * Mounting plate dimensions conform to SEMI standard F65-1101

High safety performance

- * Complies with FDA 177-1520 / 177-1550 dissolution testing requirements
- * Triple-sealed valve cavity diaphragm structure can effectively cut off leakage
- * The drive mechanism is molded with fluororesin, and the pressure bearing redundancy is high
- * Curved PTFE diaphragm is more ductile and has a longer life

High Flexibility

- * Wetted material PP-Natural, PVDF, PFA
- * Diaphragm material PTFE
- * Mechanism material PVDF
- * Seal kit FKM/EPDM optional
- * Structure material PVDF

Technical characteristics

Size 1/4", 3/8", 1/2", 3/4", 1"

Pressure PN 5

Body material PTFE
PFA

Diaphragm PTFE

Actuator PVDF / PPS / PP-Natural

Structure PVDF / PPS / PEEK / PP-Natural

Connector UNF : Flare LINK
Insert Bushing

Floor SEMI F65-1101

Flow capacity

All data are for 20°C water with 1 bar pressure difference

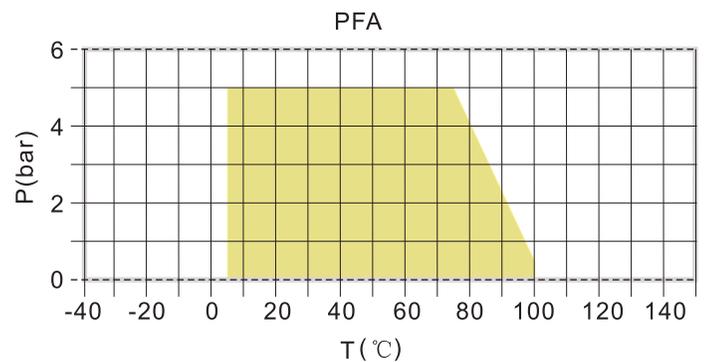
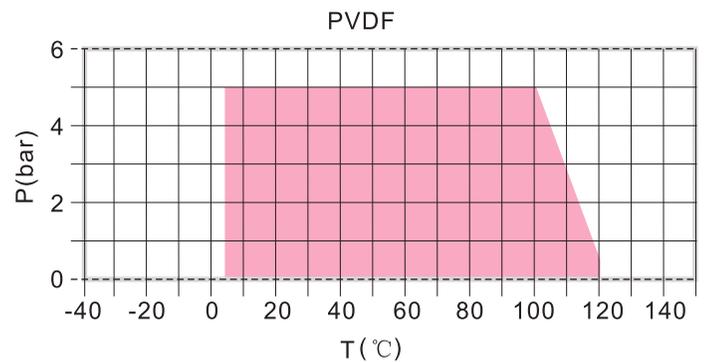
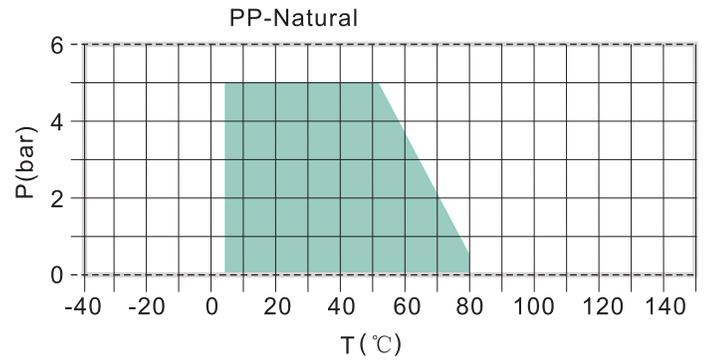
Inch	φ Mm	Kv 100	
		l/min	m ³ /h
1/4"	4	4,70	0,28
3/8"	6	10,00	0,60
1/2"	9	22,00	1,32
3/4"	16	62,00	3,72
1"	22	120,00	7,20

$$Cv = kv \times 0,07 ; Fv = kv \times 0,0585$$

Kv (l/min) ; Cv (gal/min) US ; Fv (gal/min) GB

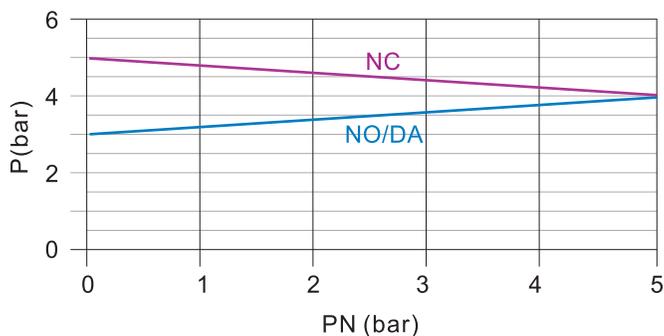
Pressure & temperature curve

All data based on water for considering 25 years safe life time



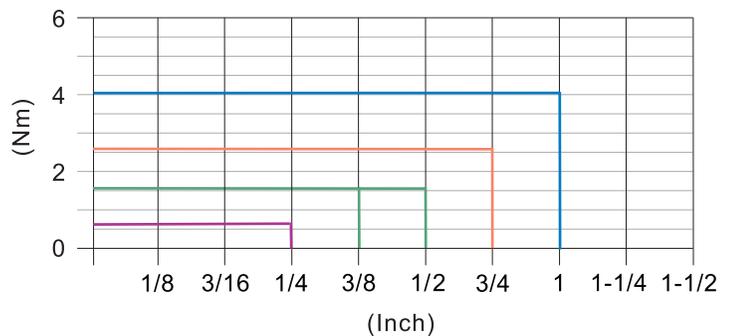
DV310 Control pressure

The maximum input value for pressurized air is 5 bar



DV311 Handwheel torque

Maximum torque required for complete closure





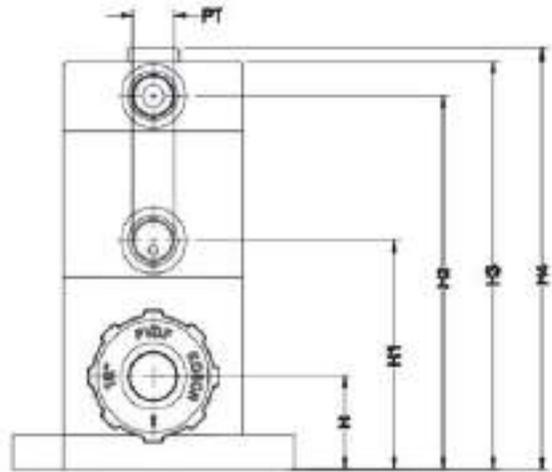
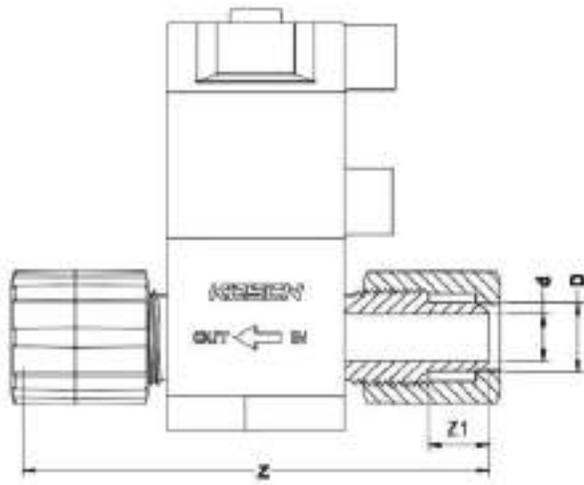
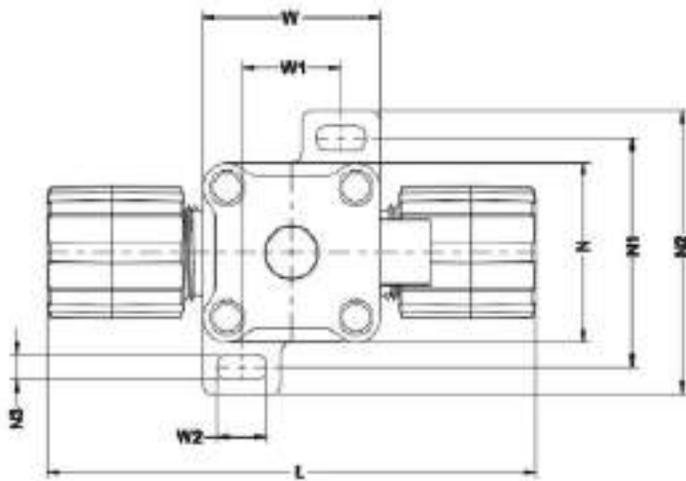
Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Operating temperature	°C	5...120 (Excluding HF)
Ambient temperature	°C	0...60
Material	Valve body	PFA
	Diaphragm	PTFE
	Actuating element	PVDF
	Baseplate	PVDF
	Bolt	SS Coating

