

Air Operated Chemical Valve

Non-Metallic Exterior

Series LVQ

How to Order Valve(Single Type)

LVQ 2 0 - Z 07

Body class

Symbol	Body class	Orifice dia.
2	2	ø4
3	3	ø8
4	4	ø10
5	5	ø16
6	6	ø22

Valve type

0	N.C.
1	N.O.
2	Double acting

Note) Refer to variations in the table below for valve type combinations.

Option

Nil	None
1	With flow rate adjustment
2	With by-pass
3	With flow rate adjustment & by-pass
4	With indicator
5	High back pressure(0.42MPa)
6	High back pressure & Flow rate adjustment
7	High back pressure & by-pass
8	High back pressure & Flow rate adjustment & by-pass
9	High back pressure & indicator

Note) Refer to "Variations" in the table below for option combinations.



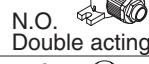



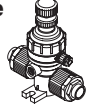


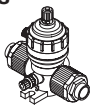


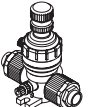





Applicable tubing size

Symbol	Connecting tubing O.D.	Body class				
		2	3	4	5	6
Inch sizes						
03	1/8	○				
07	1/4	○	○			
11	3/8		○	○		
13	1/2			○	○	
19	3/4				○	○
25	1					○

Pilot port size

Nil	LQ3 Integral fitting	Connecting tubing outside diameter 1/8" (ø3)
R	Thread type	Rc1/8
N	Thread type	NPT1/8

Variations

Type	Symbol	Valve type	Model				
			LVQ20	LVQ30	LVQ40	LVQ50	LVQ60
		Orifice diameter	ø4	ø8	ø100	ø16	ø22
		Connecting fitting size	2	3	4	5	6
Basic type  N.C.  N.O.  Double acting		N.C.	○	○	○	○	○
		N.O.	○	○	○	○	○
		Double acting	○	○	○	○	○
With flow rate adjustment 		N.C.	○	○	○	○	○
With by-pass  N.C.  Double acting		N.C.	○	○	○	○	○
		Double acting	○	○	○	○	○
With flow rate adjustment & by-pass 		N.C.	○	○	○	○	○
With indicators 		N.C.	○	○	○	○	○
High back pressure 		N.C.	○	○	○	○	○

Series LVQ

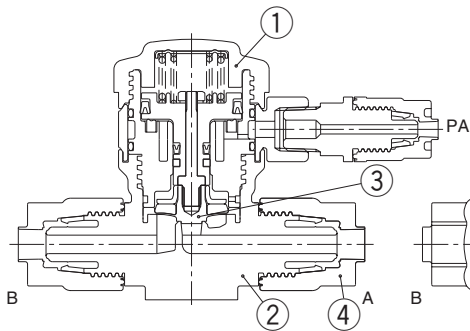


Standard Specifications

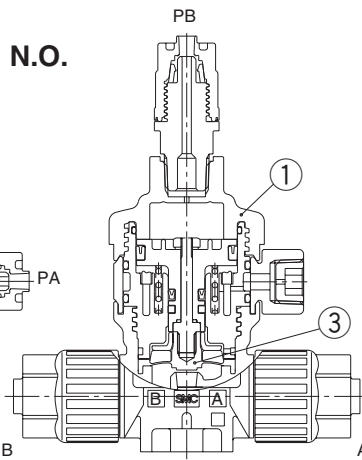
Model		LVQ20	LVQ30	LVQ40	LVQ50	LVQ60
Tubing O.D.	Inch	1/4	3/8	1/2	3/4	1
	Orifice diameter	ø4	ø8	ø10	ø16	ø22
Flow rate characteristics	$Av \times 10^{-6}m^2$	8.4	31.2	45.6	120	192
	Cv	0.35	1.3	1.9	5	8
Withstand pressure(MPa)		1				
Operating pressure-flown A to B>		-98kPa to 0.5MPa			-98kPa to 0.4MPa	
Back pressure (MPa)	Standard	0.3 or less			0.2 or less	
	High	0.42				
Valve leakage(cm ³ /min)		0 (with water pressure)				
Pilot pressure(MPa)		0.3 to 0.5 (0.45 to 0.55 with back pressure)				
Pilot port size		1/8"(ø3), Rc1/8, NPT1/8				
Fluid temperature(°C)		0 to 100				
Ambient temperature(°C)		0 to 60				
Weight(kg)		0.08	0.18	0.22	0.72	0.87

