

Fluoropolymer Piping Equipment

Series LQ1/LQ3/LQHB

Clean Wet Series

KQ2

KQB2

KS
KX

KM

KF

M

H/DL
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

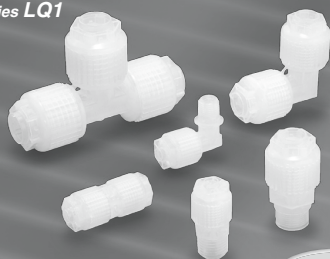
KP

LQ

MQR

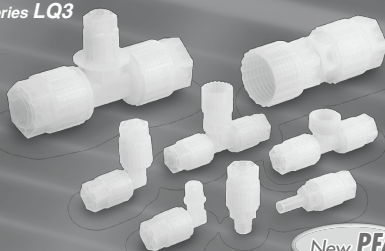
T

Fluoropolymer Fittings Hyper Fittings Series LQ1



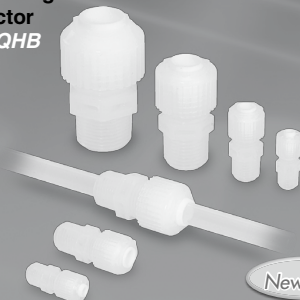
New PFA

Fluoropolymer Fittings Hyper Fittings / Flare Type Series LQ3



New PFA

Bore Through Connector Series LQHB



New PFA

Fluoropolymer Fittings Hyper Fittings

● Quadruple sealing construction

The quadruple sealing construction (PAT.) based on SMC's original idea results in highly reliable sealing characteristics with outstanding leakage prevention effect.

● Flow-through characteristics ● 200°C compatible

Excellent flow-through characteristics are achieved by minimizing liquid deposit.

● Locking

- Locking mechanism utilizes sealing lock by the nut.
- Trapezoidal thread allows application of high torque.
- 2 stage pressing by the tubing holder of the nut ensures secure tube holding.

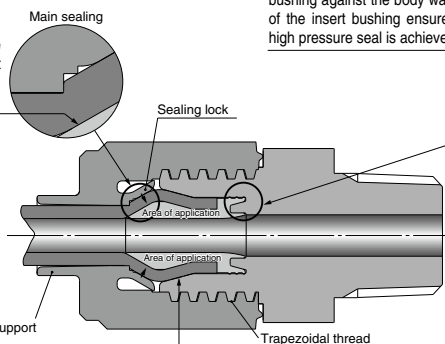


Basic

2 stage pressing construction ensures sealing and tubing locking to absorb differences in the tube outside diameter.

D side sealing

A seal is formed when the tubing is inserted, with its insert bushing, and its compression against the internal nut.

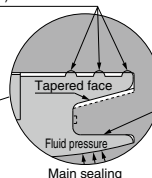


B side sealing

By tapering the face of the body, perfect sealing is achieved by the pressure of the bushing against the body wall (the protrusion of the insert bushing ensures that a secure high pressure seal is achieved).

A side sealing

The fluid pressure pushes the seal face to get effective sealing.



Body class 1 and 2

C side sealing

Sealed by the pressure exerted on the tubing by the internal nut.

● Strong resistance to tube bending and deformation.

Able to withstand lateral loads with the tubing support.

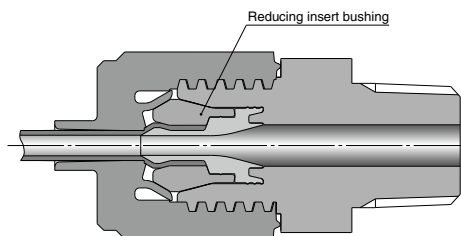
● Easy tightening of nuts.

- No positioning guide is required, simply tighten up the tubing to the end of the fitting body.
- The trapezoidal thread prevents oblique nut insertion.

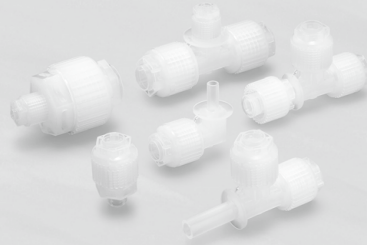
● Tubing sizes are interchangeable.

- The reducer method allows tubing size changes without replacing the body.
- Helps standardize fitting items resulting in less stock requirements.

Reducing type



● Series LQ1 Addition of variations



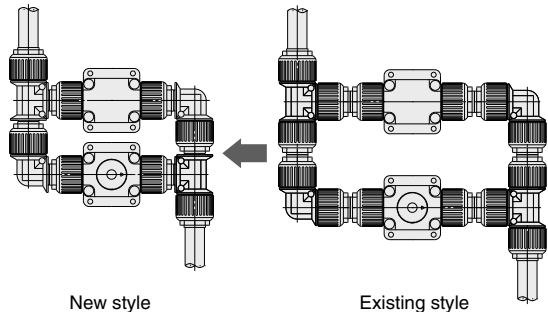
● Newly introduced shape

Union reducing 	Union elbow reducing 	Union tee reducing 	Panel mount union reducing
Space saving union elbow 	Space saving union tee 	Space saving union elbow reducing 	Space saving union tee reducing
Tubing extension union elbow 	Tubing extension union tee 	Tubing extension union elbow reducing 	Tubing extension union tee reducing

● Space-saving, piping work-saving

- Cut down on the fittings use by a variation upgrade on the different diameter connection(s).

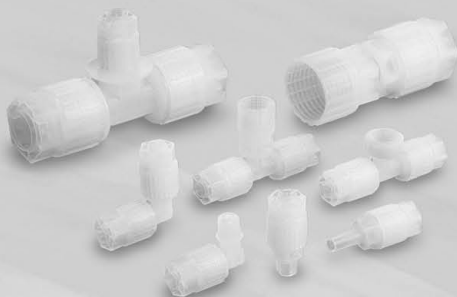
Cut down on longitudinal dimension



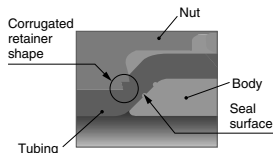
New style

Existing style

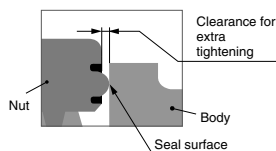
- ◎ Flare type collet construction
- ◎ Triple-seal construction
- ◎ Ease of installation
- ◎ Excellent flow-through characteristics
- ◎ Excellent heat resistance
- ◎ 200°C compatible



- Tubing retainer of the nut is made from a two-stage structure, enabling it to hold the tubing firmly.
- Fitting's seal surface to the tubing adopts a unique design to the area's pressure, resulting in improved sealing performance.

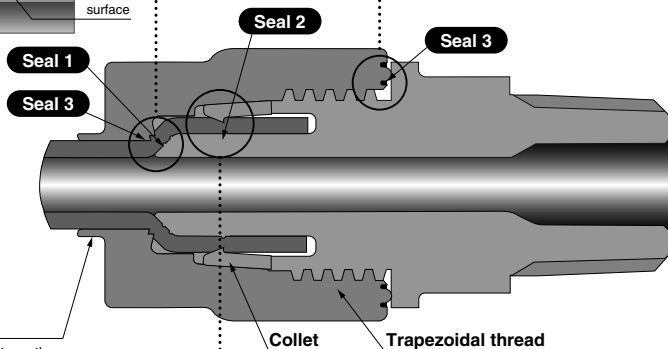


- To establish the tightening position, a gauge control is not required as the nut is designed to be tightened until the end surface of the fitting's main body.



Tubing support

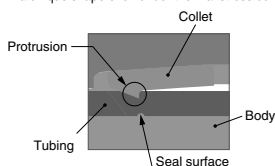
Providing additional strength against possible tube bending or deformation.



Trapezoidal thread

Prevents the nut from loosening at a high tightening torque, and from installing in a tilted position.
Heat resistant.

- Strengthening the prevention of the tubing release by means of the collet structure.
- Sealing performance is highly maintained in a circumferential seal surface having a unique shape even under thermal stress conditions.

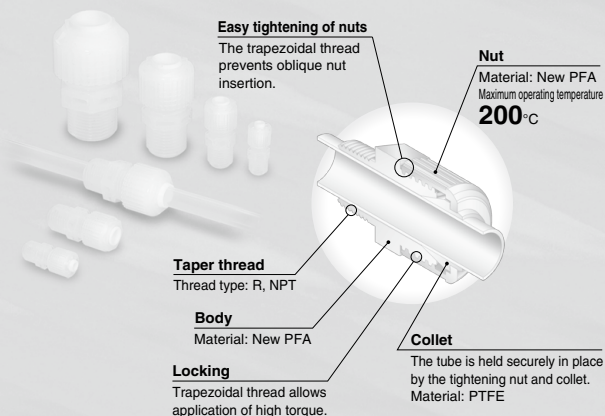


Fluoropolymer Bore Through Connector *Series LQHB* P.392

Freely choose tube positioning

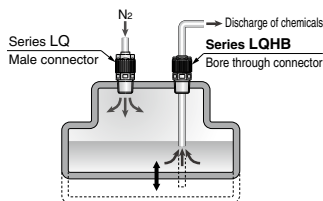
Can be used in pressure feed of chemicals, etc., during the production process of semiconductors. Applicable to chemicals such as acid, alkali and deionized water.

As the tube runs through the fitting itself, a setting is available for any optional position.



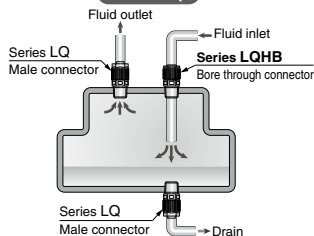
Applications

Pressure feed of chemicals

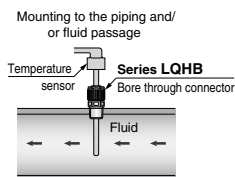


A changing of the tube position is available in accordance with the depth of the container.

Water trap



Fluid temperature control

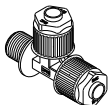
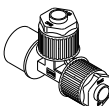


KQ2
KQB2
KS KX
KM
KF
M
H/DL L/LL
KK
KK130
DM
KDM
KB
KR
KA
KQG2
KG
KFG2
MS
KKA
KP
LQ
MQR
T

Series LQ1

Fluoropolymer Fittings Hyper Fittings

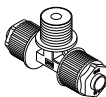
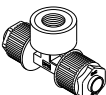
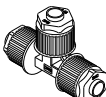
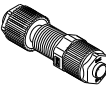
Series LQ1 P.328

Series	Appearance	Class		Port size							Tubing O.D.														
											Metric size							Inch size							
				None	1/8"	1/4"	3/8"	1/2"	3/4"	1"	ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"
Connector LQ1H	Male	 P.331	1	-	○	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-
			2	-	○	○	-	-	-	-	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-
			3	-	○	○	○	-	-	-	●	●	●	●	○	-	-	-	●	-	●	○	-	-	-
			4	-	-	○	○	○	-	-	●	-	●	●	●	○	-	-	●	-	●	●	○	-	-
			5	-	-	○	○	○	○	-	-	-	-	-	○	●	○	-	-	-	●	○	●	○	-
			6	-	-	-	-	○	○	○	-	-	-	-	-	●	●	○	-	-	-	-	●	●	○
	Female	 P.332	1	-	○	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-
			2	-	○	○	-	-	-	-	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-
			3	-	○	○	○	-	-	-	-	-	●	●	○	-	-	-	-	●	○	-	-	-	-
			4	-	○	○	○	○	-	-	-	-	●	●	●	○	-	-	-	○	●	○	-	-	-
			5	-	-	○	○	○	○	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	
			6	-	-	-	-	-	○	○	-	-	-	-	-	-	●	○	-	-	-	-	-	●	○
Elbow LQ1L	Male	 P.333	1	-	○	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-
			2	-	○	○	-	-	-	-	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-
			3	-	○	○	○	-	-	-	●	●	●	●	○	-	-	-	●	-	●	○	-	-	-
			4	-	-	○	○	○	-	-	●	●	●	●	●	○	-	-	●	-	●	●	○	-	-
			5	-	-	-	○	○	○	-	-	-	●	●	○	●	○	-	-	-	●	○	●	○	-
			6	-	-	-	○	-	○	○	-	-	-	-	-	●	●	○	-	-	-	-	●	●	○
	Female	 P.334	1	-	○	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-
			2	-	○	○	-	-	-	-	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-
			3	-	○	○	○	-	-	-	●	-	●	●	○	-	-	-	●	-	●	○	-	-	-
			4	-	○	○	○	○	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-
			5	-	-	-	○	○	○	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-
			6	-	-	-	-	-	○	○	-	-	-	-	-	-	●	○	-	-	-	-	-	●	○
Run tee LQ1R	Male	 P.335	1	-	○	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-
			2	-	○	○	-	-	-	-	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-
			3	-	○	○	○	-	-	-	-	-	●	●	○	-	-	-	-	-	●	○	-	-	-
			4	-	-	○	○	○	-	-	-	-	-	-	●	○	-	-	-	-	-	●	○	-	-
			5	-	-	○	○	○	○	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-
			6	-	-	-	-	-	○	○	-	-	-	-	-	-	●	○	-	-	-	-	-	●	○
	Female	 P.336	1	-	○	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-
			2	-	○	○	-	-	-	-	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-
			3	-	○	○	○	-	-	-	-	-	●	●	○	-	-	-	-	-	●	○	-	-	-
			4	-	-	○	○	○	-	-	-	-	-	-	●	○	-	-	-	-	-	●	○	-	-
			5	-	-	-	○	○	○	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-
			6	-	-	-	-	○	○	○	-	-	-	-	-	-	●	○	-	-	-	-	-	●	○

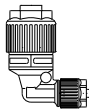
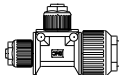
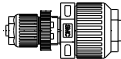
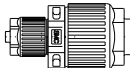
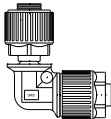
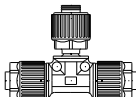
Note) ○Basic size ●With reducer

- KQ2
- KQB2
- KS
- KX
- KM
- KF
- M
- H/DL
- L/LL
- KC
- KK
- KK130
- DM
- KDM
- KB
- KR
- KA
- KQG2
- KG
- KFG2
- MS
- KKA
- KP
- LQ
- MQR
- T

Series **LQ1**

Series	Appearance	Class	Port size	Tubing O.D.																						
				Metric size										Inch size												
				None	1/8"	1/4"	3/8"	1/2"	3/4"	1"	ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"	
Branch tee LQ1B	 P.337	Male	1	-	○	-	-	-	-	-	○	○	-	-	-	-	-	○	-	-	-	-	-	-	-	
			2	-	○	○	-	-	-	-	●	●	○	-	-	-	-	●	●	○	-	-	-	-	-	
			3	-	○	○	○	-	-	-	-	●	●	○	-	-	-	-	●	○	-	-	-	-	-	
			4	-	-	○	○	○	-	-	-	-	●	●	○	-	-	-	-	●	○	-	-	-	-	
			5	-	-	○	○	○	○	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	
			6	-	-	-	-	○	○	○	-	-	-	-	-	●	○	-	-	-	-	-	●	○	-	
	 P.338		1	-	○	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
			2	-	○	○	-	-	-	-	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-	-
			3	-	○	○	○	-	-	-	-	●	●	○	-	-	-	-	-	●	○	-	-	-	-	-
			4	-	-	○	○	○	-	-	-	-	-	●	○	-	-	-	-	-	●	○	-	-	-	-
			5	-	-	○	○	○	○	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	-
			6	-	-	-	-	○	○	○	-	-	-	-	-	●	○	-	-	-	-	-	●	○	-	-
Union elbow LQ1E	 P.339	1	○	-	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-	
		2	○	-	-	-	-	-	-	-	●	●	○	-	-	-	-	●	●	○	-	-	-	-	-	
		3	○	-	-	-	-	-	-	-	-	●	●	○	-	-	-	-	●	○	-	-	-	-	-	
		4	○	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	-	
		5	○	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	
		6	○	-	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	
Union tee LQ1T	 P.340	1	○	-	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-	
		2	○	-	-	-	-	-	-	-	●	●	○	-	-	-	-	●	●	○	-	-	-	-	-	
		3	○	-	-	-	-	-	-	-	-	●	●	○	-	-	-	-	●	○	-	-	-	-	-	
		4	○	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	-	
		5	○	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	
		6	○	-	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	
Panel mount union LQ1P	 P.341	1	○	-	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-	
		2	○	-	-	-	-	-	-	-	●	●	○	-	-	-	-	●	●	○	-	-	-	-	-	
		3	○	-	-	-	-	-	-	-	-	●	●	○	-	-	-	-	●	○	-	-	-	-	-	
		4	○	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	-	
		5	○	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	
		6	○	-	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	
Union LQ1U	 P.342	1	○	-	-	-	-	-	-	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-	
		2	○	-	-	-	-	-	-	-	●	●	○	-	-	-	-	●	●	○	-	-	-	-	-	
		3	○	-	-	-	-	-	-	-	-	●	●	○	-	-	-	-	●	○	-	-	-	-	-	
		4	○	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	-	
		5	○	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	
		6	○	-	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	
Union flange LQ1F	 P.342	4	○	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	-	
		5	○	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	-	
		6	○	-	-	-	-	-	-	-	-	-	-	-	-	●	○	-	-	-	-	●	○	-	-	

Note) ○Basic size ●With reducer

Series	Appearance	Class	Tubing O.D.															
			Metric size								Inch size							
			ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"	
Union elbow reducing LQ1E-R	 P.343	2	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-	
		3	-	-	●	●	○	-	-	-	-	●	○	-	-	-	-	
		4	●	-	●	●	●	○	-	-	●	●	●	○	-	-	-	
		5	-	●	●	●	●	●	○	-	-	●	●	●	●	○	-	
		6	-	-	●	●	●	●	●	○	-	●	●	●	●	●	○	
		Union tee reducing LQ1T-R	 P.345	2	●	●	○	-	-	-	-	-	●	●	○	-	-	-
3	●			-	●	●	○	-	-	-	-	●	○	-	-	-	-	
4	●			-	●	●	●	○	-	-	●	-	●	●	○	-	-	
5	●			●	●	●	●	●	○	-	●	-	●	●	●	○	-	
6	-			-	●	●	●	●	●	○	-	-	●	●	●	●	○	
Panel mount union reducing LQ1P-R	 P.350			2	●	●	○	-	-	-	-	-	●	●	○	-	-	-
		3	-	-	●	●	○	-	-	-	-	-	●	○	-	-	-	
		4	-	-	●	-	●	○	-	-	-	-	●	●	○	-	-	
		5	-	-	-	-	●	●	○	-	-	-	-	●	●	○	-	
		6	-	-	-	-	-	-	●	○	-	-	-	-	-	●	○	
		Union reducing LQ1U-R	 P.351	2	●	●	○	-	-	-	-	-	●	●	○	-	-	-
3	●			●	●	●	○	-	-	-	●	●	●	○	-	-	-	
4	●			●	●	●	●	○	-	-	●	●	●	●	○	-	-	
5	●			●	●	●	●	●	○	-	●	●	●	●	●	○	-	
6	-			-	●	-	●	●	●	○	-	-	●	●	●	●	○	
Space saving union elbow LQ1E-SS	 P.352			2	-	-	○	-	-	-	-	-	-	-	○	-	-	-
		3	-	-	-	●	○	-	-	-	-	-	-	○	-	-	-	
		4	-	-	-	-	-	○	-	-	-	-	-	-	○	-	-	
		5	-	-	-	-	-	-	○	-	-	-	-	-	-	○	-	
		6	-	-	-	-	-	-	-	○	-	-	-	-	-	-	○	
		Space saving union tee LQ1T-S	 P.354	2	-	-	○	-	-	-	-	-	-	-	○	-	-	-
3	-			-	-	●	○	-	-	-	-	-	-	○	-	-	-	
4	-			-	-	-	-	○	-	-	-	-	-	-	○	-	-	
5	-			-	-	-	-	-	○	-	-	-	-	-	-	○	-	
6	-			-	-	-	-	-	-	○	-	-	-	-	-	-	○	

Note) ○Basic size ●With reducer

KQ2

KQB2

KS
KX

KM

KF

M

H/DL
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

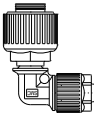
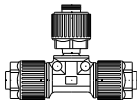
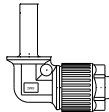
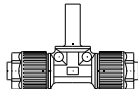
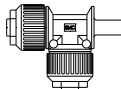
KP

LQ

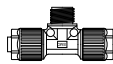
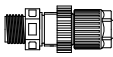
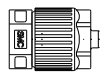
MQR

T

Series **LQ1**

Series	Appearance	Class	Tubing O.D.													Can be connected body class						
			Metric size							Inch size												
			ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"	2	3	4	5	6
Space saving union elbow reducing LQ1E-SS-R		P.353	2	-	-	○	-	-	-	-	-	-	○	-	-	-	-	○	○	-	-	
			3	-	-	-	○	○	-	-	-	-	-	○	-	-	-	○	○	-	-	
			4	-	-	-	-	○	-	-	-	-	-	-	○	-	-	○	○	-	○	-
			5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			6	-	-	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	○	-
Space saving union tee reducing LQ1T-S-R		P.355	2	-	-	○	-	-	-	-	-	-	-	-	-	-	-	○	-	-	-	
			3	-	-	-	●	-	-	-	-	-	●	○	-	-	-	-	○	-	-	-
			4	-	-	-	-	○	-	-	-	-	●	○	-	-	-	-	○	-	○	-
			5	-	-	○	-	-	●	○	-	-	●	●	○	-	-	-	○	○	○	○
			6	-	-	-	-	-	●	○	-	-	-	-	-	●	○	-	○	○	○	○
Tubing extension union elbow LQ1E-T		P.357	2	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-	
			3	-	-	-	●	○	-	-	-	-	-	○	-	-	-	-	-	-	-	-
			4	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
			5	-	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-	-
			6	-	-	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-
Tubing extension union tee LQ1T-T		P.358	2	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-	-	
			3	-	-	-	●	○	-	-	-	-	-	○	-	-	-	-	-	-	-	-
			4	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
			5	-	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-	-
			6	-	-	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-
Tubing extension union elbow reducing LQ1E-T-R		P.359	2	-	-	○	○	○	○	-	-	-	-	○	○	-	-	○	○	-	-	
			3	-	-	○	○	○	○	○	-	-	-	-	○	○	○	-	○	○	-	-
			4	-	-	○	○	○	○	○	-	-	-	-	○	○	○	○	○	○	-	○
			5	-	-	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-
			6	-	-	-	-	-	-	○	-	-	-	-	-	-	○	-	-	-	-	-
Tubing extension union tee reducing LQ1T-T-R		P.360	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	○	-	-	-	
			3	-	-	-	-	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-
			4	-	-	-	-	○	-	-	-	-	-	●	-	-	-	-	○	-	○	-
			5	-	-	-	-	-	○	-	-	-	-	-	○	○	○	-	○	○	-	-
			6	-	-	-	-	-	-	○	-	-	-	-	-	○	○	-	○	○	-	-

Note) ○Basic size ●With reducer

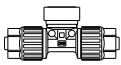
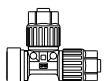
Series	Appearance	Class	Tubing O.D.															
			Metric size							Inch size								
			ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"	
Space saving union elbow LQ1E-S	 P.362	1	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
		2	-	●	○	-	-	-	-	-	●	●	○	-	-	-	-	-
		3	-	-	●	●	○	-	-	-	-	-	-	○	-	-	-	-
		4	-	-	-	-	●	○	-	-	-	-	-	-	●	○	-	-
		5	-	-	-	-	-	●	○	-	-	-	-	-	-	●	○	-
		6	-	-	-	-	-	-	●	○	-	-	-	-	-	-	●	○
Space saving union tee LQ1T-S	 P.362	1	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
		2	-	●	○	-	-	-	-	-	●	●	○	-	-	-	-	-
		3	-	-	●	●	○	-	-	-	-	-	-	●	○	-	-	-
		4	-	-	-	-	●	○	-	-	-	-	-	-	●	○	-	-
		5	-	-	-	-	-	●	○	-	-	-	-	-	-	●	○	-
		6	-	-	-	-	-	-	●	○	-	-	-	-	-	-	●	○
Space saving panel mount union LQ1P-S	 P.362	1	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
		2	-	●	○	-	-	-	-	-	●	●	○	-	-	-	-	-
		3	-	-	●	●	○	-	-	-	-	-	-	●	○	-	-	-
		4	-	-	-	-	●	○	-	-	-	-	-	-	●	○	-	-
		5	-	-	-	-	-	●	○	-	-	-	-	-	-	●	○	-
		6	-	-	-	-	-	-	●	○	-	-	-	-	-	-	●	○
Space saving union LQ1U-S	 P.362	1	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
		2	-	●	○	-	-	-	-	-	-	●	●	○	-	-	-	-
		3	-	-	●	●	○	-	-	-	-	-	-	●	○	-	-	-
		4	-	-	-	-	●	○	-	-	-	-	-	-	-	●	○	-
		5	-	-	-	-	-	●	○	-	-	-	-	-	-	-	●	○
		6	-	-	-	-	-	-	●	○	-	-	-	-	-	-	-	●
Panel mounting nut LQNP	 P.362	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nut insert bush LQ1-U B N	 P.363	1	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
		2	○	○	○	-	-	-	-	-	-	○	○	○	-	-	-	-
		3	-	-	○	○	○	-	-	-	-	-	-	○	○	-	-	-
		4	-	-	-	-	○	○	-	-	-	-	-	-	○	○	-	-
		5	-	-	-	-	-	○	○	-	-	-	-	-	-	○	○	-
		6	-	-	-	-	-	-	○	○	-	-	-	-	-	-	○	○
Blanking plug LQ-P	 P.363	1	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
		2	●	●	○	-	-	-	-	-	●	●	○	-	-	-	-	-
		3	-	●	●	●	○	-	-	-	-	-	-	●	○	-	-	-
		4	-	-	-	-	○	○	-	-	-	-	-	-	●	○	-	-
		5	-	-	-	-	-	●	○	-	-	-	-	-	-	●	○	-
		6	-	-	-	-	-	-	●	○	-	-	-	-	-	-	●	○
Tubing plug LQ1-CP	 P.363	1	○	○	-	-	-	-	-	-	○	-	-	-	-	-	-	-
		2	-	-	○	-	-	-	-	-	-	-	-	○	-	-	-	-
		3	-	-	-	○	○	-	-	-	-	-	-	-	-	-	-	-
		4	-	-	-	-	-	○	-	-	-	-	-	-	-	○	-	-
		5	-	-	-	-	-	-	○	-	-	-	-	-	-	-	○	-
		6	-	-	-	-	-	-	-	○	-	-	-	-	-	-	-	○

Note) ○Basic size ●With reducer

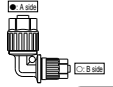
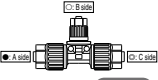
KQ2
KQB2
KS
KX
KM
KF
M
H/DL
L/LL
KC
KK
KK130
DM
KDM
KB
KR
KA
KQG2
KG
KFG2
MS
KKA
KP
LQ
MQR
T

Series LQ3

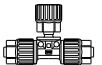
Series LQ3 P.366

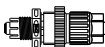
Series	Appearance	Class	Port size											Tubing O.D.													
														Metric size							Inch size						
			None	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"		
Connector LQ3H	Male	 P.369	1	-	●	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-	-	-	-		
			2	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
			3	-	●	●	●	●	-	-	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-		
			4	-	-	●	●	●	●	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
			5	-	-	●	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
			6	-	-	-	●	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
	Female	 P.370	1	-	●	-	-	-	-	-	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
			2	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-	●	-	-	-	-		
			3	-	●	●	●	●	-	-	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-		
			4	-	-	●	●	●	●	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
			5	-	-	●	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
			6	-	-	-	●	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
Elbow LQ3L	Male	 P.371	1	-	●	-	-	-	-	-	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
			2	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-	●	-	-	-	-		
			3	-	●	●	●	●	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-		
			4	-	-	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
			5	-	-	●	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
			6	-	-	-	●	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
	Female	 P.372	1	-	●	-	-	-	-	-	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-		
			2	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-	●	-	-	-	-		
			3	-	●	●	●	●	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-		
			4	-	-	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
			5	-	-	●	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
			6	-	-	-	●	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
Branch tee LQ3B	Male	 P.373	1	-	●	-	-	-	-	-	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
			2	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-	●	-	-	-	-		
			3	-	●	●	●	●	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-		
			4	-	-	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
			5	-	-	●	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
			6	-	-	-	●	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
	Female	 P.374	1	-	●	-	-	-	-	-	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
			2	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-	●	-	-	-	-		
			3	-	●	●	●	●	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-		
			4	-	-	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
			5	-	-	●	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
			6	-	-	-	●	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
Run tee LQ3R	Male	 P.375	1	-	●	-	-	-	-	-	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
			2	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-	●	-	-	-	-		
			3	-	●	●	●	●	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-		
			4	-	-	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
			5	-	-	●	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
			6	-	-	-	●	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
	Female	 P.376	1	-	●	-	-	-	-	-	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
			2	-	●	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-	●	-	-	-	-		
			3	-	●	●	●	●	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-		
			4	-	-	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
			5	-	-	●	●	●	●	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
			6	-	-	-	●	●	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
Union elbow LQ3E	 P.377	1	●	-	-	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-	-	-	-		
		2	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
		3	●	-	-	-	-	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-	-		
		4	●	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-	-	-		
		5	●	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-	-		
		6	●	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-		
		7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-		
Union tee LQ3T	 P.377	1	●	-	-	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-	-	-	-		
		2	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	-	●	-	-	-	-	-		
		3	●	-	-	-	-	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-	-		
		4	●	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-	-	-		
		5	●	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-	-		
		6	●	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-		

Series	Appearance	Class	Port size										Tubing O.D.													
													Metric size							Inch size						
			None	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	
Panel mount union LQ3P		P.378	1	●	-	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-	-	-	-	
			2	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-	
			3	●	-	-	-	-	-	-	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-	
			4	●	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	
			5	●	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	
			6	●	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-
Union LQ3U		P.378	1	●	-	-	-	-	-	-	●	●	-	-	-	-	-	-	●	-	-	-	-	-	-	
			2	●	-	-	-	-	-	-	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-	
			3	●	-	-	-	-	-	-	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-	
			4	●	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	
			5	●	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	
			6	●	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-	
			7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●	

Series	Appearance	Class	Port size		Tubing O.D.															
					Metric size								Inch size							
			ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"			
Union reducing LQ3U-R		P.379	1	○	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			2	○	○	●	-	-	-	-	○	●	-	-	-	-	-	-	-	-
			3	-	○	○	●/○	●	-	-	○	○	●	-	-	-	-	-	-	-
			4	-	-	-	○	○	-	-	○	○	○	●	-	-	-	-	-	-
			5	-	-	-	-	○	●	-	-	○	○	○	●	-	-	-	-	-
			6	-	-	-	-	●	○	●	-	-	-	○	○	●	-	-	-	-
			7	-	-	-	-	-	-	-	-	-	-	-	○	○	●	-	-	-
Union elbow reducing LQ3E-R		P.380	1	○	●	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			2	○	○	●	-	-	-	-	○	●	-	-	-	-	-	-	-	-
			3	-	○	○	●/○	○	-	-	○	○	○	●	-	-	-	-	-	-
			4	-	-	-	○	○	●	-	-	○	○	○	●	-	-	-	-	-
			5	-	-	-	-	○	●	-	-	○	○	○	○	●	-	-	-	-
			6	-	-	-	-	●	○	●	-	-	-	○	○	○	●	-	-	-
			7	-	-	-	-	-	-	-	-	-	-	-	○	○	○	●	-	-
Union tee reducing LQ3T-R		P.381	1	○/○	●/○/○	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			2	○/○	○/○	●/○/○	-	-	-	-	-	-	○/○	●/○/○	-	-	-	-	-	-
			3	-	-	○/○	●/○/○	●/○/○	-	-	○	●/○/○	○/○/○	○/○/○	-	-	-	-	-	-
			4	-	-	-	-	○/○	●/○/○	-	-	○/○	●/○/○	○/○/○	○/○/○	-	-	-	-	-
			5	-	-	-	-	○/○	●/○/○	-	-	○/○	●/○/○	○/○/○	○/○/○	○/○/○	-	-	-	-
			6	-	-	-	-	-	○/○	●/○/○	-	-	○/○	●/○/○	○/○/○	○/○/○	○/○/○	-	-	-
			7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note) ● : A side tubing O.D. ○ : B side tubing O.D. ○/○ : C side tubing O.D.