Product code

Size (Inch)	Insert Bushing		Flare LINK	
	PFA-UHP	PFA	PFA-UHP	PFA
NC				
1/8				
3/16				
1/4	310.762.2406	310.762.2406C	310.762.0406	310.762.0406C
3/8	310.762.2410	310.762.2410C	310.762.0410	310.762.0410C
1/2	310.762.2412	310.762.2412C	310.762.0412	310.762.0412C
3/4	310.762.2419	310.762.2419C	310.762.0419	310.762.0419C
1	310.762.2426	310.762.2426C	310.762.0426	310.762.0426C
1-1/4				
1-1/2				
NO				
1/8				
3/16				
1/4	310.764.2406	310.764.2406C	310.764.0406	310.764.0406C
3/8	310.764.2410	310.764.2410C	310.764.0410	310.764.0410C
1/2	310.764.2412	310.764.2412C	310.764.0412	310.764.0412C
3/4	310.764.2419	310.764.2419C	310.764.0419	310.764.0419C
1	310.764.2426	310.764.2426C	310.764.0426	310.764.0426C
1-1/4				
1-1/2				
DA				
1/8				
3/16				
1/4	310.766.2406	310.766.2406C	310.766.0406	310.766.0406C
3/8	310.766.2410	310.766.2410C	310.766.0410	310.766.0410C
1/2	310.766.2412	310.766.2412C	310.766.0412	310.766.0412C
3/4	310.766.2419	310.766.2419C	310.766.0419	310.766.0419C
1	310.766.2426	310.766.2426C	310.766.0426	310.766.0426C
1-1/4				
1-1/2				

DV310 , SIZE



Unit: mm

Inch	D	d	PT	H	H1	H2	H3	H4	N	N1	N2	N3	W	W1	W2	L	Z	Z1
1/8																		
3/16																		
1/4	7,7	4,0	1/8	15,5	48	55	64	67	30	37,0	44	3,7	30	18,0	6	86,0	81,5	11,0
3/8	10,5	6,4	1/8	21,0	48	78	85	88	37	49,0	61	6,5	37	21,5	10	94,5	89,5	13,5
1/2	13,9	9,5	1/8	21,0	48	78	85	88	37	49,0	61	6,5	37	21,5	10	98,5	92,5	15,0
3/4	20,5	15,9	1/8	27,0	60	92	106	110	47	63,5	82	9,0	47	24,5	14	121,0	114,2	15,0
1	29,0	22,2	1/8	35,0	75	117	126	131	60	77,5	96	9,0	60	34,5	14	150,0	139,8	16,5
1-1/4																		
1-1/2																		



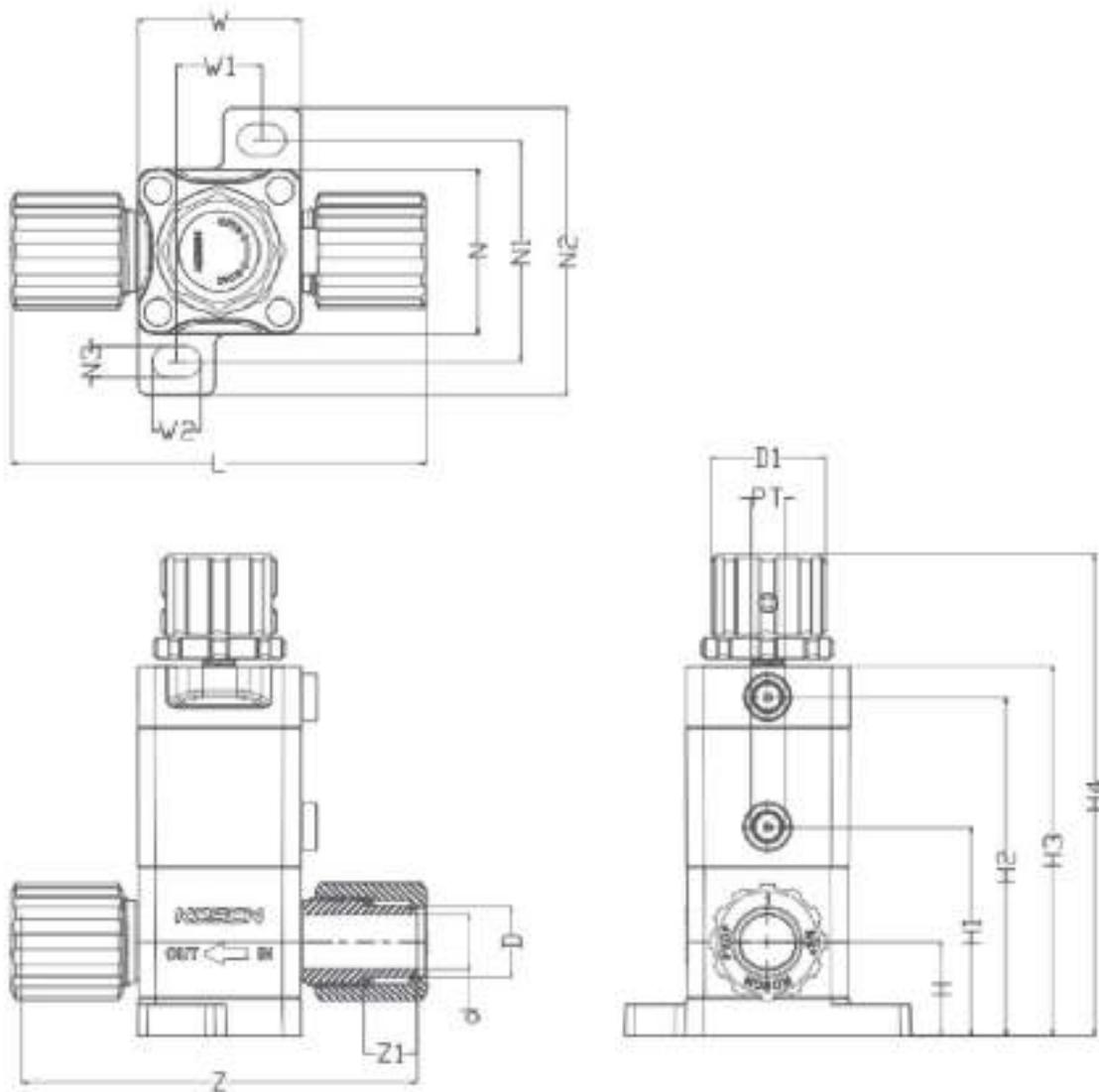
Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Operating temperature	°C	5...120 (Excluding HF)
Ambient temperature	°C	0...60
Material	Valve body	PFA
	Diaphragm	PTFE
	Actuating element	PVDF
	Baseplate	PVDF
	Bolt	SS Coating