Construction

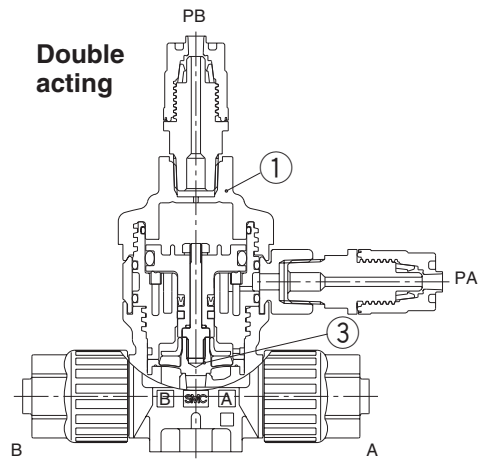
Basic type
N.C.



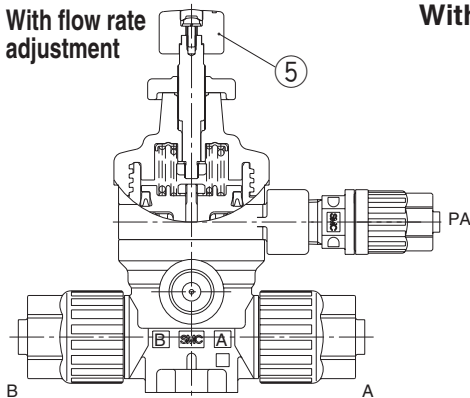
N.O.