Series	Appearance	Class	Port size		Tubing O.D.															
					Metric size								Inch size							
			ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"			
Space saving union elbow LQ3E-S		P.383	2	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-
			3	-	-	-	●	●	-	-	-	●	●	-	-	-	-	-	-	-
			4	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-
			5	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-
			6	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-
			7	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-
			8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Space saving branch tee LQ3T-SB		P.384	2	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-
			3	-	-	-	●	●	-	-	-	-	●	-	-	-	-	-	-	-
			4	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-
			5	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-
			6	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-
			7	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-
			8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Space saving run tee LQ3T-SR		P.385	2	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-
			3	-	-	-	●	●	-	-	-	-	●	-	-	-	-	-	-	-
			4	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-
			5	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-
			6	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-
			7	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-
			8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Tubing extension straight connector LQ3H-T		P.386	2	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-	-	-
			3	-	-	-	●	●	-	-	-	-	●	-	-	-	-	-	-	-
			4	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-	-
			5	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-	-
			6	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-	-
			7	-	-	-	-	-	-	-	-	-	-	-	-	-	●	-	-	-
			8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Series	Appearance	Class	Tubing O.D.																
			Metric size								Inch size								
			ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"		
Straight adapter LQ3A	 P.387	2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-		
		3	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-		
		4	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
		5	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
		6	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
		7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●		
		Union flange LQ3F	 P.389	2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-
3	-			-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4	-			-	-	-	-	●	-	-	-	-	-	●	-	-	-		
5	-			-	-	-	-	-	●	-	-	-	-	-	●	-	-		
6	-			-	-	-	-	-	-	●	-	-	-	-	-	●	-		
Space saving union elbow LQ3E-SN	 P.390			2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-
				3	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-
		4	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
		5	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
		6	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
		Space saving union tee LQ3T-S	 P.390	2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-
				3	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-
4	-			-	-	-	-	●	-	-	-	-	-	●	-	-	-		
5	-			-	-	-	-	-	●	-	-	-	-	-	●	-	-		
6	-			-	-	-	-	-	-	●	-	-	-	-	-	●	-		
Space saving panel mount union LQ3P-S	 P.390			2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-
				3	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-
		4	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
		5	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
		6	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
		Space saving union LQ3U-S	 P.390	2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-
				3	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-
4	-			-	-	-	-	●	-	-	-	-	-	●	-	-	-		
5	-			-	-	-	-	-	●	-	-	-	-	-	●	-	-		
6	-			-	-	-	-	-	-	●	-	-	-	-	-	●	-		
Blanking plug LQ3-P-1	 P.391			1	●	●	-	-	-	-	-	-	●	-	-	-	-	-	-
				2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-
		3	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-		
		4	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
		5	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
		6	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
		7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●		
Tubing plug LQ3-P-2	 P.391	1	●	●	-	-	-	-	-	-	●	-	-	-	-	-	-		
		2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-		
		3	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-		
		4	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
		5	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
		6	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
		7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●		
Nut LQ3-N	 P.391	1	●	●	-	-	-	-	-	-	●	-	-	-	-	-	-		
		2	-	-	●	-	-	-	-	-	-	●	-	-	-	-	-		
		3	-	-	-	●	●	-	-	-	-	-	●	-	-	-	-		
		4	-	-	-	-	-	●	-	-	-	-	-	●	-	-	-		
		5	-	-	-	-	-	-	●	-	-	-	-	-	●	-	-		
		6	-	-	-	-	-	-	-	●	-	-	-	-	-	●	-		
		7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	●		

Series **LQHB**

Bore Through Connector

Bore Through Connector **P.392**

Series	Appearance	Class	Tubing O.D.													
			Metric size							Inch size						
			ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	1/4"	3/8"	1/2"	3/4"	1"
Bore through connector LQHB		1	●	●	-	-	-	-	-	-	●	-	-	-	-	-
		2	-	-	●	-	-	-	-	-	-	●	-	-	-	-
		3	-	-	-	●	●	-	-	-	-	-	●	-	-	-
		4	-	-	-	-	-	●	-	-	-	-	-	●	-	-
		5	-	-	-	-	-	-	●	-	-	-	-	-	●	-
		6	-	-	-	-	-	-	-	●	-	-	-	-	-	●

KQ2

KQB2

KS
KX

KM

KF

M

H/DL
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

KP

LQ

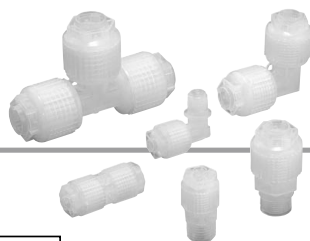
MQR

T

Fluoropolymer Fittings Hyper Fittings Series LQ1

RoHS

How to Order



Threaded connection

LQ1 H 11 - M -

Fitting type

Symbol	Type
H	Connector
L	Elbow
R	Run tee
B	Branch tee

Thread type

Symbol	Type
Nil	R, Rc
N	NPT

Piping type

Symbol	Type
M	Male
F	Female

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Size combination

Symbol Class	No.	Applicable tubing size (mm)	Port size
1	1	4 x 3	1/8"
1	2	3 x 2	
2	1	6 x 4	
2	2	4 x 3	1/8"
2	C	3 x 2	
2	3	6 x 4	
2	4	4 x 3	1/4"
2	F	3 x 2	
3	1	10 x 8	
3	2	8 x 6	1/4"
3	3	6 x 4	
3	4	10 x 8	
3	5	8 x 6	
3	6	6 x 4	3/8"
3	7	4 x 3	
3	E	3 x 2	
3	9	10 x 8	
3	10	8 x 6	1/8"
4	1	12 x 10	
4	2	10 x 8	3/8"
4	3	12 x 10	
4	4	10 x 8	
4	5	8 x 6	1/2"
4	6	6 x 4	
4	F	3 x 2	
4	9	12 x 10	1/4"
5	1	19 x 16	1/2"
5	2	12 x 10	
5	3	19 x 16	
5	4	12 x 10	3/4"
5	5	10 x 8	
5	7	6 x 4	
5	8	19 x 16	1/4"
5	9	19 x 16	3/8"
6	1	25 x 22	
6	2	19 x 16	3/4"
6	3	25 x 22	
6	4	19 x 16	1"
6	5	12 x 10	
6	6	25 x 22	1/2"

Symbol Class	No.	Applicable tubing size (inch)	Port size
1	A	1/8" x 0.086"	1/8"
2	A	1/4" x 5/32"	
2	B	3/16" x 1/8"	1/8"
2	C	1/8" x 0.086"	
2	D	1/4" x 5/32"	
2	E	3/16" x 1/8"	1/4"
2	F	1/8" x 0.086"	
3	A	3/8" x 1/4"	
3	B	1/4" x 5/32"	1/4"
3	C	3/8" x 1/4"	
3	D	1/4" x 5/32"	3/8"
3	E	1/8" x 0.086"	
3	F	3/8" x 1/4"	1/8"
4	A	1/2" x 3/8"	3/8"
4	B	3/8" x 1/4"	
4	C	1/2" x 3/8"	
4	D	3/8" x 1/4"	1/2"
4	E	1/4" x 5/32"	
4	F	1/8" x 0.086"	
4	G	1/2" x 3/8"	1/4"
5	A	3/4" x 5/8"	
5	B	1/2" x 3/8"	1/2"
5	C	3/4" x 5/8"	
5	D	1/2" x 3/8"	3/4"
5	E	3/8" x 1/4"	
5	F	1/4" x 5/32"	
5	G	3/4" x 5/8"	1/4"
5	H	3/4" x 5/8"	3/8"
6	A	1" x 7/8"	
6	B	3/4" x 5/8"	3/4"
6	C	1" x 7/8"	
6	D	3/4" x 5/8"	1"
6	E	1/2" x 3/8"	
6	F	1" x 7/8"	1/2"

For different diameter (on B side)

Symbol	Application
Nil	Same tubing size
Refer to the applicable tubing table.	Different diameter tubing can be selected within the same body class.
LQ1B	
Branch tee male	Branch tee female
A	B
LQ1R	
Run tee male	Run tee female
A	B

The table of combination is the same as that for A side.

Note 1) Only branch tees and run tees can take different diameters.

Note 2) Use of different diameters is not available with size 1.

Different diameter tubing order example

Different diameter tubing (with plug-in reducer) can be selected within the same body class.

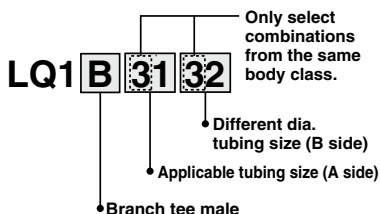
(Example) Union elbow

Body class 3

A side: $\phi 10 \times \phi 8$

B side: $\phi 8 \times \phi 6$

Order as shown below.



Tubing in inches can be combined with that in mm in the same body size. Example) LQ1B313A

Note 1) For each body class, the second and later numbers or symbols indicate reducing.

However, in case of size 1, the tubing cannot be changed by reducing.

Note 2) Combinations will differ depending on the type of each fitting.

For the availability of combinations, refer to pages 331 to 338.

These are produced upon receipt of order by part number.

Note 3) For details of the applicable tubing sizes, refer to page 396.

How to Order

Tubing connection

LQ1 E 11   

Fitting type

Symbol	Type
E	Union elbow
T	Union tee
P	Panel mount union
U	Union
F	Union flange

Combination of different diameter (on B side)

Symbol Class	No.	Applicable tubing size (mm)
1	1	4 x 3
1	2	3 x 2
2	1	6 x 4
2	2	4 x 3
2	C	3 x 2
3	1	10 x 8
3	2	8 x 6
3	3	6 x 4
4	1	12 x 10
4	2	10 x 8
5	1	19 x 16
5	2	12 x 10
6	1	25 x 22
6	2	19 x 16

Packaging

Symbol	Packaging
NII	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Symbol Class	No.	Applicable tubing size (inch)
1	A	1/8" x 0.086"
—	—	—
2	A	1/4" x 5/32"
2	B	3/16" x 1/8"
2	C	1/8" x 0.086"
3	A	3/8" x 1/4"
3	B	1/4" x 5/32"
4	A	1/2" x 3/8"
4	B	3/8" x 1/4"
5	A	3/4" x 5/8"
5	B	1/2" x 3/8"
6	A	1" x 7/8"
6	B	3/4" x 5/8"

Note 1) For each body class, the second and later numbers or symbols indicate reducing. However, use of different diameters is not available with size 1.

Note 2) For details of the applicable tubing sizes, refer to page 396.

Size combination

Symbol Class	No.	Applicable tubing size (mm)
1	1	4 x 3
1	2	3 x 2
2	1	6 x 4
2	2	4 x 3
2	C	3 x 2
3	1	10 x 8
3	2	8 x 6
3	3	6 x 4
4	1	12 x 10
4	2	10 x 8
5	1	19 x 16
5	2	12 x 10
6	1	25 x 22
6	2	19 x 16

Symbol Class	No.	Applicable tubing size (inch)	Applicable flange
1	A	1/8" x 0.086"	—
—	—	—	—
2	A	1/4" x 5/32"	—
2	B	3/16" x 1/8"	—
2	C	1/8" x 0.086"	—
3	A	3/8" x 1/4"	—
3	B	1/4" x 5/32"	—
4	A	1/2" x 3/8"	15A
4	B	3/8" x 1/4"	—
5	A	3/4" x 5/8"	20A
5	B	1/2" x 3/8"	—
6	A	1" x 7/8"	25A
6	B	3/4" x 5/8"	—

Symbol	Application
NII	Same tubing size
Refer to the applicable tubing table.	Different diameter tubing can be selected within the same body class.
Union elbow LQ1E	Union tee LQ1T
Panel mount union LQ1P	Union LQ1U

Note 1) For each body class, the second and later numbers or symbols indicate reducing. However, in case of size 1, the tubing cannot be changed by reducing.

Note 2) Sizes 1 to 3 are not available for the union flange.

Note 3) For Union flange, nut sizes 4 and 5 are as shown below.

LQ1F4□: LQ-4N□□

LQ1F5□: LQ-5N□□

Note 4) Combinations will differ depending on the type of each fitting. For the availability of combinations, refer to pages 339 to 342.

Note 5) For details of the applicable tubing sizes, refer to page 396.

Different diameter tubing order example

Different diameter tubing (with plug-in reducer) can be selected within the same body class.

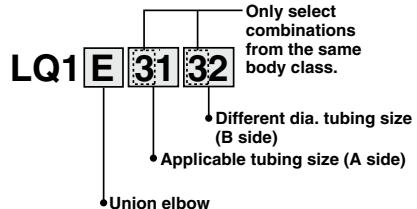
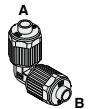
(Example) Union elbow

Body class 3

A side: $\phi 10 \times \phi 8$

B side: $\phi 8 \times \phi 6$

Order as shown below.



Tubing in inches can be combined with that in mm in the same body size. Example) LQ1E313A

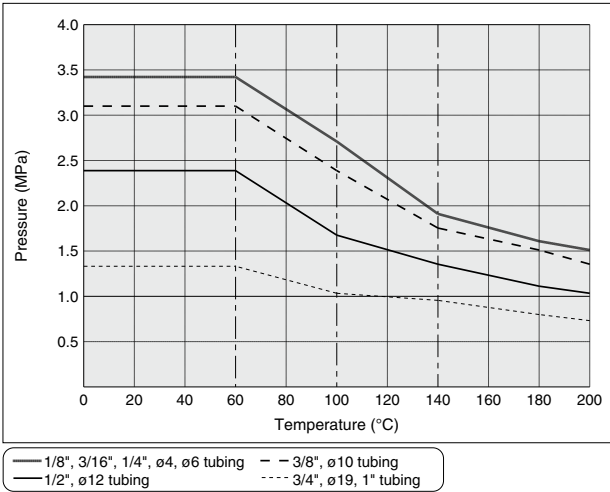


Specifications

Feature	Model	LQ1□10	LQ1□20	LQ1□30	LQ1□40	LQ1□50	LQ1□60
Material		NEW PFA Note)					
Maximum operating pressure (at 20°C)		1.0 MPa					
Proof pressure		Refer to the withstand pressure and heat resistance performance curves.					
Operating temperature		0 to 200°C					

Note) For products produced upon receipt of order, the fitting body is made of PTFE.

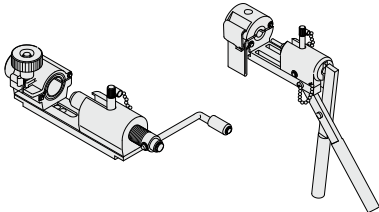
Burst Pressure and Heat Resistance Performance



Caution

1. Connect tubing with special tools

Refer to the pamphlet "High-Purity Fluoropolymer Fittings Hyper fitting/Series LQ1, 2 Work Procedure Instructions" (M-E05-1) for connecting tubing and special tools. (Downloadable from our web site.)



Piping

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

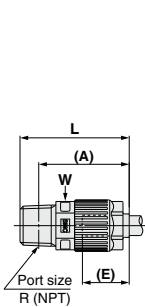
Tightening torque for piping

Body class	Torque (N·m)
2	0.3 to 0.4
3	0.8 to 1.0
4	1.0 to 1.2
5	2.5 to 3.0
6	5.5 to 6.0

Note) In the case of body class 1, the nut should be tightened manually.

Dimensions

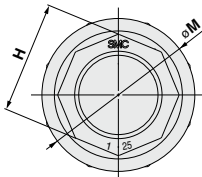
Male Connector: LQ1H-M



Class 1



Class 2 to 5



Class 6

(A) shows the reference dimension after connection.
(E) shows the approximate dimension of the inserted tubing from the end of the nut.
"W" is width across flats dimension.

Metric sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	E	H	L	M	W
LQ1H11-M □	ø4	1/8"	21	10	—	25	11.5	10
LQ1H12-M □	ø3							
LQ1H21-M □	ø6	1/8"	31.5					
LQ1H22-M □	ø4							
LQ1H2C-M □	ø3			15	14	35	16.5	14
LQ1H23-M □	ø6							
LQ1H24-M □	ø4	1/4"	29					
LQ1H2F-M □	ø3							
LQ1H31-M □	ø10							
LQ1H32-M □	ø8	1/4"	36.5					
LQ1H33-M □	ø6			20	17	42.5	23	
LQ1H34-M □	ø10							
LQ1H35-M □	ø8		36					19
LQ1H36-M □	ø6	3/8"						
LQ1H37-M □	ø4		31.5	15	14	37.6	16.5	
LQ1H3E-M □	ø3							
LQ1H39-M □	ø10							
LQ1H310-M □	ø8	1/8"	34.5	20	17	38	23	
LQ1H41-M □	ø12	3/8"	46					
LQ1H42-M □	ø10			24	21	52	28	
LQ1H43-M □	ø12		44					23
LQ1H44-M □	ø10							
LQ1H45-M □	ø8	1/2"	39.5	20	17	47.5	23	
LQ1H46-M □	ø6							
LQ1H4F-M □	ø3		34	15	14	42	16.5	
LQ1H49-M □	ø12	1/4"	42	24	21	48	28	
LQ1H51-M □	ø19	1/2"	55					
LQ1H52-M □	ø12			29	26	62.5	39	
LQ1H53-M □	ø19		53.5					32
LQ1H54-M □	ø12	3/4"						
LQ1H55-M □	ø10		43.5	20	17	52.5	23	
LQ1H57-M □	ø6							
LQ1H58-M □	ø19	1/4"	52	29	26	58	39	
LQ1H59-M □	ø19	3/8"						
LQ1H61-M □	ø25		72					46
LQ1H62-M □	ø19	3/4"		39.5	36	81	49	
LQ1H63-M □	ø25		71					
LQ1H64-M □	ø19	1"						
LQ1H65-M □	ø12		61	29	26	71	39	
LQ1H66-M □	ø25	1/2"	69.5	39.5	36	77.5	49	

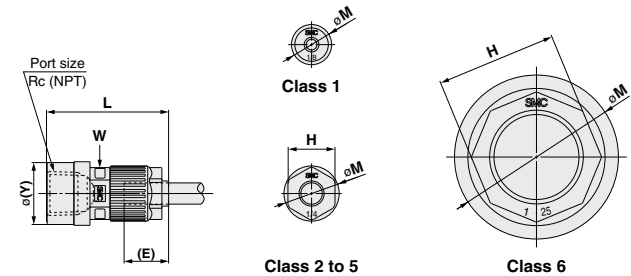
Inch sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	E	H	L	M	W
LQ1H1A-M □	1/8"	1/8"	21	10	—	25	11.5	10
LQ1H2A-M □	1/4"							
LQ1H2B-M □	3/16"	1/8"	31.5					
LQ1H2C-M □	1/8"			15	14	35	16.5	14
LQ1H2D-M □	1/4"							
LQ1H2E-M □	3/16"	1/4"	29					
LQ1H2F-M □	1/8"							
LQ1H3A-M □	3/8"							
LQ1H3B-M □	1/4"	1/4"	36.5		20	17	42.5	23
LQ1H3C-M □	3/8"							19
LQ1H3D-M □	1/4"	3/8"	36					
LQ1H3E-M □	1/8"		31.5	15	14	37.6	16.5	
LQ1H3F-M □	3/8"	1/8"	34.5	20	17	38	23	
LQ1H4A-M □	1/2"							
LQ1H4B-M □	3/8"	3/8"	46					
LQ1H4C-M □	1/2"		44	24	21	52	28	23
LQ1H4D-M □	3/8"							
LQ1H4E-M □	1/4"	1/2"	39.5	20	17	47.5	23	
LQ1H4F-M □	1/8"		34	15	14	42	16.5	
LQ1H4G-M □	1/2"	1/4"	42	24	21	48	28	
LQ1H5A-M □	3/4"	1/2"	55					
LQ1H5B-M □	1/2"			29	26	62.5	39	
LQ1H5C-M □	3/4"		53.5					32
LQ1H5D-M □	1/2"	3/4"						
LQ1H5E-M □	3/8"		43.5	20	17	52.5	23	
LQ1H5F-M □	1/4"							
LQ1H5G-M □	3/4"	1/4"	52	29	26	58	39	
LQ1H5H-M □	1"	3/8"						
LQ1H6A-M □	1"		72					46
LQ1H6B-M □	3/4"			39.5	36	81	49	
LQ1H6C-M □	1"		71					
LQ1H6D-M □	3/4"	1"						
LQ1H6E-M □	1/2"		61	29	26	71	39	
LQ1H6F-M □	1"	1/2"	69.5	39.5	36	77.5	49	

KQ2
KQB2
KS KX
KM
KF
M
H/DL L/LL
KC
KK
KK130
DM
KDM
KB
KR
KA
KQG2
KG
KFG2
MS
KKA
KP
LQ
MQR
T

Dimensions

Female Connector: LQ1H-F



(E) shows the reference of the inserted tubing from the end of the nut.
“W” is width across flats dimension.

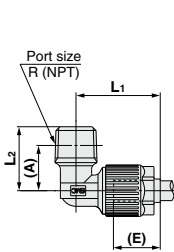
Metric sizes

Model	Applicable tubing O.D.	Connection threads Rc/NPT	E	H	L	M	W	Y
LQ1H11-F□	ø4	1/8"	10	—	26.5	11.5	10	18.5
LQ1H12-F□	ø3	1/8"	10	—	26.5	11.5	10	18.5
LQ1H21-F□	ø6	1/8"	15	14	35	16.5	14	18.5
LQ1H22-F□	ø4	1/8"	15	14	35	16.5	14	18.5
LQ1H2C-F□	ø3	1/8"	15	14	35	16.5	14	18.5
LQ1H2D-F□	ø6	1/4"	15	14	35	16.5	14	18.5
LQ1H2E-F□	ø4	1/4"	15	14	35	16.5	14	18.5
LQ1H2F-F□	ø3	1/4"	15	14	35	16.5	14	18.5
LQ1H31-F□	ø10	1/4"	20	17	42.5	23	19	25
LQ1H32-F□	ø8	1/4"	20	17	42.5	23	19	25
LQ1H33-F□	ø6	3/8"	20	17	42.5	23	19	25
LQ1H34-F□	ø10	3/8"	20	17	42.5	23	19	25
LQ1H35-F□	ø8	3/8"	20	17	42.5	23	19	25
LQ1H36-F□	ø6	3/8"	20	17	42.5	23	19	25
LQ1H39-F□	ø10	1/8"	20	17	42.5	23	19	25
LQ1H310-F□	ø8	1/8"	20	17	42.5	23	19	25
LQ1H41-F□	ø12	3/8"	24	21	47.5	28	23	29.5
LQ1H42-F□	ø10	3/8"	24	21	47.5	28	23	29.5
LQ1H43-F□	ø12	1/2"	24	21	47.5	28	23	29.5
LQ1H44-F□	ø10	1/2"	24	21	47.5	28	23	29.5
LQ1H45-F□	ø8	1/2"	24	21	47.5	28	23	29.5
LQ1H46-F□	ø6	1/2"	24	21	47.5	28	23	29.5
LQ1H49-F□	ø12	1/4"	29	26	56.5	39	32	21.5
LQ1H410-F□	ø12	1/8"	24	21	46.5	28	23	18.5
LQ1H51-F□	ø19	1/2"	29	26	60	39	32	36
LQ1H52-F□	ø12	1/2"	29	26	60	39	32	36
LQ1H53-F□	ø19	3/4"	29	26	60	39	32	36
LQ1H54-F□	ø12	3/4"	29	26	60	39	32	36
LQ1H58-F□	ø19	1/4"	29	26	60	39	32	36
LQ1H59-F□	ø19	3/8"	29	26	60	39	32	36
LQ1H61-F□	ø25	3/4"	39.5	36	75	49	46	44.5
LQ1H62-F□	ø19	3/4"	39.5	36	75	49	46	44.5
LQ1H63-F□	ø25	1"	39.5	36	75	49	46	44.5
LQ1H64-F□	ø19	1"	39.5	36	75	49	46	44.5

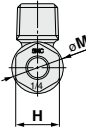
Inch sizes

Model	Applicable tubing O.D.	Connection threads Rc/NPT	E	H	L	M	W	Y
LQ1H1A-F□	1/8"	1/8"	10	—	26.5	11.5	10	18.5
LQ1H2A-F□	1/4"	1/8"	15	14	35	16.5	14	18.5
LQ1H2B-F□	3/16"	1/8"	15	14	35	16.5	14	18.5
LQ1H2C-F□	1/8"	1/8"	15	14	35	16.5	14	18.5
LQ1H2D-F□	1/4"	1/4"	15	14	35	16.5	14	18.5
LQ1H2E-F□	3/16"	1/4"	15	14	35	16.5	14	18.5
LQ1H2F-F□	1/8"	1/8"	15	14	35	16.5	14	18.5
LQ1H3A-F□	3/8"	1/4"	20	17	42.5	23	19	25
LQ1H3B-F□	1/4"	1/4"	20	17	42.5	23	19	25
LQ1H3C-F□	3/8"	3/8"	20	17	42.5	23	19	25
LQ1H3D-F□	1/4"	3/8"	20	17	42.5	23	19	25
LQ1H3F-F□	3/8"	1/8"	20	17	42.5	23	19	25
LQ1H4A-F□	1/2"	3/8"	24	21	47.5	28	23	29.5
LQ1H4B-F□	3/8"	3/8"	24	21	47.5	28	23	29.5
LQ1H4C-F□	1/2"	1/2"	24	21	47.5	28	23	29.5
LQ1H4D-F□	3/8"	3/8"	24	21	47.5	28	23	29.5
LQ1H4E-F□	1/4"	1/2"	20	17	45.5	23	23	21.5
LQ1H4G-F□	1/2"	1/4"	29	26	56.5	39	32	21.5
LQ1H4H-F□	1/2"	1/8"	24	21	46.5	28	23	18.5
LQ1H5A-F□	3/4"	1/2"	29	26	58.5	39	32	29.5
LQ1H5B-F□	1/2"	1/2"	29	26	58.5	39	32	29.5
LQ1H5C-F□	3/4"	3/4"	29	26	58.5	39	32	29.5
LQ1H5D-F□	1/2"	3/4"	29	26	58.5	39	32	29.5
LQ1H5G-F□	3/4"	1/4"	29	26	56.5	39	32	21.5
LQ1H5H-F□	3/4"	3/8"	29	26	56	39	32	25
LQ1H6A-F□	1"	3/4"	39.5	36	75	49	46	44.5
LQ1H6B-F□	3/4"	3/4"	39.5	36	75	49	46	44.5
LQ1H6C-F□	1"	1"	39.5	36	78.5	49	46	44.5
LQ1H6D-F□	3/4"	3/4"	39.5	36	78.5	49	46	44.5

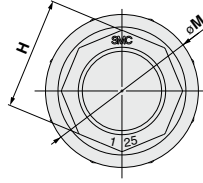
Male Elbow: LQ1L-M



Class 1



Class 2 to 5



Class 6

(A) shows the reference dimension after connection.
(E) shows the approximate dimension of the inserted tubing from the end of the nut.

Metric sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	E	H	L ₁	L ₂	M
LQ1L11-M □	ø4	1/8"	11.5	10	—	18	15	11.5
LQ1L12-M □	ø3							
LQ1L21-M □	ø6							
LQ1L22-M □	ø4	1/8"	14.5	15	14	27	20.5	16.5
LQ1L2C-M □	ø3							
LQ1L23-M □	ø6							
LQ1L24-M □	ø4	1/4"	20	20	17	35	26.5	23
LQ1L2F-M □	ø3							
LQ1L31-M □	ø10							
LQ1L32-M □	ø8	3/8"	21.1	15	14	31.6	27.1	16.5
LQ1L33-M □	ø6							
LQ1L34-M □	ø10							
LQ1L35-M □	ø8	1/2"	24.1	20	17	38.5	32.1	23
LQ1L36-M □	ø6							
LQ1L37-M □	ø4							
LQ1L3E-M □	ø3	3/4"	22.6	24	21	43	28.6	28
LQ1L39-M □	ø10							
LQ1L310-M □	ø8							
LQ1L41-M □	ø12	1"	30.5	29	26	54	40	39
LQ1L42-M □	ø10							
LQ1L43-M □	ø12							
LQ1L44-M □	ø10	3/4"	20	17	14	30	25.5	16.5
LQ1L45-M □	ø8							
LQ1L46-M □	ø6							
* LQ1L47-M □	ø4	1/2"	17.5	15	14	30	25.5	16.5
* LQ1L4F-M □	ø3							
LQ1L49-M □	ø12							
LQ1L51-M □	ø19	1/2"	34	39.5	36	53	40	49
LQ1L52-M □	ø12							
LQ1L53-M □	ø19							
LQ1L54-M □	ø12	3/4"	37	29	26	60	47	39
LQ1L55-M □	ø10							
LQ1L56-M □	ø8							
LQ1L57-M □	ø6	3/8"	34	39.5	36	53	40	49
* LQ1L59-M □	ø19							
LQ1L61-M □	ø25							
LQ1L62-M □	ø19	1"	37	29	26	60	47	39
LQ1L63-M □	ø25							
LQ1L64-M □	ø19							
LQ1L65-M □	ø12	3/8"	34	39.5	36	53	40	49
* LQ1L67-M □	ø25							

Note) Products marked "*" are produced upon receipt of order.

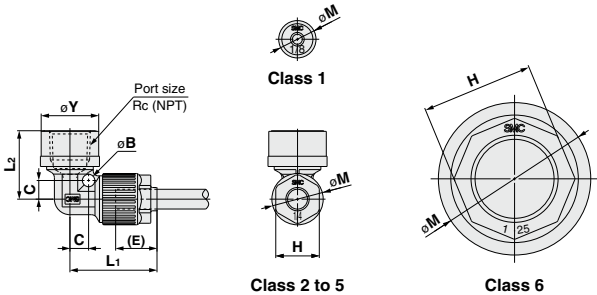
Inch sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	E	H	L ₁	L ₂	M
LQ1L1A-M □	1/8"	1/8"	11.5	10	—	18	15	11.5
LQ1L2A-M □	1/4"							
LQ1L2B-M □	3/16"							
LQ1L2C-M □	1/8"	1/4"	14.5	15	14	27	20.5	16.5
LQ1L2D-M □	1/4"							
LQ1L2E-M □	3/16"							
LQ1L2F-M □	1/8"	1/4"	20	20	17	35	26.5	23
LQ1L3A-M □	3/8"							
LQ1L3B-M □	1/4"							
LQ1L3C-M □	3/8"	3/8"	21.1	15	14	31.6	27.1	16.5
LQ1L3D-M □	1/4"							
LQ1L3E-M □	1/8"							
LQ1L3F-M □	3/8"	1/8"	20.6	20	17	36.6	24.1	23
LQ1L4A-M □	1/2"							
LQ1L4B-M □	3/8"							
LQ1L4C-M □	1/2"	1/2"	25	24	21	45	33	28
LQ1L4D-M □	3/8"							
LQ1L4E-M □	1/4"							
* LQ1L4F-M □	1/8"	1/4"	17.5	15	14	30	25.5	16.5
LQ1L4G-M □	1/2"							
LQ1L5A-M □	3/4"							
LQ1L5B-M □	1/2"	1/2"	22.6	24	21	43	28.6	28
LQ1L5C-M □	3/4"							
LQ1L5D-M □	1/2"							
LQ1L5E-M □	3/8"	3/4"	30.5	29	26	54	40	39
LQ1L5F-M □	1/4"							
* LQ1L5H-M □	3/4"							
LQ1L6A-M □	1"	3/4"	34	39.5	36	53	40	49
LQ1L6B-M □	3/4"							
LQ1L6C-M □	1"							
LQ1L6D-M □	3/4"	1"	37	29	26	60	47	39
LQ1L6E-M □	1/2"							
* LQ1L6G-M □	1"							

Note) Products marked "*" are produced upon receipt of order.

Dimensions

Female Elbow: LQ1L-F



(E) shows the reference dimension of the inserted tubing from the end of the nut.

Metric sizes

Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	C	E	H	L ₁	L ₂	M	Y
LQ1L11-F □	ø4	1/8"	2	4	10	—	18.5	16	11.5	18.5
LQ1L12-F □	ø3	1/8"	2	4	10	—	18.5	16	11.5	18.5
LQ1L21-F □	ø6	1/8"	4	6	15	14	28	19.5	16.5	18.5
LQ1L22-F □	ø4	1/8"	4	6	15	14	28	19.5	16.5	18.5
LQ1L2C-F □	ø3	1/4"	4	6	15	14	28	22	21.5	21.5
LQ1L23-F □	ø6	1/4"	4	6	15	14	28	22	21.5	21.5
LQ1L24-F □	ø4	1/4"	4	6	15	14	28	22	21.5	21.5
LQ1L2F-F □	ø3	1/4"	4	6	15	14	28	22	21.5	21.5
LQ1L31-F □	ø10	1/4"	5	9	20	17	36.5	22	23	21.5
LQ1L32-F □	ø8	1/4"	5	9	20	17	36.5	22	23	21.5
LQ1L33-F □	ø6	1/4"	5	9	20	17	36.5	22	23	21.5
LQ1L34-F □	ø10	3/8"	5	9	20	17	36.5	24.5	25	25
LQ1L35-F □	ø8	3/8"	5	9	20	17	36.5	24.5	25	25
LQ1L36-F □	ø6	3/8"	5	9	20	17	36.5	24.5	25	25
LQ1L3E-F □	ø3	1/8"	5	9	20	17	36.5	24.5	25	25
* LQ1L39-F □	ø10	1/8"	5	9	20	17	36.5	24.5	25	25
* LQ1L310-F □	ø8	1/8"	5	9	20	17	36.5	24.5	25	25
LQ1L41-F □	ø12	3/8"	6	9	24	21	43	25.5	28	29.5
LQ1L42-F □	ø10	3/8"	6	9	24	21	43	25.5	28	29.5
LQ1L43-F □	ø12	1/2"	6	9	24	21	43	25.5	28	29.5
LQ1L44-F □	ø10	1/2"	6	9	24	21	43	25.5	28	29.5
LQ1L49-F □	ø12	1/4"	6	9	24	21	43	25.5	28	29.5
LQ1L410-F □	ø12	1/8"	6	9	24	21	43	25.5	28	29.5
LQ1L51-F □	ø19	1/2"	7	14	29	26	54	35.5	39	36
LQ1L52-F □	ø12	1/2"	7	14	29	26	54	35.5	39	36
LQ1L53-F □	ø19	3/4"	7	14	29	26	54	35.5	39	36
LQ1L54-F □	ø12	3/4"	7	14	29	26	54	35.5	39	36
LQ1L59-F □	ø19	3/8"	7	14	29	26	54	35.5	39	36
LQ1L61-F □	ø25	3/4"	8	18	39.5	36	69.5	42.5	49	44.5
LQ1L62-F □	ø19	3/4"	8	18	39.5	36	69.5	42.5	49	44.5
LQ1L63-F □	ø25	1"	8	18	39.5	36	69.5	42.5	49	44.5
LQ1L64-F □	ø19	1"	8	18	39.5	36	69.5	42.5	49	44.5

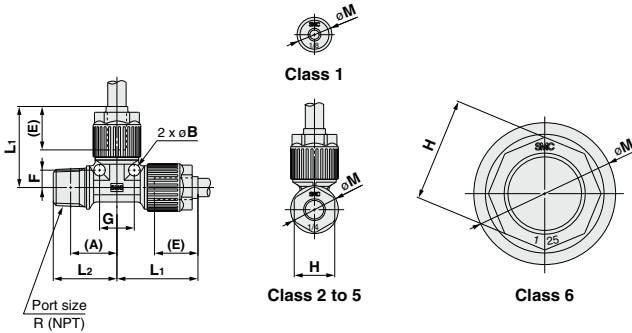
Note) Products marked "*" are produced upon receipt of order.

Inch sizes

Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	C	E	H	L ₁	L ₂	M	Y
LQ1L1A-F □	1/8"	1/8"	2	4	10	—	18.5	16	11.5	18.5
LQ1L2A-F □	1/4"	1/4"	4	6	15	14	28	19.5	16.5	18.5
LQ1L2B-F □	3/16"	1/8"	4	6	15	14	28	19.5	16.5	18.5
LQ1L2C-F □	1/8"	1/8"	4	6	15	14	28	19.5	16.5	18.5
LQ1L2D-F □	1/4"	1/4"	4	6	15	14	28	19.5	16.5	18.5
LQ1L2E-F □	3/16"	1/4"	4	6	15	14	28	19.5	16.5	18.5
LQ1L2F-F □	1/8"	1/4"	4	6	15	14	28	19.5	16.5	18.5
LQ1L3A-F □	3/8"	1/4"	5	9	20	17	36.5	22	23	21.5
LQ1L3B-F □	1/4"	1/4"	5	9	20	17	36.5	22	23	21.5
LQ1L3C-F □	3/8"	1/4"	5	9	20	17	36.5	22	23	21.5
LQ1L3D-F □	1/4"	3/8"	5	9	20	17	36.5	22	23	21.5
LQ1L3E-F □	1/8"	3/8"	5	9	20	17	36.5	22	23	21.5
* LQ1L3F-F □	3/8"	1/8"	5	9	20	17	36.5	22	23	21.5
LQ1L4A-F □	1/2"	3/8"	6	9	24	21	43	25.5	28	29.5
LQ1L4B-F □	3/8"	3/8"	6	9	24	21	43	25.5	28	29.5
LQ1L4C-F □	1/2"	1/2"	6	9	24	21	43	25.5	28	29.5
LQ1L4D-F □	3/8"	3/8"	6	9	24	21	43	25.5	28	29.5
LQ1L4G-F □	1/2"	1/4"	6	9	24	21	43	25.5	28	29.5
LQ1L4H-F □	1/2"	1/8"	6	9	24	21	43	25.5	28	29.5
LQ1L5A-F □	3/4"	3/4"	7	14	29	26	54	35.5	39	36
LQ1L5B-F □	1/2"	1/2"	7	14	29	26	54	35.5	39	36
LQ1L5C-F □	3/4"	3/4"	7	14	29	26	54	35.5	39	36
LQ1L5D-F □	1/2"	3/4"	7	14	29	26	54	35.5	39	36
LQ1L5H-F □	3/4"	3/8"	7	14	29	26	54	35.5	39	36
LQ1L6A-F □	1"	3/4"	8	18	39.5	36	69.5	42.5	49	44.5
LQ1L6B-F □	3/4"	3/4"	8	18	39.5	36	69.5	42.5	49	44.5
LQ1L6C-F □	1"	1"	8	18	39.5	36	69.5	42.5	49	44.5
LQ1L6D-F □	3/4"	1"	8	18	39.5	36	69.5	42.5	49	44.5

Note) Products marked "*" are produced upon receipt of order.