Product code

Size (Inch)	Insert Bushing		Flare LINK	
	PFA-UHP	PFA	PFA-UHP	PFA
NC				
1/8				
3/16				
1/4	310.763.2406	310.763.2406C	310.763.0406	310.763.0406C
3/8	310.763.2410	310.763.2410C	310.763.0410	310.763.0410C
1/2	310.763.2412	310.763.2412C	310.763.0412	310.763.0412C
3/4	310.763.2419	310.763.2419C	310.763.0419	310.763.0419C
1	310.763.2426	310.763.2426C	310.763.0426	310.763.0426C
1-1/4				
1-1/2				
NO				
1/8				
3/16				
1/4	310.765.2406	310.765.2406C	310.765.0406	310.765.0406C
3/8	310.765.2410	310.765.2410C	310.765.0410	310.765.0410C
1/2	310.765.2412	310.765.2412C	310.765.0412	310.765.0412C
3/4	310.765.2419	310.765.2419C	310.765.0419	310.765.0419C
1	310.765.2426	310.765.2426C	310.765.0426	310.765.0426C
1-1/4				
1-1/2				
DA				
1/8				
3/16				
1/4	310.767.2406	310.767.2406C	310.767.0406	310.767.0406C
3/8	310.767.2410	310.767.2410C	310.767.0410	310.767.0410C
1/2	310.767.2412	310.767.2412C	310.767.0412	310.767.0412C
3/4	310.767.2419	310.767.2419C	310.767.0419	310.767.0419C
1	310.767.2426	310.767.2426C	310.767.0426	310.767.0426C
1-1/4				
1-1/2				

DV310 , SIZE



Unit: mm

Inch	D	d	PT	H	H1	H2	H3	H4	N	N1	N2	N3	W	W1	W2	L	Z	D1
1/8																		
3/16																		
1/4	7,7	4,0	1/8	15,5	48	55	64	91	30	37,0	44	3,7	30	18,0	6	86,0	81,5	21
3/8	10,5	6,4	1/8	21,0	48	78	85	109	37	49,0	61	6,5	37	21,5	10	94,5	89,5	25
1/2	13,9	9,5	1/8	21,0	48	78	85	109	37	49,0	61	6,5	37	21,5	10	98,5	92,5	25
3/4	20,5	15,9	1/8	27,0	60	92	106	138	47	63,5	82	9,0	47	24,5	14	121,0	114,2	33
1	29,0	22,2	1/8	35,0	75	117	126	157	60	77,5	96	9,0	60	34,5	14	150,0	139,8	57
1-1/4																		
1-1/2																		



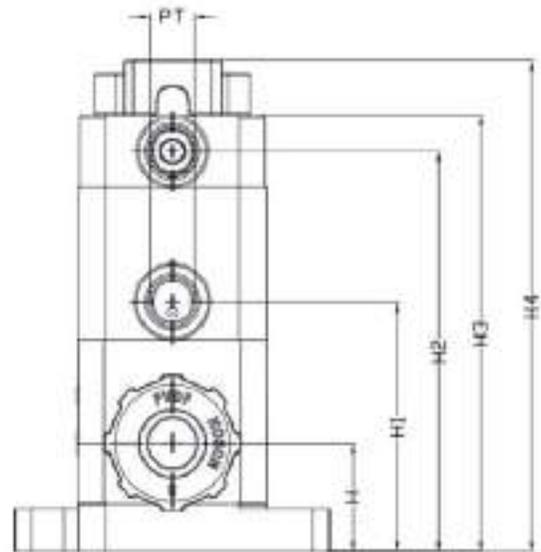
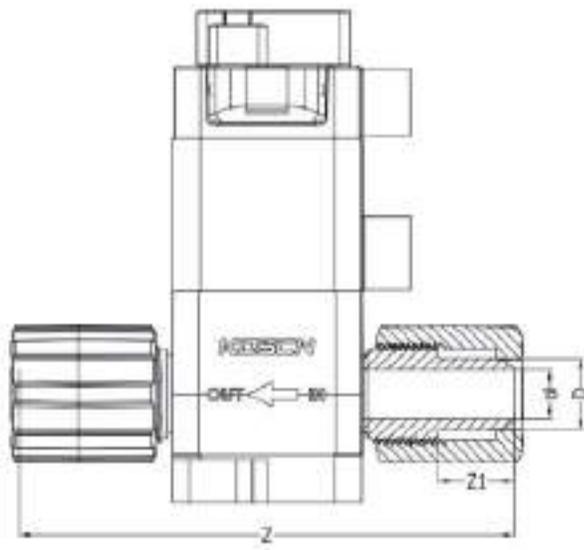
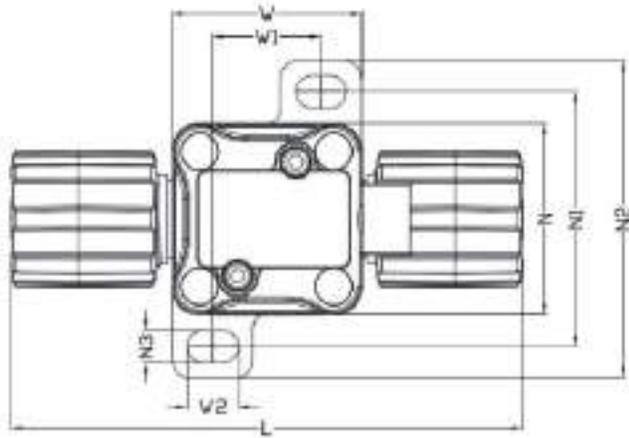
Performance data

Item	Unit	Data	
Service pressure	bar	0...5,0	
Backpressure	bar	0...5,0	
Leakage rate	cm ³ /min	0 (Based on water pressure)	
Operating temperature	°C	5...120 (Excluding HF)	
Ambient temperature	°C	0...50	
Switch	Rated voltage	VDC	24
	Model		NPN
	Cable length	M	1,0

规格料号 Product code

Size (Inch)	Insert Bushing		Flare LINK	
	PFA-UHP	PFA	PFA-UHP	PFA
NC Limit Switch				
1/8				
3/16				
1/4	310.762.2406A1	310.762.2406CA1	310.762.0406A1	310.762.0406CA1
3/8	310.762.2410A1	310.762.2410CA1	310.762.0410A1	310.762.0410CA1
1/2	310.762.2412A1	310.762.2412CA1	310.762.0412A1	310.762.0412CA1
3/4	310.762.2419A1	310.762.2419CA1	310.762.0419A1	310.762.0419CA1
1	310.762.2426A1	310.762.2426CA1	310.762.0426A1	310.762.0426CA1
1-1/4				
1-1/2				
NO Limit Switch				
1/8				
3/16				
1/4	310.764.2406A1	310.764.2406CA1	310.764.0406A1	310.764.0406CA1
3/8	310.764.2410A1	310.764.2410CA1	310.764.0410A1	310.764.0410CA1
1/2	310.764.2412A1	310.764.2412CA1	310.764.0412A1	310.764.0412CA1
3/4	310.764.2419A1	310.764.2419CA1	310.764.0419A1	310.764.0419CA1
1	310.764.2426A1	310.764.2426CA1	310.764.0426A1	310.764.0426CA1
1-1/4				
1-1/2				
DA Limit Switch				
1/8				
3/16				
1/4	310.766.2406A1	310.766.2406CA1	310.766.0406A1	310.766.0406CA1
3/8	310.766.2410A1	310.766.2410CA1	310.766.0410A1	310.766.0410CA1
1/2	310.766.2412A1	310.766.2412CA1	310.766.0412A1	310.766.0412CA1
3/4	310.766.2419A1	310.766.2419CA1	310.766.0419A1	310.766.0419CA1
1	310.766.2426A1	310.766.2426CA1	310.766.0426A1	310.766.0426CA1
1-1/4				
1-1/2				

DV310 SIZE



Unit: mm

Inch	D	d	PT	H	H1	H2	H3	H4	N	N1	N2	N3	W	W1	W2	L	Z
1/8																	
3/16																	
1/4	7,7	4,0	1/8	15,5	48	55	64	76	30	37,0	44	3,7	30	18,0	6	86,0	81,5
3/8	10,5	6,4	1/8	21,0	48	78	85	95	37	49,0	61	6,5	37	21,5	10	94,5	89,5
1/2	13,9	9,5	1/8	21,0	48	78	85	95	37	49,0	61	6,5	37	21,5	10	98,5	92,5
3/4	20,5	15,9	1/8	27,0	60	92	106	117	47	63,5	82	9,0	47	24,5	14	121,0	114,2
1	29,0	22,2	1/8	35,0	75	117	126	137	60	77,5	96	9,0	60	34,5	14	150,0	139,8
1-1/4																	
1-1/2																	