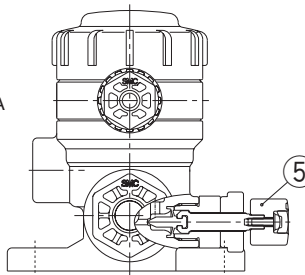
Double acting



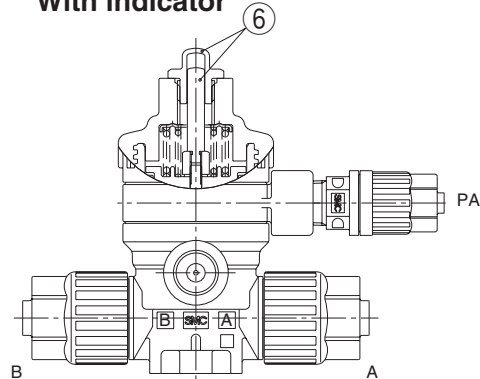
With flow rate adjustment



With by-pass



With indicator



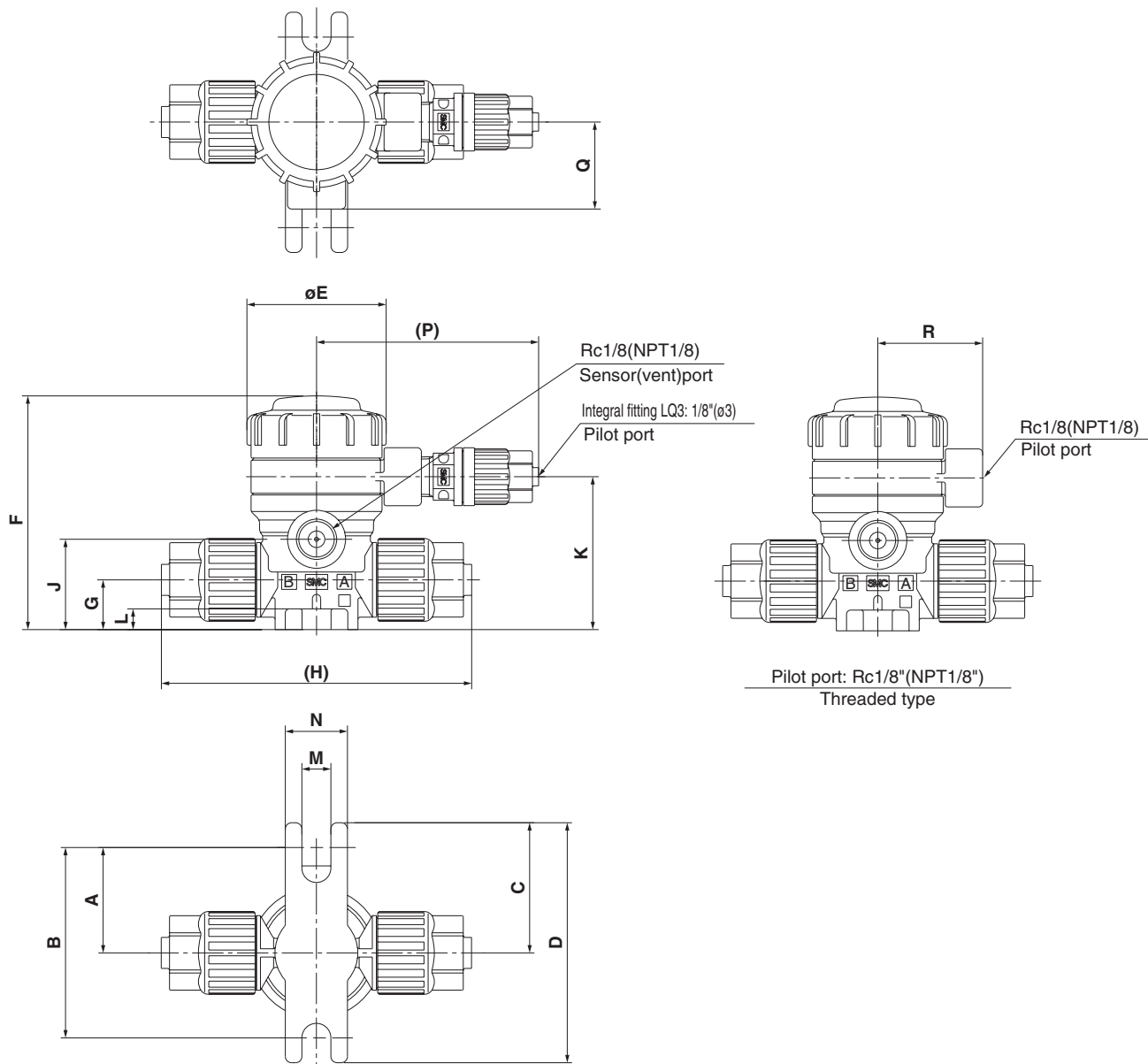
Parts list

No.	Description	Material
1	Actuator section	PVDF
2	Body	PFA
3	Diaphragm	PTFE
4	Nut	PFA
5	Flow rate adjustment unit	PVDF
6	Indicator, cover	PP

Series LVQ

Dimensions

N.C.



(mm)

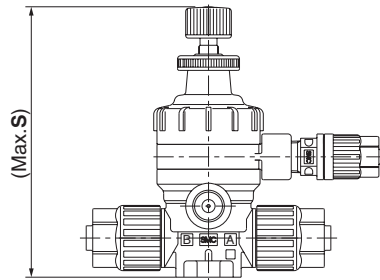
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R
LVQ20-Z□□	25.5	46	31.5	58	33.6	56.5	12	75	21.8	37	5	7	15	53.5	21	25.3
LVQ30-Z□□	23.5	47	29.5	59	45.4	77	16.5	103	32	50	6	7	20	59.5	25	31.2
LVQ40-Z□□	23.5	47	29.5	59	45.4	82.5	22	114	37.5	55.5	6	7	20	59.5	25	31.2
LVQ50-Z□□	35	70	41	82	75	127	25	150	50.2	78.2	10	7	20	73	38.5	45
LVQ60-Z□□	35	70	41	82	75	137	32	167	60	88	10	7	20	73	38.5	45

