

Air Operated Type Flare Integral Fitting Type (Hyper Fittings) Series **LVQ-Z**

How to Order

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.

LQ3 integral fittings

Applicable fitting size

Symbol	Connecting tubing O.D.	Body class					
		2	3	4	5	6	
Metric sizes							
03	ø3	○					
04	ø4	○					
06	ø6	○					
08	ø8		○				
10	ø10		○				
12	ø12			○			
19	ø19				○		
25	ø25					○	
Inch sizes							
07	1/4	○					
11	3/8		○				
13	1/2			○			
19	3/4				○		
25	1					○	

Pilot port thread type

Nil	LQ3 integral fitting	Connection tubing O.D. 1/8" (ø3)
M	LQ3 integral fitting	Connection tubing O.D. ø4
R	Threaded	Rc 1/8
N	Threaded	NPT 1/8

Option (1)

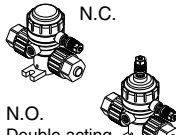



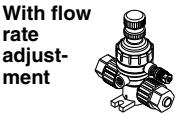

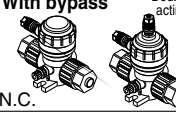




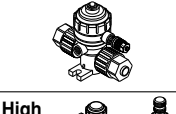

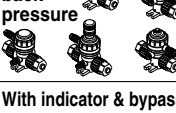



Nil	None	6	High back pressure with flow rate adjustment
1	With flow rate adjustment	7	High back pressure with bypass
2	With bypass	8	High back pressure with flow rate adjustment & bypass
3	With flow rate adjustment & bypass	9	High back pressure with indicator
4	With indicator	24	With indicator & bypass
5	High back pressure (0.42 MPa)		

Option (2)

Symbol	Applicable option										Note
	1	2	3	4	5	6	7	8	9	24	
Nil	○	○	○	○	○	○	○	○	○	○	—
J	○	—	—	—	○	○	—	—	—	—	For high temperature
K	○	○	○	○	○	○	○	○	○	○	Buffer material FFKM
N	○	○	○	○	○	○	○	○	○	○	For ammonium hydroxide
P	—	—	—	○	○	—	—	—	—	—	High flow spec. LVQ6□ only

Note) Options (2) cannot be combined with each other.

Variations

		Model		LVQ20	LVQ30	LVQ40	LVQ50	LVQ60
Type	Symbol	Orifice diameter						
		Tubing outside dia.						
		Valve type						
		Millimeter	Inch					
				1/4	3/8	1/2	3/4	1
Basic type 	N.C. N.O. Double acting	  	N.C.	○	○	○	○	○
			N.O.	○	○	○	○	○
			Double acting	○	○	○	○	○
With flow rate adjustment 	N.C.		N.C.	○	○	○	○	○
			N.C.	○	○	○	○	○
With bypass 	N.C. Double acting	 	N.C.	○	○	○	○	○
			Double acting	○	○	○	○	○
With flow rate adjustment & bypass 	N.C.		N.C.	○	○	○	○	○
With indicator 	N.C.		N.C.	○	○	○	○	○
High back pressure 	N.C.		N.C.	○	○	○	○	○
With indicator & bypass 	N.C.		N.C.	○	○	○	○	○

LVC

LVA

LVH

LVD

LVQ

LQ1

LVN

TL/TIL

LQ3



Standard Specifications

Model		LVQ20	LVQ30	LVQ40	LVQ50	LVQ60
Tubing O.D.	Metric size	6	10	12	19	25
	Inch size	1/4	3/8	1/2	3/4	1
Orifice diameter		ø4	ø8	ø10	ø16	ø22
Flow characteristics	Av x 10 ⁻⁶ m ²	8.4	31.2	45.6	120	192 (228) ^{Note)}
	Cv	0.35	1.3	1.9	5	8 (9.5) ^{Note)}
Withstand pressure (MPa)		1				
Operating pressure <A→B flow>	Standard	-98 kPa to 0.5 MPa			-98 kPa to 0.4 MPa	
	High temperature	-98 kPa to 0.3 MPa				
Back pressure (MPa)	Standard	0.3 or less			0.2 or less	
	High back pressure	0.42				
	High temperature	0.3 or less			0.2 or less	
Valve leakage (cm ³ /min)		0 (With water pressure)				
Pilot air pressure (MPa)		0.3 to 0.5 (High back pressure: 0.45 to 0.55)				
Pilot port size		1/8" (ø3), ø4, Rc 1/8, NPT 1/8				
Fluid temperature (°C)	Standard	0 to 100				
	High temperature	0 to 170				
Ambient temperature (°C)		0 to 60				
Mass (kg)		0.08	0.18	0.22	0.72	0.87

Note) () is high flow specification.

⚠ Specific Product Precautions

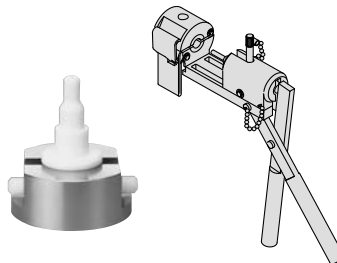
Be sure to read before handling. Refer to front matters 42 and 43 for Safety Instructions, and pages 585 and 586 for High Purity Chemical Valve Non-Metallic Exterior Precautions.

Piping

⚠ Caution

1. Connect tubing with special tools.

Refer to the pamphlet "High-Purity Fluoropolymer Fittings HYPER FITTING®/Flare Type Series LQ3 Fitting Procedure" (M-E06-4) for connecting tubing and special tools. (Downloadable from our web site.)



2. Tighten the nut to the end surface of the body. As a guide, refer to the proper tightening torques shown below.

Tightening torque for piping

Body class	Torque (N·m)
2	1.6 to 1.8
3	3.2 to 3.5
4	5.0 to 5.3
5	10.0 to 10.5
6	22.5 to 23.0