Male Run Tee: LQ1R-M



Metric sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	B	E	F	G	H	L ₁	L ₂	M
LQ1R11-M □	ø4	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1R12-M □	ø3	1/8"									
LQ1R21-M □	ø6	1/8"									
LQ1R22-M □	ø4	1/8"								19.5	
LQ1R2C-M □	ø3		16	4	15	6	12	14	28		16.5
LQ1R23-M □	ø6										
LQ1R24-M □	ø4	1/4"								22	
LQ1R2F-M □	ø3										
LQ1R31-M □	ø10										
LQ1R32-M □	ø8	1/4"	19							25	
LQ1R33-M □	ø6			5		9	18				
LQ1R34-M □	ø10				20			17			
LQ1R35-M □	ø8	3/8"	21							27	23
LQ1R36-M □	ø6										
* LQ1R39-M □	ø10	1/8"	17	—		—	—		34.5	20.5	
* LQ1R310-M □	ø8										
LQ1R41-M □	ø12	3/8"	23							29	
LQ1R42-M □	ø10			6	24	9	18	21	43		28
LQ1R43-M □	ø12	1/2"	24.5							32	
LQ1R44-M □	ø10										
LQ1R49-M □	ø12	1/4"	27.5	7	29	14	28	26	54	33.5	39
LQ1R51-M □	ø19										
LQ1R52-M □	ø12	1/2"	30.5							38	
LQ1R53-M □	ø19	3/4"	30	7	29	14	28	26	54	39	39
LQ1R54-M □	ø12										
LQ1R58-M □	ø19	1/4"	27.5							33.5	
LQ1R59-M □	ø19	3/8"	29							35	
LQ1R61-M □	ø25										
LQ1R62-M □	ø19	3/4"	36								
LQ1R63-M □	ø25	1"	35	8	39.5	18	36	36	69.5	45	49
LQ1R64-M □	ø19										

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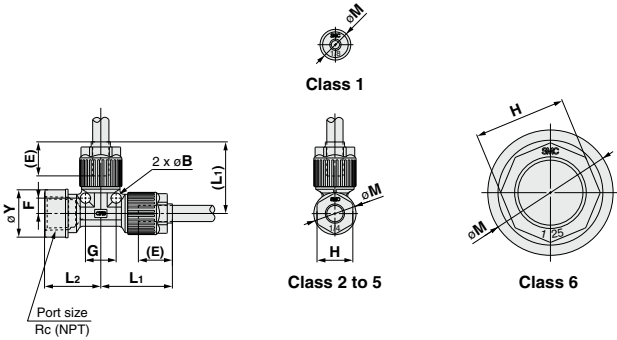
Inch sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	B	E	F	G	H	L ₁	L ₂	M
LQ1R1A-M □	1/8"	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1R2A-M □	1/4"										
LQ1R2B-M □	3/16"	1/8"								19.5	
LQ1R2C-M □	1/8"		16	4	15	6	12	14	28		16.5
LQ1R2D-M □	1/4"										
LQ1R2E-M □	3/16"	1/4"								22	
LQ1R2F-M □	1/8"										
LQ1R3A-M □	3/8"									25	
LQ1R3B-M □	1/4"	1/4"	19								
LQ1R3C-M □	3/8"			5		9	18		36.5		23
LQ1R3D-M □	1/4"	3/8"	21		20			17		27	
* LQ1R3F-M □	3/8"	1/8"	17	—		—	—		34.5	20.5	
LQ1R4A-M □	1/2"										
LQ1R4B-M □	3/8"	3/8"	23							29	
LQ1R4C-M □	1/2"			6	24	9	18	21	43		28
LQ1R4D-M □	3/8"	1/2"	24.5							32	
LQ1R4G-M □	1/2"	1/4"	27.5	7	29	14	28	26	54	33.5	39
LQ1R5A-M □	3/4"										
LQ1R5B-M □	1/2"	1/2"	30.5							38	
LQ1R5C-M □	3/4"										
LQ1R5D-M □	1/2"	3/4"	30	7	29	14	28	26	54	39	39
LQ1R5G-M □	3/4"	1/4"	27.5							33.5	
LQ1R5H-M □	3/4"	3/8"	29							35	
LQ1R6A-M □	1"										
LQ1R6B-M □	3/4"	3/4"	36								
LQ1R6C-M □	1"			8	39.5	18	36	36	69.5	45	49
LQ1R6D-M □	3/4"	1"	35								

Note) Products marked "*" are produced upon receipt of order.

Dimensions

Female Run Tee: LQ1R-F



Metric sizes

Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	E	F	G	H	L ₁	L ₂	M	Y
LQ1R11-F □	ø4	1/8"	2	10	4	8	—	18.5	16	11.5	18.5
LQ1R12-F □	ø3	1/8"	—	—	—	—	—	—	—	—	—
LQ1R21-F □	ø6	1/8"	—	—	—	—	—	—	—	—	—
LQ1R22-F □	ø4	1/8"	—	—	—	—	—	—	19.5	—	18.5
LQ1R2C-F □	ø3	1/4"	4	15	6	12	14	28	—	16.5	—
LQ1R23-F □	ø6	1/4"	—	—	—	—	—	—	22	—	21.5
LQ1R24-F □	ø4	1/4"	—	—	—	—	—	—	—	—	—
LQ1R2F-F □	ø3	1/4"	—	—	—	—	—	—	—	—	—
LQ1R31-F □	ø10	1/4"	—	—	—	—	—	—	24	—	21.5
LQ1R32-F □	ø8	1/4"	—	—	—	—	—	—	—	—	—
LQ1R33-F □	ø6	1/4"	—	—	—	—	—	—	—	—	—
LQ1R34-F □	ø10	3/8"	5	20	9	18	17	36.5	—	23	—
LQ1R35-F □	ø8	3/8"	—	—	—	—	—	—	25.5	—	25
LQ1R36-F □	ø6	3/8"	—	—	—	—	—	—	—	—	—
* LQ1R39-F □	ø10	1/8"	—	—	—	—	—	34.5	19.7	—	18.5
* LQ1R310-F □	ø8	1/8"	—	—	—	—	—	—	—	—	—
LQ1R41-F □	ø12	3/8"	6	24	9	18	21	43	25	28	25
LQ1R42-F □	ø10	1/2"	—	—	—	—	—	—	31.5	—	29.5
LQ1R43-F □	ø12	1/2"	—	—	—	—	—	—	—	—	—
LQ1R44-F □	ø10	1/4"	—	—	—	—	—	41.5	21.2	—	21.5
* LQ1R49-F □	ø12	1/4"	—	—	—	—	—	—	—	—	—
LQ1R51-F □	ø19	1/2"	—	—	—	—	—	—	35.5	—	29.5
LQ1R52-F □	ø12	1/2"	—	—	—	—	—	—	—	—	—
LQ1R53-F □	ø19	3/4"	7	29	14	28	26	54	37	39	36
LQ1R54-F □	ø12	3/8"	—	—	—	—	—	—	30.5	—	25
LQ1R59-F □	ø19	3/8"	—	—	—	—	—	—	—	—	—
LQ1R61-F □	ø25	3/4"	—	—	—	—	—	—	42.5	—	36
LQ1R62-F □	ø19	1"	8	39.5	18	36	36	69.5	46	49	44.5
LQ1R63-F □	ø25	1/2"	—	—	—	—	—	—	41	—	29.5
LQ1R64-F □	ø19	1/2"	—	—	—	—	—	—	—	—	—
LQ1R66-F □	ø25	1/2"	—	—	—	—	—	—	—	—	—

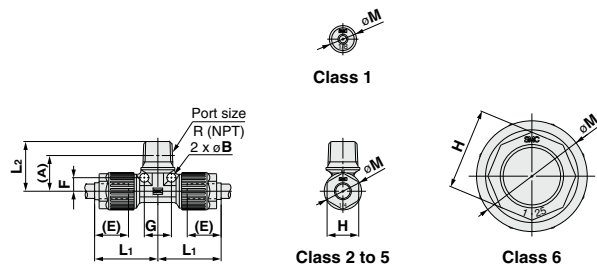
Note) Products marked "*" are produced upon receipt of order.

Inch sizes

Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	E	F	G	H	L ₁	L ₂	M	Y
LQ1R1A-F □	1/8"	1/8"	2	10	4	8	—	18.5	16	11.5	18.5
LQ1R2A-F □	1/4"	1/4"	—	—	—	—	—	—	—	—	—
LQ1R2B-F □	3/16"	1/8"	—	—	—	—	—	—	19.5	—	18.5
LQ1R2C-F □	1/8"	1/4"	4	15	6	12	14	28	—	16.5	—
LQ1R2D-F □	1/4"	1/4"	—	—	—	—	—	—	—	—	—
LQ1R2E-F □	3/16"	1/4"	—	—	—	—	—	—	22	—	21.5
LQ1R2F-F □	1/8"	1/4"	—	—	—	—	—	—	—	—	—
LQ1R3A-F □	3/8"	1/4"	—	—	—	—	—	—	24	—	21.5
LQ1R3B-F □	1/4"	1/4"	5	20	9	18	17	36.5	—	23	—
LQ1R3C-F □	3/8"	3/8"	—	—	—	—	—	—	25.5	—	25
LQ1R3D-F □	1/4"	1/4"	—	—	—	—	—	—	—	—	—
* LQ1R3F-F □	3/8"	1/8"	—	—	—	—	—	34.5	19.7	—	18.5
LQ1R4A-F □	1/2"	3/8"	6	24	9	18	21	43	25	28	25
LQ1R4B-F □	3/8"	3/8"	—	—	—	—	—	—	31.5	—	29.5
LQ1R4C-F □	1/2"	1/2"	—	—	—	—	—	—	—	—	—
LQ1R4D-F □	3/8"	1/2"	—	—	—	—	—	—	41.5	21.2	21.5
* LQ1R4G-F □	1/2"	1/4"	—	—	—	—	—	—	—	—	—
LQ1R5A-F □	3/4"	1/2"	7	29	14	28	26	54	37	39	36
LQ1R5B-F □	1/2"	1/2"	—	—	—	—	—	—	30.5	—	25
LQ1R5C-F □	3/4"	3/4"	—	—	—	—	—	—	—	—	—
LQ1R5D-F □	1/2"	3/8"	—	—	—	—	—	—	—	—	—
LQ1R5H-F □	3/4"	3/8"	—	—	—	—	—	—	—	—	—
LQ1R6A-F □	1"	3/4"	8	39.5	18	36	36	69.5	42.5	49	36
LQ1R6B-F □	3/4"	1"	—	—	—	—	—	—	46	—	44.5
LQ1R6C-F □	1"	1"	—	—	—	—	—	—	—	—	—
LQ1R6D-F □	3/4"	3/4"	—	—	—	—	—	—	—	—	—

Note) Products marked "*" are produced upon receipt of order.

Male Branch Tee: LQ1B-M



Metric sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	B	E	F	G	H	L ₁	L ₂	M
LQ1B11-M □	ø4	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B12-M □	ø3	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B21-M □	ø6	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B22-M □	ø4	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B23-M □	ø3	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B24-M □	ø6	1/4"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B25-M □	ø3	1/4"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B31-M □	ø10	1/4"	19	5	15	6	12	14	28	22	16.5
LQ1B32-M □	ø8	1/4"	19	5	15	6	12	14	28	22	16.5
LQ1B33-M □	ø6	1/4"	19	5	15	6	12	14	28	22	16.5
LQ1B34-M □	ø10	3/8"	21	5	15	6	12	14	28	22	16.5
LQ1B35-M □	ø8	3/8"	21	5	15	6	12	14	28	22	16.5
LQ1B36-M □	ø6	3/8"	21	5	15	6	12	14	28	22	16.5
* LQ1B39-M □	ø10	1/8"	18.4	—	—	—	—	—	29	21.9	—
* LQ1B310-M □	ø8	1/8"	18.4	—	—	—	—	—	29	21.9	—
LQ1B41-M □	ø12	3/8"	23	6	24	9	18	21	43	29	28
LQ1B42-M □	ø10	3/8"	23	6	24	9	18	21	43	29	28
LQ1B43-M □	ø12	1/2"	24.5	6	24	9	18	21	43	29	28
LQ1B44-M □	ø10	1/2"	24.5	6	24	9	18	21	43	29	28
* LQ1B45-M □	ø8	1/4"	21.5	—	20	—	—	17	34	29.5	23
LQ1B49-M □	ø12	1/4"	27.5	7	29	14	28	26	54	33.5	39
LQ1B51-M □	ø19	1/2"	30.5	7	29	14	28	26	54	33.5	39
LQ1B52-M □	ø12	1/2"	30.5	7	29	14	28	26	54	33.5	39
LQ1B53-M □	ø19	3/4"	30	7	29	14	28	26	54	33.5	39
LQ1B54-M □	ø12	3/4"	30	7	29	14	28	26	54	33.5	39
LQ1B58-M □	ø19	1/4"	27.5	7	29	14	28	26	54	33.5	39
LQ1B59-M □	ø19	3/8"	29	7	29	14	28	26	54	33.5	39
LQ1B61-M □	ø25	3/4"	36	8	39.5	18	36	36	69.5	45	49
LQ1B62-M □	ø19	3/4"	36	8	39.5	18	36	36	69.5	45	49
LQ1B63-M □	ø25	1"	35	8	39.5	18	36	36	69.5	45	49
LQ1B64-M □	ø19	1"	35	8	39.5	18	36	36	69.5	45	49
LQ1B66-M □	ø25	1/2"	37	8	39.5	18	36	36	69.5	45	49

Note) Products marked "*" are produced upon receipt of order.

Inch sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	B	E	F	G	H	L ₁	L ₂	M
LQ1B1A-M □	1/8"	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B2A-M □	1/4"	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B2B-M □	3/16"	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B2C-M □	1/8"	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B2D-M □	1/4"	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B2E-M □	3/16"	1/4"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B2F-M □	1/8"	1/8"	12	2	10	4	8	—	18.5	15.5	11.5
LQ1B3A-M □	3/8"	1/4"	19	5	15	6	12	14	28	22	16.5
LQ1B3B-M □	1/4"	1/4"	19	5	15	6	12	14	28	22	16.5
LQ1B3C-M □	3/8"	3/8"	21	5	15	6	12	14	28	22	16.5
LQ1B3D-M □	1/4"	3/8"	21	5	15	6	12	14	28	22	16.5
* LQ1B3F-M □	3/8"	1/8"	18.4	—	—	—	—	—	29	21.9	—
LQ1B4A-M □	1/2"	3/8"	23	6	24	9	18	21	43	29	28
LQ1B4B-M □	3/8"	3/8"	23	6	24	9	18	21	43	29	28
LQ1B4C-M □	1/2"	1/2"	24.5	6	24	9	18	21	43	29	28
LQ1B4D-M □	3/8"	3/8"	23	6	24	9	18	21	43	29	28
LQ1B4G-M □	1/2"	1/4"	27.5	7	29	14	28	26	54	33.5	39
LQ1B5A-M □	3/4"	1/2"	30.5	7	29	14	28	26	54	33.5	39
LQ1B5B-M □	1/2"	1/2"	30.5	7	29	14	28	26	54	33.5	39
LQ1B5C-M □	3/4"	3/4"	30	7	29	14	28	26	54	33.5	39
LQ1B5D-M □	1/2"	3/4"	30	7	29	14	28	26	54	33.5	39
LQ1B5G-M □	3/4"	1/4"	27.5	7	29	14	28	26	54	33.5	39
LQ1B5H-M □	3/4"	3/8"	29	7	29	14	28	26	54	33.5	39
LQ1B6A-M □	1"	3/4"	36	8	39.5	18	36	36	69.5	45	49
LQ1B6B-M □	3/4"	3/4"	36	8	39.5	18	36	36	69.5	45	49
LQ1B6C-M □	1"	1"	35	8	39.5	18	36	36	69.5	45	49
LQ1B6D-M □	3/4"	3/4"	35	8	39.5	18	36	36	69.5	45	49
LQ1B6F-M □	1"	1/2"	37	8	39.5	18	36	36	69.5	45	49

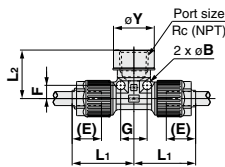
Note) Products marked "*" are produced upon receipt of order.

Dimensions

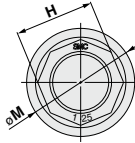
Female Branch Tee: LQ1B-F



Class 1



Class 2 to 5



Class 6

(E) shows the approximate dimension of the inserted tubing from the end of the nut.

Metric sizes

Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	E	F	G	H	L ₁	L ₂	M	Y
LQ1B11-F□	ø4	1/8"	2	10	4	8	—	18.5	16	11.5	18.5
LQ1B12-F□	ø3										
LQ1B21-F□	ø6	1/8"									
LQ1B22-F□	ø4								19.5		18.5
LQ1B2C-F□	ø3										
LQ1B23-F□	ø6		4	15	6	12	14	28		16.5	
LQ1B24-F□	ø4	1/4"							22		21.5
LQ1B2F-F□	ø3										
LQ1B31-F□	ø10										
LQ1B32-F□	ø8	1/4"							23.7		21.5
LQ1B33-F□	ø6										
LQ1B34-F□	ø10		5		9	18		36.5		23	
LQ1B35-F□	ø8	3/8"							25.5		25
LQ1B36-F□	ø6										
* LQ1B39-F□	ø10	1/8"	—		—	—		32.3	18.7		18.5
* LQ1B310-F□	ø8										
LQ1B41-F□	ø12	3/8"							25		25
LQ1B42-F□	ø10		6	24	9	18	21	43		28	
LQ1B43-F□	ø12								31.5		29.5
LQ1B44-F□	ø10	1/2"									
* LQ1B49-F□	ø12	1/4"	7	29	14	28	26	44.3	27.5	39	21.5
LQ1B51-F□	ø19										
LQ1B52-F□	ø12	1/2"							35.5		29.5
LQ1B53-F□	ø19		7		14	28		54		37	39
LQ1B54-F□	ø12	3/4"		29			26				
* LQ1B58-F□	ø19	1/4"						44.3	27.5		21.5
* LQ1B59-F□	ø19	3/8"						46	29.5		25
LQ1B61-F□	ø25										
LQ1B62-F□	ø19	3/4"							42.5		36
LQ1B63-F□	ø25		8	39.5	18	36	36	69.5		46	49
LQ1B64-F□	ø19	1"							46		44.5
LQ1B66-F□	ø25	1/2"							41		29.5

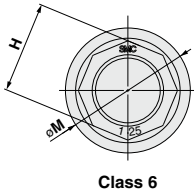
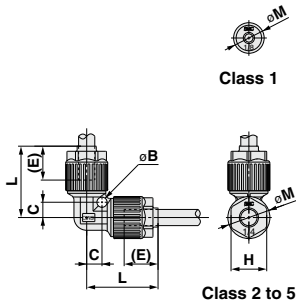
Note) Products marked "*" are produced upon receipt of order.

Inch sizes

Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	E	F	G	H	L ₁	L ₂	M	Y
LQ1B1A-F□	1/8"	1/8"	2	10	4	8	—	18.5	16	11.5	18.5
LQ1B2A-F□	1/4"										
LQ1B2B-F□	3/16"	1/8"							19.5		18.5
LQ1B2C-F□	1/8"		4	15	6	12	14	28		16.5	
LQ1B2D-F□	1/4"										
LQ1B2E-F□	3/16"	1/4"							22		21.5
LQ1B2F-F□	1/8"										
LQ1B3A-F□	3/8"										
LQ1B3B-F□	1/4"	1/4"							23.7		21.5
LQ1B3C-F□	3/8"		5		9	18		36.5		23	
LQ1B3D-F□	1/4"	3/8"		20			17		25.5		25
* LQ1B3F-F□	3/8"	1/8"	—		—	—		32.3	18.7		18.5
LQ1B4A-F□	1/2"										
LQ1B4B-F□	3/8"	3/8"							25		25
* LQ1B3F-F□	3/8"	1/8"	—		—	—		32.3	18.7		18.5
LQ1B4A-F□	1/2"										
LQ1B4B-F□	3/8"	3/8"							25		25
LQ1B4C-F□	1/2"		6	24	9	18	21	43		28	
LQ1B4D-F□	3/8"	1/2"							31.5		29.5
* LQ1B4G-F□	1/2"	1/4"	—	29	—	—	26	44.3	27.5	39	21.5
LQ1B5A-F□	3/4"										
LQ1B5B-F□	1/2"	1/2"							35.5		29.5
LQ1B5C-F□	3/4"		7		14	28		54			
LQ1B5D-F□	1/2"	3/4"		29			26		37	39	36
* LQ1B5G-F□	3/4"	1/4"						44.3	27.5		21.5
* LQ1B5H-F□	3/4"	3/8"	—		—	—		46	29.5		25
LQ1B6A-F□	1"										
LQ1B6B-F□	3/4"	3/4"							42.5		36
LQ1B6C-F□	1"		8	39.5	18	36	36	69.5		46	49
LQ1B6D-F□	3/4"	1"							46		44.5
LQ1B6F-F□	1"	1/2"							41		29.5

Note) Products marked "*" are produced upon receipt of order.

Union Elbow: LQ1E



(E) shows the approximate dimension of the inserted tubing from the end of the nut.

Metric sizes

Model	Applicable tubing O.D.	B	C	E	H	L	M
LQ1E11	ø4	2	4	10	—	18.5	11.5
LQ1E12	ø3						
LQ1E21□□	ø6	4	6	15	14	28	16.5
LQ1E22□□	ø4						
LQ1E2C□□	ø3						
LQ1E31□□	ø10	5	9	20	17	36.5	23
LQ1E32□□	ø8						
LQ1E33□□	ø6						
LQ1E41□□	ø12	6	9	24	21	43	28
LQ1E42□□	ø10						
LQ1E51□□	ø19	7	14	29	26	54	39
LQ1E52□□	ø12						
LQ1E61□□	ø25	8	18	39.5	36	69.5	49
LQ1E62□□	ø19						

Inch sizes

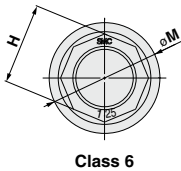
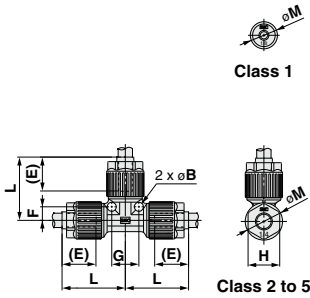
Model	Applicable tubing O.D.	B	C	E	H	L	M
LQ1E1A	1/8"	2	4	10	—	18.5	11.5
LQ1E2A□□	1/4"						
LQ1E2B□□	3/16"	4	6	15	14	28	16.5
LQ1E2C□□	1/8"						
LQ1E3A□□	3/8"						
LQ1E3B□□	1/4"	5	9	20	17	36.5	23
LQ1E4A□□	1/2"						
LQ1E4B□□	3/8"	6	9	24	21	43	28
LQ1E5A□□	3/4"						
LQ1E5B□□	1/2"	7	14	29	26	54	39
LQ1E6A□□	1"						
LQ1E6B□□	3/4"	8	18	39.5	36	69.5	49

KQ2
KQB2
KS
KX
KM
KF
M
H/DL
L/LL
KC
KK
KK130
DM
KDM
KB
KR
KA
KQG2
KG
KFG2
MS
KKA
KP
LQ
MQR
T

Series LQ1

Dimensions

Union Tee: LQ1T



(E) shows the approximate dimension of the inserted tubing from the end of the nut.

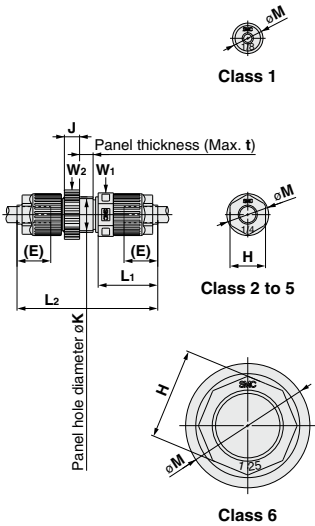
Metric sizes

Model	Applicable tubing O.D.	B	E	F	G	H	L	M
LQ1T11	ø4	2	10	4	8	—	18.5	11.5
LQ1T12	ø3							
LQ1T21□□	ø6	4	15	6	12	14	28	16.5
LQ1T22□□	ø4							
LQ1T2C□□	ø3							
LQ1T31□□	ø10	5	20	9	18	17	36.5	23
LQ1T32□□	ø8							
LQ1T33□□	ø6							
LQ1T41□□	ø12	6	24	9	18	21	43	28
LQ1T42□□	ø10							
LQ1T51□□	ø19	7	29	14	28	26	54	39
LQ1T52□□	ø12							
LQ1T61□□	ø25	8	39.5	18	36	36	69.5	49
LQ1T62□□	ø19							

Inch sizes

Model	Applicable tubing O.D.	B	E	F	G	H	L	M
LQ1T1A	1/8"	2	10	4	8	—	18.5	11.5
LQ1T2A□□	1/4"							
LQ1T2B□□	3/16"	4	15	6	12	14	28	16.5
LQ1T2C□□	1/8"							
LQ1T3A□□	3/8"	5	20	9	18	17	36.5	23
LQ1T3B□□	1/4"							
LQ1T4A□□	1/2"	6	24	9	18	21	43	28
LQ1T4B□□	3/8"							
LQ1T5A□□	3/4"	7	29	14	28	26	54	39
LQ1T5B□□	1/2"							
LQ1T6A□□	1"	8	39.5	18	36	36	69.5	49
LQ1T6B□□	3/4"							

Panel Mount Union: LQ1P



(E) shows the approximate dimension of the inserted tubing from the end of the nut.
"W" is width across flats dimension.

Metric sizes

Model	Applicable tubing O.D.	E	H	J	K	L ₁	L ₂	M	t	W ₁	W ₂
LQ1P11	ø4	10	—	6	10.5	17	44	11.5	8	11	13
LQ1P12	ø3										
LQ1P21□□	ø6	15	14	6	14.5	23.5	55.5	16.5	8	15	17
LQ1P22□□	ø4										
LQ1P2C□□	ø3										
LQ1P31□□	ø10	20	17	7	20.5	30	69	23	8	21	24
LQ1P32□□	ø8										
LQ1P33□□	ø6										
LQ1P41□□	ø12	24	21	7	24.5	35	78.5	28	8	26	28
LQ1P42□□	ø10										
LQ1P51□□	ø19	29	26	9	36.5	43.5	100	39	9	39	43
LQ1P52□□	ø12										
LQ1P61□□	ø25	39.5	36	10	48.5	58.5	133	49	10	51	55
LQ1P62□□	ø19										

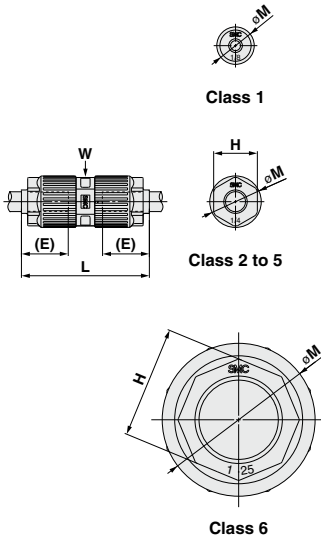
Inch sizes

Model	Applicable tubing O.D.	E	H	J	K	L ₁	L ₂	M	t	W ₁	W ₂
LQ1P1A	1/8"	10	—	6	10.5	17	44	11.5	8	11	13
LQ1P2A□□	1/4"	15	14	6	14.5	23.5	55.5	16.5	8	15	17
LQ1P2B□□	3/16"										
LQ1P2C□□	1/8"	20	17	7	20.5	30	69	23	8	21	24
LQ1P3A□□	3/8"										
LQ1P3B□□	1/4"	24	21	7	24.5	35	78.5	28	8	26	28
LQ1P4A□□	1/2"										
LQ1P4B□□	3/8"	29	26	9	36.5	43.5	100	39	9	39	43
LQ1P5A□□	3/4"										
LQ1P5B□□	1/2"	39.5	36	10	48.5	58.5	133	49	10	51	55
LQ1P6A□□	1"										
LQ1P6B□□	3/4"										

Series LQ1

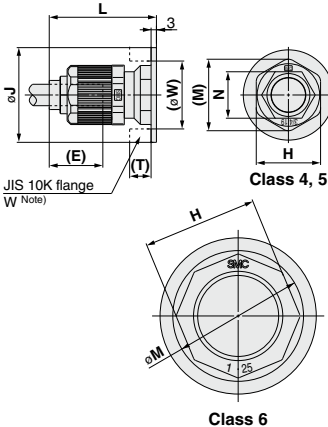
Dimensions

Union: LQ1U



(E) shows the approximate dimension of the inserted tubing from the end of the nut.
"W" is width across flats dimension.

Union Flange: LQ1F



(E) shows the approximate dimension of the inserted tubing from the end of the nut.
(W) is the bore size of the JIS flange required for mounting. This flange is sold separately.
When ordering nuts as spare parts, size 4 and 5 are as shown below.

LQ1F4□: LQ-4N□□
LQ1F5□: LQ-5N□□

Metric sizes

Model	Applicable tubing O.D.	E	H	L	M	W
LQ1U11	ø4	10	—	29	11.5	10
LQ1U12	ø3					
LQ1U21□□	ø6					
LQ1U22□□	ø4	15	14	41	16.5	14
LQ1U2C□□	ø3					
LQ1U31□□	ø10					
LQ1U32□□	ø8	20	17	54	23	19
LQ1U33□□	ø6					
LQ1U41□□	ø12					
LQ1U42□□	ø10	24	21	63	28	23
LQ1U51□□	ø19					
LQ1U52□□	ø12					
LQ1U61□□	ø25	39.5	36	102	49	46
LQ1U62□□	ø19					

Inch sizes

Model	Applicable tubing O.D.	E	H	L	M	W
LQ1U1A	1/8"	10	—	29	11.5	10
LQ1U2A□□	1/4"	15	14	41	16.5	14
LQ1U2B□□	3/16"					
LQ1U2C□□	1/8"					
LQ1U3A□□	3/8"	20	17	54	23	19
LQ1U3B□□	1/4"					
LQ1U4A□□	1/2"					
LQ1U4B□□	3/8"	24	21	63	28	23
LQ1U5A□□	3/4"					
LQ1U5B□□	1/2"					
LQ1U6A□□	1"	39.5	36	102	49	46
LQ1U6B□□	3/4"					

Metric sizes

Model	Applicable tubing O.D.	E	H	J	L	N	M	W	(T)
LQ1F41	ø12	28	30	53	60	21	33.1	34	12
LQ1F42	ø10				58				
LQ1F51	ø19	32	36	58	65.2	26	40	41	14
LQ1F52	ø12				63.2				
LQ1F61	ø25	39.5	36	69	81.5	—	49	51	14
LQ1F62	ø19				—				

Inch sizes

Model	Applicable tubing O.D.	E	H	J	L	N	M	W	(T)
LQ1F4A	1/2"	28	30	53	60	21	33.1	34	12
LQ1F4B	3/8"				58				
LQ1F5A	3/4"	32	36	58	65.2	26	40	41	14
LQ1F5B	1/2"				63.2				
LQ1F6A	1"	39.5	36	69	81.5	—	49	51	14
LQ1F6B	3/4"				—				

Union Elbow Reducing

How to Order

Tubing connection

LQ1 E 2 1 - R1 -

Fitting type

Symbol	Type
E	Union elbow

Body size
(according to the combination table)

Tubing type

Symbol	Type
1, 2	Metric
A, B	Inch

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Type of piping (according to the combination table)

Symbol	Type
R□	Reducing

Size combination (Metric)

Class	Model	A side	B side
		Applicable tubing size (mm)	
4	LQ1E41-R2	12 x 10	8 x 6
	LQ1E41-R3		6 x 4
	LQ1E41-R5		3 x 2
5	LQ1E51-R2	19 x 16	10 x 8
	LQ1E51-R3		8 x 6
	LQ1E51-R4		6 x 4
	LQ1E51-R5		4 x 3
6	LQ1E61-R2	25 x 22	12 x 10
	LQ1E61-R3		10 x 8
	LQ1E61-R4		8 x 6
	LQ1E61-R5		6 x 4

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

Size combination (Inch)

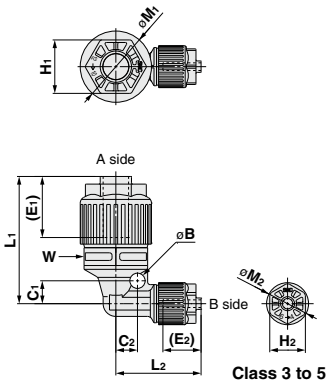
Class	Model	A side	B side
		Applicable tubing size (inch)	
3	LQ1E3A-R3	3/8" x 1/4"	1/8" x 0.086"
4	LQ1E4A-R2	1/2" x 3/8"	1/4" x 5/32"
	LQ1E4A-R3		3/16" x 0.127"
	LQ1E4A-R4		1/8" x 0.086"
5	LQ1E5A-R2	3/4" x 5/8"	3/8" x 1/4"
	LQ1E5A-R3		1/4" x 5/32"
	LQ1E5A-R4		3/16" x 0.127"
6	LQ1E6A-R2	1" x 7/8"	1/2" x 3/8"
	LQ1E6A-R3		3/8" x 1/4"
	LQ1E6A-R4		1/4" x 5/32"
	LQ1E6A-R5		3/16" x 0.127"

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

KQ2
KQB2
KS
KX
KM
KF
M
H/DL
L/LL
KC
KK
KK130
DM
KDM
KB
KR
KA
KQG2
KG
KFG2
MS
KKA
KP
LQ
MQR
T

Dimensions

**Union Elbow Reducing:
LQ1E-R**



Metric Size

Model	A side Applicable tubing O.D.	B side Applicable tubing O.D.	B	C ₁	C ₂	E ₁	E ₂	H ₁	H ₂	L ₁	L ₂	M ₁	M ₂	W
LQ1E41-R2	ø12	ø8	6	9	9	20	15	21	17	43	38.5	28	23	—
* LQ1E41-R3	ø12	ø6	—	—	—	24	15	21	14	35.5	31.5	28	16.5	25
* LQ1E41-R5	ø12	ø3	—	—	—	—	—	—	—	—	—	—	—	—
* LQ1E51-R2	ø19	ø10	—	—	—	39.5	20	36	17	56.5	52.5	49	23	46
* LQ1E51-R3	ø19	ø8	—	—	—	—	—	—	—	—	—	—	—	—
* LQ1E51-R4	ø19	ø6	—	—	—	—	—	—	—	—	—	—	—	—
* LQ1E51-R5	ø19	ø4	—	—	—	39.5	15	36	14	51	42	39	16.5	32
* LQ1E61-R2	ø25	ø12	—	—	—	—	24	—	21	56.5	52.5	—	28	—
* LQ1E61-R3	ø25	ø10	—	—	—	39.5	20	36	17	54	47.5	49	23	46
* LQ1E61-R4	ø25	ø8	—	—	—	—	—	—	—	—	—	—	—	—
* LQ1E61-R5	ø25	ø6	—	—	—	—	15	—	15	51	42	—	16.5	—

Note) Products marked “*” are produced upon receipt of order.

Inch Size

Model	A side Applicable tubing O.D.	B side Applicable tubing O.D.	B	C ₁	C ₂	E ₁	E ₂	H ₁	H ₂	L ₁	L ₂	M ₁	M ₂	W
* LQ1E3A-R3	3/8"	1/8"	—	—	—	24	15	21	14	35.5	31.5	28	16.5	—
LQ1E4A-R2	1/2"	1/4"	6	9	9	20	15	21	17	43	38.5	28	23	—
* LQ1E4A-R3	1/2"	3/16"	—	—	—	24	15	21	14	35.5	31.5	28	16.5	—
* LQ1E4A-R4	1/2"	1/8"	—	—	—	—	—	—	—	—	—	—	—	—
* LQ1E5A-R2	3/4"	3/8"	—	—	—	39.5	20	36	17	54	47.5	49	23	46
* LQ1E5A-R3	3/4"	1/4"	—	—	—	—	15	—	14	51	42	—	16.5	—
* LQ1E5A-R4	3/4"	3/16"	—	—	—	—	—	—	—	—	—	—	—	—
* LQ1E6A-R2	1"	1/2"	—	—	—	—	24	—	21	56.5	52.5	—	28	—
* LQ1E6A-R3	1"	3/8"	—	—	—	39.5	20	36	17	54	47.5	49	23	46
* LQ1E6A-R4	1"	1/4"	—	—	—	—	—	—	—	—	—	—	—	—
* LQ1E6A-R5	1"	3/16"	—	—	—	—	15	—	14	51	42	—	16.5	—

Note) Products marked “*” are produced upon receipt of order.