Series LVQ

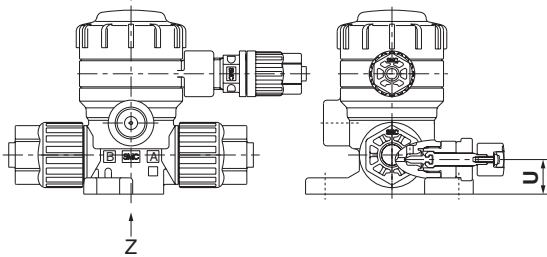
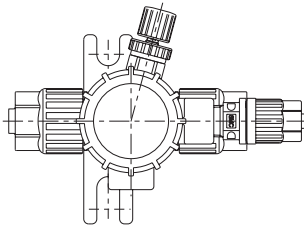
Dimensions

N.C., with flow rate adjustment

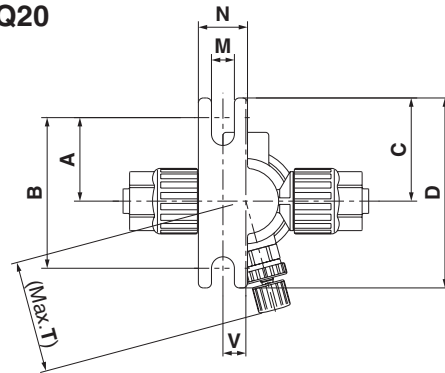
Model	(mm) S
LVQ20-Z□□-1	83
LVQ30-Z□□-1	113.5
LVQ40-Z□□-1	119
LVQ50-Z□□-1	171.5
LVQ60-Z□□-1	182.5