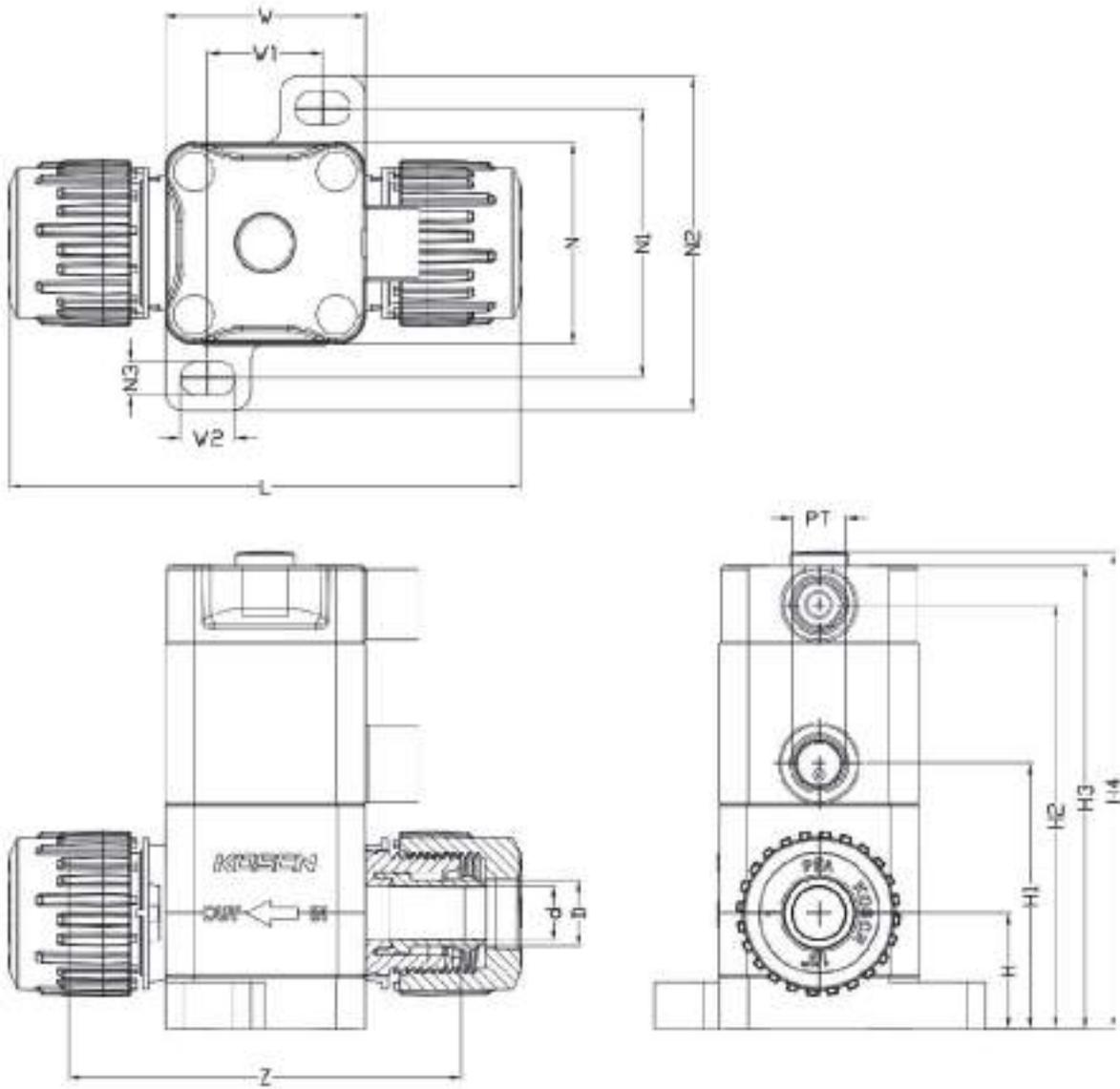
Performance data

Item	Unit	Data
Service pressure	bar	0...3,0
Backpressure	bar	0...1,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Operating temperature	°C	5...160 (Excluding HF)
Ambient temperature	°C	0...60
Material	Valve body	PFA
	Diaphragm	PTFE
	Actuating element	PPS
	Baseplate	PPS
	Bolt	SS Coating

Product code

Size (Inch)	Insert Bushing	
	PFA-UHP	
NC		
1/8		
3/16		
1/4	310.762.2406 H	
3/8	310.762.2410 H	
1/2	310.762.2412 H	
3/4	310.762.2419 H	
1	310.762.2426 H	
1-1/4		
1-1/2		
NO		
1/8		
3/16		
1/4	310.764.2406 H	
3/8	310.764.2410 H	
1/2	310.764.2412 H	
3/4	310.764.2419 H	
1	310.764.2426 H	
1-1/4		
1-1/2		
DA		
1/8		
3/16		
1/4	310.766.2406 H	
3/8	310.766.2410 H	
1/2	310.766.2412 H	
3/4	310.766.2419 H	
1	310.766.2426 H	
1-1/4		
1-1/2		

DV310 , HIGH TEMPERATURE , SIZE



Unit: mm

Inch	D	d	PT	H	H1	H2	H3	H4	N	N1	N2	N3	W	W1	W2	L	Z
1/8																	
3/16																	
1/4	7,7	4,0	1/8	15,5	48	55	64	67	30	37,0	44	3,7	30	18,0	6	69	53,0
3/8	10,5	6,4	1/8	21,0	48	78	85	88	37	49,0	61	6,5	37	21,5	10	87	68,5
1/2	13,9	9,5	1/8	21,0	48	78	85	88	37	49,0	61	6,5	37	21,5	10	94	72,0
3/4	20,5	15,9	1/8	27,0	60	92	106	110	47	63,5	82	9,0	47	24,5	14	117	89,0
1	29,0	22,2	1/8	35,0	75	117	126	131	60	77,5	96	9,0	60	34,5	14	146	115,0
1-1/4																	
1-1/2																	



Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Operating temperature	°C	5...120
Ambient temperature	°C	0...60
Material	Valve body	SUS316L
	Diaphragm	PTFE
	Actuating element	PVDF
	Bolt	SS Coating