Series **LQ1**

Union Tee Reducing

How to Order

Tubing connection

LQ1 T 2 1 - R1 -

Fitting type

Symbol	Type
T	Union tee

Body size

(according to the combination table)

Tubing type

Symbol	Type
1, 2	Metric
A, B	Inch

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Type of piping (according to the combination table)

Symbol	Type
R□	Reducing

Size combination (Metric)

Class	Model	A side (Left)	B side (Center)	C side (Right)
Applicable tubing size (mm)				
3	LQ1T31-R4	10 x 8	3 x 2	10 x 8
	LQ1T31-R7	8 x 6	8 x 6	10 x 8
	LQ1T31-R8		6 x 4	10 x 8
	LQ1T32-R5	6 x 4	8 x 6	8 x 6
	LQ1T32-R6		10 x 8	10 x 8
4	LQ1T41-R7		6 x 4	8 x 6
	LQ1T41-R2	12 x 10	8 x 6	12 x 10
	LQ1T41-R3		6 x 4	12 x 10
	LQ1T41-R5	10 x 8	12 x 10	12 x 10
	LQ1T41-R7		10 x 8	12 x 10
	LQ1T41-R11		10 x 8	12 x 10
	LQ1T41-R12	6 x 4	12 x 10	12 x 10
	LQ1T41-R22	10 x 8	6 x 4	12 x 10
	LQ1T41-R23	6 x 4	6 x 4	12 x 10
	LQ1T41-R26	12 x 10	3 x 2	12 x 10
5	LQ1T41-R32	6 x 4	12 x 10	6 x 4
	LQ1T41-R34	3 x 2	12 x 10	3 x 2
	LQ1T51-R2		10 x 8	19 x 16
	LQ1T51-R3	19 x 16	8 x 6	19 x 16
	LQ1T51-R4		6 x 4	19 x 16
	LQ1T51-R5	12 x 10	19 x 16	19 x 16
	LQ1T51-R6	10 x 8	19 x 16	19 x 16
	* LQ1T51-R7	12 x 10	12 x 10	19 x 16
	* LQ1T51-R8	10 x 8	10 x 8	19 x 16
	LQ1T51-R10	10 x 8	19 x 16	10 x 8
	LQ1T51-R12	8 x 6	19 x 16	19 x 16
	LQ1T51-R13	6 x 4	19 x 16	19 x 16
	* LQ1T51-R17	10 x 8	12 x 10	19 x 16
	LQ1T51-R24	12 x 10	6 x 4	19 x 16
	LQ1T51-R26		4 x 3	19 x 16
6	LQ1T51-R28	19 x 16	3 x 2	19 x 16
	LQ1T61-R31	10 x 8	19 x 16	12 x 10
	LQ1T61-R2		12 x 10	25 x 22
	* LQ1T61-R3	25 x 22	10 x 8	25 x 22
	LQ1T61-R4		8 x 6	25 x 22
	LQ1T61-R5	19 x 16	25 x 22	25 x 22
	LQ1T61-R6	12 x 10	25 x 22	25 x 22
	LQ1T61-R7	19 x 16	19 x 16	25 x 22
	* LQ1T61-R8	12 x 10	12 x 10	25 x 22
	LQ1T61-R10		25 x 22	12 x 10
	LQ1T61-R11	12 x 10	19 x 16	25 x 22
	LQ1T61-R12	10 x 8	25 x 22	25 x 22
	* LQ1T61-R13	8 x 6	25 x 22	25 x 22
	LQ1T61-R15	6 x 4	25 x 22	25 x 22
	LQ1T61-R18	10 x 8	19 x 16	25 x 22
	LQ1T61-R19	6 x 4	19 x 16	25 x 22
	LQ1T61-R20	19 x 16	12 x 10	25 x 22
	* LQ1T61-R26	25 x 22	6 x 4	25 x 22
	LQ1T61-R30	10 x 8	25 x 22	19 x 16
	LQ1T61-R31	12 x 10	25 x 22	19 x 16
	* LQ1T61-R34	6 x 4	25 x 22	6 x 4

Note 1) Products marked "*" are produced upon receipt of order.

Note 2) For details of the applicable tubing sizes, refer to page 396.

Size combination (Inch)

Class	Model	A side (Left)	B side (Center)	C side (Right)
Applicable tubing size (inch)				
3	LQ1T3A-R5	1/4" x 5/32"	3/8" x 1/4"	3/8" x 1/4"
	LQ1T3A-R7	1/4" x 5/32"	1/4" x 5/32"	3/8" x 1/4"
	LQ1T4A-R2	1/2" x 3/8"	1/4" x 5/32"	1/2" x 3/8"
	LQ1T4A-R4	1/2" x 3/8"	1/8" x 0.086"	1/2" x 3/8"
	LQ1T4A-R5	3/8" x 1/4"		1/2" x 3/8"
4	LQ1T4A-R6	1/4" x 5/32"	1/2" x 3/8"	1/2" x 3/8"
	LQ1T4A-R7	3/8" x 1/4"	3/8" x 1/4"	1/2" x 3/8"
	LQ1T4A-R8	1/4" x 5/32"	1/4" x 5/32"	1/2" x 3/8"
	LQ1T4A-R10	1/4" x 5/32"	1/2" x 3/8"	1/4" x 5/32"
	LQ1T4A-R17	1/4" x 5/32"	3/8" x 1/4"	1/2" x 3/8"
	LQ1T4A-R20	3/8" x 1/4"	1/4" x 5/32"	1/2" x 3/8"
	LQ1T4A-R33	1/8" x 0.086"	1/2" x 3/8"	1/8" x 0.086"
	LQ1T5A-R2	3/4" x 5/8"	3/8" x 1/4"	3/4" x 5/8"
	LQ1T5A-R5	1/2" x 3/8"	3/4" x 5/8"	3/4" x 5/8"
	LQ1T5A-R6	3/8" x 1/4"	3/4" x 5/8"	3/4" x 5/8"
5	* LQ1T5A-R7	1/2" x 3/8"	1/2" x 3/8"	3/4" x 5/8"
	LQ1T5A-R8	3/8" x 1/4"	3/8" x 1/4"	3/4" x 5/8"
	* LQ1T5A-R10	3/8" x 1/4"		3/8" x 1/4"
	LQ1T5A-R12	1/4" x 5/32"	3/4" x 5/8"	3/4" x 5/8"
	* LQ1T5A-R17	1/2" x 3/8"	3/8" x 1/4"	3/4" x 5/8"
	LQ1T5A-R21	3/8" x 1/4"	1/4" x 5/32"	3/4" x 5/8"
	LQ1T5A-R22	1/2" x 3/8"	1/4" x 5/32"	3/4" x 5/8"
	LQ1T5A-R26	3/4" x 5/8"	1/8" x 0.086"	3/4" x 5/8"
	* LQ1T5A-R31	3/8" x 1/4"	3/4" x 5/8"	1/2" x 3/8"
	* LQ1T5A-R32	1/4" x 5/32"	3/4" x 5/8"	1/4" x 5/32"
	LQ1T6A-R2	1" x 7/8"	1/2" x 3/8"	1" x 7/8"
	LQ1T6A-R3	1" x 7/8"	3/8" x 1/4"	1" x 7/8"
	* LQ1T6A-R4	1" x 7/8"	1/4" x 5/32"	1" x 7/8"
	LQ1T6A-R5	3/4" x 5/8"		1" x 7/8"
	LQ1T6A-R6	1/2" x 3/8"	1" x 7/8"	1" x 7/8"
	LQ1T6A-R7	3/4" x 5/8"	3/4" x 5/8"	1" x 7/8"
6	* LQ1T6A-R8	1/2" x 3/8"	1/2" x 3/8"	1" x 7/8"
	LQ1T6A-R10	1/2" x 3/8"	1" x 7/8"	1/2" x 3/8"
	LQ1T6A-R11	3/8" x 1/4"	3/4" x 5/8"	1" x 7/8"
	* LQ1T6A-R12	3/8" x 1/4"		1" x 7/8"
	* LQ1T6A-R13	1/4" x 5/32"	1" x 7/8"	1" x 7/8"
	LQ1T6A-R17	1/2" x 3/8"		1" x 7/8"
	* LQ1T6A-R18	1/4" x 5/32"	3/4" x 5/8"	1" x 7/8"
	LQ1T6A-R20	3/4" x 5/8"	1/2" x 3/8"	1" x 7/8"
	LQ1T6A-R30	3/8" x 1/4"		3/4" x 5/8"
	* LQ1T6A-R31	1/2" x 3/8"	1" x 7/8"	3/4" x 5/8"
	* LQ1T6A-R33	1/4" x 5/32"		1/4" x 5/32"

Note 1) Products marked "*" are produced upon receipt of order.

Note 2) For details of the applicable tubing sizes, refer to page 396.

KQ2
KQB2
KS KX
KM
KF
M
H/DL L/LL
KC
KK
KK130
DM
KDM
KB
KR
KA
KQG2
KG
KFG2
MS
KKA
KP
LQ
MQR
T

Metric Size

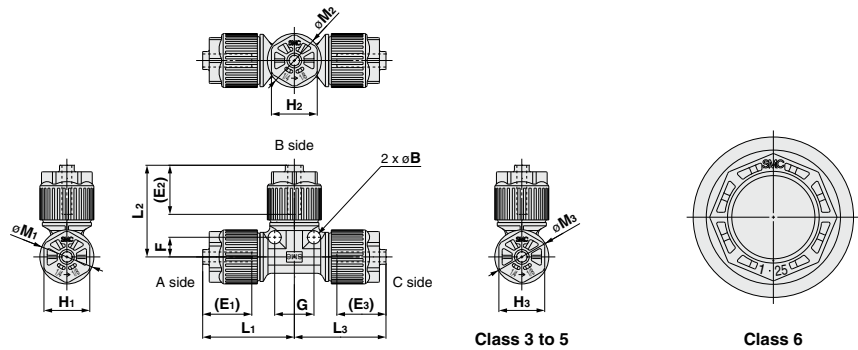
Model	A side Applicable tubing	B side O.D.	C side O.D.	B	E ₁	E ₂	E ₃	F	G	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	M ₁	M ₂	M ₃
LQ1T51-R4	ø19	ø6	ø19	7	29	15	29	14	28	26	14	26	54	38.5	54	39	16.5	39
LQ1T51-R5	ø12	ø19	ø19		29													
LQ1T51-R6	ø10	ø19	ø19		20													
* LQ1T51-R7	ø12	ø12	ø19	—	24	24	39.5	—	—	21	21	36	42	52.5	57.5	28	28	49
* LQ1T51-R8	ø10	ø10	ø19															
LQ1T51-R10	ø10	ø19	ø10		20	29												
LQ1T51-R12	ø8	ø19	ø19	7	20	29	29	14	28	17	26	26	44	54	54	23	39	39
LQ1T51-R13	ø6	ø19	ø19															
* LQ1T51-R17	ø10	ø12	ø19		—	24												
LQ1T51-R24	ø12	ø6	ø19	7	29	15	29	14	28	26	14	26	54	38.5	54	39	16.5	39
LQ1T51-R26	ø19	ø4	ø19															
LQ1T51-R28	ø19	ø3	ø19		20	29												
LQ1T51-R31	ø10	ø19	ø12	8			24	18	36	36	21	36	44	54	49	23	39	28
LQ1T61-R2	ø25	ø12	ø25		39.5													
LQ1T61-R3	ø25	ø10	ø25															
* LQ1T61-R4	ø25	ø8	ø25	—			20	—	—	36	17	36	55	47.5	55	49	23	49
LQ1T61-R5	ø19	ø25	ø25															
LQ1T61-R6	ø12	ø25	ø25		8	24	39.5	18	36	21	36	36	54.5	69.5	69.5	28	49	49
LQ1T61-R7	ø19	ø19	ø25		39.5													
* LQ1T61-R8	ø12	ø12	ø19	—	24	24												
LQ1T61-R10	ø12	ø25	ø12	8	24	39.5	24	18	36	21	36	21	54.5	69.5	54.5	28	49	28
LQ1T61-R11	ø12	ø19	ø25	8	24													
LQ1T61-R12	ø10	ø25	ø25															
* LQ1T61-R13	ø8	ø25	ø25	—	20	39.5	39.5	—	—	17	36	36	46.5	68	68	23	49	49
LQ1T61-R15	ø6	ø25	ø25		15													
LQ1T61-R18	ø10	ø19	ø25	8	24													
LQ1T61-R19	ø6	ø19	ø25	8	15	39.5	39.5	18	36	14	36	36	44	69.5	69.5	16.5	49	49
LQ1T61-R20	ø19	ø12	ø25		24													
* LQ1T61-R26	ø25	ø6	ø25	—	39.5													
LQ1T61-R30	ø10	ø25	ø19	8	24		39.5	18	36	21	36	36	54.5	69.5	49.5	28	49	23
LQ1T61-R31	ø12	ø25	ø19															
* LQ1T61-R34	ø6	ø25	ø6	—	20													
							20	—	—	17		17	46.5	55	46.5	23		23

Note) Products marked "*" are produced upon receipt of order.

Series **LQ1**

Dimensions

Union tee reducing: LQ1T-R



Inch Size

Model	A side Applicable tubing O.D.	B side	C side	B	E ₁	E ₂	E ₃	F	G	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	M ₁	M ₂	M ₃
LQ1T3A-R5	1/4"	3/8"	3/8"	5	20	20	20	9	18	17	17	17	36.5	36.5	36.5	23	23	23
LQ1T3A-R7	1/4"	1/4"	3/8"															
LQ1T4A-R2	1/2"	1/4"	1/2"			15	24	9	18	21	14	21	43	33	43	28	16.5	28
LQ1T4A-R4	1/2"	1/8"	1/2"	6	24	24	24				21			43			28	
LQ1T4A-R5	3/8"	1/2"	1/2"															
LQ1T4A-R6	1/4"	1/2"	1/2"	7	20	29	29	14	28	17	26	26	44	54	54	23	39	39
LQ1T4A-R7	3/8"	3/8"	1/2"	6	24	24	24	9	18	21	21	21	43	43	43	28	28	28
LQ1T4A-R8	1/4"	1/4"	1/2"	7	20	20	29	14	28	17	17	26	44	44	54	23	23	39
LQ1T4A-R10	1/4"	1/2"	1/4"	6	15	24	15	9	18	14	21	14	33	43	33	16.5	28	16.5
LQ1T4A-R17	1/4"	3/8"	1/2"	7	20	20	29	14	28	17	17	26	44	44	54	23	39	39
LQ1T4A-R20	3/8"	1/4"	1/2"	6	24	24	24		9	18	21	21	43	38.5	43	28	23	28
LQ1T4A-R33	1/8"	1/2"	1/8"		15	24	15			14	21	14	33	43	33	16.5	28	16.5
LQ1T5A-R2	3/4"	3/8"	3/4"		29	20				26	17		54	44		39	23	
LQ1T5A-R5	1/2"	3/4"	3/4"	7		29	29	14	28	26		26		54	54	39	39	39
LQ1T5A-R6	3/8"	3/4"	3/4"		20					17	26		44			23		
* LQ1T5A-R7	1/2"	1/2"	3/4"	—	24	24	39.5	—	—	21	21	36	42	52.5	57.5	28	28	49
LQ1T5A-R8	3/8"	3/4"	3/4"	7	20	20	29	14	28	17	17	26	44	44	54	23	23	39

Note) Products marked "*" are produced upon receipt of order.

Inch Size

Model	A side	B side	C side	B	E ₁	E ₂	E ₃	F	G	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	M ₁	M ₂	M ₃										
	Applicable tubing O.D.																											
* LQ1T5A-R10	3/8"	3/4"	3/8"	—	20	39.5	20	—	—	17	36	17	46.5	55	46.5	23	49	23										
LQ1T5A-R12	1/4"	3/4"	3/4"	7	15	29	29	14	28	14	26	26	38.5	54	54	16.5	39	39										
* LQ1T5A-R17	1/2"	3/8"	3/4"	—	24	24	39.5	—	—	21	21	36	42	52.5	57.5	28	28	49										
LQ1T5A-R21	3/8"	1/4"	3/4"	7	20	20	29	14	28	17	17	26	44	44	54	23	23	39										
LQ1T5A-R22	1/2"	1/4"	3/4"		29	15				26	14		54	38.5		39	16.5											
LQ1T5A-R26	3/4"	1/8"	3/4"		29	24				26	21		44	54		49	23		39	28								
LQ1T5A-R31	3/8"	3/4"	1/2"		29	24				26	21		44	54		49	23		39	28								
* LQ1T5A-R32	1/4"	3/4"	1/4"	—	20	39.5	20	—	—	17	36	17	46.5	55	46.5	23	49	23										
LQ1T6A-R2	1"	1/2"	1"	8	39.5	24	39.5	18	36	36	21	36	69.5	54.5	69.5	49	28	49										
LQ1T6A-R3	1"	3/8"	1"																20	—	—	17	55	47.5	55	23		
* LQ1T6A-R4	1"	1/4"	1"																—	20	—	—	21	69.5	69.5	69.5	49	
LQ1T6A-R5	3/4"	1"	1"	8	24	39.5	39.5	18	36	36	21	36	54.5	69.5	69.5	28	49	49										
LQ1T6A-R6	1/2"	1"	1"																39.5	—	—	36	69.5	69.5	69.5	49		
LQ1T6A-R7	3/4"	3/4"	1"																39.5	—	—	21	21	42	52.5	57.5	28	28
* LQ1T6A-R8	1/2"	1/2"	1"																—	24	24	—	—	21	21	42	52.5	57.5
LQ1T6A-R10	1/2"	1"	1/2"	8	24	39.5	24	18	36	21	36	21	54.5	69.5	69.5	28	49	28										
LQ1T6A-R11	3/8"	3/4"	1"																39.5	18	36	21	36	54.5	69.5	69.5	23	49
LQ1T6A-R12	3/8"	1"	1"																39.5	—	—	17	36	46.5	68	68	23	49
* LQ1T6A-R13	1/4"	1"	1"	—	20	39.5	39.5	—	—	17	36	21	54.5	69.5	69.5	28	49	49										
LQ1T6A-R17	1/2"	3/4"	1"	8	24														18	36	21	54.5	69.5	69.5	28			
* LQ1T6A-R18	1/4"	3/4"	1"	—	20														—	—	17	36	46.5	68	68	23	49	
LQ1T6A-R20	3/4"	1/2"	1"	8	24	39.5	39.5	18	36	21	36	21	69.5	54.5	69.5	28	49	49										
LQ1T6A-R30	3/8"	1"	3/4"																8	24	—	—	36	54.5	69.5	69.5	49	28
LQ1T6A-R31	1/2"	1"	3/4"																8	24	—	—	36	46.5	68	68	23	49
* LQ1T6A-R33	1/4"	1"	1/4"																—	20	20	—	—	17	46.5	55	46.5	23

Note) Products marked "*" are produced upon receipt of order.

KQ2

KQB2

KS
KX

KM

KF

M

H/DL
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

KP

LQ

MQR

T

Panel Mount Union Reducing

How to Order

Tubing connection

LQ1 P 2 1 - R1 -

Fitting type

Symbol	Type
P	Panel mount union

Body size
(according to the combination table)

Tubing type

Symbol	Type
1, 2	Metric
A, B	Inch

Packing

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Piping type
(according to the combination table)

Symbol	Type
R	Reducing

Size combination (Metric)

Class		Model	A side	B side
			Applicable tubing size (mm)	
4	*	LQ1P41-R3	12 x 10	6 x 4
5	*	LQ1P51-R2	19 x 16	10 x 8

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

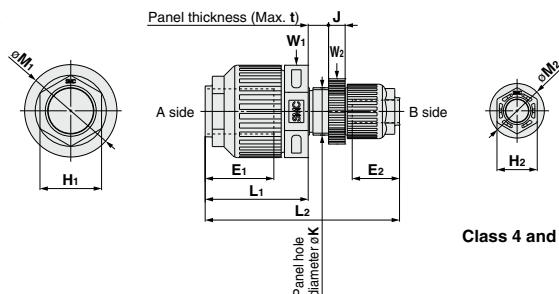
Size combination (Inch)

Class		Model	A side	B side
			Applicable tubing size (inch)	
4	*	LQ1P4A-R2	1/2" x 3/8"	1/4" x 5/32"
5	*	LQ1P5A-R2	3/4" x 5/8"	3/8" x 1/4"

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Panel mount union reducing: LQ1P-R



Metric Size

Model	A side Applicable tubing O.D.	B side Applicable tubing O.D.	E ₁	E ₂	H ₁	H ₂	J	K	L ₁	L ₂	M ₁	M ₂	t	W ₁	W ₂
* LQ1P41-R3	ø12	ø6	29	20	26	17	7	20.5	43.5	82.1	39	23	8	39	24
* LQ1P51-R2	ø19	ø10	29	20	26	17	7	20.5	43.5	82.1	39	23	8	39	24

Inch Size

Model	A side Applicable tubing O.D.	B side Applicable tubing O.D.	E ₁	E ₂	H ₁	H ₂	J	K	L ₁	L ₂	M ₁	M ₂	t	W ₁	W ₂
* LQ1P4A-R2	1/2"	1/4"	29	20	26	17	7	20.5	43.5	82.1	39	23	8	39	24
* LQ1P5A-R2	3/4"	3/8"	29	20	26	17	7	20.5	43.5	82.1	39	23	8	39	24

Note) Products marked "*" are produced upon receipt of order.

Series LQ1

Union Reducing

How to Order

Tubing connection

LQ1 U 2 1 - R1 -

Symbol	Type
U	Union

Fitting type

(according to the combination table)

Body size

Symbol	Type
1, 2	Metric
A, B	Inch

Tubing type

Piping type (according to the combination table)

Symbol	Type
R	Reducing

Packaging

Symbol	Packaging
NII	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Size combination (Metric)

Class	Model	A side Applicable tubing size (mm)	B side Applicable tubing size (mm)
3	LQ1U31-R3	10 x 8	4 x 3
	LQ1U31-R4		3 x 2
	LQ1U41-R2		8 x 6
4	LQ1U41-R3	12 x 10	6 x 4
	LQ1U41-R4		4 x 3
	LQ1U41-R5		3 x 2
5	* LQ1U51-R2	19 x 16	10 x 8
	* LQ1U51-R3		8 x 6
	LQ1U51-R4		6 x 4
	LQ1U51-R5		4 x 3
	LQ1U51-R6		3 x 2
6	LQ1U61-R2	25 x 22	12 x 10
	LQ1U61-R3		10 x 8
	* LQ1U61-R5		6 x 4

Note 1) Products marked "*" are produced upon receipt of order.

Note 2) For details of the applicable tubing sizes, refer to page 396.

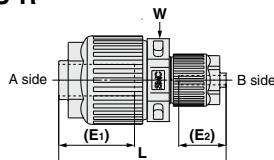
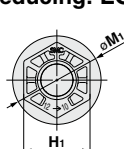
Size combination (Inch)

Class	Model	A side Applicable tubing size (inch)	B side Applicable tubing size (inch)
4	LQ1U4A-R2	1/2" x 3/8"	1/4" x 5/32"
	LQ1U4A-R3		3/16" x 0.127"
	LQ1U4A-R4		1/8" x 0.086"
5	* LQ1U5A-R2	3/4" x 5/8"	3/8" x 1/4"
	LQ1U5A-R3		1/4" x 5/32"
	LQ1U5A-R4		3/16" x 0.127"
6	LQ1U5A-R5	1" x 7/8"	3/16" x 0.086"
	LQ1U6A-R2		1/2" x 3/4"
	* LQ1U6A-R4		1/4" x 5/32"

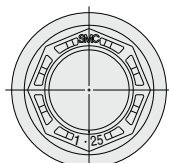
Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Union reducing: LQ1U-R



Class 3 to 5



Class 6

Metric Size

Model	A side Applicable tubing O.D.	B side Applicable tubing O.D.	E1	E2	H1	H2	L	M1	M2	W
LQ1U31-R3	ø10	ø4	24	15	21	14	53	28	16.5	23
LQ1U31-R4	ø10	ø3								
LQ1U41-R2	ø12	ø8		20		17	58.5		23	
LQ1U41-R3	ø12	ø6	24		21			28		23
LQ1U41-R4	ø12	ø4		15		14	53		16.5	
LQ1U41-R5	ø12	ø3								
* LQ1U51-R2	ø19	ø10		20		17	66.5		23	
* LQ1U51-R3	ø19	ø8								
LQ1U51-R4	ø19	ø6	29		26			39		32
LQ1U51-R5	ø19	ø4		15		14	61.5		16.5	
LQ1U51-R6	ø19	ø3								
LQ1U61-R2	ø25	ø12		24		21	87		28	46
LQ1U61-R3	ø25	ø10	39.5		36			49		
* LQ1U61-R5	ø25	ø6		20		17	82		23	36

Note) Products marked "*" are produced upon receipt of order.

Inch Size

Model	A side Applicable tubing O.D.	B side Applicable tubing O.D.	E1	E2	H1	H2	L	M1	M2	W
LQ1U4A-R2	1/2"	1/4"								
LQ1U4A-R3	1/2"	3/16"	24	15	21	14	53	28	16.5	23
LQ1U4A-R4	1/2"	1/8"								
* LQ1U5A-R2	3/4"	3/8"		20		17	66.5		23	
LQ1U5A-R3	3/4"	1/4"	29		26			39		32
LQ1U5A-R4	3/4"	3/16"		15		14	61.5		16.5	
LQ1U5A-R5	3/4"	1/8"								
LQ1U6A-R2	1"	1/2"								
LQ1U6A-R3	1"	3/8"	39.5	24	36	21	87	49	28	46
* LQ1U6A-R4	1"	1/4"		20		17	82		23	36

Note) Products marked "*" are produced upon receipt of order.

Space Saving Union Elbow

How to Order

Tubing connection

LQ1 E 21 - SS -

Fitting type

Symbol	Type
E	Union elbow

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Piping type

Symbol	Type
SS	Space saving

Size combination

Symbol	Class	No.	Applicable tubing size (mm)
2	1		6 x 4
3	1		10 x 8
3	2		8 x 6
4	1		12 x 10
5	1	*	19 x 16
6	1		25 x 22

Note 1) Products marked "*" are produced upon receipt of order.

Note 2) For details of the applicable tubing sizes, refer to page 396.

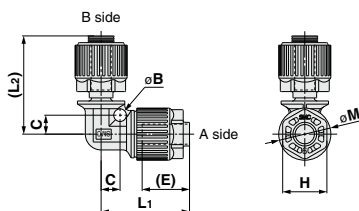
Symbol	Class	No.	Applicable tubing size (inch)
2	A		1/4" x 5/32"
3	A		3/8" x 1/4"
4	A		1/2" x 3/8"
5	A	*	3/4" x 5/8"
6	A		1" x 7/8"

Note 1) Products marked "*" are produced upon receipt of order.

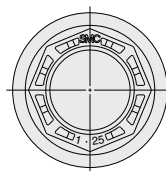
Note 2) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Space saving union elbow: LQ1E-SS



Class 2 to 5



Class 6

Metric Size

Model	A side Applicable tubing O.D.	B side Applicable body size	B	C	E	H	L ₁	L ₂	M
LQ1E21-SS	ø6	2	4	6	15	14	28	31.1	16.5
LQ1E31-SS	ø10	3	5	9	20	17	36.6	41.1	23
LQ1E32-SS	ø8	3							
LQ1E41-SS	ø12	4	6	9	24	21	43	47.5	28
* LQ1E51-SS	ø19	5	—	—	29	26	45.5	59	39
LQ1E61-SS	ø25	6	8	18	39.5	36	69.5	75.5	49

Note) Products marked "*" are produced upon receipt of order.

Inch Size

Model	A side Applicable tubing O.D.	B side Applicable body size	B	C	E	H	L ₁	L ₂	M
LQ1E2A-SS	1/4"	2	4	6	15	14	28	31.1	16.5
LQ1E3A-SS	3/8"	3	5	9	20	17	36.6	41.1	23
LQ1E4A-SS	1/2"	4	6	9	24	21	43	47.5	28
* LQ1E5A-SS	3/4"	5	—	—	29	26	45.5	59	39
LQ1E6A-SS	1"	6	8	18	39.5	36	69.5	75.5	49

Note) Products marked "*" are produced upon receipt of order.

Series LQ1 Space Saving Union Elbow Reducing

How to Order

Tubing connection

LQ1 E 2 1 - SS - R9 -

Fitting type

Symbol	Type
E	Union elbow

Body size
(according to the combination table)

Tubing type

Symbol	Type
1, 2	Metric
A	Inch

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Piping type

Symbol	Type
R□	Reducing

Piping type (according to the combination table)

Symbol	Type
SS	Space saving

Size combination (Metric)

Class	Model	A side Applicable tubing size (mm)	B side Applicable body size
2	* LQ1E21-SS-R9	6 x 4	3
	* LQ1E21-SS-R10		4
	* LQ1E31-SS-R2		2
3	* LQ1E31-SS-R8	10 x 8	4
	* LQ1E32-SS-R1		2
	* LQ1E32-SS-R8		3
4	* LQ1E41-SS-R1	8 x 6	3
	* LQ1E41-SS-R3		2
	* LQ1E41-SS-R8		5
6	LQ1E61-SS-R1	25 x 22	5

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

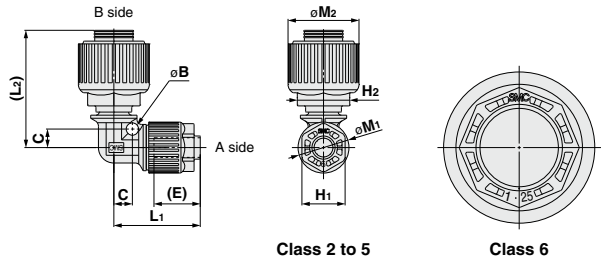
Size combination (Inch)

Class	Model	A side Applicable tubing size (inch)	B side Applicable body size
2	* LQ1E2A-SS-R8	1/4" x 5/32"	3
	* LQ1E2A-SS-R9		4
	* LQ1E3A-SS-R1		2
3	* LQ1E3A-SS-R8	3/8" x 1/4"	4
	* LQ1E4A-SS-R1		3
	* LQ1E4A-SS-R2		2
4	* LQ1E4A-SS-R8	1/2" x 3/8"	5
	* LQ1E4A-SS-R1		3
	* LQ1E4A-SS-R2		2
6	LQ1E6A-SS-R1	1" x 7/8"	5

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Space saving union elbow reducing: LQ1E-SS-R



Metric Size

Model	A side Applicable tubing O.D.	B side Applicable body size	B	C	E	H ₁	H ₂	L ₁	L ₂	M ₁	M ₂
* LQ1E21-SS-R9	ø6	3	—	—	15	14	17	23.5	35.8	16.5	23
* LQ1E21-SS-R10		4	—	—	—	—	21	25	40.8	—	28
* LQ1E31-SS-R2		2	—	—	—	—	14	27.2	32.1	—	16.5
* LQ1E31-SS-R8	ø10	4	—	—	20	17	21	30.4	44	—	28
* LQ1E32-SS-R1		2	—	—	—	—	14	27.2	32.1	23	16.5
* LQ1E32-SS-R8		8	3	5	9	—	17	36.6	41.1	—	23
* LQ1E41-SS-R1	ø12	3	—	—	—	—	17	34.8	41.5	—	23
* LQ1E41-SS-R3		2	6	9	24	21	14	43	35.6	28	16.5
* LQ1E41-SS-R8		5	—	—	—	—	26	39.6	49	—	39
* LQ1E61-SS-R1	ø25	5	8	18	39.5	36	26	69.5	64.5	49	39

Note) Products marked "*" are produced upon receipt of order.

Inch Size

Model	A side Applicable tubing O.D.	B side Applicable body size	B	C	E	H ₁	H ₂	L ₁	L ₂	M ₁	M ₂
* LQ1E2A-SS-R8	1/4"	3	—	—	15	14	17	23.5	35.8	16.5	23
* LQ1E2A-SS-R9		4	—	—	—	—	21	25	40.8	—	28
* LQ1E3A-SS-R1		2	—	—	—	—	14	27.2	32.1	—	16.5
* LQ1E3A-SS-R8	3/8"	4	—	—	20	17	21	30.4	44	—	28
* LQ1E4A-SS-R1		3	—	—	—	—	17	34.8	41.5	—	23
* LQ1E4A-SS-R2		2	—	—	24	21	14	43	35.6	28	16.5
* LQ1E4A-SS-R8	1/2"	5	—	—	—	—	26	39.6	49	—	39
* LQ1E6A-SS-R1		5	8	18	39.5	36	26	69.5	64.5	49	39

Note) Products marked "*" are produced upon receipt of order.

Space Saving Union Tee

How to Order

Tubing connection

LQ1 T 21 - S T1 -

Fitting type

Symbol	Type
T	Union tee

Size combination

Symbol Class	No.	Applicable tubing size (mm)
2	1	6 x 4
3	1	10 x 8
3	2	8 x 6
4	1	12 x 10
5	1	19 x 16
6	1	25 x 22

Note) For details of the applicable tubing sizes, refer to page 396.

Symbol Class	No.	Applicable tubing size (inch)
2	A	1/4" x 5/32"
3	A	3/8" x 1/4"
4	A	1/2" x 3/8"
5	A	3/4" x 5/8"
6	A	1" x 7/8"

Note) For details of the applicable tubing sizes, refer to page 396.