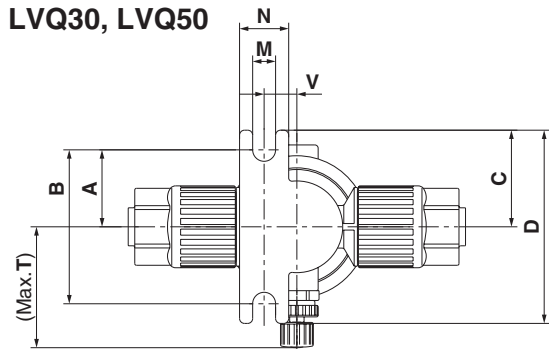
N.C., with by-pass



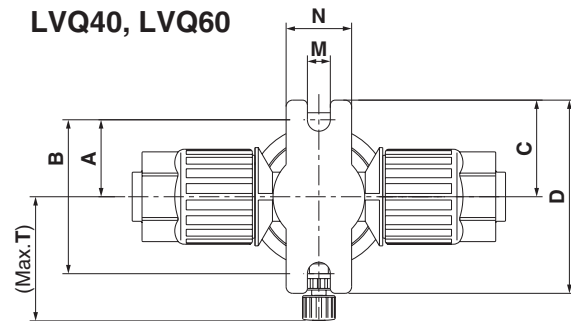
LVQ20



LVQ30, LVQ50



LVQ40, LVQ60



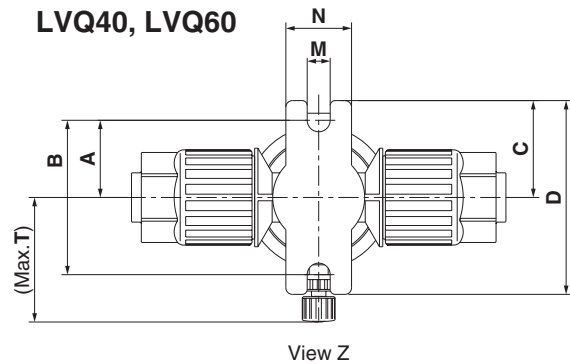
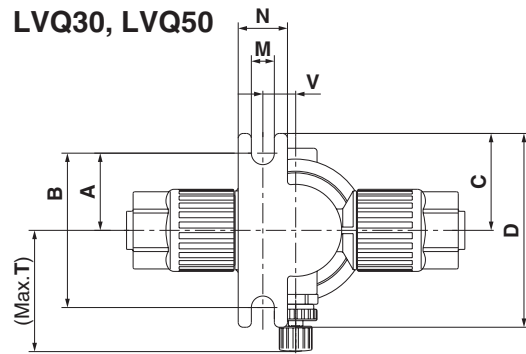
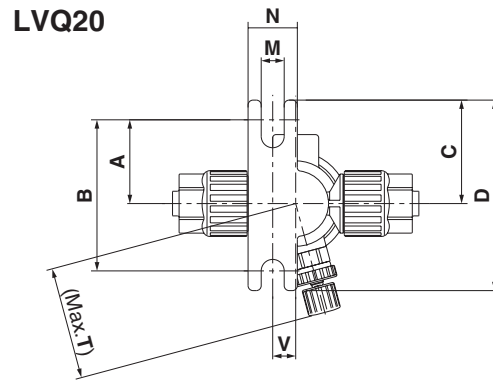
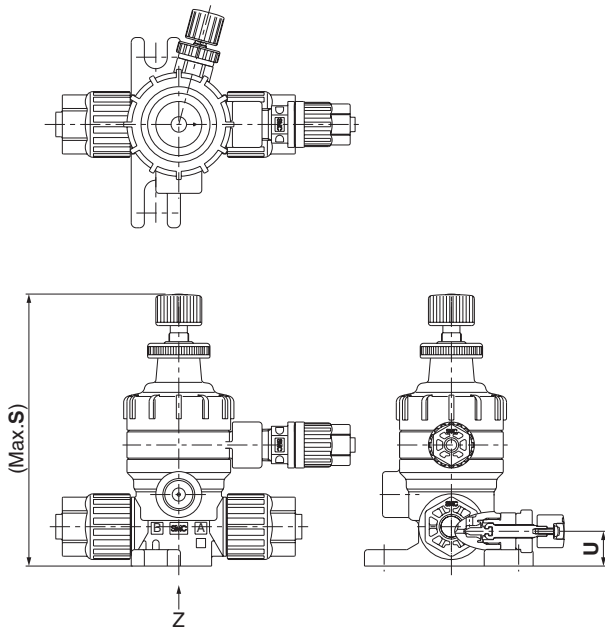
View Z

Model	(mm)								
	A	B	C	D	M	N	T	U	V
LVQ20-Z□□-2	25.5	46	31.5	58	7	15	35.3	10.6	7
LVQ30-Z□□-2	23.5	47	29.5	59	7	15	36.9	16.5	10
LVQ40-Z□□-2	23.5	47	29.5	59	7	20	37.9	22	-
LVQ50-Z□□-2	35	70	41	82	7	20	64	25	17
LVQ60-Z□□-2	35	70	41	82	7	20	66	32	-

Series LVQ

Dimensions

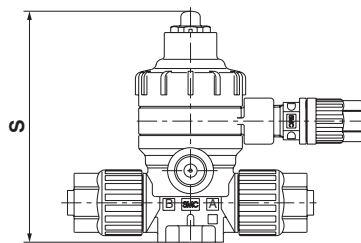
N.C., with flow rate adjustment & by-pass



Model	A	B	C	D	M	N	S	T	U	V
LVQ20-Z□-3	25.5	46	31.5	58	7	15	83	35.3	10.6	7
LVQ30-Z□-3	23.5	47	29.5	59	7	15	113.5	36.9	16.5	10
LVQ40-Z□-3	23.5	47	29.5	59	7	20	119	37.9	22	-
LVQ50-Z□-3	35	70	41	82	7	20	171.5	64	25	17
LVQ60-Z□-3	35	70	41	82	7	20	182.5	66	32	-