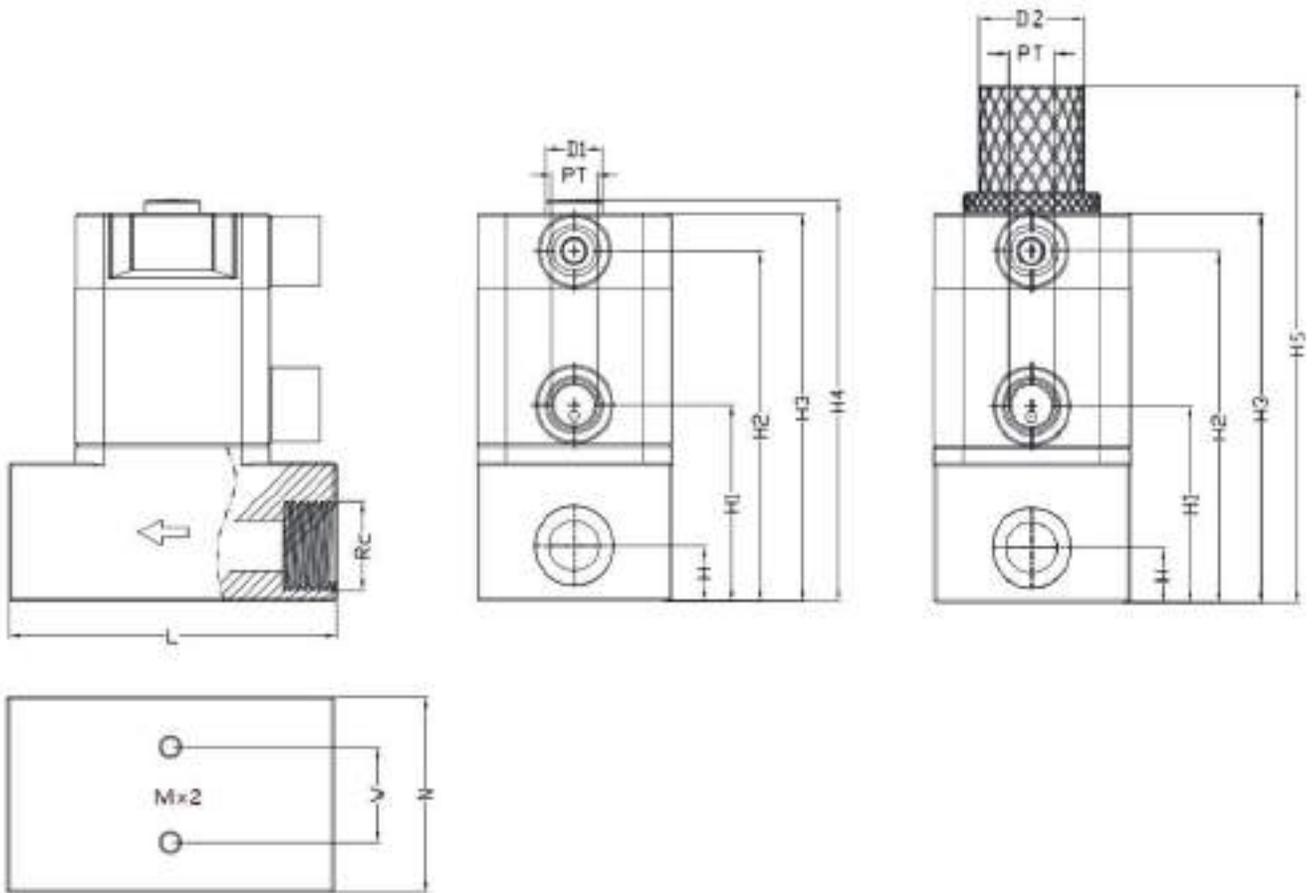
Product code

Size (Inch)	Adaptor Thread Rc	Card sleeve ANSI	Butt Welding ANSI
NC			
1/4	310.972.9906	310.972.6406	310.972.5406
3/8	310.972.9910	310.972.6410	310.972.5410
NO			
1/4	310.974.9906	310.974.6406	310.974.5406
3/8	310.974.9910	310.974.6410	310.974.5410
DA			
1/4	310.976.9906	310.976.6406	310.976.5406
3/8	310.976.9910	310.976.6410	310.976.5410



Product code

Size (Inch)	Adaptor Thread Rc	Card sleeve ANSI	Butt Welding ANSI
NC Manual Limit-DOWN			
1/4	310.973.9906X		
3/8	310.973.9910X		
NO Manual Limit-DOWN			
1/4	310.975.9906X		
3/8	310.975.9910X		
DA Manual Limit-DOWN			
1/4	310.977.9906X		
3/8	310.977.9910X		



Unit: mm

Inch	D1	D2	PT	H	H1	H2	H3	H4	H5	N	W	M	L
1/16													
1/8													
1/4	9	20	1/8	10	37	66	73	76	99	32	13	4	62
3/8	9	20	1/8	10	37	66	73	76	99	32	13	4	62

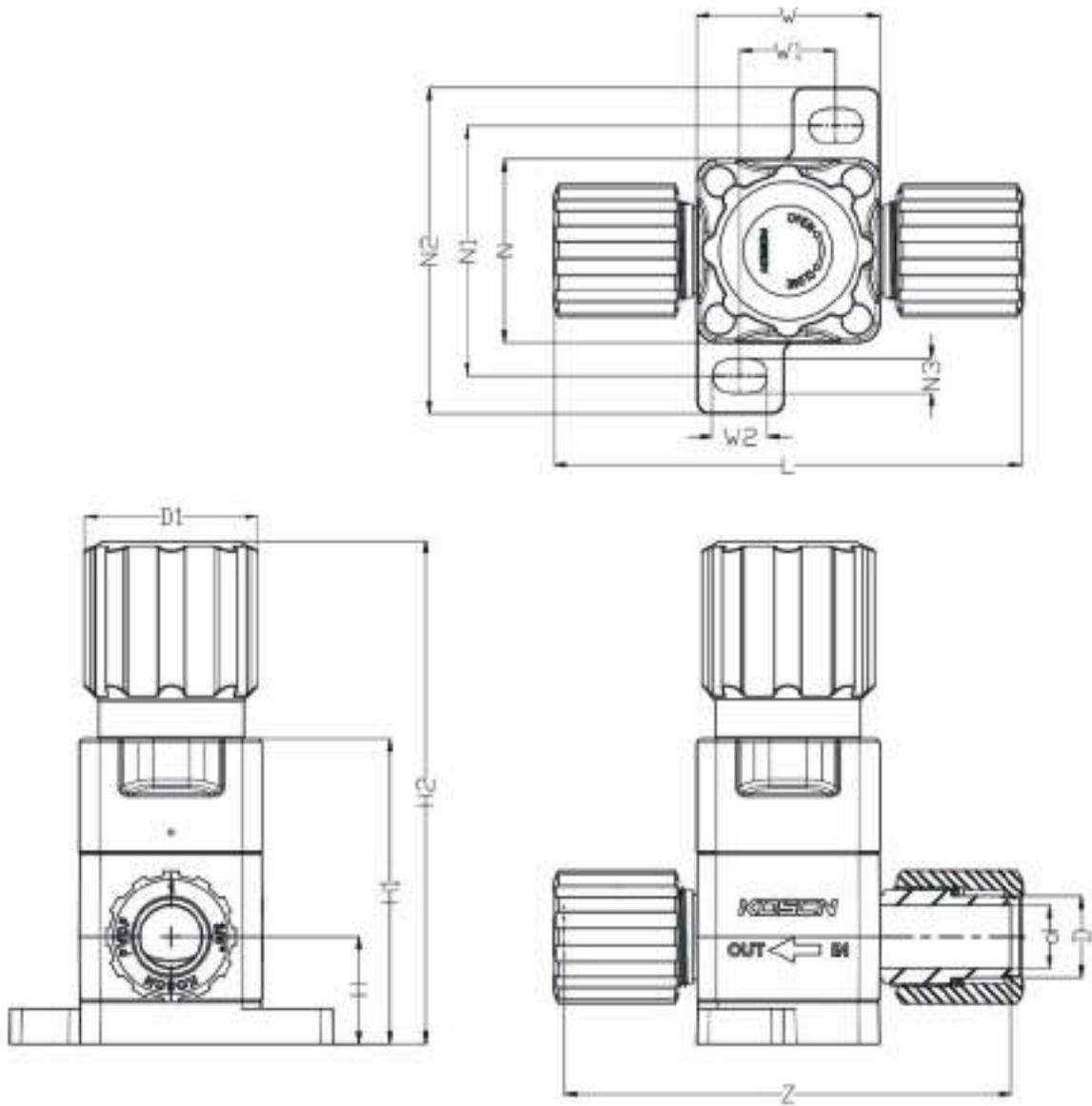


Performance data

<i>Item</i>	<i>Unit</i>	<i>Data</i>
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Operating temperature	°C	5...80
Ambient temperature	°C	0...60
Material	Valve body	PFA
	Diaphragm	PTFE
	Actuating element	PP-Natural
	Baseplate	PVDF
	Bolt	SS Coating

Product code

<i>Size (Inch)</i>	<i>Insert Bushing</i>		<i>Flare LINK</i>	
	<i>PFA-UHP</i>	<i>PFA</i>	<i>PFA-UHP</i>	<i>PFA</i>
Standard				
1/8				
3/16				
1/4	311.760.2406	311.760.2406C	311.760.0406	311.760.0406C
3/8	311.760.2410	311.760.2410C	311.760.0410	311.760.0410C
1/2	311.760.2412	311.760.2412C	311.760.0412	311.760.0412C
3/4	311.760.2419	311.760.2419C	311.760.0419	311.760.0419C
1	311.760.2426	311.760.2426C	311.760.0426	311.760.0426C
1-1/4				
1-1/2				



Unit: mm

Inch	D	d	D1	H	H1	H2	N	N1	N2	N3	W	W1	W2	L	Z
1/8															
3/16															
1/4	7,7	4,0	25	15,5	47	81	30	37,0	44	3,7	30	18,0	6	86,0	81,8
3/8	10,5	6,4	33	21,0	66	105	37	49,0	61	6,5	37	21,5	10	94,5	89,5
1/2	13,9	9,5	33	21,0	66	105	37	49,0	61	6,5	37	21,5	10	98,5	92,5
3/4	20,5	15,9	44	27,0	82	136	47	63,5	82	9,0	47	24,5	14	121,0	114,2
1	29,0	22,2	57	35,0	97	159	60	77,5	96	9,0	60	34,5	14	150,0	139,8
1-1/4															
1-1/2															