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Fitting type

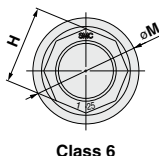
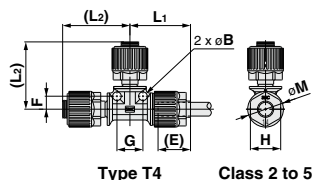
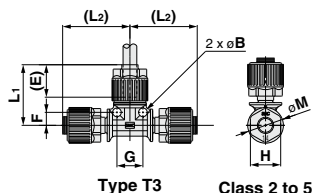
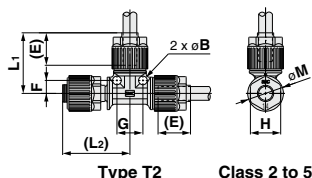
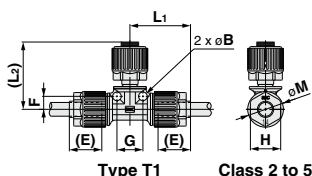
Symbol	Type
T1	Type 1
T2	Type 2
T3	Type 3
T4	Type 4

Piping type

Symbol	Type
S	Space saving

Dimensions

Space saving union tee: LQ1T-ST



Metric Size

Model	Applicable tubing O.D.	B	E	F	G	H	L ₁	L ₂	M
LQ1T21-ST1	ø6	4	15	6	12	14	28	31.1	16.5
LQ1T21-ST2									
LQ1T21-ST3									
LQ1T21-ST4									
LQ1T31-ST1	ø10	5	20	9	18	17	36.5	41.1	23
LQ1T31-ST2									
LQ1T31-ST3									
LQ1T31-ST4									
LQ1T32-ST1	ø8	5	20	9	18	17	36.5	41.1	23
LQ1T32-ST2									
LQ1T32-ST3									
LQ1T32-ST4									
LQ1T41-ST1	ø12	6	24	9	18	21	43	47.5	28
LQ1T41-ST2									
LQ1T41-ST3									
LQ1T41-ST4									
LQ1T51-ST1	ø19	7	29	14	28	26	54	59	39
LQ1T51-ST2									
LQ1T51-ST3									
LQ1T51-ST4									
LQ1T61-ST1	ø25	8	39.5	18	36	36	69.5	75.5	49
LQ1T61-ST2									
LQ1T61-ST3									
LQ1T61-ST4									

Inch Size

Model	Applicable tubing O.D.	B	E	F	G	H	L ₁	L ₂	M
LQ1T2A-ST1	1/4"	4	15	6	12	14	28	31.1	16.5
LQ1T2A-ST2									
LQ1T2A-ST3									
LQ1T2A-ST4									
LQ1T3A-ST1	3/8"	5	20	9	18	17	36.5	41.1	23
LQ1T3A-ST2									
LQ1T3A-ST3									
LQ1T3A-ST4									
LQ1T4A-ST1	1/2"	6	24	9	18	21	43	47.5	28
LQ1T4A-ST2									
LQ1T4A-ST3									
LQ1T4A-ST4									
LQ1T5A-ST1	3/4"	7	29	14	28	26	54	59	39
LQ1T5A-ST2									
LQ1T5A-ST3									
LQ1T5A-ST4									
LQ1T6A-ST1	1"	8	39.5	18	36	36	69.5	75.5	49
LQ1T6A-ST2									
LQ1T6A-ST3									
LQ1T6A-ST4									

Series LQ1 Space Saving Union Tee Reducing

How to Order

Tubing connection

LQ1 T 2 1 - S T1 - R39 -

Fitting type

Symbol	Type
T	Union tee

Body size
(according to the combination table)

Tubing type

Symbol	Type
1, 2	Metric
A	Inch

Piping type

Symbol	Type
S	Space saving

Packing

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Piping type

Symbol	Type
R□	Reducing

Fitting type

Symbol	Type
T1	Type 1
T2	Type 2
T3	Type 3
T4	Type 4

Size combination (Metric)

Class	Model	A side (Left) Applicable tubing size (O.D. x I.D.) / Applicable body size	B side (Center) Applicable tubing size (O.D. x I.D.) / Applicable body size	C side (Right) Applicable tubing size (O.D. x I.D.) / Applicable body size
2	LQ1T21-ST1-R39	6 x 4	Body size 3	6 x 4
	LQ1T21-ST2-R41	Body size 3	6 x 4	
3	LQ1T32-ST1-R37	8 x 6	Body size 3	8 x 6
	LQ1T32-ST2-R40	Body size 3	8 x 6	
4	* LQ1T41-ST1-R1	12 x 10	Body size 3	12 x 10
	* LQ1T41-ST1-R37		Body size 5	
5	* LQ1T51-ST1-R1	19 x 16	Body size 4	19 x 16
	* LQ1T51-ST1-R2		Body size 3	
	LQ1T51-ST1-R5		Body size 5	
	* LQ1T51-ST1-R13	12 x 10	Body size 5	
	* LQ1T51-ST1-R36		Body size 6	
	* LQ1T51-ST1-R37		Body size 6	
6	LQ1T51-ST2-R4	Body size 5	6 x 4	19 x 16
	* LQ1T61-ST1-R1	25 x 22	Body size 5	
	* LQ1T61-ST1-R2		Body size 4	
	LQ1T61-ST2-R1	Body size 6	19 x 16	

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

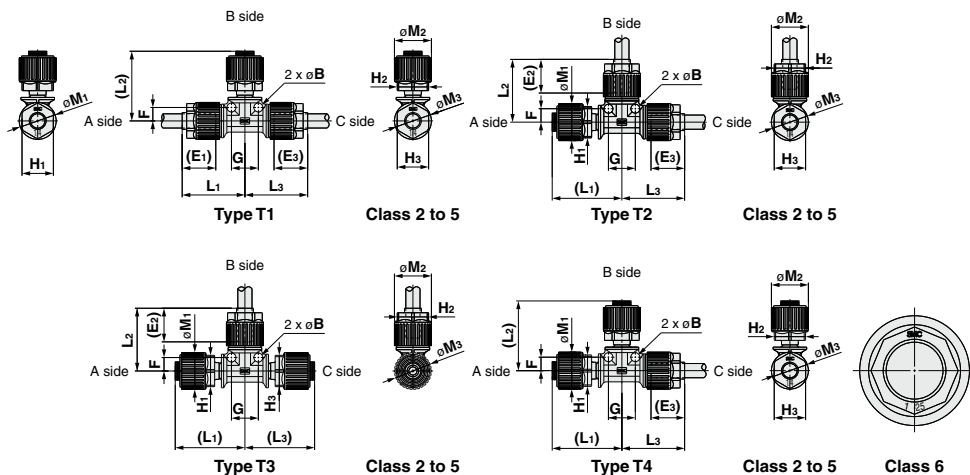
Size combination (Inch)

Class	Model	A side (Left)	B side (Center)	C side (Right)
		Applicable tubing size (O.D. x I.D.) / Applicable body size		
3	LQ1T3A-ST2-R5	Body size 3	3/8" x 1/4"	1/4" x 5/32"
4	* LQ1T4A-ST1-R1	1/2" x 3/8"	Body size 3	1/2" x 3/8"
	* LQ1T4A-ST1-R7	3/8" x 1/4"		
	* LQ1T4A-ST1-R37	1/2" x 3/8"	Body size 5	
5	* LQ1T5A-ST1-R1	3/4" x 5/8"	Body size 4	3/4" x 5/8"
	* LQ1T5A-ST1-R2		Body size 3	
	LQ1T5A-ST1-R5	1/2" x 3/8"	Body size 5	
	LQ1T5A-ST1-R7		Body size 4	
	* LQ1T5A-ST1-R12	1/4" x 5/32"	Body size 5	
	* LQ1T5A-ST2-R1	Body size 4	3/4" x 5/8"	
	LQ1T5A-ST2-R3	Body size 5	1/4" x 5/32"	
	* LQ1T5A-ST3-R5	Body size 4	3/4" x 5/8"	
6	* LQ1T6A-ST1-R1	1" x 7/8"	Body size 5	1" x 7/8"
	* LQ1T6A-ST1-R2		Body size 4	
	* LQ1T6A-ST1-R3		Body size 3	
	LQ1T6A-ST2-R1	Body size 6	3/4" x 5/8"	3/4" x 5/8"
	LQ1T6A-ST2-R2			

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Space saving union tee reducing: LQ1T-S-R



Metric Size

Model	A side (Left)	B side (Center)	C side (Right)	B	E ₁	E ₂	E ₃	F	G	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	M ₁	M ₂	M ₃
	Applicable tubing O.D.																	
LQ1T21-ST1-R39	ø6	Body size 3	ø6	5	20	—	20	9	18	17	17	17	36.5	41.1	36.5	23	23	23
LQ1T21-ST2-R41	Body size 3	ø6	ø6		—	20							41.1	36.5				
LQ1T32-ST1-R37	ø8	Body size 3	ø8	5	20	—	20	9	18	17	17	17	36.5	41.1	36.5	23	23	23
LQ1T32-ST2-R40	Body size 3	ø8	ø8		—	20							41.1	36.5				
* LQ1T41-ST1-R1	ø12	Body size 3	ø12	—	24	—	24	—	—	21	17	21	34	41.5	34	28	23	28
* LQ1T41-ST1-R37	ø12	Body size 5	ø12	—	24	—	24	—	—	21	26	21	39.5	52.5	39.5	28	39	28
* LQ1T51-ST1-R1	ø19	Body size 4	ø19	—	—	—	—	—	—	21	—	—	41.9	53	41.9	—	—	—
* LQ1T51-ST1-R2	ø19	Body size 3	ø19	—	29	—	29	—	—	26	17	26	41	48	41	39	23	39
LQ1T51-ST1-R5	ø12	Body size 5	ø19	7	—	—	—	14	28	—	26	—	54	59	54	—	—	—
* LQ1T51-ST1-R13	ø6	Body size 5	ø19	—	15	—	29	—	—	14	26	26	29	53	49	16.5	39	39
* LQ1T51-ST1-R36	ø12	Body size 6	ø19	—	24	—	39.5	—	—	36	—	36	42.7	71	58.2	49	—	—
* LQ1T51-ST1-R37	ø19	Body size 6	ø12	—	39.5	—	—	—	—	14	—	26	58.2	71	42.7	16.5	—	—
LQ1T51-ST2-R4	Body size 5	ø6	ø19	7	—	15	—	14	28	26	14	26	54	54	54	39	16.5	39
* LQ1T61-ST1-R1	ø25	Body size 5	ø25	—	39.5	—	39.5	—	—	36	—	26	58.2	63.5	—	—	39	—
* LQ1T61-ST1-R2	ø25	Body size 4	ø25	—	39.5	—	39.5	—	—	36	21	36	57	57	58.2	49	28	49
LQ1T61-ST2-R1	Body size 6	ø19	ø25	8	—	39.5	—	18	36	—	36	—	72	69.5	69.5	—	—	—

Inch Size

Model	A side (Left)	B side (Center)	C side (Right)	B	E ₁	E ₂	E ₃	F	G	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	M ₁	M ₂	M ₃
	Applicable tubing O.D.																	
LQ1T3A-ST2-R5	Body size 3	3/8	1/4	5	—	15	20	9	18	17	14	17	37.6	31.6	36.5	23	16.5	23
* LQ1T4A-ST1-R1	1/2	Body size 3	1/2	—	24	—	—	—	—	21	17	21	34	41.5	34	28	—	—
* LQ1T4A-ST1-R7	3/8	Body size 3	1/2	—	20	—	24	—	—	17	17	21	38.5	41.5	34	23	23	28
* LQ1T4A-ST1-R37	1/2	Body size 5	1/2	—	24	—	—	—	—	21	26	—	39.5	52.5	39.5	28	39	—
* LQ1T5A-ST1-R1	3/4	Body size 4	3/4	—	29	—	—	—	—	26	17	21	41.9	53	41.9	39	28	—
* LQ1T5A-ST1-R2	3/4	Body size 3	3/4	—	—	—	—	—	—	26	17	—	41	48	41	—	—	—
LQ1T5A-ST1-R5	1/2	Body size 5	3/4	7	15	—	29	14	28	—	26	—	38.5	55.5	—	16.5	39	—
LQ1T5A-ST1-R7	1/2	Body size 4	3/4	—	29	—	—	—	—	21	21	26	54	55.5	54	28	28	39
* LQ1T5A-ST1-R12	1/4	Body size 5	3/4	—	—	—	—	—	—	14	—	—	29	53	49	16.5	—	—
* LQ1T5A-ST2-R1	Body size 4	3/4	3/4	—	—	29	—	—	—	21	26	—	50.5	51.5	52.5	28	—	—
LQ1T5A-ST2-R3	Body size 5	1/4	3/4	7	—	15	29	14	28	26	14	26	59	38	54	39	16.5	—
* LQ1T5A-ST3-R5	Body size 4	3/4	Body size 4	—	—	29	—	—	—	21	26	21	50.5	44.5	50.5	28	39	28
* LQ1T6A-ST1-R1	1	Body size 5	1	—	—	—	—	—	—	26	—	—	63.5	—	—	—	—	—
* LQ1T6A-ST1-R2	1	Body size 4	1	—	39.5	—	—	—	—	21	—	—	58.2	57	58.2	49	28	—
* LQ1T6A-ST1-R3	1	Body size 3	1	—	—	—	39.5	—	—	36	17	36	52	—	—	—	23	49
LQ1T6A-ST2-R1	Body size 6	3/4	1	8	—	39.5	—	18	36	—	36	—	75.5	69.5	69.5	—	—	—
LQ1T6A-ST2-R2	Body size 6	3/4	3/4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Note) Products marked "*" are produced upon receipt of order.

Tubing Extension Union Elbow

How to Order

Tubing connection **LQ1 E 21 - T -**

Fitting type

Symbol	Type
E	Union elbow

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Piping type

Symbol	Type
T	Tubing extension

Size combination

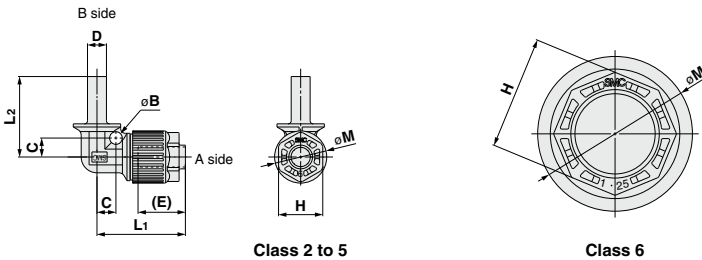
Symbol	Class	No.	Applicable tubing size (mm)
2	1		6 x 4
3	1		10 x 8
3	2		8 x 6
4	1		12 x 10
5	1		19 x 16
6	1		25 x 22

Symbol	Class	No.	Applicable tubing size (inch)
2	A		1/4" x 5/32"
3	A		3/8" x 1/4"
4	A		1/2" x 3/8"
5	A		3/4" x 5/8"
6	A		1" x 7/8"

Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Tubing extension union elbow: LQ1E-T



Class 2 to 5

Class 6

Metric Size

Model	A side Applicable tubing O.D.	B side Tubing size (D)	B	C	E	H	L ₁	L ₂	M
LQ1E21-T	ø6	6 x 4	4	6	15	14	28	28.5	16.5
LQ1E31-T	ø10	10 x 8	5	9	20	17	36.6	37.6	23
LQ1E32-T	ø8	8 x 6							
LQ1E41-T	ø12	12 x 10	6	9	24	21	43	43	28
* LQ1E51-T	ø19	19 x 16	—	—	29	26	45.5	55.5	39
LQ1E61-T	ø25	25 x 22	8	18	39.5	36	69.5	72	49

Note) Products marked "*" are produced upon receipt of order.

Inch Size

Model	A side Applicable tubing O.D.	B side Tubing size (D)	B	C	E	H	L ₁	L ₂	M
LQ1E2A-T	1/4"	1/4" x 5/32"	4	6	15	14	28	28.5	16.5
LQ1E3A-T	3/8"	3/8" x 1/4"	5	9	20	17	36.6	37.6	23
LQ1E4A-T	1/2"	1/2" x 3/8"	6	9	24	21	43	43	28
* LQ1E5A-T	3/4"	3/4" x 5/8"	—	—	29	26	45.5	55.5	39
LQ1E6A-T	1"	1" x 7/8"	8	18	39.5	36	69.5	72	49

Note) Products marked "*" are produced upon receipt of order.

Tubing Extension Union Tee

How to Order

Tubing connection

LQ1 T 21 - T T1 -

Fitting type

Symbol	Type
T	Union tee

Size combination

Symbol	Class	No.	Applicable tubing size (inch)
2	A		1/4" x 5/32"
3	A		3/8" x 1/4"
4	A		1/2" x 3/8"
5	A		3/4" x 5/8"
6	A		1" x 7/8"

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Fitting type

Symbol	Type
T1	Type 1
T2	Type 2
T3	Type 3
T4	Type 4

Piping type

Symbol	Type
T	Tubing extension

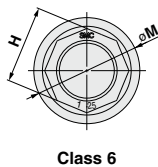
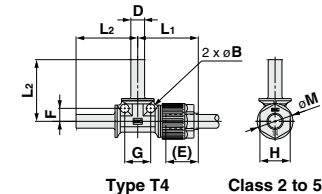
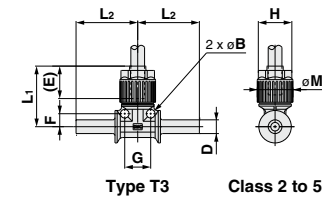
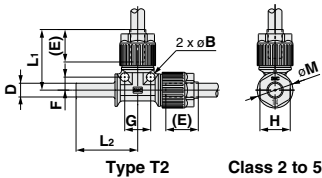
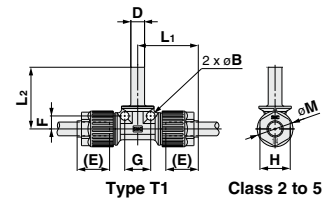
Symbol	Class	No.	Applicable tubing size (mm)
2	1		6 x 4
3	1		10 x 8
3	2		8 x 6
4	1		12 x 10
5	1		19 x 16
6	1		25 x 22

Note) For details of the applicable tubing sizes, refer to page 396.

Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Tubing extension union tee: LQ1T-TT



Metric Size

Model	Applicable tubing O.D.	B	E	F	G	H	L ₁	L ₂	M	D
* LQ1T21-TT1	ø6	—	15	—	—	14	21.5	26.5	16.5	6.35 x 3.95
* LQ1T21-TT2	ø6	—	15	—	—	14	25.5	26.5	—	—
* LQ1T31-TT1	ø10	—	20	—	—	17	30.6	35.5	23	10 x 8
* LQ1T31-TT2	ø10	—	20	—	—	17	34.5	35.5	—	—
* LQ1T32-TT1	ø8	—	20	—	—	17	29.6	35.5	23	9.53 x 6.35
* LQ1T32-TT2	ø8	—	20	—	—	17	34.5	35.5	—	—
* LQ1T32-TT3	ø8	—	20	—	—	17	29	35.5	—	—
* LQ1T41-TT1	ø12	—	24	—	—	21	36	42	28	12.7 x 9.5
* LQ1T41-TT2	ø12	—	24	—	—	21	41.5	42	—	—
* LQ1T41-TT3	ø12	—	24	—	—	21	36	42	—	—
LQ1T51-TT1	ø19	7	29	14	28	26	54	55.5	39	19.05 x 16
LQ1T51-TT2	ø19	7	29	14	28	26	54	55.5	39	—
LQ1T51-TT3	ø19	7	29	14	28	26	54	55.5	39	—
LQ1T51-TT4	ø19	7	29	14	28	26	54	55.5	39	—
LQ1T61-TT1	ø25	8	39.5	18	36	36	69.5	72	49	25.4 x 22.5
LQ1T61-TT2	ø25	8	39.5	18	36	36	69.5	72	49	—
LQ1T61-TT3	ø25	8	39.5	18	36	36	69.5	72	49	—
LQ1T61-TT4	ø25	8	39.5	18	36	36	69.5	72	49	—

Inch Size

Model	Applicable tubing O.D.	B	E	F	G	H	L ₁	L ₂	M	D
LQ1T2A-TT1	1/4"	4	15	6	12	14	28.5	16.5	1/4" x 5/32"	
LQ1T2A-TT2	1/4"	4	15	6	12	14	28.5	16.5	—	—
LQ1T2A-TT3	1/4"	4	15	6	12	14	28.5	16.5	—	—
LQ1T2A-TT4	1/4"	4	15	6	12	14	28.5	16.5	—	—
LQ1T3A-TT1	3/8"	5	20	9	18	17	36.5	37.6	23	3/8" x 1/4"
LQ1T3A-TT2	3/8"	5	20	9	18	17	36.5	37.6	23	—
LQ1T3A-TT3	3/8"	5	20	9	18	17	36.5	37.6	23	—
LQ1T3A-TT4	3/8"	5	20	9	18	17	36.5	37.6	23	—
LQ1T4A-TT1	1/2"	6	24	9	18	21	43	43	28	1/2" x 3/8"
LQ1T4A-TT2	1/2"	6	24	9	18	21	43	43	28	—
LQ1T4A-TT3	1/2"	6	24	9	18	21	43	43	28	—
LQ1T4A-TT4	1/2"	6	24	9	18	21	43	43	28	—
LQ1T5A-TT1	3/4"	7	29	14	28	26	54	55.5	39	3/4" x 5/8"
LQ1T5A-TT2	3/4"	7	29	14	28	26	54	55.5	39	—
LQ1T5A-TT3	3/4"	7	29	14	28	26	54	55.5	39	—
LQ1T5A-TT4	3/4"	7	29	14	28	26	54	55.5	39	—
LQ1T6A-TT1	1"	8	39.5	18	36	36	69.5	72	49	1" x 7/8"
LQ1T6A-TT2	1"	8	39.5	18	36	36	69.5	72	49	—
LQ1T6A-TT3	1"	8	39.5	18	36	36	69.5	72	49	—
LQ1T6A-TT4	1"	8	39.5	18	36	36	69.5	72	49	—

Note) Products marked "A" are produced upon receipt of order.

Tubing Extension Union Elbow Reducing

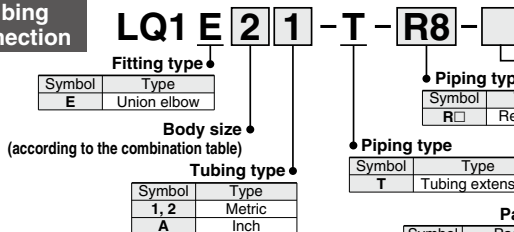
How to Order

Size combination (Metric)

Class	Model	A side Applicable tubing size (mm)	B side Tubing size (mm)
2	LQ1E21-T-R8	6 x 4	8 x 6
	LQ1E21-T-R9		10 x 8
	LQ1E21-T-R10		12 x 10
	LQ1E22-T-R8	4 x 3	6 x 4
	LQ1E22-T-R9		8 x 6
	LQ1E22-T-R10		10 x 8
3	LQ1E22-T-R11	12 x 10	12 x 10
	LQ1E31-T-R1		6 x 4
	LQ1E31-T-R2		8 x 6
	LQ1E31-T-R8	10 x 8	12 x 10
	LQ1E31-T-R9		19 x 16
	LQ1E32-T-R1		6 x 4
4	LQ1E32-T-R8	8 x 6	10 x 8
	LQ1E32-T-R9		12 x 10
	LQ1E32-T-R10		19 x 16
	LQ1E41-T-R1	12 x 10	10 x 8
	LQ1E41-T-R2		8 x 6
	LQ1E41-T-R3		6 x 4
5	LQ1E41-T-R8	19 x 16	19 x 16
	LQ1E41-T-R9		25 x 22
	LQ1E51-T-R8		25 x 22
	LQ1E61-T-R1	25 x 22	25 x 22
	LQ1E61-T-R8		25 x 22
	LQ1E61-T-R10		25 x 22

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

Tubing connection



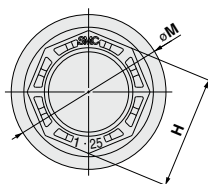
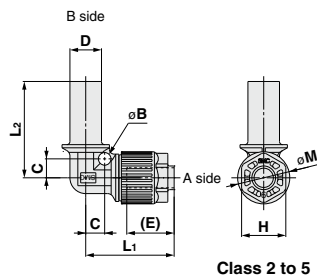
Size combination (Inch)

Class	Model	A side Applicable tubing size (inch)	B side Tubing size (inch)
2	* LQ1E2A-T-R8	1/4" x 5/32"	3/8" x 1/4"
	* LQ1E2A-T-R9		1/2" x 3/8"
3	* LQ1E3A-T-R1	3/8" x 1/4"	1/4" x 5/32"
	* LQ1E3A-T-R8		1/2" x 3/8"
4	* LQ1E4A-T-R1	1/2" x 3/8"	3/4" x 5/8"
	* LQ1E4A-T-R8		3/8" x 1/2"
5	* LQ1E5A-T-R8	3/4" x 5/8"	3/4" x 5/8"
	* LQ1E6A-T-R1		1" x 7/8"

Note 1) Products marked "*" are produced upon receipt of order.
Note 2) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Tubing extension union elbow reducing: LQ1E-T-R



Metric Size

Model	A side Applicable tubing O.D.	B side Tubing size (D)	B	C	D	E	H	L ₁	L ₂	M
LQ1E21-T-R8	ø6	8 x 6	4	6	8	15	14	28	34.5	16.5
LQ1E21-T-R9		10 x 8			10				34.5	
LQ1E21-T-R10		12 x 10			12				38.5	
LQ1E22-T-R8	ø4	6 x 4	5	9	6	20	17	33.5	28.5	23
LQ1E22-T-R9		8 x 6			8				34.5	
LQ1E22-T-R10		10 x 8			10				34.5	
LQ1E22-T-R11	ø10	12 x 10	6	9	12	24	21	39.5	38.5	28
LQ1E31-T-R1		6 x 4			6				37.6	
LQ1E31-T-R2		8 x 6			8				37.6	
LQ1E31-T-R8	ø8	12 x 10	5	9	12	20	17	33.5	41.6	23
LQ1E31-T-R9		19 x 16			19				46.5	
LQ1E32-T-R1		6 x 4			6				31.6	
LQ1E32-T-R8	ø12	10 x 8	6	9	10	24	21	39.5	37.6	28
LQ1E32-T-R9		12 x 10			12				41.6	
* LQ1E32-T-R10		19 x 16			19				46.5	
LQ1E41-T-R1	ø19	10 x 8	8	18	10	39.5	36	69.5	39	49
LQ1E41-T-R2		8 x 6			8				39	
LQ1E41-T-R3		6 x 4			6				33	
* LQ1E41-T-R8	ø25	19 x 16	8	18	19	39.5	36	69.5	49	49
* LQ1E41-T-R9		25 x 22			25				66.5	
* LQ1E51-T-R8		25 x 22			25				66.5	
LQ1E61-T-R1	ø25	19 x 16	8	18	19	39.5	36	69.5	61	49
LQ1E61-T-R8		25 x 22			25				66.5	
LQ1E61-T-R10		25 x 22			25				66.5	

Inch Size

Model	A side Applicable tubing O.D.	B side Tubing size (D)	B	C	D	E	H	L ₁	L ₂	M
* LQ1E2A-T-R8	1/4"	3/8" x 1/4"	—	—	3/8"	15	14	23.5	32.3	16.5
* LQ1E2A-T-R9		1/2" x 3/8"			1/2"				25	
* LQ1E3A-T-R1	3/8"	1/4" x 5/32"	—	—	1/4"	20	17	30.4	29.5	23
* LQ1E3A-T-R8		1/2" x 3/8"			1/2"				30.4	
* LQ1E3A-T-R9	1/2"	3/4" x 5/8"	—	—	3/4"	24	21	39.6	49	28
* LQ1E4A-T-R1		3/8" x 1/4"			3/8"				34.8	
* LQ1E4A-T-R8	3/4"	3/4" x 5/8"	—	—	3/4"	29	26	48.5	66.5	39
* LQ1E4A-T-R9		1" x 7/8"			1"				61	
* LQ1E5A-T-R8	1"	3/4" x 5/8"	8	18	3/4"	39.5	36	69.5	61	49
LQ1E6A-T-R1		3/4" x 5/8"			3/4"				61	

Note) Products marked "*" are produced upon receipt of order.

Tubing Extension Union Tee Reducing

How to Order

Tubing connection

LQ1 T 2 1 - T T1 - R39 -

Fitting type

Symbol	Type
T	Union tee

Body size
(according to the combination table)

Tubing type

Symbol	Type
1, 2	Metric
A	Inch

Piping type

Symbol	Type
T	Tubing extension

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Piping type (according to the combination table)

Symbol	Type
R□	Reducing

Fitting type

Symbol	Type
T1	Type 1
T2	Type 2
T3	Type 3
T4	Type 4

Size combination (Metric)

Class	Model	A side (Left)	B side (Center)	C side (Right)
Applicable tubing size (O.D. x I.D.) / Tubing extensions (O.D. x I.D.)				
2	* LQ1T21-TT1-R39	6 x 4	Tube 10 x 8	6 x 4
	* LQ1T21-TT2-R41	Tube 10 x 8	6 x 4	
3	* LQ1T32-TT1-R37	8 x 6	Tube 10 x 8	8 x 6
	* LQ1T32-TT2-R40	Tube 10 x 8	8 x 6	
4	* LQ1T41-TT1-R1	12 x 10	Tube 10 x 8	12 x 10
	* LQ1T41-TT1-R37		Tube 19 x 16	
5	* LQ1T51-TT1-R1	19 x 16	Tube 12 x 10	19 x 16
	* LQ1T51-TT1-R2		Tube 10 x 8	
	* LQ1T51-TT1-R5	12 x 10	Tube 19 x 16	
	* LQ1T51-TT1-R13	6 x 4		
	* LQ1T51-TT1-R37	19 x 16	Tube 25 x 22	
	* LQ1T51-TT1-R38	6 x 4		
	* LQ1T51-TT2-R4	Tube 19 x 16	6 x 4	
6	* LQ1T61-TT1-R1	25 x 22	Tube 19 x 16	25 x 22
	* LQ1T61-TT1-R2		Tube 1/2" x 3/8"	
	* LQ1T61-TT2-R1	Tube 25 x 22	19 x 16	

Note 1) Products marked "*" are produced upon receipt of order.

Note 2) For details of the applicable tubing sizes, refer to page 396.

Size combination (Inch)

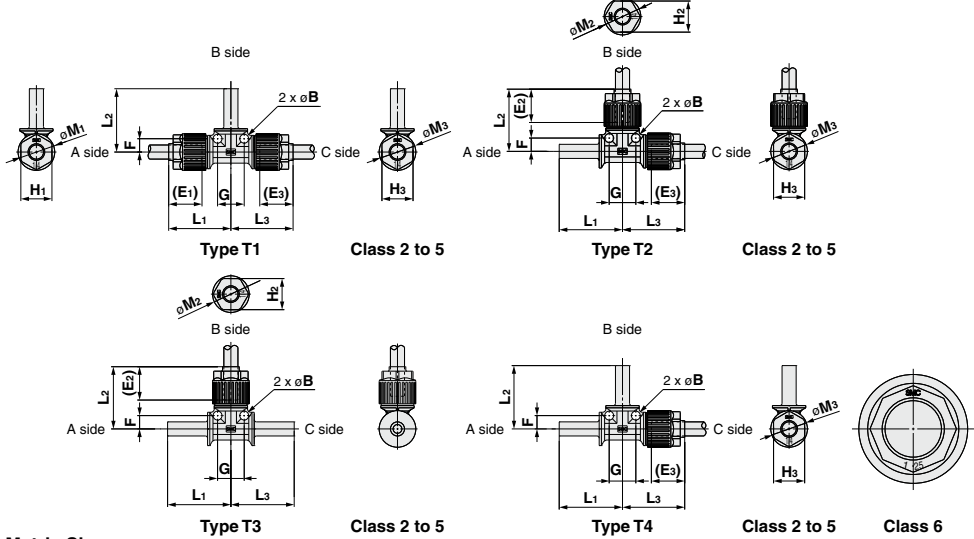
Class	Model	A side (Left)	B side (Center)	C side (Right)
Applicable tubing size (O.D. x I.D.) / Tubing extensions (O.D. x I.D.)				
3	LQ1T3A-TT2-R5	Tube 3/8" x 1/4"	3/8" x 1/4"	1/4" x 5/32"
4	* LQ1T4A-TT1-R1	1/2" x 3/8"	Tube 3/8" x 1/4"	1/2" x 3/8"
	* LQ1T4A-TT1-R7	3/8" x 1/4"		
	* LQ1T4A-TT1-R37	1/2" x 3/8"	Tube 3/4" x 5/8"	
5	* LQ1T5A-TT1-R1	3/4" x 5/8"	Tube 1/2" x 3/8"	3/4" x 5/8"
	* LQ1T5A-TT1-R2		Tube 3/8" x 1/4"	
	* LQ1T5A-TT1-R3	1/4" x 5/32"	Tube 3/4" x 5/8"	
	* LQ1T5A-TT1-R5		Tube 1/2" x 3/8"	
	* LQ1T5A-TT1-R7	1/2" x 3/8"	Tube 1/2" x 3/8"	
	* LQ1T5A-TT2-R4	Tube 3/4" x 5/8"	1/4" x 5/32"	
	* LQ1T5A-TT2-R40	Tube 1" x 7/8"		
	* LQ1T5A-TT3-R5	Tube 3/4" x 5/8"	3/4" x 5/8"	
6	* LQ1T5A-TT3-R7	Tube 1/2" x 3/8"		1" x 7/8"
	* LQ1T6A-TT1-R1		Tube 3/4" x 5/8"	
	* LQ1T6A-TT1-R2	1" x 7/8"	Tube 1/2" x 3/8"	
	* LQ1T6A-TT1-R3		Tube 3/8" x 1/4"	
	* LQ1T6A-TT2-R1	Tube 3/4" x 5/8"	3/4" x 5/8"	

Note 1) Products marked "*" are produced upon receipt of order.

Note 2) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Tubing extension union tee reducing: LQ1T-T-R



Metric Size

Model	A side (Left)	B side (Center)	C side (Right)	B	E ₁	E ₂	E ₃	F	G	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	M ₁	M ₂	M ₃
Applicable tubing O.D.																		
* LQ1T21-TT1-R39	ø6	Tube ø10	ø6	—	20	—	20	—	—	17	—	17	29	35.5	29	23	—	23
* LQ1T21-TT2-R41	Tube ø10	ø6	ø6	—	—	20	—	—	—	—	—	—	35.5	34.5	—	23	—	23
* LQ1T32-TT1-R37	ø8	Tube ø10	ø8	—	20	—	20	—	—	17	—	17	29	35.5	29	23	—	23
* LQ1T32-TT2-R40	Tube ø10	ø8	ø8	—	—	20	—	—	—	—	—	—	35.5	34.5	—	23	—	23
* LQ1T41-TT1-R1	ø12	Tube ø10	ø12	—	24	—	24	—	—	21	—	21	35	38	35	—	—	28
* LQ1T41-TT1-R37	ø12	Tube ø19	ø12	—	—	—	—	—	—	—	—	—	39.5	49	39.5	28	—	28
* LQ1T51-TT1-R1	ø19	Tube ø12	ø19	—	—	—	—	—	—	—	—	—	41.5	47.5	41.5	—	—	—
* LQ1T51-TT1-R2	ø19	Tube ø10	ø19	—	29	—	29	—	—	26	—	26	41	44.5	41	39	—	39
* LQ1T51-TT1-R5	ø12	Tube ø19	ø19	7	—	—	—	14	28	—	—	—	54	55.5	54	—	—	—
* LQ1T51-TT1-R13	ø6	Tube ø19	ø19	—	15	—	29	—	—	14	—	26	29	54.5	45	16.5	—	39
* LQ1T51-TT1-R37	ø19	Tube ø25	ø19	8	39.5	—	39.5	18	36	36	—	36	69.5	49	69.5	49	—	49
* LQ1T51-TT1-R38	ø6	Tube ø25	ø19	—	15	—	29	—	—	14	—	26	32.2	64	48.2	16.5	—	39
* LQ1T51-TT2-R4	Tube ø19	ø6	ø19	7	—	15	29	14	28	—	14	26	55.5	38	54	—	16.5	39
* LQ1T61-TT1-R1	ø25	Tube ø19	ø25	—	39.5	—	39.5	—	—	36	26	21	55.1	59.5	55.1	49	—	49
* LQ1T61-TT1-R2	ø25	Tube 1/2	ø25	—	—	—	—	—	—	36	21	36	53.5	52.5	53.5	—	—	—
* LQ1T61-TT2-R1	Tube ø25	ø19	ø25	8	—	39.5	—	18	36	—	36	—	72	69.5	69.5	—	49	—

Inch Size

Model	A side (Left)	B side (Center)	C side (Right)	B	E ₁	E ₂	E ₃	F	G	H ₁	H ₂	H ₃	L ₁	L ₂	L ₃	M ₁	M ₂	M ₃
Applicable tubing O.D.																		
LQ1T3A-TT2-R5	Tube 3/8	3/8	1/4	5	—	20	15	9	18	—	17	14	37.6	36.5	31.6	—	23	16.5
* LQ1T4A-TT1-R1	1/2	Tube 3/8	1/2	—	24	—	24	—	—	21	—	21	34	38	34	28	—	28
* LQ1T4A-TT1-R7	3/8	Tube 3/8	1/2	—	20	—	24	—	—	17	—	21	34	38	34	23	—	28
* LQ1T4A-TT1-R37	1/2	Tube 3/4	1/2	—	24	—	24	—	—	21	—	21	39.5	49	39.5	28	—	28
* LQ1T5A-TT1-R1	3/4	Tube 1/2	3/4	—	29	—	29	—	—	26	—	26	41.9	47.5	41.9	39	—	39
* LQ1T5A-TT1-R2	3/4	Tube 3/8	3/4	—	29	—	29	—	—	26	—	26	41	44.5	41	39	—	39
* LQ1T5A-TT1-R3	1/4	Tube 3/4	3/4	—	15	—	29	—	—	14	—	26	29	54.5	49	16.5	—	39
* LQ1T5A-TT1-R5	1/2	Tube 3/4	3/4	7	29	—	29	14	28	26	—	26	54	55.5	54	39	—	39
* LQ1T5A-TT1-R7	1/2	Tube 1/2	3/4	7	29	—	29	14	28	26	—	26	54	48.5	54	39	—	39
* LQ1T5A-TT2-R4	Tube 3/4	1/4	3/4	7	—	15	29	14	28	—	14	26	55.5	38	54	—	16.5	39
* LQ1T5A-TT2-R40	Tube 1	3/4	3/4	—	—	29	29	—	—	26	26	64	54	51	—	39	39	39
* LQ1T5A-TT3-R5	Tube 3/4	3/4	Tube 1/2	7	—	29	—	14	28	—	26	—	48.5	54	55.5	—	39	—
* LQ1T5A-TT3-R7	Tube 1/2	3/4	Tube 1/2	—	—	29	—	—	—	26	—	26	46	44.5	46	—	39	—
* LQ1T6A-TT1-R1	ø25	Tube 3/4	ø25	—	—	—	—	—	—	36	—	—	55.1	59.5	55.1	—	—	—
* LQ1T6A-TT1-R2	ø25	Tube 1/2	ø25	—	39.5	—	39.5	—	—	36	—	36	53.5	52.5	53.5	49	—	49
* LQ1T6A-TT1-R3	ø25	Tube 3/8	ø25	—	—	—	—	—	—	36	—	36	53.5	48.5	53.5	—	—	—
* LQ1T6A-TT2-R1	Tube 1	ø19	ø25	8	—	39.5	—	18	36	—	36	—	72	69.5	69.5	—	49	—

Note) Products marked "*" are produced upon receipt of order.