N.C., with indicator

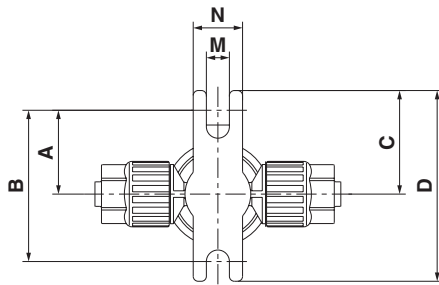
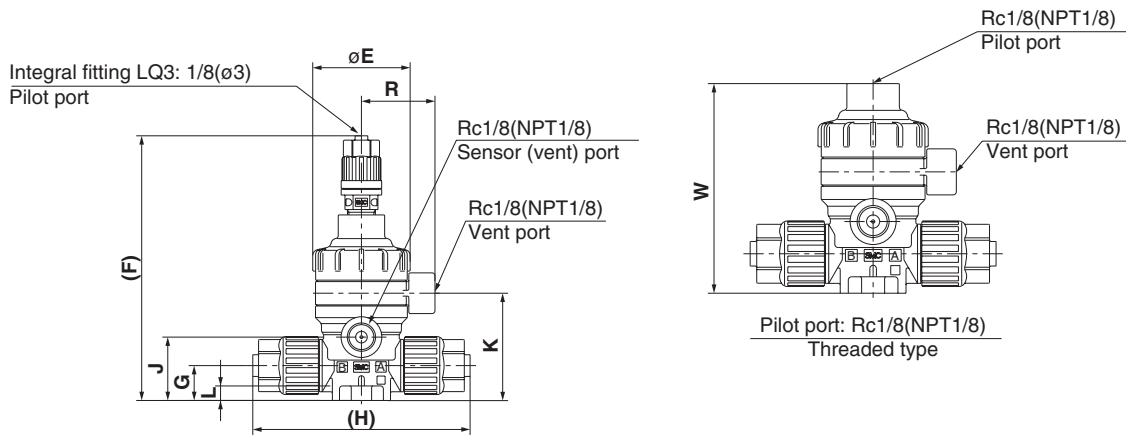
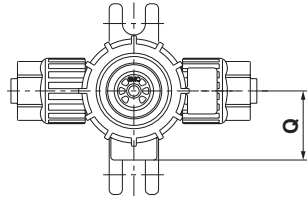
Model	S
LVQ20-Z□-4	70.5
LVQ30-Z□-4	88.5
LVQ40-Z□-4	94
LVQ50-Z□-4	134.5
LVQ60-Z□-4	144



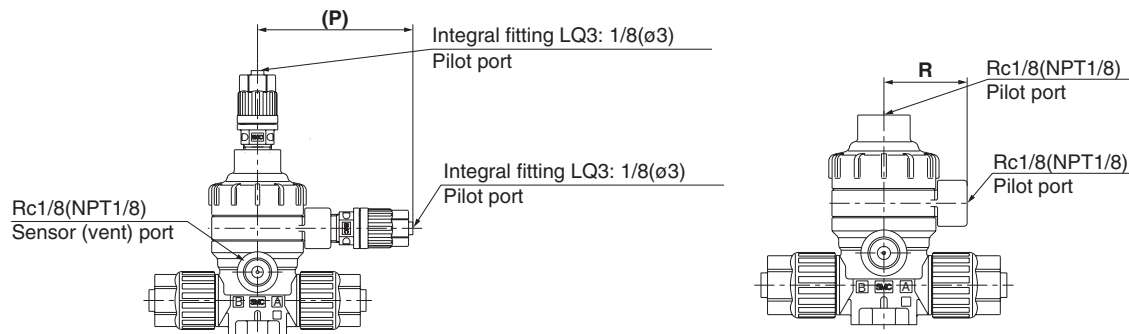
Series LVQ

Dimensions

N.O.