Performance data

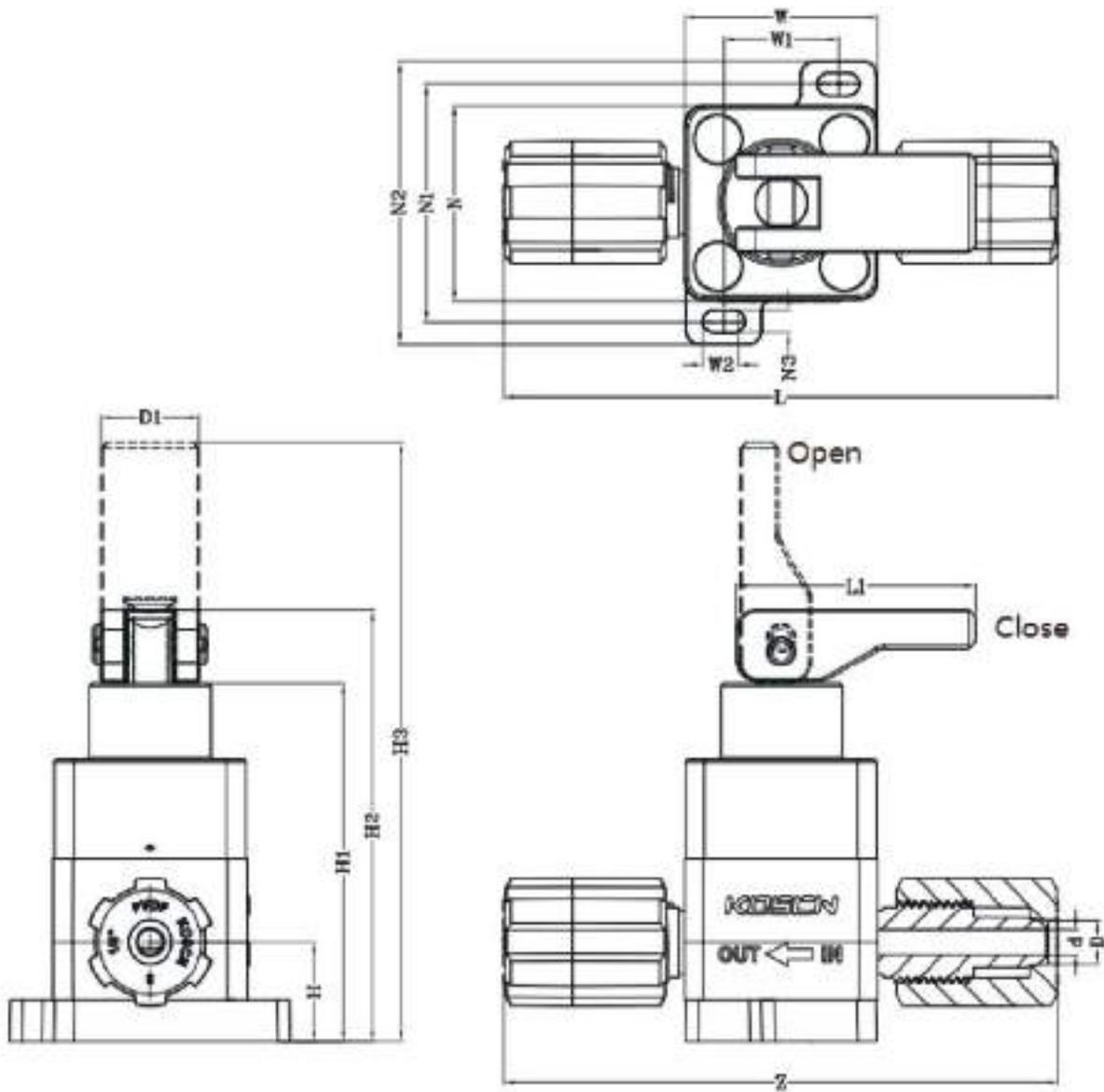


<i>Item</i>	<i>Unit</i>	<i>Data</i>
Service pressure	bar	0...5,0
Backpressure	bar	0...3,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Operating temperature	°C	5...60
Ambient temperature	°C	0...60
Material	Valve body	PFA
	Diaphragm	PTFE
	Actuating element	PP-Natural
	Baseplate	PVDF
	Bolt	SS Coating

Product code

<i>Size (Inch)</i>	<i>Insert Bushing</i>		<i>Flare LINK</i>	
	<i>PFA-UHP</i>	<i>PFA</i>	<i>PFA-UHP</i>	<i>PFA</i>
Toggle 90°				
1/8				
3/16				
1/4	311.767.2406	311.767.2406C	311.767.0406	311.767.0406C
3/8	311.767.2410	311.767.2410C	311.767.0410	311.767.0410C
1/2	311.767.2412	311.767.2412C	311.767.0412	311.767.0412C
3/4	311.767.2419	311.767.2419C	311.767.0419	311.767.0419C
1	311.767.2426	311.767.2426C	311.767.0426	311.767.0426C
1-1/4				
1-1/2				

DV311 , TOGGLE , SIZE



Unit: mm

Inch	D	d	D1	H	H2	H3	N	N1	N2	N3	W	W1	W2	L	L1
1/8															
3/16															
1/4	7,7	4,0	15,5	15,5	67	94	30	37,0	44	3,7	30	18,0	6	86,0	37,5
3/8	10,5	6,4	16,0	21,0	100	130	37	49,0	61	6,5	37	21,5	10	94,5	42,5
1/2	13,9	9,5	16,0	21,0	100	130	37	49,0	61	6,5	37	21,5	10	98,5	42,5
3/4	20,5	15,9	19,0	27,0	120	160	47	63,5	82	9,0	47	24,5	14	121,0	55,0
1	29,0	22,2	22,0	35,0	140	190	60	77,5	96	9,0	60	34,5	14	150,0	
1-1/4															
1-1/2															



CV 510

Check valves



KOSCN Control Valves CV510 is a PTFE machined assembly with excellent chemical resistance. The structure design without O-LING can meet the application requirements of high purity semiconductor. The single setting of the spring allows for a seal guarantee with minimal back pressure.

Easy installation and maintenance

- * Allows installation in any direction, reducing connection and installation space
- * Detachable two-body structure, easy to maintain the cavity
- * Medium flow direction indication to ensure correct use

High safety performance

- * Superior sealing surface flatness to ensure sealing effect
- * The one-way plate in the cavity is designed with guided balance to ensure the use effect and life
- * With spring function, minimum back pressure check effect guarantee

Material

- * Superior sealing surface flatness to ensure sealing effect
- * The one-way plate in the cavity is designed with guided balance to ensure the use effect and life
- * With spring function, minimum back pressure check effect guarantee

Performance data

- * Valve plate Cracking Pressure: 0.015 - 0.055 bar
- * Back Check Sealing Pressure: 0.5 bar
- * Pressure Range:
 - Vacuum negative pressure: 910 mbar
 - Positive pressure: 8.0 bar
- * Ambient temperature: 0...100 °C
- * Operating temperature: 0...130 °C



Performance data

Item	Unit	Data
Service pressure	bar	0...8,0
Hg vacuum	mbar	910
Back check sealing pressure	bar	0.5
Operating temperature	°C	0...130
Ambient temperature	°C	0...100
Material	Valve body	PTFE
	Spring	PTFE
	Nut	PVDF