How to Order Space Saving Type Fittings

This product, for use with products with one nut attached (insert bushing) has one nut removed.

LQ1

E

21

-

SN

-

Fitting type

E	T
Union Elbow	Union Tee
P	U
Panel Mount Union	Union

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

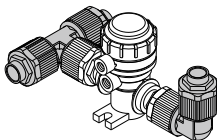
Without a nut (including insert bushing) in one part

Combination of different diameter (on B side)

Symbol	Size	No.	Applicable tubing size (mm)
1	1	1	4 x 3
1	2	2	3 x 2
2	1	1	6 x 4
2	2	2	4 x 3
3	1	1	10 x 8
3	2	2	8 x 6
3	3	3	6 x 4
4	1	1	12 x 10
4	2	2	10 x 8
5	1	1	19 x 16
5	2	2	12 x 10
6	1	1	25 x 22
6	2	2	19 x 16

Symbol	Size	No.	Applicable tubing size (inch)
1	A	1	1/8" x 0.086"
—	—	—	—
2	A	1	1/4" x 5/32"
2	B	1	3/16" x 1/8"
2	C	1	1/8" x 0.086"
3	A	1	3/8" x 1/4"
3	B	1	1/4" x 5/32"
4	A	1	1/2" x 3/8"
4	B	1	3/8" x 1/4"
5	A	1	3/4" x 5/8"
5	B	1	1/2" x 3/8"
6	A	1	1" x 7/8"
6	B	1	3/4" x 5/8"

Connection example



- Note 1) For each body class, the second and later numbers or symbols indicate reducing. However, use of different diameters is not available with size 1.
- Note 2) Please choose the same size fitting as the fitting of the connecting product.
- Note 3) For details of applicable tubing sizes, refer to page 396.

Options

Panel mounting nut

LQN

P

11

-

Applicable fitting

Symbol	Size
11	1
12	2
13	3
14	4
15	5
16	6

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

It is used to mount panels with a panel mount union.

Options

Nut insert bush

LQ1-2U03-

In cases where exchanging the tubing size, we recommend the U type.

Applicable fitting

Symbol	Applicable fitting
1	LQ1

Size

Symbol	Size
1	1
2	2
3	3
4	4
5	5
6	6

Type of part

Symbol	Type of part
U	Nut insert bush
B	Insert bush
N	Nut

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Applicable tubing size

Metric Size

Symbol	Applicable tubing size	Size					
		1	2	3	4	5	6
03	ø3 x ø2	○	○				
04	ø4 x ø3	○	○				
06	ø6 x ø4		○	○			
08	ø8 x ø6			○			
10	ø10 x ø8				○		
12	ø12 x ø10					○	
19	ø19 x ø16						○
25	ø25 x ø22.5						○

Inch Size

Symbol	Applicable tubing size	Size					
		1	2	3	4	5	6
03	1/8" x 0.086"	○	○				
05	3/16" x 1/8"		○				
07	1/4" x 5/32"		○	○			
11	3/8" x 1/4"			○			
13	1/2" x 3/8"				○	○	
19	3/4" x 5/8"						○
25	1" x 7/8"						○

Note 1) In the case of size 1, changing the tubing by reducing is not available.

Note 2) For details of applicable tubing sizes, refer to page 396.

Blanking plug

LQ-11P04-

Applicable fitting

Symbol	Size
11	1
12	2
13	3
14	4
15	5
16	6

Packaging

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Applicable tubing size

Metric Size

Symbol	Applicable tubing size	Size					
		1	2	3	4	5	6
03	ø3 x ø2	○	●				
04	ø4 x ø3	○	○				
06	ø6 x ø4		○	●			
08	ø8 x ø6				○		
10	ø10 x ø8					○	
12	ø12 x ø10						○
19	ø19 x ø16						○
25	ø25 x ø22.5						○

Inch Size

Symbol	Applicable tubing size	Size					
		1	2	3	4	5	6
03	1/8" x 0.086"	○	●				
05	3/16" x 1/8"		○				
07	1/4" x 5/32"		○	●			
11	3/8" x 1/4"				○		
13	1/2" x 3/8"					○	
19	3/4" x 5/8"						○
25	1" x 7/8"						○

○ Basic size ● With reducer

Used to block fittings which are not being used.

○ Basic size ● With reducer

Note) For details of the applicable tubing sizes, refer to page 396.

Tubing plug

LQ1-2CP-

Tubing plug will be a made-to-order product.

Size

Symbol	Size
1	1
2	2
3	3
4	4
5	5
6	6

Fitting type

Symbol	Type
CP	Tubing caps

Size

Symbol	Size
Nil	Without an insert bush
1	With an insert bush

Applicable tubing size

Metric Size

Symbol	Applicable tubing size	Size
03	ø3 x ø2	1
04	ø4 x ø3	
06	ø6 x ø4	2
08	ø8 x ø6	3
10	ø10 x ø8	3
12	ø12 x ø10	4
19	ø19 x ø16	5
25	ø25 x ø22	6

Inch Size

Symbol	Applicable tubing size	Size
03	1/8" x 0.086"	1
07	1/4" x 5/32"	2
11	3/8" x 1/4"	3
13	1/2" x 3/8"	4
19	3/4" x 5/8"	5
25	1" x 7/8"	6

Used to block fittings which are not being used.

Note) For details of the applicable tubing sizes, refer to page 396.

Series LQ1 Insertion Tool

Fittings

Changing tubing sizes

The tubing size can be changed within the same body class (body size) by replacing the nut and insert bushing. However, in case of class 1, the tubing cannot be changed by reducing.

Body class	Tubing O.D.														
	Metric sizes								Inch sizes						
	ø3	ø4	ø6	ø8	ø10	ø12	ø19	ø25	1/8"	3/16"	1/4"	3/8"	1/2"	3/4"	1"
1	○	○	—	—	—	—	—	—	○	—	—	—	—	—	—
2	●	●	○	—	—	—	—	—	●	●	○	—	—	—	—
3	—	—	●	●	○	—	—	—	—	—	●	○	—	—	—
4	—	—	—	—	●	○	—	—	—	—	—	●	○	—	—
5	—	—	—	—	—	●	○	—	—	—	—	—	●	○	—
6	—	—	—	—	—	—	●	○	—	—	—	—	—	●	○

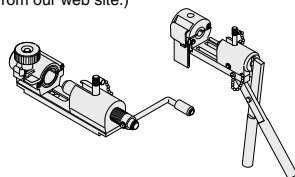
Parts composition

	Component parts		
	Nut	Insert	Collar (Insert assembly)
○ Basic size	Yes	Yes	No
● Reducer type	Yes	Yes	Yes

⚠ Caution

1. Connect tubing with special tools

Refer to the pamphlet "High-Purity Fluoropolymer Fittings Hyper fitting/Series LQ1, 2 Work Procedure Instructions" (M-E05-1) for connecting tubing and special tools. (Downloadable from our web site.)

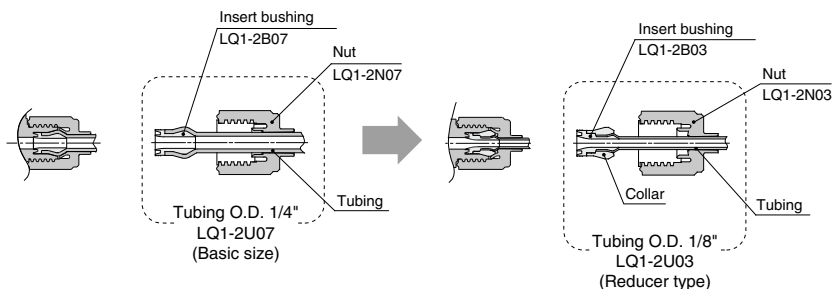


Changing the tubing size

Example) Changing the tubing from an O.D. 1/4" to O.D. 1/8" in LQ1 body class 2.

Prepare an insert bushing and nut for 1/8" O.D. tubing (LQ1-2U03) and change the tubing size.
(Refer to the section on how to order fitting parts.)

Note) Tubing is sold separately.



Fluoropolymer Fittings Hyper Fittings / Flare Type Series **LQ3**

RoHS

How to Order

Threaded
connection

LQ3 **H** **11** - **M** -

Fitting type

Symbol	Type
H	Connector
L	Elbow
B	Branch tee
R	Run tee

Nut material, packaging

Symbol	Nut material	Packaging
Nll	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

* LQ3H□: Nut material PVDF is not available.

Thread type

Symbol	Type
Nll	R, Rc
N	NPT

Piping type

Symbol	Type
M	Male
F	Female

Size combination

Size	No.	Applicable tubing size (mm)	Port size
1	1	4 x 3	1/8"
1	2	3 x 2	
2	1	6 x 4	1/8"
2	2		1/4"
3	1	10 x 8	1/8"
3	2	8 x 6	
3	3	10 x 8	1/4"
3	4	8 x 6	
3	5	10 x 8	3/8"
3	6	8 x 6	
3	8		1/2"
4	1	12 x 10	1/4"
4	2		3/8"
4	3		1/2"
4	4		3/4"
5	1	19 x 16	3/8"
5	2		1/2"
5	3		3/4"
6	1	25 x 22	1/2"
6	2		3/4"
6	3		1"

Note) For details of the applicable tubing sizes, refer to page 396.

Size	No.	Applicable tubing size (mm)	Port size
1	A	1/8" x 0.086"	1/8"
2	A	1/4" x 5/32"	1/8"
2	B		1/4"
3	A	3/8" x 1/4"	1/8"
3	B		1/4"
3	C		3/8"
3	D		1/2"
4	A	1/2" x 3/8"	1/4"
4	B		3/8"
4	C		1/2"
4	D	3/4" x 5/8"	3/4"
5	A		3/8"
5	B		1/2"
5	C	1" x 7/8"	3/4"
6	A		1"
6	C	1 1/4" x 1.1"	3/4"
7*	A*		1"
7*	B*		1 1/4"
8*	A*	1 1/2" x 1.33"	1"
8*	B*		1 1/4"
8*	C*		1 1/2"

* Fitting type H, piping type M: Male connector only.

How to Order

Tubing connection

LQ3 E 11 -

Fitting type

Symbol	Type
E	Union elbow
T	Union tee
P	Panel mount union
U	Union

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

* LQ3□8A: Nut material PVDF is not available.

Size combination

Size	No.	Applicable tubing size (mm)
1	1	4 x 3
1	2	3 x 2
2	1	6 x 4
3	1	10 x 8
3	2	8 x 6
4	1	12 x 10
5	1	19 x 16
6	1	25 x 22

Size	Symbol	Applicable tubing size (inch)
1	A	1/8" x 0.086"
2	A	1/4" x 5/32"
3	A	3/8" x 1/4"
4	A	1/2" x 3/8"
5	A	3/4" x 5/8"
6	A	1" x 7/8"
7*	A*	1 1/4" x 1.1"
8*	A*	1 1/2" x 1.33"

Note) For details of the applicable tubing sizes, refer to page 396.

* P: Without panel mounting

KQ2

KQB2

**KS
KX**

KM

KF

M

**H/DL
L/LL**

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

KP

LQ

MQR

T



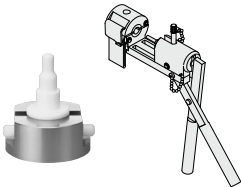
⚠ Specific Product Precautions

Be sure to read before handling.
Refer to front matter 56 for Safety Instructions.

Piping

⚠ Caution

1. **Connect tubing with special tools**
Please refer to the LQ3 series mounting method in "High Purity Fluoropolymer Fittings: Hyper Fitting/Flare Type" (M-E06-4) for tubing connection 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 torque shown below.

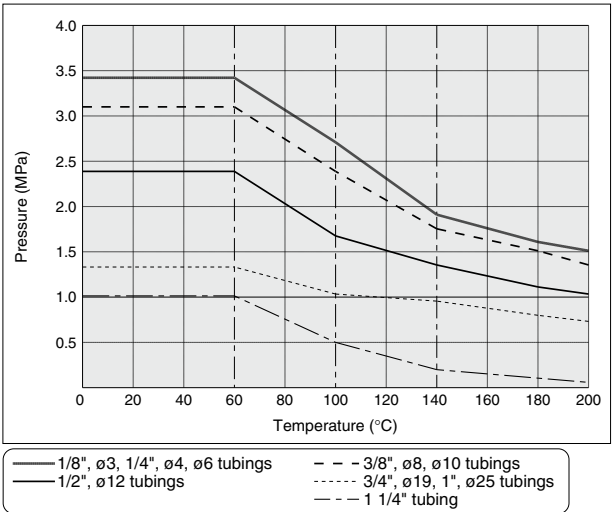
Tightening torque for piping

Body class	Torque (N·m)
1	0.7 to 0.9
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
7	23.0 to 26.5

Specifications

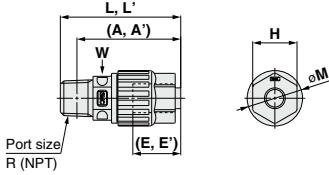
Feature	Model	LQ3□10	LQ3□20	LQ3□30	LQ3□40	LQ3□50	LQ3□60	LQ3□70
Material		New PFA						
Maximum operating pressure (at 20°C)		1.0 MPa						
Proof pressure		Refer to the withstand pressure and heat resistance performance data.						
Operating temperature	Nut material PVDF	0 to 150°C						
	Nut material PFA	0 to 200°C						

Withstand Pressure and Heat Resistance Performance

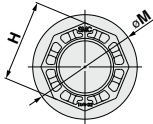


Dimensions

Male connector: LQ3H-M



(A,A'): Reference dimension after installation
(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(A'),L',E': Nut material PVDF dimensions
W: Width across flats dimension



Class 7, 8

Metric Size

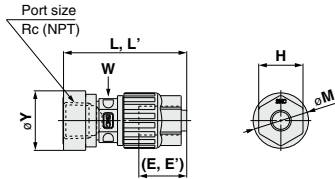
Model	Applicable tubing O.D.	Connection threads R/NPT	A	A'	E	E'	H	L	L'	M	W
LQ3H11-M□	$\phi 4$										
LQ3H12-M□	$\phi 3$	1/8"	29.5	28.5	10	9	11	33.5	32.5	14	10
LQ3H21-M□	$\phi 6$	1/8"	39.5	38.5	17	16	16	43.5	42.5	20	14
LQ3H22-M□	$\phi 6$	1/4"	37.5	36.5							
LQ3H31-M□	$\phi 10$	1/8"	51	48							
LQ3H32-M□	$\phi 8$										
LQ3H33-M□	$\phi 10$	1/4"	49	46							
LQ3H34-M□	$\phi 8$				22.5	19.5	21	55	52	25	18
LQ3H35-M□	$\phi 10$	3/8"	48.5	45.5							
LQ3H36-M□	$\phi 8$										
LQ3H38-M□	$\phi 8$	1/2"	54	51				62	59		
LQ3H41-M□	$\phi 12$	1/4"	58	56							
LQ3H42-M□	$\phi 12$	3/8"	57.5	55.5							
LQ3H43-M□	$\phi 12$	1/2"	56	54	24		24	64	62	29	22
LQ3H44-M□	$\phi 12$	3/4"	59.8	57.6				69.3	67.1		
LQ3H51-M□	$\phi 19$	3/8"	69.5	67							
LQ3H52-M□	$\phi 19$	1/2"	68	65.5	26.5	24	32	76	73.5	37	30
LQ3H53-M□	$\phi 19$	3/4"	66.5	64							
LQ3H61-M□	$\phi 25$	1/2"	80	76							
LQ3H62-M□	$\phi 25$	3/4"	78.5	74.5	30	26	41	88	84	49	36
LQ3H63-M□	$\phi 25$	1"	77.5	73.5							

Inch Size

Model	Applicable tubing O.D.	Connection threads R/NPT	A	A'	E	E'	H	L	L'	M	W
LQ3H1A-M□	1/8"	1/8"	29.5	28.5	10	9	11	33.5	32.5	14	10
LQ3H2A-M□	1/4"	1/8"	39.5	38.5	17	16	16	43.5	42.5	20	14
LQ3H2B-M□	1/4"	1/4"	37.5	36.5							
LQ3H3A-M□	3/8"	1/8"	51	48							
LQ3H3B-M□	3/8"	1/4"	49	46	22.5	19.5	21	55	52	25	18
LQ3H3C-M□	3/8"	3/8"	48.5	45.5							
LQ3H3D-M□	3/8"	1/2"	54	51				62	59		
LQ3H4A-M□	1/2"	1/4"	58	56							
LQ3H4B-M□	1/2"	3/8"	57.5	55.5	24.5	22.5	24	64	62	29	22
LQ3H4C-M□	1/2"	1/2"	56	54							
LQ3H4D-M□	1/2"	3/4"	59.8	57.6				69.3	67.1		
LQ3H5A-M□	3/4"	3/8"	69.5	67							
LQ3H5B-M□	3/4"	1/2"	68	65.5	26.5	24	32	76	73.5	37	30
LQ3H5C-M□	3/4"	3/4"	66.5	64							
LQ3H6A-M□	1"	1/2"	80	76							
LQ3H6B-M□	1"	3/4"	78.5	74.5	30	26	41	88	84	49	36
LQ3H6C-M□	1"	1"	77.5	73.5							
LQ3H7A-M□	1 1/4"	3/4"	96.5	96.5							
LQ3H7B-M□	1 1/4"	1"	95.5	95.5	35	35	50	106	106	64	46
LQ3H7C-M□	1 1/4"	1 1/4"	93.3	93.3							
LQ3H8A-M□	1 1/2"	1"	103.5								
LQ3H8B-M□	1 1/2"	1 1/4"	101.3	—	39	—	60	114	—	77	55
LQ3H8C-M□	1 1/2"	1 1/2"	101.3								

Dimensions

Female connector: LQ3H-F



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
 (E'),L': Nut material PVDF dimensions
 W: Width across flats dimension

Metric Size

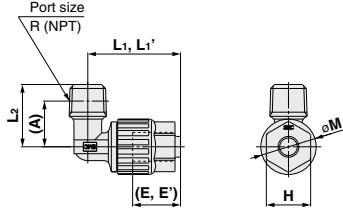
Model	Applicable tubing O.D.	Connection threads Rc/NPT	E	E'	H	L	L'	M	W	Y		
LQ3H11-F□	ø4	1/8"	10	9	11	35	34	14	10	18.5		
LQ3H12-F□	ø3											
LQ3H21-F□	ø6	1/8"	17	16	16	40	39	20	14	18.5		
LQ3H22-F□		1/4"				45	44			21.5		
LQ3H31-F□	ø10	1/8"	22.5	19.5	21	50.5	47.5	25	18	18.5		
LQ3H32-F□	ø8											
LQ3H33-F□	ø10	1/4"				55	52			21.5		
LQ3H34-F□	ø8											
LQ3H35-F□	ø10	3/8"					55.5	52.5	25			
LQ3H36-F□	ø8											
LQ3H41-F□	ø12	1/4"	24	22	24	55.5	53	29	22	21.5		
LQ3H42-F□		3/8"				58	56			25		
LQ3H43-F□	ø19	1/2"	26.5	24	32	66	64			37	30	29.5
LQ3H51-F□		3/8"				67	64.5					25
LQ3H52-F□	ø25	1/2"				72	69.5	36				
LQ3H53-F□		3/4"				73.5	71					
LQ3H61-F□	ø25	1/2"	30	26	41	81.5	77.5	49	36	29.5		
LQ3H62-F□		3/4"				83	79			36		
LQ3H63-F□		1"				90.5	86.5			44.5		

Inch Size

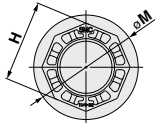
Model	Applicable tubing O.D.	Connection threads Rc/NPT	E	E'	H	L	L'	M	W	Y
LQ3H1A-F□	1/8"	1/8"	10	9	11	35	34	14	10	18.5
LQ3H2A-F□	1/4"	1/8"	17	16	16	40	39	20	14	18.5
LQ3H2B-F□		1/4"				45	44			21.5
LQ3H3A-F□	3/8"	1/8"	22.5	19.5	21	50.5	47.5	25	18	18.5
LQ3H3B-F□		1/4"				55	52			21.5
LQ3H3C-F□	1/2"	3/8"	24.5	22.5	24	55.5	52.5	29	22	25
LQ3H4A-F□		1/4"				58	56			29.5
LQ3H4B-F□	3/4"	3/8"	26.5	24	32	66	64	37	30	25
LQ3H5A-F□		1/2"				67	64.5			29.5
LQ3H5B-F□	1"	1/2"	30	26	41	72	69.5	49	36	25
LQ3H5C-F□		3/4"				73.5	71			36
LQ3H6A-F□	1"	1/2"	30	26	41	81.5	77.5	49	36	29.5
LQ3H6B-F□		3/4"				83	79			36
LQ3H6C-F□		1"				90.5	86.5			44.5

Dimensions

Male elbow: LQ3L-M



(A): Reference dimension after installation
(E, E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'), L₁': Nut material PVDF dimensions



Class 7

Metric Size

Model	Applicable tubing O.D.	Connection threads R/NPT	A	E	E'	H	L ₁	L ₁ '	L ₂	M
LQ3L11-M□	ø4									
LQ3L12-M□	ø3	1/8"	12.5	10	9	11	26	25	16.5	14
LQ3L21-M□		1/8"	18.5							
LQ3L22-M□	ø6	1/4"	16.5	17	16	16	33.5	32.5	22.5	20
LQ3L31-M□	ø10	1/8"	24							
LQ3L32-M□	ø8									
LQ3L33-M□	ø10	1/4"	22				46	43	28	25
LQ3L34-M□	ø8			22.5	19.5	21				
LQ3L35-M□	ø10	3/8"	21.5							
LQ3L36-M□										
LQ3L38-M□	ø8	1/2"	24.5				47.5	44.5	32.5	
LQ3L41-M□		1/4"	27							
LQ3L42-M□	ø12	3/8"	26.5	24	22	24	54.5	52.5	33	29
LQ3L43-M□		1/2"	25							
LQ3L51-M□		3/8"	33.5							
LQ3L52-M□	ø19	1/2"	32	26.5	24	32	64	61.5	40	37
LQ3L53-M□		3/4"	30.5							
LQ3L61-M□		1/2"	38							
LQ3L62-M□	ø25	3/4"	36.5	30	26	41	77	73	46	49
LQ3L63-M□		1"	35.5							

Inch Size

Model	Applicable tubing O.D.	Connection threads R/NPT	A	E	E'	H	L ₁	L ₁ '	L ₂	M
LQ3L1A-M□	1/8"	1/8"	12.5	10	9	11	26	25	16.5	14
LQ3L2A-M□		1/8"	18.5							
LQ3L2B-M□	1/4"	1/4"	16.5	17	16	16	33.5	32.5	22.5	20
LQ3L3A-M□		1/8"	24							
LQ3L3B-M□		1/4"	22							
LQ3L3C-M□	3/8"	3/8"	21.5				46	43	28	25
LQ3L3D-M□		1/2"	24.5							
LQ3L4A-M□		1/4"	27							
LQ3L4B-M□	1/2"	3/8"	26.5	24.5	22.5	24	54.5	52.5	33	29
LQ3L4C-M□		1/2"	25							
LQ3L5A-M□		3/8"	33.5							
LQ3L5B-M□	3/4"	1/2"	32	26.5	24	32	64	61.5	40	37
LQ3L5C-M□		3/4"	30.5							
LQ3L6A-M□		1/2"	38							
LQ3L6B-M□	1"	3/4"	36.5	30	26	41	77	73	46	49
LQ3L6C-M□		1"	35.5							

KQ2

KQB2

KS
KX

KM

KF

M

H/DL
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

KP

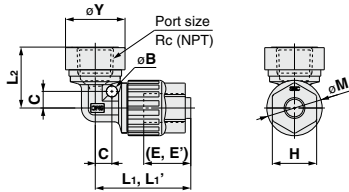
LQ

MQR

T

Dimensions

Female elbow: LQ3L-F



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'),L₁': Nut material PVDF dimensions

Metric Size

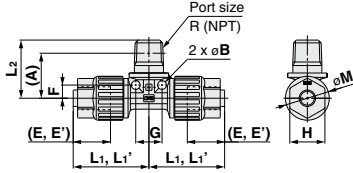
Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	C	E	E'	H	L ₁	L ₁ '	L ₂	M	Y
LQ3L11-F□	ø4	1/8"	3.5	4.8	10	9	11	28.5	27.5	19.5	14	18.5
LQ3L12-F□	ø3											
LQ3L21-F□	ø6	1/8"	4	6	17	16	16	34.5	33.5	20	20	18.5
LQ3L22-F□		1/4"								22		21.5
LQ3L31-F□	ø10	1/8"	5	9	22.5	19.5	21	47.5	44.5	23	25	18.5
LQ3L32-F□	ø8									25.5		21.5
LQ3L33-F□	ø10	1/4"										
LQ3L34-F□	ø8											
LQ3L35-F□	ø10	3/8"	6	10	24	22	24	52.5	50.5	26	29	25
LQ3L36-F□	ø8									37		29.5
LQ3L41-F□	ø12	1/4"								23.5		21.5
LQ3L42-F□		3/8"								30		25
LQ3L43-F□	ø19	1/2"								26		29.5
LQ3L51-F□		3/8"	7	14	26.5	24	32	64	61.5	30.5	37	25
LQ3L52-F□	ø25	1/2"								37		29.5
LQ3L53-F□		3/4"								41		36
LQ3L61-F□	ø25	1/2"								8		18
LQ3L62-F□		3/4"	42.5	36								
LQ3L63-F□		1"	46	44.5								

Inch Size

Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	C	E	E'	H	L ₁	L ₁ '	L ₂	M	Y
LQ3L1A-F□	1/8"	1/8"	3.5	4.8	10	9	11	28.5	27.5	19.5	14	18.5
LQ3L2A-F□	1/4"	1/8"	4	6	17	16	16	34.5	33.5	20	20	18.5
LQ3L2B-F□		1/4"								22		21.5
LQ3L3A-F□	3/8"	1/8"	5	9	22.5	19.5	21	47.5	44.5	23	25	18.5
LQ3L3B-F□		1/4"								24		21.5
LQ3L3C-F□	1/2"	3/8"	6	10	24.5	22.5	24	52.5	50.5	25.5	29	25
LQ3L4A-F□		1/4"								23.5		21.5
LQ3L4B-F□	3/4"	3/8"	7	14	26.5	24	32	64	61.5	26	37	25
LQ3L4C-F□		1/2"								30		29.5
LQ3L5A-F□	1"	3/8"	8	18	30	26	41	78	74	30.5	49	25
LQ3L5B-F□		1/2"								37		29.5
LQ3L5C-F□	1"	3/4"	8	18	30	26	41	78	74	41	49	36
LQ3L6A-F□		1/2"								37		29.5
LQ3L6B-F□	1"	3/4"								41	49	36
LQ3L6C-F□		1"								46		44.5

Dimensions

Male branch tee: LQ3B-M



(A): Reference dimension after installation
(E,E'): Reference dimension for the inserted
tubing from the end surface of the nut
E',L1': Nut material PVDF dimensions

Metric Size

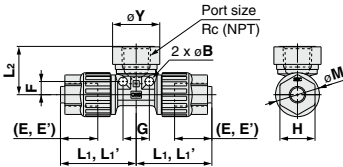
Model	Applicable tubing O.D.	Connection threads R/NPT	A	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	M
LQ3B11-M□	ø4												
LQ3B12-M□	ø3	1/8"	15	3.5	10	9	4.8	9.5	11	28.5	27.5	19	14
LQ3B21-M□	ø6	1/8"	19.5	4	17	16	6	12	16	34.5	33.5	23.5	20
LQ3B22-M□	1/4"	1/4"	20.5									26.5	
LQ3B31-M□	ø10	1/8"	22.5									26.5	
LQ3B32-M□	ø8												
LQ3B33-M□	ø10	1/4"	23.5	5	22.5	19.5	9	18	21	47.5	44.5	29.5	25
LQ3B34-M□	ø8												
LQ3B35-M□	ø10	3/8"	24									30.5	
LQ3B36-M□	ø8												
LQ3B41-M□	1/4"	1/4"	27									33	
LQ3B42-M□	ø12	3/8"	27.5	6	24	22	10	20	24	52.5	50.5	34	29
LQ3B43-M□	1/2"	1/2"	29									37	
LQ3B51-M□		3/8"	32.5									39	
LQ3B52-M□	ø19	1/2"	34	7	26.5	24	14	28	32	64	61.5	42	37
LQ3B53-M□		3/4"	34.5									44	
LQ3B61-M□		1/2"	42									50	
LQ3B62-M□	ø25	3/4"	42.5	8	30	26	18	36	41	78	74	52	49
LQ3B63-M□		1"										53	

Inch Size

Model	Applicable tubing O.D.	Connection threads R/NPT	A	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	M
LQ3B1A-M□	1/8"	1/8"	15	3.5	10	9	4.8	9.5	11	28.5	27.5	19	14
LQ3B2A-M□	1/4"	1/8"	19.5	4	17	16	6	12	16	34.5	33.5	23.5	20
LQ3B2B-M□		1/4"	20.5									26.5	
LQ3B3A-M□		1/8"	22.5									26.5	
LQ3B3B-M□	3/8"	1/4"	23.5	5	22.5	19.5	9	18	21	47.5	44.5	29.5	25
LQ3B3C-M□		3/8"	24									30.5	
LQ3B4A-M□		1/4"	27									33	
LQ3B4B-M□	1/2"	3/8"	27.5	6	24.5	22.5	10	20	24	52.5	50.5	34	29
LQ3B4C-M□		1/2"	29									37	
LQ3B5A-M□		3/8"	32.5									39	
LQ3B5B-M□	3/4"	1/2"	34	7	26.5	24	14	28	32	64	61.5	42	37
LQ3B5C-M□		3/4"	34.5									44	
LQ3B6A-M□		1/2"	42									50	
LQ3B6B-M□	1"	3/4"	42.5	8	30	26	18	36	41	78	74	52	49
LQ3B6C-M□		1"										53	

Dimensions

Female branch tee: LQ3B-F



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'),L1': Nut material PVDF dimensions

Metric Size

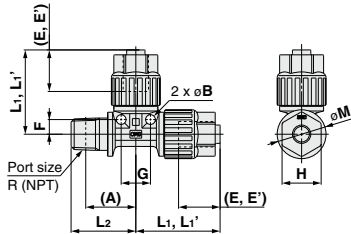
Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	M	Y
LQ3B11-F□	ø4	1/8"	3.5	10	9	4.8	9.5	11	28.5	27.5	19.5	14	18.5
LQ3B12-F□	ø3												
LQ3B21-F□	ø6	1/8"	4	17	16	6	12	16	34.5	33.5	20	20	18.5
LQ3B22-F□	ø3	1/4"									22		21.5
LQ3B31-F□	ø10	1/8"	5	22.5	19.5	9	18	21	47.5	44.5	23	25	18.5
LQ3B32-F□	ø8												
LQ3B33-F□	ø10	1/4"									24	25	21.5
LQ3B34-F□	ø8												
LQ3B35-F□	ø10	3/8"	25.5	25	21.5								
LQ3B36-F□	ø8												
LQ3B41-F□	ø12	1/4"	6	24	22	10	20	24	52.5	50.5	23.5	29	21.5
LQ3B42-F□		3/8"									26		29
LQ3B43-F□		1/2"									30		29.5
LQ3B51-F□	ø19	3/8"	7	26.5	24	14	28	32	64	61.5	30.5	37	25
LQ3B52-F□		1/2"									35.5		36
LQ3B53-F□		3/4"									37		29.5
LQ3B61-F□	ø25	1/2"	8	30	26	18	36	41	78	74	41	49	29.5
LQ3B62-F□		3/4"									42.5		46
LQ3B63-F□		1"									46		44.5

Inch Size

Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	M	Y
LQ3B1A-F□	1/8"	1/8"	3.5	10	9	4.8	9.5	11	28.5	27.5	19.5	14	18.5
LQ3B2A-F□	1/4"	1/8"	4	17	16	6	12	16	34.5	33.5	20	20	18.5
LQ3B2B-F□		1/4"									22		21.5
LQ3B3A-F□	3/8"	1/8"	5	22.5	19.5	9	18	21	47.5	44.5	24	25	18.5
LQ3B3B-F□		1/4"											21.5
LQ3B3C-F□		3/8"									25.5		25
LQ3B4A-F□	1/2"	1/4"	6	24.5	22.5	10	20	24	52.5	50.5	26	29	21.5
LQ3B4B-F□		3/8"											25
LQ3B4C-F□		1/2"									30		29.5
LQ3B5A-F□	3/4"	3/8"	7	26.5	24	14	28	32	64	61.5	30.5	37	25
LQ3B5B-F□		1/2"											29.5
LQ3B5C-F□		3/4"									37		36
LQ3B6A-F□	1"	1/2"	8	30	26	18	36	41	78	74	41	49	29.5
LQ3B6B-F□		3/4"											36
LQ3B6C-F□		1"									46		44.5

Dimensions

Male run tee: LQ3R-M



- (A): Reference dimension after installation
(E, E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'), L': Nut material PVDF dimensions

Metric Size

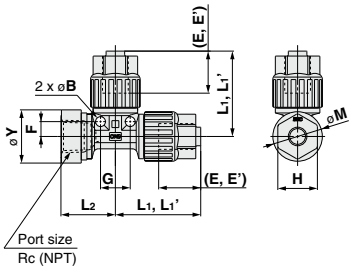
Model	Applicable tubing O.D.	Connection threads R/NPT	A	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	M
LQ3R11-M□	ø4												
LQ3R12-M□	ø3	1/8"	15	3.5	10	9	4.8	9.5	11	28.5	27.5	19	14
LQ3R21-M□	ø6	1/8"	19.5	4	17	16	6	12	16	34.5	33.5	23.5	20
LQ3R22-M□		1/4"	20.5									26.5	
LQ3R31-M□	ø10	1/8"	22.5									26.5	
LQ3R32-M□	ø8												
LQ3R33-M□	ø10	1/4"	23.5	5	22.5	19.5	9	18	21	47.5	44.5	29.5	25
LQ3R34-M□	ø8												
LQ3R35-M□	ø10	3/8"	24									30.5	
LQ3R36-M□	ø8												
LQ3R41-M□		1/4"	27									33	
LQ3R42-M□	ø12	3/8"	27.5	6	24	22	10	20	24	52.5	50.5	34	29
LQ3R43-M□		1/2"	29									37	
LQ3R51-M□		3/8"	32.5									39	
LQ3R52-M□	ø19	1/2"	34	7	26.5	24	14	28	32	64	61.5	42	37
LQ3R53-M□		3/4"	34.5									44	
LQ3R61-M□		1/2"	42									50	
LQ3R62-M□	ø25	3/4"	42.5	8	30	26	18	36	41	78	74	52	49
LQ3R63-M□		1"										53	