Double acting



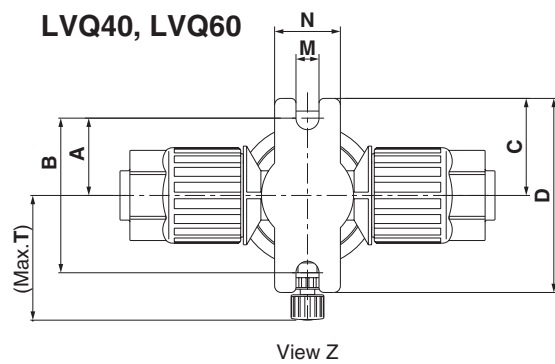
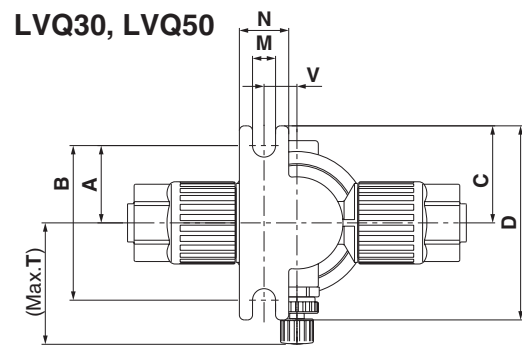
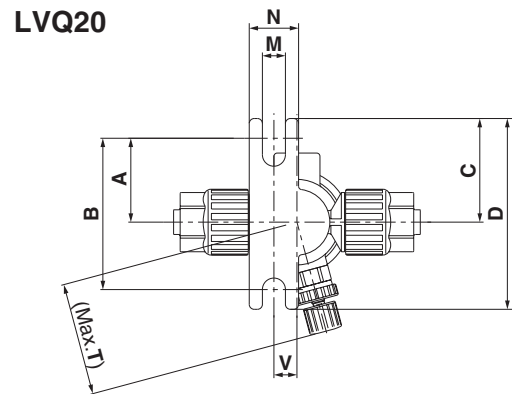
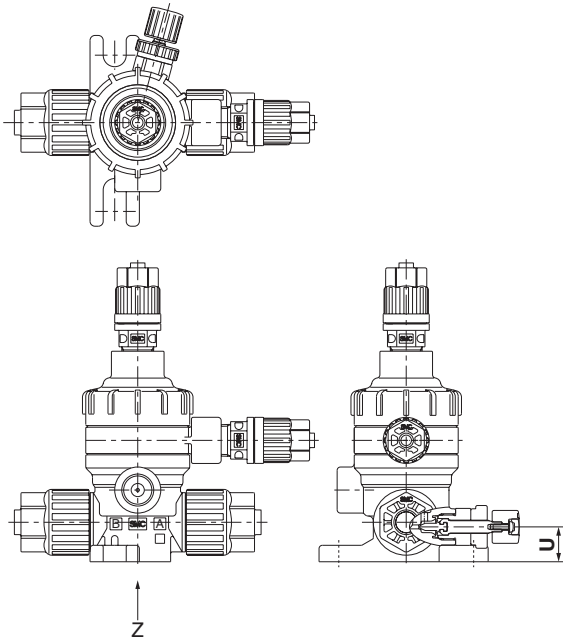
Model	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	W
LVQ2 ¹ -Z□□	25.5	46	31.5	58	33.6	91	12	75	21.8	37	5	7	15	53.5	21	25.3	64
LVQ3 ¹ -Z□□	23.5	47	29.5	59	45.4	109	16.5	103	32	50	6	7	20	59.5	25	31.2	82
LVQ4 ¹ -Z□□	23.5	47	29.5	59	45.4	114.5	22	114	37.5	55.5	6	7	20	59.5	25	31.2	87.5
LVQ5 ¹ -Z□□	35	70	41	82	75	155	25	150	50.2	78.2	10	7	20	73	38.5	45	128
LVQ6 ¹ -Z□□	35	70	41	82	75	164.5	32	167	60	88	10	7	20	73	38.5	45	137.5

(mm)

Series LVQ

Dimensions

Double acting with by-pass



(mm)

Model	A	B	C	D	M	N	T	U	V
LVQ2:Z□□-2	25.5	46	31.5	58	7	15	35.3	10.6	7
LVQ3:Z□□-2	23.5	47	29.5	59	7	15	36.9	16.5	10
LVQ4:Z□□-2	23.5	47	29.5	59	7	20	37.9	22	-
LVQ5:Z□□-2	35	70	41	82	7	20	64	25	17
LVQ6:Z□□-2	35	70	41	82	7	20	66	32	-