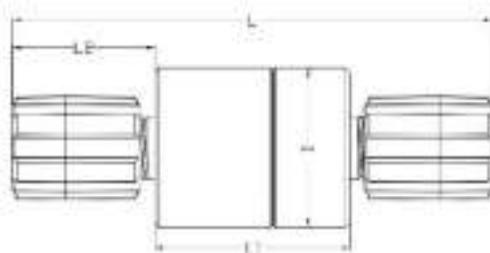
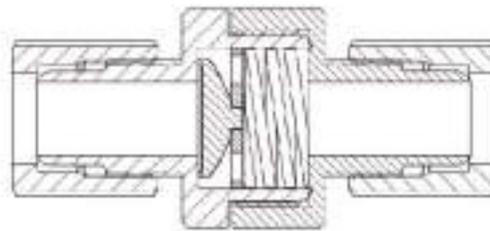
Product code

Size (Inch)	Insert Bushing		Flare LINK	
	PTFE-UHP	PTFE	PTFE-UHP	PTFE

Spring plate type

1/4	510.870.2406			510.870.0406C
3/8	510.870.2410			510.870.0410C
1/2	510.870.2412			510.870.0412C
3/4	510.870.2419			510.870.0419C
1	510.870.2426			510.870.0426C

Size



Unit: mm

Inch	D	L	L1	L2
1/4	31,3	95	39	28
3/8	31,3	98	39	30
1/2	40,0	102	45	28
3/4	49,0	121	45	38
1	70,0	146	55	46



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KOSCN

DV 313

Pneumatic 3-way valve



KOSCN Control Valves DV Pneumatic three-way valve is a valve that controls the fluid path. It has different structural types of single seat and double seat. It is based on the mechanical principle of fluid dynamics and control valve to achieve accurate control of the fluid path and flow rate. At the same time, the products have ultra-pure electronic grade standards, which can be widely used in biopharmaceutical and semiconductor industries.

Easy installation and maintenance

- * All-plastic appearance structure, NC and NO free choice
- * Miniaturized design, easy installation, no maintenance
- * UNF standard FlareLINK interface thread, higher adaptability and interchangeability
- * There are options for manual local control functions

High safety performance

- * Complies with FDA 177-1520 / 177-1550 dissolution testing requirements
- * Ultra-pure products comply with SEMI F057 standards
- * The PTFE diaphragm has a low Particulate characteristic

High Flexibility

- * Wetted material PTFE, PFA
- * Diaphragm material PTFE
- * Nut material PVDF or PFA
- * Seal kit FKM/EPDM optional
- * Structure material PVDF、PP or PPS
- * Scalable manual limit and position feedback sensor



Performance data

Item	Unit	Data
A to B service pressure	bar	0...5,0
C-end Back pressure	bar	0...4,0
A to C service pressure	bar	0...5,0
B-end Back pressure	bar	0...2,0
Control pressure	kgf/cm ²	4,0...5,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
CV		1,9
Operating temperature	°C	5...80
Ambient temperature	°C	0...60 (sensor 0...50)
Material	Valve body	PTFE
	Diaphragm	PTFE
	Actuating element	PVDF / PPN / PTFE
	Baseplate	PVDF / PPS
	Bolt	SUS Coating

Product code

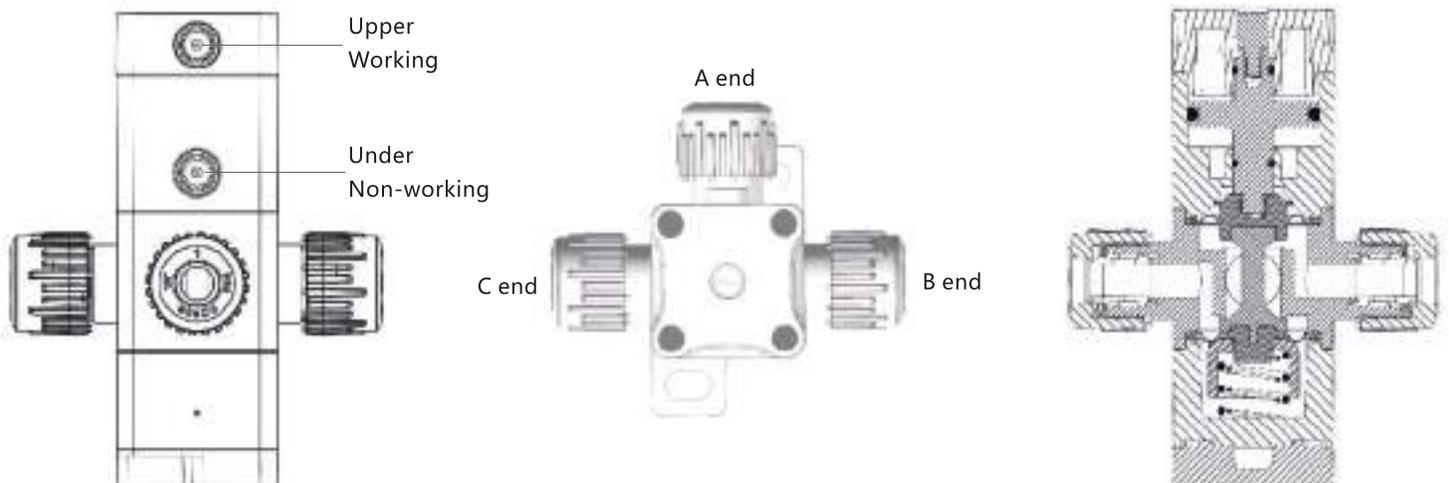
Size (Inch)	Code	Connection Type	Actuating element	Spring housing	Baseplate
1/2	313.8602412	Insert Bushing	PVDF	PVDF	PVDF
1/2	313.8602412J	Insert Bushing	PP	PTFE	PPGF
1/2	313.8602412H	Insert Bushing	PPS	PTFE	PPS

Function Description

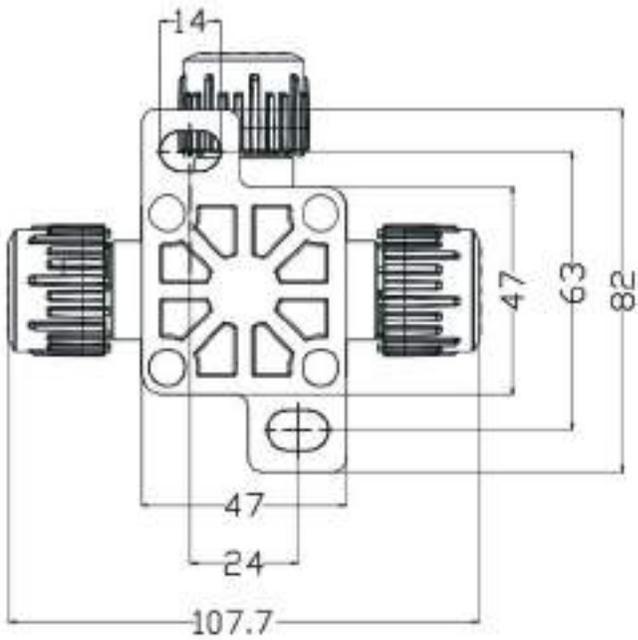
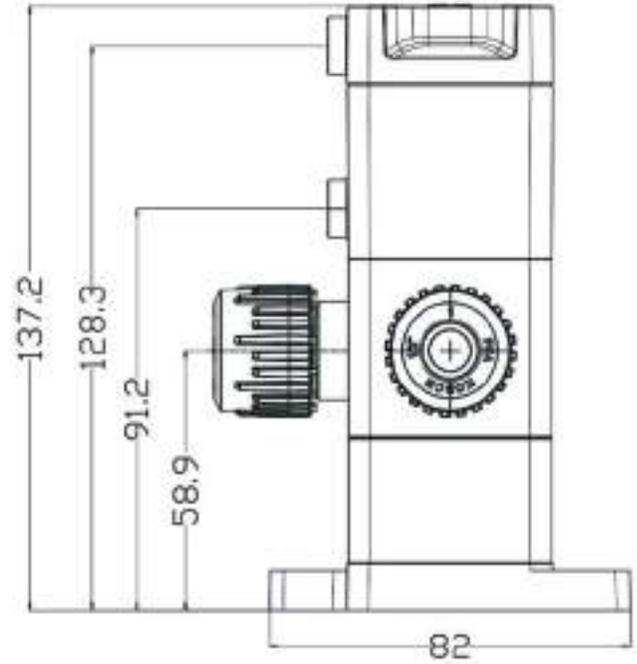
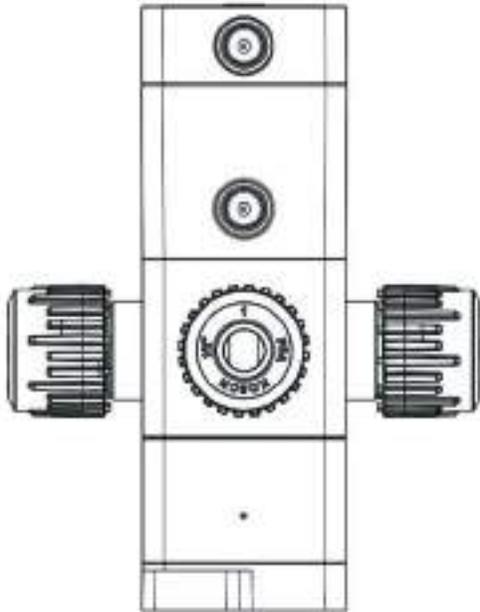
T-type pneumatic three-way valve, single seat, piston type, for medium shunt and reversing switch