Inch Size

Model	Applicable tubing O.D.	Connection threads R/NPT	A	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	M
LQ3R1A-M□	1/8"	1/8"	15	3.5	10	9	4.8	9.5	11	28.5	27.5	19	14
LQ3R2A-M□	1/4"	1/8"	19.5	4	17	16	6	12	16	34.5	33.5	23.5	20
LQ3R2B-M□		1/4"	20.5									26.5	
LQ3R3A-M□		1/8"	22.5									26.5	
LQ3R3B-M□	3/8"	1/4"	23.5	5	22.5	19.5	9	18	21	47.5	44.5	29.5	25
LQ3R3C-M□		3/8"	24									30.5	
LQ3R4A-M□		1/4"	27									33	
LQ3R4B-M□	1/2"	3/8"	27.5	6	24.5	22.5	10	20	24	52.5	50.5	34	29
LQ3R4C-M□		1/2"	29									37	
LQ3R5A-M□		3/8"	32.5									39	
LQ3R5B-M□	3/4"	1/2"	34	7	26.5	24	14	28	32	64	61.5	42	37
LQ3R5C-M□		3/4"	34.5									44	
LQ3R6A-M□		1/2"	42									50	
LQ3R6B-M□	1"	3/4"	42.5	8	30	26	18	36	41	78	74	52	49
LQ3R6C-M□		1"										53	

Dimensions

Female run tee: LQ3R-F



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'),L₁': Nut material PVDF dimensions

Metric Size

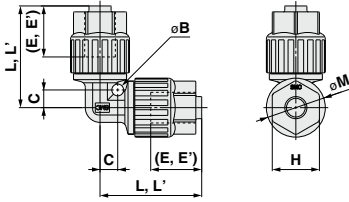
Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	M	Y
LQ3R11-F□	ø4	1/8"	3.5	10	9	4.8	9.5	11	28.5	27.5	19.5	14	18.5
LQ3R12-F□	ø3												
LQ3R21-F□	ø6	1/8"	4	17	16	6	12	16	34.5	33.5	20	20	18.5
LQ3R22-F□		1/4"											21.5
LQ3R31-F□	ø10	1/8"	5	22.5	19.5	9	18	21	47.5	44.5	24	25	18.5
LQ3R32-F□	ø8												
LQ3R33-F□	ø10	1/4"	5	22.5	19.5	9	18	21	47.5	44.5	24	25	21.5
LQ3R34-F□	ø8												
LQ3R35-F□	ø10	3/8"	5	22.5	19.5	9	18	21	47.5	44.5	24	25	21.5
LQ3R36-F□	ø8												
LQ3R41-F□	ø12	1/4"	6	24	22	10	20	24	52.5	50.5	26	29	21.5
LQ3R42-F□		3/8"											25
LQ3R51-F□	ø19	1/2"	7	26.5	24	14	28	32	64	61.5	35.5	37	29.5
LQ3R52-F□		3/4"											36
LQ3R61-F□	ø25	1/2"	8	30	26	18	36	41	78	74	41	49	29.5
LQ3R62-F□		3/4"											36
LQ3R63-F□		1"									46		44.5

Inch Size

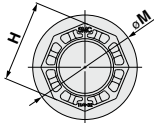
Model	Applicable tubing O.D.	Connection threads Rc/NPT	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	M	Y
LQ3R1A-F□	1/8"	1/8"	3.5	10	9	4.8	9.5	11	28.5	27.5	19.5	14	18.5
LQ3R2A-F□	1/4"	1/8"	4	17	16	6	12	16	34.5	33.5	20	20	18.5
LQ3R2B-F□		1/4"											21.5
LQ3R3A-F□	3/8"	1/8"	5	22.5	19.5	9	18	21	47.5	44.5	24	25	18.5
LQ3R3B-F□		1/4"											21.5
LQ3R3C-F□	1/2"	3/8"	6	24.5	22.5	10	20	24	52.5	50.5	26	29	25
LQ3R4A-F□		1/4"											21.5
LQ3R4B-F□	3/4"	3/8"	7	26.5	24	14	28	32	64	61.5	35.5	37	29.5
LQ3R5A-F□		3/8"											36
LQ3R5B-F□	1"	1/2"	8	30	26	18	36	41	78	74	41	49	29.5
LQ3R6A-F□		3/4"											36
LQ3R6B-F□		1"									46		44.5

Dimensions

Union elbow: LQ3E



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E),L': Nut material PVDF dimensions



Class 7, 8

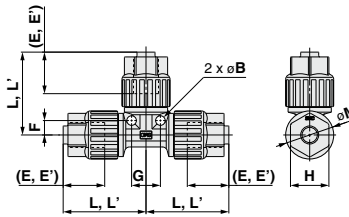
Metric Size

Model	Applicable tubing O.D.	B	C	E	E'	H	L	L'	M
LQ3E11	ø4	3.5	4.8	10	9	11	28.5	27.5	14
LQ3E12	ø3								
LQ3E21	ø6	4	6	17	16	16	34.5	33.5	20
LQ3E31	ø10	5	9	22.5	19.5	21	47.5	44.5	25
LQ3E32	ø8								
LQ3E41	ø12	6	10	24	22	24	52.5	50.5	29
LQ3E51	ø19	7	14	26.5	24	32	64	61.5	37
LQ3E61	ø25	8	18	30	26	41	78	74	49

Inch Size

Model	Applicable tubing O.D.	B	C	E	E'	H	L	L'	M
LQ3E1A	1/8"	3.5	4.8	10	9	11	28.5	27.5	14
LQ3E2A	1/4"	4	6	17	16	16	34.5	33.5	20
LQ3E3A	3/8"	5	9	22.5	19.5	21	47.5	44.5	25
LQ3E4A	1/2"	6	10	24.5	22.5	24	52.5	50.5	29
LQ3E5A	3/4"	7	14	26.5	24	32	64	61.5	37
LQ3E6A	1"	8	18	30	26	41	78	74	49
LQ3E7A	1 1/4"	9	22	35	35	50	92.5	92.5	64
LQ3E8A	1 1/2"	11	28.5	39	—	60	100.5	—	77

Union tee: LQ3T



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E),L': Nut material PVDF dimensions

Metric Size

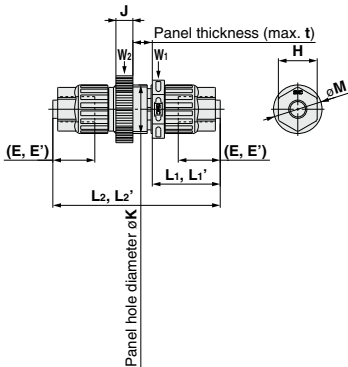
Model	Applicable tubing O.D.	B	E	E'	F	G	H	L	L'	M
LQ3T11	ø4	3.5	10	9	4.8	9.5	11	28.5	27.5	14
LQ3T12	ø3									
LQ3T21	ø6	4	17	16	6	12	16	34.5	33.5	20
LQ3T31	ø10	5	22.5	19.5	9	18	21	47.5	44.5	25
LQ3T32	ø8									
LQ3T41	ø12	6	24	22	10	20	24	52.5	50.5	29
LQ3T51	ø19	7	26.5	24	14	28	32	64	61.5	37
LQ3T61	ø25	8	30	26	18	36	41	78	74	49

Inch Size

Model	Applicable tubing O.D.	B	E	E'	F	G	H	L	L'	M
LQ3T1A	1/8"	3.5	10	9	4.8	9.5	11	28.5	27.5	14
LQ3T2A	1/4"	4	17	16	6	12	16	34.5	33.5	20
LQ3T3A	3/8"	5	22.5	19.5	9	18	21	47.5	44.5	25
LQ3T4A	1/2"	6	24.5	22.5	10	20	24	52.5	50.5	29
LQ3T5A	3/4"	7	26.5	24	14	28	32	64	61.5	37
LQ3T6A	1"	8	30	26	18	36	41	78	74	49
LQ3T7A	1 1/4"	9	35	35	22	44	50	92.5	92.5	64
LQ3T8A	1 1/2"	11	39	—	28.5	57	60	100.5	—	77

Dimensions

Panel mount union: LQ3P



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'),L1',L2': Nut material PVDF dimensions
W: Width across flats dimension

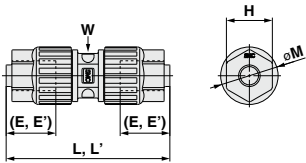
Metric Size

Model	Applicable tubing O.D.	E	E'	H	J	K	L1	L1'	L2	L2'	M	t	W1	W2
LQ3P11	ø4	10	9	11	6	14.5	23.5	22.5	58	56	14	8	16	17
LQ3P12	ø3													
LQ3P21	ø6	17	16	16	7	20.5	28	27	69	67	20	8	21	24
LQ3P31	ø10	22.5	19.5	21	7	24.5	39	36	89	83	25	8	26	28
LQ3P32	ø8													
LQ3P41	ø12	24	22	24	9	30.5	44.5	42.5	100	96	29	8	32	36
LQ3P51	ø19	26.5	24	32	9	36.5	50.5	48	117	112	37	13	41	43
LQ3P61	ø25	30	26	41	10	48.5	60	56	136	127.5	49	13	50	55

Inch Size

Model	Applicable tubing O.D.	E	E'	H	J	K	L1	L1'	L2	L2'	M	t	W1	W2
LQ3P1A	1/8"	10	9	11	6	14.5	23.5	22.5	58	56	14	8	16	17
LQ3P2A	1/4"	17	16	16	7	20.5	28	27	69	67	20	8	21	24
LQ3P3A	3/8"	22.5	19.5	21	7	24.5	39	36	89	83	25	8	26	28
LQ3P4A	1/2"	24.5	22.5	24	9	30.5	44.5	42.5	100	96	29	8	32	36
LQ3P5A	3/4"	26.5	24	32	9	36.5	50.5	48	117	112	37	13	41	43
LQ3P6A	1"	30	26	41	10	48.5	60	56	136	127.5	49	13	50	55

Union: LQ3U



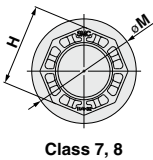
(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'),L': Nut material PVDF dimensions
W: Width across flats dimension

Metric Size

Model	Applicable tubing O.D.	E	E'	H	L	L'	M	W
LQ3U11	ø4	10	9	11	46.5	44.5	14	10
LQ3U12	ø3							
LQ3U21	ø6	17	16	16	57	55	20	14
LQ3U31	ø10	22.5	19.5	21	79	73	25	18
LQ3U32	ø8							
LQ3U41	ø12	24	22	24	88	84	29	22
LQ3U51	ø19	26.5	24	32	103	98	37	30
LQ3U61	ø25	30	26	41	122	113.5	49	36

Inch Size

Model	Applicable tubing O.D.	E	E'	H	L	L'	M	W
LQ3U1A	1/8"	10	9	11	46.5	44.5	14	10
LQ3U2A	1/4"	17	16	16	57	55	20	14
LQ3U3A	3/8"	22.5	19.5	21	79	73	25	18
LQ3U4A	1/2"	24.5	22.5	24	88	84	29	22
LQ3U5A	3/4"	26.5	24	32	103	98	37	30
LQ3U6A	1"	30	26	41	122	113.5	49	36
LQ3U7A	1 1/4"	35	35	50	142	142	64	46
LQ3U8A	1 1/2"	39	—	60	152	—	77	55



Series LQ3

Union Reducing

How to Order

Tubing connection **LQ3 U 2 1 - R1 -**

Fitting type

Symbol	Type
U	Union

Body size (according to the combination table)

Tubing type

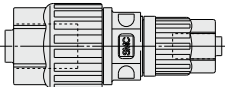
Symbol	Type
A	Inch
1, 2	Metric

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

Type of piping (according to the combination table)

Symbol	Type
R□	Reducing



Size combination (Metric)

Size	Model	A side	B side
		Applicable tubing size (mm)	
1	LQ3U11-R1	4 x 3	3 x 2
	LQ3U21-R1	4 x 3	4 x 3
2	LQ3U21-R2	6 x 4	3 x 2
	LQ3U31-R1	10 x 8	8 x 6
3	LQ3U31-R2	10 x 8	6 x 4
	LQ3U32-R1	8 x 6	6 x 4
4	LQ3U41-R1	12 x 10	10 x 8
	LQ3U41-R2	12 x 10	8 x 6
5	LQ3U51-R1	19 x 16	12 x 10
	LQ3U51-R2	19 x 16	10 x 8
6	LQ3U61-R1	25 x 22	19 x 16
	LQ3U61-R2	25 x 22	12 x 10

Note) For details of the applicable tubing sizes, refer to page 396.

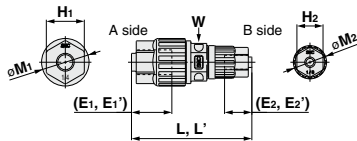
Size combination (Inch)

Size	Model	A side	B side
		Applicable tubing size (inch)	
2	LQ3U2A-R1	1/4" x 5/32"	1/8" x 0.086"
	LQ3U3A-R1	3/8" x 1/4"	1/8" x 0.086"
3	LQ3U3A-R2	3/8" x 1/4"	3/8" x 1/4"
	LQ3U4A-R1	1/2" x 3/8"	1/4" x 5/32"
4	LQ3U4A-R2	1/2" x 3/8"	1/2" x 3/8"
	LQ3U5A-R1	3/4" x 5/8"	3/8" x 1/4"
5	LQ3U5A-R2	3/4" x 5/8"	1/4" x 5/32"
	LQ3U6A-R1	1" x 7/8"	3/4" x 5/8"
6	LQ3U6A-R2	1" x 7/8"	1/2" x 3/8"
	LQ3U7A-R1	1 1/4" x 1.1"	1" x 7/8"

Note) For details of the applicable tubing sizes, refer to page 396.

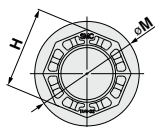
Dimensions

Union reducing: LQ3U-R



(E1, E1', E2, E2'): Reference dimension for the inserted tubing from the end surface of the nut

(E1', E2', L'): Nut material PVDF dimensions



Class 7

Metric Size

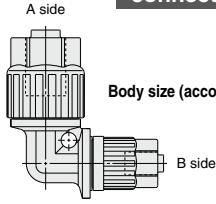
Model	A side	B side	E1	E1'	E2	E2'	H1	H2	L	L'	M1	M2	W
	Applicable tubing O.D.												
LQ3U11-R1	ø4	ø3	10	9	10	9	11	11	46.5	44.5	14	14	10
LQ3U21-R1	ø6	ø4	17	16	10	9	16	11	51	48.5	20	14	14
LQ3U21-R2	ø6	ø3											
LQ3U31-R1	ø10	ø8	22.5	19.5	22.5	19.5	21	21	79	73	25	25	18
LQ3U31-R2	ø10	ø6			17	16		16	66.5	62	20	20	
LQ3U32-R1	ø8	ø6	22.5	19.5	17	16	21	16	66.5	62	25	20	18
LQ3U32-R2	ø8	ø4			10	9		11	62	58	14	14	
LQ3U41-R1	ø12	ø10	24	22	22.5	19.5	24	21	82.5	77	29	25	22
LQ3U41-R2	ø12	ø8											
LQ3U51-R1	ø19	ø12	26.5	24	24	22	32	24	95.5	91	37	29	30
LQ3U51-R2	ø19	ø10			22.5	19.5		21	91	85.5	25	25	
LQ3U61-R1	ø25	ø19	30	26	26.5	24	41	32	112.5	105.5	49	37	36
LQ3U61-R2	ø25	ø12			24	22		24	106.5	100	29	29	

Inch Size

Model	A side	B side	E1	E1'	E2	E2'	H1	H2	L	L'	M1	M2	W
	Applicable tubing O.D.												
LQ3U2A-R1	1/4"	1/8"	17	16	10	9	16	11	51	48.5	20	14	14
LQ3U3A-R1	3/8"	1/4"	22.5	19.5	17	16	21	16	66.5	62	25	14	14
LQ3U3A-R2	3/8"	1/8"			10	9		11	62	58	14	14	
LQ3U4A-R1	1/2"	3/8"	24.5	22.5	22.5	19.5	24	21	82.5	77	29	25	22
LQ3U4A-R2	1/2"	1/4"			17	16		16	72.5	69	20	20	
LQ3U5A-R1	3/4"	1/2"	26.5	24	24.5	22.5	32	24	95.5	91	37	29	30
LQ3U5A-R2	3/4"	3/8"			22.5	19.5		21	91	85.5	25	25	
LQ3U5A-R3	3/4"	1/4"			17	16		16	81	77	20	20	
LQ3U6A-R1	1"	3/4"	30	26	26.5	24	41	32	112.5	105.5	49	37	36
LQ3U6A-R2	1"	1/2"			24.5	22.5		24	106.5	100	29	29	
LQ3U7A-R1	1 1/4"	1"	35	35	30	26	50	41	132.5	128.2	64	49	46

Union Elbow Reducing

How to Order



A side

B side

Tubing connection

LQ3 E 2 1 - R1 -

Fitting type

Symbol	Type
E	Union elbow

Body size (according to the combination table)

Tubing type

Symbol	Type
A	Inch
1, 2	Metric

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

Type of piping (according to the combination table)

Symbol	Type
R□	Reducing

Size combination (Metric)

Size	Model	A side Applicable tubing size (mm)	B side Applicable tubing size (mm)
1	LQ3E11-R1	4 x 3	3 x 2
	LQ3E21-R1		4 x 3
2	LQ3E21-R2	6 x 4	3 x 2
	LQ3E31-R1		8 x 6
3	LQ3E31-R2	10 x 8	6 x 4
	LQ3E32-R1		6 x 4
4	LQ3E32-R2	8 x 6	4 x 3
	LQ3E41-R1		10 x 8
5	LQ3E41-R2	12 x 10	8 x 6
	LQ3E51-R1		12 x 10
6	LQ3E51-R2	19 x 16	10 x 8
	LQ3E61-R1		19 x 16
7	LQ3E61-R2	25 x 22	12 x 10

Size combination (Inch)

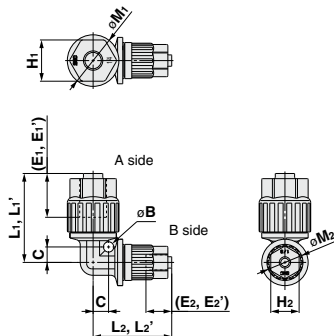
Size	Model	A side Applicable tubing size (inch)	B side Applicable tubing size (inch)
2	LQ3E2A-R1	1/4" x 5/32"	1/8" x 0.086"
	LQ3E3A-R1		1/4" x 5/32"
3	LQ3E3A-R2	3/8" x 1/4"	1/8" x 0.086"
	LQ3E4A-R1		3/8" x 1/4"
4	LQ3E4A-R2	1/2" x 3/8"	1/4" x 5/32"
	LQ3E5A-R1		1/2" x 3/8"
5	LQ3E5A-R2	3/4" x 5/8"	3/8" x 1/4"
	LQ3E5A-R3		1/4" x 5/32"
6	LQ3E6A-R1		3/4" x 5/8"
	LQ3E6A-R2	1" x 7/8"	1/2" x 3/8"

Note) For details of the applicable tubing sizes, refer to page 396.

Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Union elbow reducing: LQ3E-R



(E1, E1', E2, E2'): Reference dimension for the inserted tubing from the end surface of the nut
(E1', E2', L1', L2'): Nut material PVDF dimensions

Metric Size

Model	A side Applicable tubing O.D.	B side Applicable tubing O.D.	B	C	E1	E1'	E2	E2'	H1	H2	L1	L1'	L2	L2'	M1	M2
LQ3E11-R1	ø4	ø3	3.5	4.8	10	9	10	9	11	11	28.5	27.5	28.5	27.5	14	14
LQ3E21-R1	ø6	ø4	4	6	17	16	10	9	16	11	34.5	33.5	30.5	29.5	20	14
LQ3E21-R2	ø6	ø3														
LQ3E31-R1	ø10	ø8	5	9	22.5	19.5	22.5	19.5	21	21	47.5	44.5	47.5	44.5	25	25
LQ3E31-R2	ø10	ø6														
LQ3E32-R1	ø8	ø6	5	9	22.5	19.5	17	16	21	16	47.5	44.5	38	37	25	20
LQ3E32-R2	ø8	ø4														
LQ3E41-R1	ø12	ø10	6	10	24	22	22.5	19.5	24	21	52.5	50.5	48.5	45.5	29	25
LQ3E41-R2	ø12	ø8														
LQ3E51-R1	ø19	ø12	7	14	26.5	24	24	22	32	24	61.5	58.5	56.5	53.5	37	29
LQ3E51-R2	ø19	ø10														
LQ3E61-R1	ø25	ø19	8	18	30	26	26.5	24	41	32	78	74	70	67.5	49	37
LQ3E61-R2	ø25	ø12														

Inch Size

Model	A side Applicable tubing O.D.	B side Applicable tubing O.D.	B	C	E1	E1'	E2	E2'	H1	H2	L1	L1'	L2	L2'	M1	M2
LQ3E2A-R1	1/4"	1/8"	4	6	17	16	10	9	16	11	34.5	33.5	30.5	29.5	20	14
LQ3E3A-R1	3/8"	1/4"	5	9	22.5	19.5	17	16	21	16	47.5	44.5	38	37	25	20
LQ3E3A-R2	3/8"	1/8"														
LQ3E4A-R1	1/2"	3/8"	6	10	24.5	22.5	22.5	19.5	24	21	52.5	50.5	48.5	45.5	29	25
LQ3E4A-R2	1/2"	1/4"														
LQ3E5A-R1	3/4"	1/2"	7	14	26.5	24	24.5	22.5	32	24	61.5	58.5	56.5	53.5	37	29
LQ3E5A-R2	3/4"	3/8"														
LQ3E5A-R3	3/4"	1/4"														
LQ3E6A-R1	1"	3/4"	8	18	30	26	26.5	24	41	32	78	74	70	67.5	49	37
LQ3E6A-R2	1"	1/2"														

Union Tee Reducing

How to Order

Tubing connection

LQ3 T 2 A - R1 -

Fitting type

Symbol	Type
T	Union tee

Body size
(according to the combination table)

Tubing type

Symbol	Type
A	Inch
1, 2	Metric

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

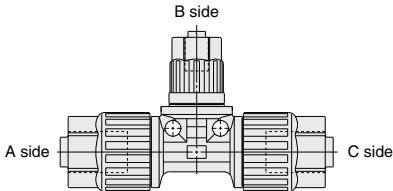
Type of piping (according to the combination table)

Symbol	Type
R□	Reducing

Size combination (Metric)

Size	Model	A side (Left)	B side (Center)	C side (Right)
Applicable tubing size (mm)				
1	LQ3T11-R1	4 x 3	3 x 2	4 x 3
	LQ3T11-R5		4 x 3	3 x 2
	LQ3T21-R1		4 x 3	6 x 4
2	LQ3T21-R2	6 x 4	3 x 2	6 x 4
	LQ3T21-R5		6 x 4	4 x 3
	LQ3T21-R6		6 x 4	3 x 2
3	LQ3T31-R1	10 x 8	8 x 6	10 x 8
	LQ3T31-R2		6 x 4	10 x 8
	LQ3T31-R5		10 x 8	8 x 6
	LQ3T31-R6	8 x 6	10 x 8	6 x 4
	LQ3T32-R1		6 x 4	8 x 6
	LQ3T32-R5		8 x 6	6 x 4
4	LQ3T41-R1	12 x 10	10 x 8	12 x 10
	LQ3T41-R5		12 x 10	10 x 8
5	LQ3T51-R1	19 x 16	12 x 10	19 x 16
	LQ3T51-R5		19 x 16	12 x 10
6	LQ3T61-R1	25 x 22	19 x 16	25 x 22
	LQ3T61-R5		25 x 22	19 x 16

Note) For details of the applicable tubing sizes, refer to page 396.



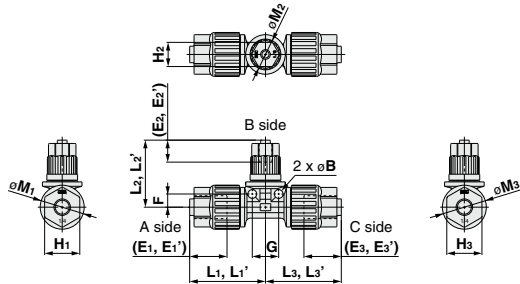
Size combination (Inch)

Size	Model	A side (Left)	B side (Center)	C side (Right)
Applicable tubing size (inch)				
2	LQ3T2A-R1	1/4" x 5/32"	1/8" x 0.086"	1/4" x 5/32"
	LQ3T2A-R5		1/4" x 5/32"	1/8" x 0.086"
	LQ3T3A-R1		1/4" x 5/32"	3/8" x 1/4"
3	LQ3T3A-R2	3/8" x 1/4"	1/8" x 0.086"	3/8" x 1/4"
	LQ3T3A-R5		3/8" x 1/4"	1/4" x 5/32"
	LQ3T3A-R7		1/4" x 5/32"	1/4" x 5/32"
4	LQ3T3A-R9	1/4" x 5/32"	3/8" x 1/4"	1/4" x 5/32"
	LQ3T4A-R1		3/8" x 1/4"	1/2" x 3/8"
	LQ3T4A-R2		1/4" x 5/32"	1/2" x 3/8"
	LQ3T4A-R5	1/2" x 3/8"	1/2" x 3/8"	3/8" x 1/4"
	LQ3T4A-R6		1/2" x 3/8"	1/4" x 5/32"
	LQ3T4A-R7		3/8" x 1/4"	3/8" x 1/4"
	LQ3T4A-R8	3/8" x 1/4"	1/4" x 5/32"	1/4" x 5/32"
	LQ3T4A-R9		1/2" x 3/8"	3/8" x 1/4"
	LQ3T5A-R1		1/2" x 3/8"	3/4" x 5/8"
5	LQ3T5A-R2	3/4" x 5/8"	3/8" x 1/4"	3/4" x 5/8"
	LQ3T5A-R3		1/4" x 5/32"	3/4" x 5/8"
	LQ3T5A-R5		3/4" x 5/8"	1/2" x 3/8"
	LQ3T5A-R6	1/2" x 3/8"	3/4" x 5/8"	3/8" x 1/4"
	LQ3T5A-R7		1/2" x 3/8"	1/2" x 3/8"
	LQ3T5A-R9		3/4" x 5/8"	1/2" x 3/8"
	LQ3T5A-R10	3/4" x 5/8"	3/4" x 5/8"	3/8" x 1/4"
	LQ3T5A-R11		1/2" x 3/8"	1/4" x 5/32"
	LQ3T5A-R12		3/4" x 5/8"	1/4" x 5/32"
6	LQ3T6A-R1	1" x 7/8"	3/4" x 5/8"	1" x 7/8"
	LQ3T6A-R2		1/2" x 3/8"	1" x 7/8"
	LQ3T6A-R3		3/8" x 1/4"	1" x 7/8"
	LQ3T6A-R4	1" x 7/8"	1/4" x 5/32"	1" x 7/8"
	LQ3T6A-R5		1" x 7/8"	3/4" x 5/8"
	LQ3T6A-R6		1" x 7/8"	1/2" x 3/8"
	LQ3T6A-R7	3/4" x 5/8"	3/4" x 5/8"	3/4" x 5/8"
	LQ3T6A-R9		1" x 7/8"	3/4" x 5/8"
	LQ3T6A-R10		1" x 7/8"	1/2" x 3/8"
	LQ3T6A-R12	1" x 7/8"	1" x 7/8"	3/8" x 1/4"
	LQ3T6A-R13		1" x 7/8"	1/4" x 5/32"
	LQ3T6A-R14		1" x 7/8"	1/4" x 5/32"

Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Union tee reducing: LQ3T-R



(E1,E1',E2,E2',E3,E3'): Reference dimension for the inserted tubing from the end surface of the nut
(E1',E2',E3'),L1',L2',L3': Nut material PVDF dimensions

Metric Size

Model	A side (Left)	B side (Center)	C side (Right)	B	E ₁	E ₁ '	E ₂	E ₂ '	E ₃	E ₃ '	F	G	H ₁	H ₂	H ₃	L ₁	L ₁ '	L ₂	L ₂ '	L ₃	L ₃ '	M ₁	M ₂	M ₃
LQ3T11-R1	ø4	ø3	ø4	3.5	10	9	10	9	10	9	4.8	9.5	11	11	11	28.5	27.5	28.5	27.5	28.5	27.5	14	14	14
LQ3T11-R5		ø4	ø3																					
LQ3T21-R1		ø4	ø6				10	9	17	16				11	16			30.5	29.5	34.5	33.5		14	20
LQ3T21-R2	ø6	ø3	ø6	4	17	16					6	12	16			34.5	33.5					20		
LQ3T21-R5		ø6	ø4				17	16	10	9				16	11			34.5	33.5	30.5	29.5		20	14
LQ3T21-R6		ø6	ø3																					
LQ3T31-R1		ø8	ø10				22.5	19.5						21	21			47.5	44.5			25	25	
LQ3T31-R2	ø10	ø6	ø10	5	22.5	19.5	17	16	22.5	19.5	9	18	21	16	21	47.5	44.5	38	37	47.5	44.5	25	20	25
LQ3T31-R5		ø10	ø8				22.5	19.5						21	21								25	20
LQ3T31-R6		ø10	ø6						17	16				21	16					38	37			
LQ3T32-R1		ø6	ø6	5	22.5	19.5	17	16	22.5	19.5	9	18	21	16	21	47.5	44.5	38	37	47.5	44.5	25	20	25
LQ3T32-R5	ø8	ø6	ø6				22.5	19.5	17	16				21	16			47.5	44.5	38	37	25	20	25
LQ3T41-R1	ø12	ø10	ø12	6	24	22	24	22	22.5	19.5	10	20	24	21	24	52.5	50.5	48.5	45.5	52.5	50.5	29	25	29
LQ3T41-R5		ø12	ø10				24	22	22.5	19.5				24	21			52.5	50.5	48.5	45.5		29	25
LQ3T51-R1	ø19	ø12	ø19	7	26.5	24	24	22	26.5	24	14	28	32	24	32	64	61.5	58.5	56.5	64	61.5	37	37	37
LQ3T51-R5		ø19	ø12				26.5	24	24	22				32	24			64	61.5	58.5	56.5		37	29
LQ3T61-R1	ø25	ø19	ø25	8	30	26	26.5	24	30	26	18	36	41	32	41	78	74	70	67.5	78	74	49	49	49
LQ3T61-R5		ø25	ø19				30	26	26.5	24				41	32			78	74	70	67.5		49	37

Inch Size

Model	A side (Left)	B side (Center)	C side (Right)	B	E ₁	E ₁ '	E ₂	E ₂ '	E ₃	E ₃ '	F	G	H ₁	H ₂	H ₃	L ₁	L ₁ '	L ₂	L ₂ '	L ₃	L ₃ '	M ₁	M ₂	M ₃
LQ3T2A-R1	1/4"	1/8"	1/4"	4	17	16	10	9	17	16	6	12	16	11	16	34.5	33.5	30.5	29.5	34.5	33.5	20	14	20
LQ3T2A-R5		1/4"	1/8"				17	16	10	9				16	11			34.5	33.5	30.5	29.5		20	14
LQ3T3A-R1		1/4"	3/8"				17	16	10	9				16	21			38	37			25	20	25
LQ3T3A-R2	3/8"	1/8"	3/8"	5	22.5	19.5	10	9	22.5	19.5	9	18	21	11	21	47.5	44.5	33.5	32.5	47.5	44.5	25	14	25
LQ3T3A-R5		3/8"	3/8"				22.5	19.5						21	21			47.5	44.5				25	20
LQ3T3A-R7		1/4"	1/4"				17	16	17	16				16	16			38	37	38	37		20	20
LQ3T3A-R9	1/4"	3/8"	1/4"	17	16		22.5	19.5					16	21	21	38	37	47.5	44.5			20	25	
LQ3T4A-R1		3/8"	1/2"				22.5	19.5						21	24			48.5	45.5	52.5	50.5	25	20	29
LQ3T4A-R2		1/4"	1/2"				17	16						16	24			39	38					
LQ3T4A-R5	1/2"	1/2"	3/8"	6	24.5	22.5	24.5	22.5	22.5	19.5	10	20	24	24	21	52.5	50.5	52.5	50.5	48.5	45.5	29	29	25
LQ3T4A-R6		1/2"	1/4"				22.5	19.5	17	16				21	16			48.5	45.5	48.5	45.5	25	25	25
LQ3T4A-R7		3/8"	3/8"				22.5	19.5	22.5	19.5				21	21			39	38	39	38	20	20	20
LQ3T4A-R8		1/4"	1/4"				17	16	17	16				16	16									
LQ3T4A-R9	3/8"	1/2"	3/8"	22.5	19.5	24.5	22.5	22.5	19.5				21	24	21	48.5	45.5	52.5	50.5	48.5	45.5	25	29	25
LQ3T5A-R1		1/2"	3/4"				24.5	22.5						24	32			58.5	56.5	64	61.5		29	
LQ3T5A-R2		3/8"	3/4"				22.5	19.5	26.5	24				32	32			54.5	51.5	64	61.5	37	25	37
LQ3T5A-R3		1/4"	3/4"				17	16						16	24			44.5	43.5				20	
LQ3T5A-R5	3/4"	3/4"	1/2"	26.5	24		26.5	24	24.5	22.5				32	24	64	61.5	64	61.5	58.5	56.5	37	29	25
LQ3T5A-R6		3/4"	3/8"				22.5	19.5						32	21			54.5	51.5	54.5	51.5	25	37	25
LQ3T5A-R7		1/2"	1/2"	7			24.5	22.5			14	28		24	24			58.5	56.5	58.5	56.5	29	29	29
LQ3T5A-R9	1/2"	3/4"	1/2"	24.5	22.5	26.5	24		24.5	22.5			24	32	21	58.5	56.5	64	61.5	54.5	51.5	29	29	29
LQ3T5A-R10	3/8"	3/4"	3/8"	22.5	19.5	26.5	24		22.5	19.5			21	32	21	54.5	51.5	64	61.5	54.5	51.5	25	37	25
LQ3T5A-R11		1/2"	1/4"				24.5	22.5						32	21			58.5	56.5	64	61.5		29	
LQ3T5A-R12	3/4"	3/4"	1/4"	26.5	24	26.5	24		17	16			32	32	16	61.5		64	61.5	44.5	43.5	37	37	20
LQ3T6A-R1		3/4"	1"				26.5	24						32				70	67.5				37	
LQ3T6A-R2		1/2"	1"				24.5	22.5						24	41			64.5	62.5	78	74	49	29	49
LQ3T6A-R3		3/8"	1"				22.5	19.5	30	26				21	41			60	57				25	
LQ3T6A-R4	1"	1/4"	1"	30	26		17	16					41	16		78	74	50	49			49	20	
LQ3T6A-R5		1"	3/4"				30	26	26.5	24				32	41			78	74	70	67.5		37	37
LQ3T6A-R6		1"	1/2"				30	26	24.5	22.5	18	36		41	24			78	74	64.5	62.5	49	29	29
LQ3T6A-R7		3/4"	3/4"				26.5	24						32				70	67.5				37	
LQ3T6A-R9	3/4"	1"	3/4"	26.5	24				26.5	24			32	32	70	67.5		70	67.5			37	37	
LQ3T6A-R10	1/2"	1"	1/2"	24.5	22.5				24.5	22.5			24	24	64.5	62.5		64.5	62.5			29	29	29
LQ3T6A-R12	1"	1"	3/8"	30	26		30	26	22.5	19.5			41	41	21	78	74	78	74	60	57	49	49	25
LQ3T6A-R13		1"	1/4"												16									
LQ3T6A-R14	3/4"	1"	1/4"	26.5	24				17	16			32			70	67.5			50	49	37		20

Space Saving Union Elbow

How to Order

Tubing connection

LQ3 E 21 - S -

Fitting type

Symbol	Type
E	Union elbow

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

Thread type

Symbol	Type
S	Space saving

Size combination

Size	No.	Applicable tubing size (mm)
2	1	6 x 4
3	1	10 x 8
3	2	8 x 6
4	1	12 x 10
5	1	19 x 16
6	1	25 x 22

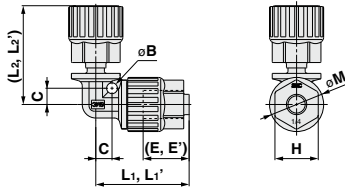
Note) For details of the applicable tubing sizes, refer to page 396.