When there is no air source drive, end A and end B are connected

When the upper air source is driven, end A and C end are connected



1/2 Size





Performance data

Item	Unit	Data
Service pressure	bar	0...5,0
Backpressure	bar	0...5,0
NC/NO control pressure	kgf/cm ²	4,0...5,0
DA control pressure	kgf/cm ²	3,0...4,0
Leakage rate	cm ³ /min	0 (Based on water pressure)
Configurable sensors	VDC	24 (PNP or NPN)
Operating temperature	°C	5...120
Ambient temperature	°C	0...60 (sensor 0...50)
Material	Valve body	PFA
	Diaphragm	PTFE
	Actuating element	PVDF
	Baseplate	PVDF / SUS
	Bolt	SUS Coating

Product code

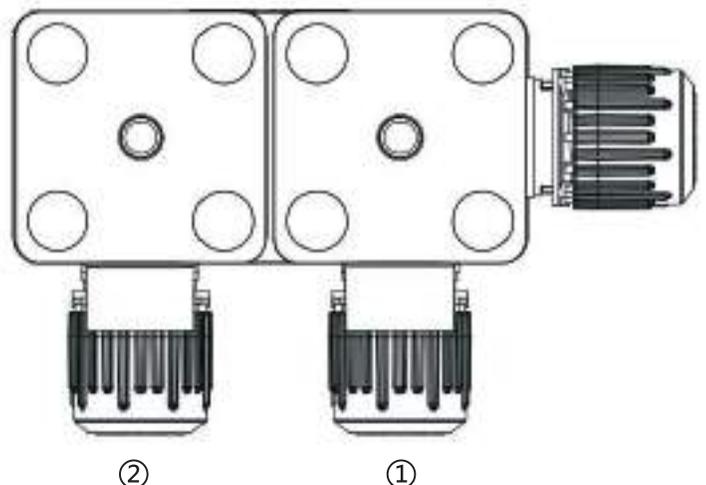
Size (Inch)	Insert Bushing		作用方式	
	PFA-UHP	PFA	①	②
F-Type				
1/4	313.7622406	313.7622406C	NO	NC
1/4	313.7632406	313.7632406C	NC	NO
1/4	313.7642406	313.7642406C	NC	NC
1/4	313.7652406	313.7652406C	NO	NO

Function Description

F-type two-seat three-way valve, one into two, standard valve structure flow channel. Position feedback sensor can be configured

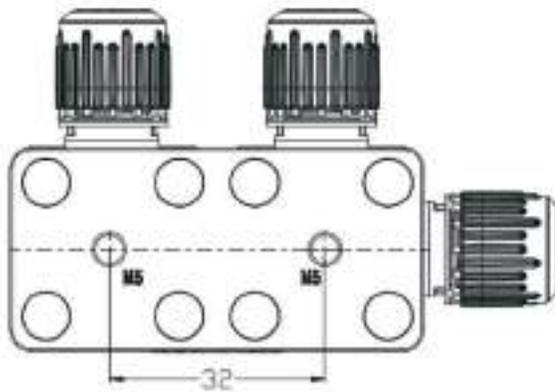
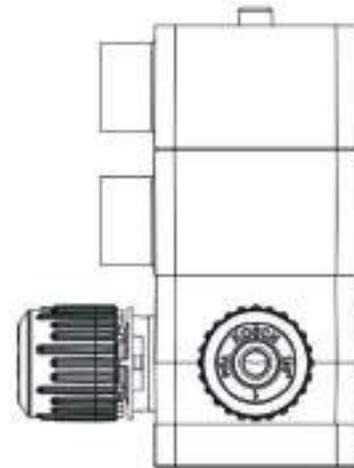
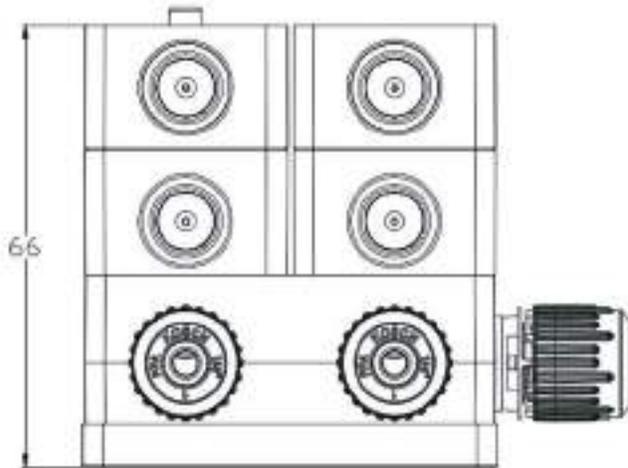
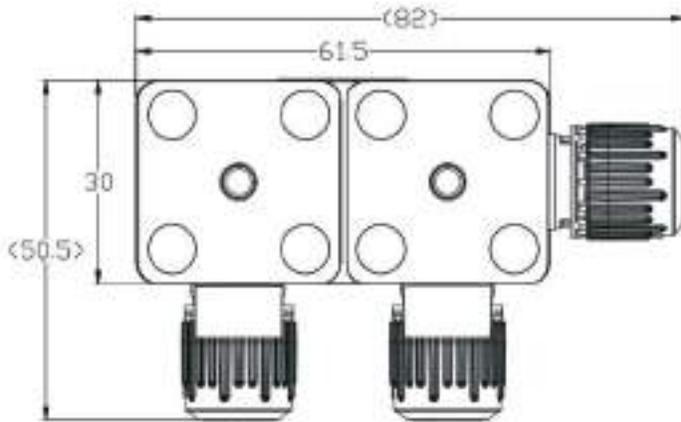
① Valve position: pneumatic cutting function, optional mode of action

② Valve position: pneumatic cutting function, optional mode of action



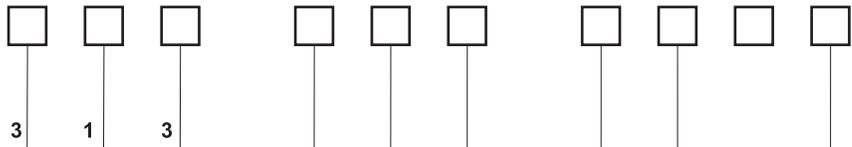
DV313 , 2-SEAT PNEUMATIC 3-WAY VALVES

1/4 Size



Order code

DV313 3-way valve



Valve body material									
PVDF				6					
PFA				7					
PTFE				8					
Diaphragm material									
PTFE				6					
Working mode									
1 seat T type, Right NO						0			
1 seat T type, Left NO						1			
2 seat F type, NO-NC						2			
2 seat F type, NC-NO						3			
2 seat F type, NC-NC						4			
2 seat F type, NO-NO						5			
Connection mode									
Flare LINK: PVDF NUT							0		
Insert Bushing							2		
Flare LINK: PFA NUT							4		
Thread							9		
Connection standard									
ANSI UNF								4	
BSP/G								6	
NPT								8	
Interface size									
1/16"									02
1/8"									03
3/16"									04
1/4"									06
3/8"									10
1/2"									12
3/4"									19
1"									26
1-1/4"									31
1-1/2"									38