Size	Symbol	Applicable tubing size (inch)
2	A	1/4" x 5/32"
3	A	3/8" x 1/4"
4	A	1/2" x 3/8"
5	A	3/4" x 5/8"
6	A	1" x 7/8"
7	A	1 1/4" x 1.1"

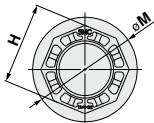
Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Space saving union elbow: LQ3E-S



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'), L1', L2': Nut material PVDF dimensions



Class 7

Metric Size

Model	Applicable tubing O.D.	B	C	E	E'	H	L ₁	L ₁ '	L ₂	L ₂ '	M
LQ3E21-S	ø6	4	6	17	16	16	34.5	33.5	39.5	38.5	20
LQ3E31-S	ø10	5	9	22.5	19.5	21	47.5	44.5	52.5	49.5	25
LQ3E32-S	ø8								49.5	46.5	
LQ3E41-S	ø12	6	10	24	22	24	52.5	50.5	54.5	52.5	29
LQ3E51-S	ø19	7	14	26.5	24	32	64	61.5	66	63.5	37
LQ3E61-S	ø25	8	18	30	26	41	78	74	80	76	49

Inch Size

Model	Applicable tubing O.D.	B	C	E	E'	H	L ₁	L ₁ '	L ₂	L ₂ '	M
LQ3E2A-S	1/4"	4	6	17	16	16	34.5	33.5	39.5	38.5	20
LQ3E3A-S	3/8"	5	9	22.5	19.5	21	47.5	44.5	49.5	46.5	25
LQ3E4A-S	1/2"	6	10	24.5	22.5	24	52.5	50.5	54.5	52.5	29
LQ3E5A-S	3/4"	7	14	26.5	24	32	64	61.5	66	63.5	37
LQ3E6A-S	1"	8	18	30	26	41	78	74	80	76	49
LQ3E7A-S	1 1/4"	9	22	35	35	50	92.5	92.5	97.5	97.5	64

Space Saving Branch Tee

How to Order

Tubing connection

LQ3 T 21 - S B -

Fitting type

Symbol	Type
T	Union tee

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

Thread type

Symbol	Type
B	Branch tee

Tubing type

Symbol	Type
S	Space saving

Size combination

Size	No.	Applicable tubing size (mm)
2	1	6 x 4
3	1	10 x 8
3	2	8 x 6
4	1	12 x 10
5	1	19 x 16
6	1	25 x 22

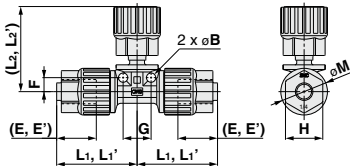
Size	Symbol	Applicable tubing size (inch)
2	A	1/4" x 5/32"
3	A	3/8" x 1/4"
4	A	1/2" x 3/8"
5	A	3/4" x 5/8"
6	A	1" x 7/8"

Note) For details of the applicable tubing sizes, refer to page 396.

Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Space saving branch tee: LQ3T-SB



(E, E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'), L1', L2': Nut material PVDF dimensions

Metric Size

Model	Applicable tubing O.D.	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	L ₂ '	M
LQ3T21-SB	ø6	4	17	16	6	12	16	34.5	33.5	39.5	38.5	20
LQ3T31-SB	ø10	5	22.5	19.5	9	18	21	47.5	44.5	52.5	49.5	25
LQ3T32-SB	ø8									49.5	46.5	
LQ3T41-SB	ø12	6	24	22	10	20	24	52.5	50.5	54.5	52.5	29
LQ3T51-SB	ø19	7	26.5	24	14	28	32	64	61.5	66	63.5	37
LQ3T61-SB	ø25	8	30	26	18	36	41	78	74	80	76	49

Inch Size

Model	Applicable tubing O.D.	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	L ₂ '	M
LQ3T2A-SB	1/4"	4	17	16	6	12	16	34.5	33.5	39.5	38.5	20
LQ3T3A-SB	3/8"	5	22.5	19.5	9	18	21	47.5	44.5	49.5	46.5	25
LQ3T4A-SB	1/2"	6	24.5	22.5	10	20	24	52.5	50.5	54.5	52.5	29
LQ3T5A-SB	3/4"	7	26.5	24	14	28	32	64	61.5	66	63.5	37
LQ3T6A-SB	1"	8	30	26	18	36	41	78	74	80	76	49

Space Saving Run Tee

How to Order

Tubing connection

LQ3 T 21 - S R -

Fitting type

Symbol	Type
T	Union tee

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

Thread type

Symbol	Type
R	Run tee

Tubing type

Symbol	Type
S	Space saving

Size combination

Size	No.	Applicable tubing size (mm)
2	1	6 x 4
3	1	10 x 8
3	2	8 x 6
4	1	12 x 10
5	1	19 x 16
6	1	25 x 22

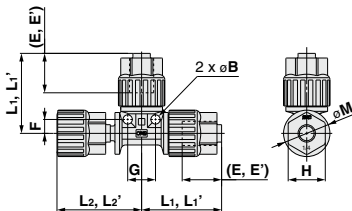
Size	Symbol	Applicable tubing size (inch)
2	A	1/4" x 5/32"
3	A	3/8" x 1/4"
4	A	1/2" x 3/8"
5	A	3/4" x 5/8"
6	A	1" x 7/8"

Note) For details of the applicable tubing sizes, refer to page 396.

Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Space saving run tee: LQ3T-SR



(E, E'): Reference dimension for the inserted tubing from the end surface of the nut

(E'), L1', L2': Nut material PVDF dimensions

Metric Size

Model	Applicable tubing O.D.	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	L ₂ '	M
LQ3T21-SR	ø6	4	17	16	6	12	16	34.5	33.5	39.5	38.5	20
LQ3T31-SR	ø10	5	22.5	19.5	9	18	21	47.5	44.5	52.5	49.5	25
LQ3T32-SR	ø8	5	22.5	19.5	9	18	21	47.5	44.5	49.5	46.5	25
LQ3T41-SR	ø12	6	24	22	10	20	24	52.5	50.5	54.5	52.5	29
LQ3T51-SR	ø19	7	26.5	24	14	28	32	64	61.5	66	63.5	37
LQ3T61-SR	ø25	8	30	26	18	36	41	78	74	80	76	49

Inch Size

Model	Applicable tubing O.D.	B	E	E'	F	G	H	L ₁	L ₁ '	L ₂	L ₂ '	M
LQ3T2A-SR	1/4"	4	17	16	6	12	16	34.5	33.5	39.5	38.5	20
LQ3T3A-SR	3/8"	5	22.5	19.5	9	18	21	47.5	44.5	49.5	46.5	25
LQ3T4A-SR	1/2"	6	24.5	22.5	10	20	24	52.5	50.5	54.5	52.5	29
LQ3T5A-SR	3/4"	7	26.5	24	14	28	32	64	61.5	66	63.5	37
LQ3T6A-SR	1"	8	30	26	18	36	41	78	74	80	76	49

Series LQ3 Tubing Extension Straight Connector

How to Order

Tubing connection

LQ3 H 2A - T -

Fitting type

Symbol	Type
H	Connector

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

Thread type

Symbol	Type
T	Tubing extension

Size combination

Size	No.	Applicable tubing size (mm)
2	1	6 x 4
3	1	10 x 8
3	2	8 x 6
4	1	12 x 10
5	1	19 x 16
6	1	25 x 22

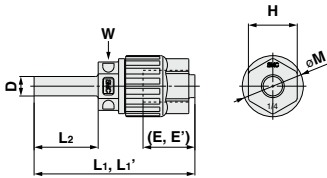
Note) For details of the applicable tubing sizes, refer to page 396.

Size	Symbol	Applicable tubing size (inch)
2	A	1/4" x 5/32"
3	A	3/8" x 1/4"
4	A	1/2" x 3/8"
5	A	3/4" x 5/8"
6	A	1" x 7/8"
7	A	1 1/4" x 1.1"

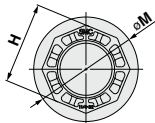
Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Tubing extension straight connector: LQ3H-T



(E, E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'), L': Nut material PVDF dimensions
W: Width across flats dimension



Class 7

Metric Size

Model	Applicable tubing O.D.	D	E	E'	H	L ₁	L ₁ '	L ₂	M	W
LQ3H21-T	ø6	ø6	17	16	16	53	51.5	18	20	14
LQ3H31-T	ø10	ø10	22.5	19.5	21	67.5	64.5	22.5	25	18
LQ3H32-T	ø8	ø8								
LQ3H41-T	ø12	ø12	24	22	24	74	72	24	29	22
LQ3H51-T	ø19	ø19	26.5	24	32	83.5	81	26.5	37	30
LQ3H61-T	ø25	ø25	30	26	41	97.5	93.5	31	49	36

Inch Size

Model	Applicable tubing O.D.	D	E	E'	H	L ₁	L ₁ '	L ₂	M	W
LQ3H2A-T	1/4"	1/4"	17	16	16	53	51.5	18	20	14
LQ3H3A-T	3/8"	3/8"	22.5	19.5	21	65.5	62.5	23.5	25	18
LQ3H4A-T	1/2"	1/2"	24.5	22.5	24	72	70	25	29	22
LQ3H5A-T	3/4"	3/4"	26.5	24	32	83.5	81	26.5	37	30
LQ3H6A-T	1"	1"	30	26	41	97.5	93.5	31	49	36
LQ3H7A-T	1 1/4"	1 1/4"	35	35	50	120.5	120.5	41.5	64	46

Series LQ3

Straight Adapter

How to Order

Tubing
connection

LQ3 A 21 -

Fitting type

Symbol	Type
A	Straight adapter

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

Size combination

Size	No.	Applicable tubing size (mm)	Applicable piping size
2	1	6 x 4	ø13.7 x ø9
2	2		ø21.3 x ø15.4
2	3		ø26.7 x ø20.5
2	4		ø33.4 x ø26.3
2	5		ø60.3 x ø52.5
3	2	8 x 6	ø13.7 x ø9
3	4		ø21.3 x ø15.4
3	6		ø26.7 x ø20.5
3	7	10 x 8	ø33.4 x ø26.3
3	8	8 x 6	
4	1	12 x 10	ø21.3 x ø15.4
4	2		ø26.7 x ø20.5
4	3		ø33.4 x ø26.3
4	4		ø60.3 x ø52.5
5	1	19 x 16	ø21.3 x ø15.4
5	2		ø26.7 x ø20.5
5	3		ø33.4 x ø26.3
6	1	25 x 22	ø26.7 x ø20.5
6	2		ø33.4 x ø26.3
6	3		ø60.3 x ø52.5

Note) For details of the applicable tubing sizes, refer to page 396.

Size	Symbol	Applicable tubing size (inch)	Applicable piping size
2	A	1/4" x 5/32"	ø13.7 x ø9
2	B		ø21.3 x ø15.4
2	C		ø26.7 x ø20.5
2	D		ø33.4 x ø26.3
2	E		ø60.3 x ø52.5
3	A	3/8" x 1/4"	ø13.7 x ø9
3	B		ø21.3 x ø15.4
3	C		ø26.7 x ø20.5
4	A	1/2" x 3/8"	ø21.3 x ø15.4
4	B		ø26.7 x ø20.5
4	C		ø33.4 x ø26.3
5	A	3/4" x 5/8"	ø60.3 x ø52.5
5	B		ø21.3 x ø15.4
5	C		ø26.7 x ø20.5
6	A	1" x 3/4"	ø33.4 x ø26.3
6	B		ø26.7 x ø20.5
6	C		ø33.4 x ø26.3
7	A	1 1/4" x 1.1"	ø60.3 x ø52.5
			ø33.4 x ø26.3

Note) For details of the applicable tubing sizes, refer to page 396.

KQ2

KQB2

KS
KX

KM

KF

M

H/DL
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

KQG2

KG

KFG2

MS

KKA

KP

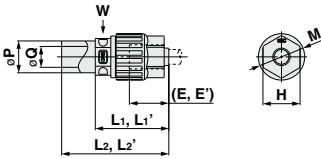
LQ

MQR

T

Dimensions

Straight Adapter: LQ3A



(E,E'): Reference dimension for the inserted tubing from the end surface of the nut
(E'),L₁',L₂': Nut material PVDF dimensions
W: Width across flats dimension

Metric Size

Model	E	E'	H	L ₁	L ₁ '	L ₂	L ₂ '	M	P	Q	W
LQ3A21	17	16	16	32	30.5	46	44.5	20	13.7	9	14
LQ3A22						58	56.5		21.3	15.4	
LQ3A23						70.5	69		26.7	20.5	
LQ3A24				32.5	31	74.5	73	25	33.4	26.3	18
LQ3A25						54	53		60.3	52.5	
LQ3A32	22.5	19.5	21	40	39	66	65	25	13.7	9	14
LQ3A34						66	65		21.3	15.4	
LQ3A36						44	42		26.7	20.5	
LQ3A37				41	40	82	80	29	33.4	26.3	22
LQ3A38						54	53		60.3	52.5	
LQ3A41	24	22	24	47	45	80	78	29	21.3	15.4	14
LQ3A42						88	86		26.7	20.5	
LQ3A43						54	53		33.4	26.3	
LQ3A44				49	47	88	86	25	60.3	52.5	18
LQ3A51						54	53		21.3	15.4	
LQ3A52	26.5	24	32	57	54.5	95	92.5	37	26.7	20.5	30
LQ3A53									33.4	26.3	
LQ3A61									21.3	15.4	
LQ3A62	30	26	41	66.5	62.5	104.5	100.5	49	26.7	20.5	36
LQ3A63									33.4	26.3	

Inch Size

Model	E	E'	H	L ₁	L ₁ '	L ₂	L ₂ '	M	P	Q	W
LQ3A2A	17	16	16	32	30.5	46	44.5	20	13.7	9	14
LQ3A2B						58	56.5		21.3	15.4	
LQ3A2C						70.5	69		26.7	20.5	
LQ3A2D				32.5	31	74.5	73	25	33.4	26.3	18
LQ3A2E						54	53		60.3	52.5	
LQ3A3A	22.5	19.5	21	40	39	66	65	25	13.7	9	14
LQ3A3B						66	65		21.3	15.4	
LQ3A3C						44	42		26.7	20.5	
LQ3A4A				49	47	88	86	29	33.4	26.3	22
LQ3A4B						54	53		60.3	52.5	
LQ3A5A	26.5	24	32	57	54.5	95	92.5	37	21.3	15.4	30
LQ3A5B									26.7	20.5	
LQ3A5C									33.4	26.3	
LQ3A6A	30	26	41	66.5	62.5	104.5	100.5	49	26.7	20.5	36
LQ3A6B									33.4	26.3	
LQ3A7A				68.5	64.5	107.5	103.5	64	60.3	52.5	46

Series LQ3 Union Flange

How to Order

Tubing connection

LQ3 F 22 -

Fitting type

Symbol	Type
F	Union flange

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

Size combination

Size	No.	Applicable tubing size (mm)	Applicable flange size
2	2	6 x 4	10K-20A
4	2	12 x 10	10K-20A
4	3		10K-25A
5	1		10K-15A
5	2	19 x 16	10K-20A
5	3		10K-25A
6	2		10K-20A
6	3	25 x 22	10K-25A
6	4		10K-40A

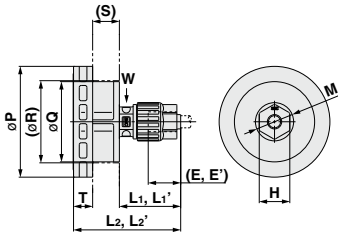
Note) For details of the applicable tubing sizes, refer to page 396.

Size	Symbol	Applicable tubing size (inch)	Applicable flange size
2	B	1/4" x 5/32"	10K-20A
4	B		10K-20A
4	C	1/2" x 3/8"	10K-25A
5	A		10K-15A
5	B	3/4" x 5/8"	10K-20A
5	C		10K-25A
6	B		10K-20A
6	C	1" x 7/8"	10K-25A
6	D		10K-40A

Note) For details of the applicable tubing sizes, refer to page 396.

Dimensions

Union Flange: LQ3F



- (E, E'): Reference dimension for the inserted tubing from the end surface of the nut
 (E'), L1', L2': Nut material PVDF dimensions
 W: Width across flats dimension
 (R): I.D. of JIS flange necessary to mount this product. (Additional modification is needed.)
 JIS flange is not included in the product.

Metric Size

Model	E	E'	H	L1	L1'	L2	L2'	M	P	Q	R	S	T	W
LQ3F22	17	16	16	32.1	30.9	56.1	54.9	20	58	42	43	14	10	14
LQ3F42	24	22	24	49	46.8	73	70.8	29	58	42	43	14	10	22
LQ3F43									69					
LQ3F51					80	77.3			53			12		
LQ3F52	26.5	24	32	58	55.3	82	79.3	37	58	42	43	14	10	30
LQ3F53									69					
LQ3F62									58	47	48			
LQ3F63	30	26	41	68.5	64.2	92.5	88.2	49	69	55	56	16	10	36
LQ3F64						94.5	90.2		84					

Inch Size

Model	E	E'	H	L1	L1'	L2	L2'	M	P	Q	R	S	T	W
LQ3F2B	17	16	16	32.1	30.9	56.1	54.9	20	58	42	43	14	10	14
LQ3F4B	24.5	22.5	24	49	46.8	73	70.8	29	58	42	43	14	10	22
LQ3F4C									69					
LQ3F5A					80	77.3			53			12		
LQ3F5B	26.5	24	32	58	55.3	82	79.3	37	58	42	43	14	10	30
LQ3F5C									69					
LQ3F6B									58	47	48			
LQ3F6C	30	26	41	68.5	64.2	92.5	88.2	49	69	55	56	16	10	36
LQ3F6D						94.5	90.2		84					

How to Order Space Saving Type Fittings

This product, for use with products with one nut attached (insert bushing) has one nut removed.

LQ3

E

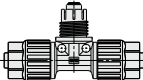
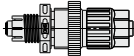
6A

-

SN

-

Fitting type

E	T
Union Elbow	Union Tee
	
P	U
Panel Mount Union	Union
	

Packaging

Symbol	Packaging
NII	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5

Without a nut (including insert bushing) in one part

Applicable tubing size

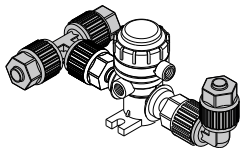
Symbol	Size	No.	Applicable tubing size (mm)
2	1	1	6 x 4
3	1	1	10 x 8
3	2	2	8 x 6
4	1	1	12 x 10
5	1	1	19 x 16
6	1	1	25 x 22

Symbol	Size	No.	Applicable tubing size (inch)
2	A	1	1/4" x 5/32"
3	A	1	3/8" x 1/4"
4	A	1	1/2" x 3/8"
5	A	1	3/4" x 5/8"
6	A	1	1" x 7/8"

Note 1) Please choose the same size fitting as the fitting of the connecting product.

Note 2) For details of applicable tubing sizes, refer to page 396.

Connection example



Options

Blanking plug

LQ3-1 P 03-1-

Symbol	Size
1	1
2	2
3	3
4	4
5	5
6	6
7	7

Symbol	Type
P	Plug

Symbol	Type
1	Male

Symbol	Packaging
Nil	Clean packaging equivalent to Class M3.5
1	Standard packaging equivalent to Class M5.5



Used to block fittings which are not being used.

• Applicable tubing size

Metric Size	Applicable tubing size	Size
03	ø3 x ø2	1
04	ø4 x ø3	
06	ø6 x ø4	2
08	ø8 x ø6	3
10	ø10 x ø8	
12	ø12 x ø10	4
19	ø19 x ø16	5
25	ø25 x ø22	6

Inch Size	Applicable tubing size	Size
03	1/8" x 0.086"	1
07	1/4" x 5/32"	2
11	3/8" x 1/4"	3
13	1/2" x 3/8"	4
19	3/4" x 5/8"	5
25	1" x 7/8"	6
32	1 1/4" x 1.1"	7

Note) For details of the applicable tubing sizes, refer to page 396.

Tubing plug

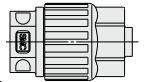
LQ3-1 P 03-2-

Symbol	Size
1	1
2	2
3	3
4	4
5	5
6	6

Symbol	Type
P	Plug

Symbol	Type
2	Tubing

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5



Used to block tubing which are not being used.

• Applicable tubing size

Metric Size	Applicable tubing size	Size
03	ø3 x ø2	1
04	ø4 x ø3	
06	ø6 x ø4	2
08	ø8 x ø6	3
10	ø10 x ø8	
12	ø12 x ø10	4
19	ø19 x ø16	5
25	ø25 x ø22	6

Inch Size	Applicable tubing size	Size
03	1/8" x 0.086"	1
07	1/4" x 5/32"	2
11	3/8" x 1/4"	3
13	1/2" x 3/8"	4
19	3/4" x 5/8"	5
25	1" x 7/8"	6

Note) For details of the applicable tubing sizes, refer to page 396.

Nut

LQ3-1 N 03-

Symbol	Size
1	1
2	2
3	3
4	4
5	5
6	6
7	7

Symbol	Type
N	Nut

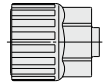
Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5
2	PVDF	Clean packaging equivalent to Class M3.5
3	PVDF	Standard packaging equivalent to Class M5.5

• Applicable tubing size

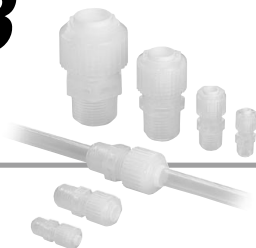
Metric Size	Applicable tubing size	Size
03	ø3 x ø2	1
04	ø4 x ø3	
06	ø6 x ø4	2
08	ø8 x ø6	3
10	ø10 x ø8	
12	ø12 x ø10	4
19	ø19 x ø16	5
25	ø25 x ø22	6

Inch Size	Applicable tubing size	Size
03	1/8" x 0.086"	1
07	1/4" x 5/32"	2
11	3/8" x 1/4"	3
13	1/2" x 3/8"	4
19	3/4" x 5/8"	5
25	1" x 7/8"	6
32	1 1/4" x 1.1"	7

Note) For details of the applicable tubing sizes, refer to page 396.



Fluoropolymer Bore Through Connector Series **LQHB**



How to Order

Tubing connection

LQHB **07** - -

Fitting type

Symbol	Type
HB	Bore through connector

Nut material, packaging

Symbol	Nut material	Packaging
Nil	PFA	Clean packaging equivalent to Class M3.5
1	PFA	Standard packaging equivalent to Class M5.5

Thread type

Symbol	Type
Nil	R
N	NPT

Size combination

Symbol	Size	Applicable tubing size (mm)	Tubing O.D.
03	1	3 x 2	1/8"
04		4 x 3	
06		6 x 4	
08	3	8 x 6	3/8"
10		10 x 8	
12		12 x 10	
19	5	19 x 16	3/4"
25	6	25 x 22	1"

Symbol	Size	Applicable tubing size (inch)	Tubing O.D.
03	1	1/8" x 0.086"	1/8"
07	2	1/4" x 5/32"	1/4"
11	3	3/8" x 1/4"	3/8"
13	4	1/2" x 3/8"	1/2"
19	5	3/4" x 5/8"	3/4"
25	6	1" x 7/8"	1"

(Note) For details of the applicable tubing sizes, refer to page 396.

Specifications

Maximum operating pressure (at 20°C)	1.0 MPa (Refer to Note 1)
Operating temperature	0 to 200°C (Refer to Note 1)
Applicable tube diameter	Please refer to the Combination Chart.

Precautions

1. The operating pressure or operating temperature range for each tubing size differs depending on the usage conditions. Keep the supplied fluid pressure and temperature within the range of each specification.
2. The piping should be arranged in such a way that no extraction force other than the fluid pressure should be added to the tubing.
3. Avoid using in instances where the nut is soaked in the fluid.
4. Screw in the R or NPT screw after inserting the tubing. (If the screw is screwed in first, the tubing may be hard to insert.)

Piping

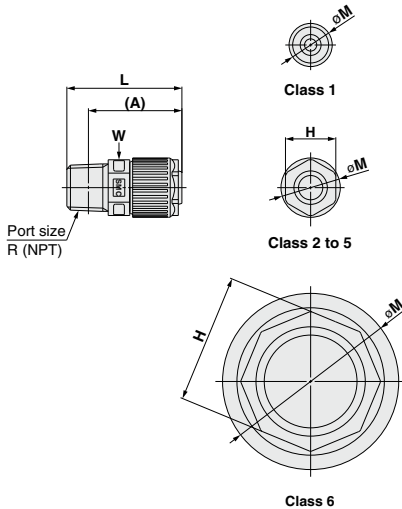
⚠ Caution

1. As with the nut tightening, refer to the tightening torques below as a guide.

Tightening torque for piping

Body size	Torque (N·m)
1	0.7 to 0.9
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

Dimensions



Metric Size

Model	Size	A	H	L	M	W
LQHB03-□	1	23	—	27	11.5	10
LQHB04-□						
LQHB06-□	2	28	14	34	16.5	14
LQHB08-□						
LQHB10-□	3	35.6	17	42.1	23	19
LQHB12-□						
LQHB19-□	4	41	21	49	28	23
LQHB25-□	5	52.1	26	61.1	39	32
LQHB25-□	6	67	36	77	49	46

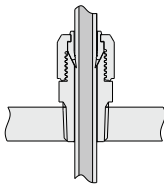
Inch Size

Model	Size	A	H	L	M	W
LQHB03-□	1	23	—	27	11.5	10
LQHB07-□	2	28	14	34	16.5	14
LQHB11-□	3	35.6	17	42.1	23	19
LQHB13-□	4	41	21	49	28	23
LQHB19-□	5	52.1	26	61.1	39	32
LQHB25-□	6	67	36	77	49	46

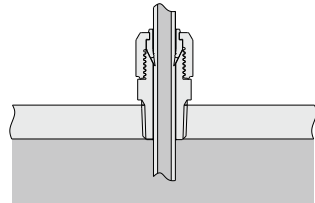
Types of Use

There are presumably two different types of use for the bore through connector as indicated in conditions A and B, and the specifications will differ according to the type of use.

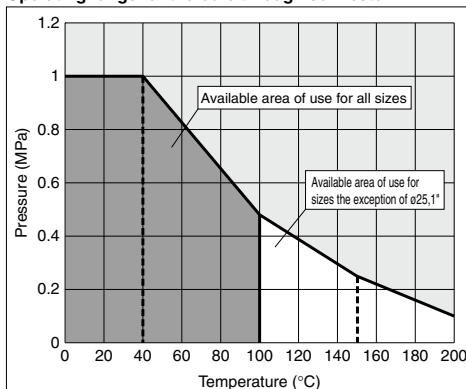
- Condition A**
- For applications including boring through panels or walls, etc.
 - Atmospheric release.



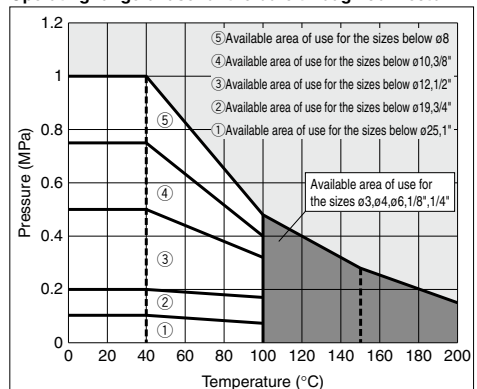
- Condition B**
- For applying sustained pressure to the female thread.
 - Using the same pressure and temperature as that of the inside of the tube.



Operating range for the bore through connector



Operating range of use for the bore through connector





Series LQ1/LQ3/LQHB Applicable Fluids

Material and fluid compatibility check list for high purity fluoropolymer fittings

Chemical		Compatibility
Acetic acid	100%	○
Acetone	100%	○ Note 1,2)
Ammonium fluoride	40%	○
Ammonium hydroxide	30%	○
Butyl acetate	100%	○
Methylene chloride	100%	○
Hydrochloric acid	38%	○
Hydrofluoric acid	50%	○
Hydrogen peroxide	60%	○
Methanol	100%	○
Methyl ethyl Ketone	—	○ Note 2)
Nitric acid	70%	○ Note 2)
Phosphoric acid	86%	○
Caustic potash	85%	○
Sulfuric acid	100%	○ Note 2)
Toluene	—	○ Note 1,2)
Xylene	—	○ Note 2)
Sodium hydroxide (caustic soda)	100%	○ Note 2)
1,1,1-Trichloroethane	100%	○ Note 2)
Rhosphorus pentachloride	—	○
Isobutyl alcohol	—	○ Note 1)
Isopropyl alcohol	—	○ Note 1)
Ozone	—	○
Ethyl acetate	—	○ Note 1,2)
DI water (Pure water)	—	○
Nitrogen	—	○
Ultrapure water	—	○
Tmah	—	○ Note 2)

Table symbol ○ : can be used.

The material and fluid compatibility check list provides reference values as a guide only.

Note 1) Since static electricity may be generated, implement suitable countermeasures.

Note 2) In the case of nut with PVDF material, it cannot be used due to atmosphere or temperature. Use the nut with PFA material.

- Fluid temperature indicates compatibility below 200°C (below 150°C in the case of a nut with PVDF material).
- The material and fluid compatibility check list provides reference values as a guide only, therefore we do not guarantee the application to our product.
- The data above is based on the information presented by the material manufacturers.
- SMC is not responsible for its accuracy and any damage happened because of this data.



Series LQ1/LQ3/LQHB Fluoropolymer Fittings/ Bore Through Connector/ Precautions 1

Be sure to read before handling.
Refer to front matter 56 for Safety Instructions.

Design and Selection

⚠ Warning

1. Confirm the specifications.

Give careful consideration to operating conditions such as the application, fluid and environment, and use within the operating ranges specified in this catalog.

2. Fluid

Operate within the indicated fluid temperature range.

3. Maintenance space

Ensure the necessary space for maintenance and inspections.

4. Fluid pressure range

Keep the supplied fluid pressure within the operating pressure range shown in the catalog.

5. Countermeasures for static electricity

Since static electricity may be generated depending on the fluid being used, implement suitable countermeasures.

Mounting

⚠ Warning

1. After mounting, perform suitable function and leak tests to confirm that the mounting is correct.

2. Instruction manual

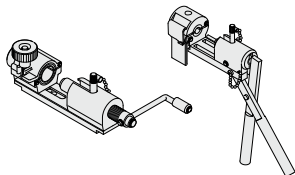
Mount and operate the product after reading the manual carefully and understanding its contents. Also keep the manual where it can be referred to as necessary.

Piping

⚠ Caution

1. Connect tubing with special tools.

Refer to the pamphlet "High-Purity Fluoropolymer Fittings Hyper fitting/Series LQ1, 2 Work Procedure Instructions" (M-E05-1) for connecting tubing and special tools. (Downloadable from our web site.)



Piping

⚠ Caution

2. Tighten the nut until it touches the end surface of the body, and then tighten it an additional 1/8 turn. If the nut won't turn any further, then it means a sufficient tightening has occurred. Refer to the proper tightening torques shown below.

Nut tightening torque for piping

Body class	Torque (N·m)		
	LQ1	LQ3	LQHB
1	— Note)	0.7 to 0.9	0.7 to 0.9
2	0.3 to 0.4	1.6 to 1.8	1.6 to 1.8
3	0.8 to 1.0	3.2 to 3.5	3.2 to 3.5
4	1.0 to 1.2	5.0 to 5.3	5.0 to 5.3
5	2.5 to 3.0	10.0 to 10.5	10.0 to 10.5
6	5.5 to 6.0	22.5 to 23.0	22.5 to 23.0
7	—	23.0 to 26.5	—

Note) The LQ1 Body class 1 must be tightened manually.

3. Use sealant tape for the piping of taper thread parts such as LQ□H and LQ□L.

Tape the ridges tightly with the sealant tape, starting one ridge width left from thread end side. 3 to 4 sealant tapes are required.

Taper thread mounting torque

Bore size	Torque (N·m)
1/8	0.6 to 0.9
1/4	0.8 to 1.2
3/8	1.0 to 1.6
1/2	1.5 to 2.0
3/4	2.0 to 2.7
1	2.5 to 3.6
1 1/4	5.5 to 7.5

4. Nut tightening torque for the panel mount union.

Nut tightening torque for the panel mount union

Body class	Torque (N·m)
1	0.5 to 0.6
2	0.6 to 0.7
3	1.2 to 1.3
4	4.5 to 4.6
5	6.8 to 6.9
6	12.4 to 12.5



Series LQ1/LQ3/LQHB Fluoropolymer Fittings/ Bore Through Connector/ Precautions 2

Be sure to read before handling.
Refer to front matter 56 for Safety Instructions.

Operating Environment

Warning

1. Do not use in locations having an explosive atmosphere.
2. Do not operate in locations where vibration or impact occurs.
3. In locations near heat sources, block off radiated heat.

Maintenance

Warning

1. Perform maintenance in accordance with the procedures in the instruction manual.
Improper handling can cause damage.
2. When removing or reinstalling fittings, remove any remaining chemicals and carefully replace them with DI water (pure water) or air, etc., before beginning work activities.
3. Tightening of taper threads for piping
Because the taper threads are made of resin, minute leakage may gradually occur due to stress relaxation. Perform periodic inspections, and if leakage is detected correct the problem by additional tightening. If additional tightening becomes ineffective, replace the fitting with a new product.
4. Check the following during regular maintenance, and replace components as necessary.
 - a) Scratches, gouges, abrasion, corrosion
 - b) Twisting, flattening or distortion of tubing
 - c) Hardening, deterioration or softening of tubing
5. Do not repair or patch the replaced tubing or fittings for reuse.

Operating Precautions

Warning

1. Operate within the range of the maximum operating pressure.

Caution

1. After a long period of non-use, perform inspections before beginning operation.
2. Use sufficient care in the handling of series LQ clean packaging types when their packaging is opened.

Installation of Tubing

Caution

1. Cut the end of the tubing at a right angle and pass it through the fitting nut. After placing the tubing in the holder, push it onto the insert bushing until it stops and clamp it with the knob.
As a guide when tightening the tubing with the knob, maintain a uniform gap (approx. 2 mm) on both sides of the holder.
 - When the tubing is curved, straighten it out before using it.
 - The tubing may slip if there is oil or dust, etc., on the holder. Remove the contamination using alcohol or another suitable cleaner.

Use of Tubing

Caution

1. Refer to the applicable tubing sizes shown below for tubing to be used.

Applicable tubing sizes

	Connection tubing size	O.D. (mm)		Internal thickness (mm)		
		Standard size	Tolerance	Standard size	Tolerance	
Metric sizes	ø3 x ø2	3.0	+0.2 -0.1	0.5	±0.06	
	ø4 x ø3	4.0				
	ø6 x ø4	6.0				
	ø8 x ø6	8.0				
	ø10 x ø8	10.0	+0.3 -0.1	1.0	±0.1	
	ø12 x ø10	12.0				
	ø19 x ø16	19.0				
	ø25 x ø22	25.0				
Inch sizes	1/8" x 0.086"	3.18	+0.2 -0.1	0.5	±0.1	
	3/16" x 1/8"	4.75		0.8		
	1/4" x 5/32"	6.35		1.2		
	3/8" x 1/4"	9.53		1.6	±0.15	
	1/2" x 3/8"	12.7	+0.3 -0.1			
	3/4" x 5/8"	19.0				
	1" x 7/8"	25.4				
	1 1/4" x 1.1"	31.75	±0.25	1.9	±0.2	
1 1/2" x 1.33"	38.1	±0.2	2.2	±0.2		