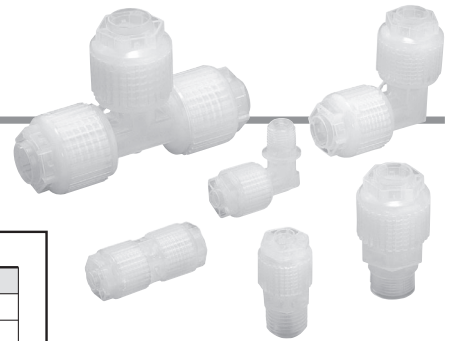


Fluoropolymer Fittings Hyper Fittings Series LQ1

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
—	R, Rc
N	NPT

* 310 size can be used only with R thread.

Piping type

Symbol	Type
M	Male
F	Female

Packaging

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

Size combination

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

For different diameter (on B side)

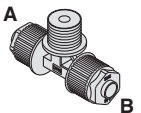
Symbol	Application
—	Same tubing size
Refer to the applicable tubing table.	Different diameter tubing can be selected within the same body class.
LQ1B	LQ1R
Branch tee male	Branch tee female
Run tee male	Run tee female



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) Branch tee male
Body class 3
A side: $\phi 10 \times \phi 8$ B side: $\phi 8 \times \phi 6$
Order as shown below.



LQ1 B 31 32 - M
Only select combinations from the same body class.
Different dia. tubing size (B side)
Applicable tubing size (A side)
Branch tee male

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

Branch tee male/Female (LQ1B) How to Order

As this product is bilaterally symmetric (A side and B side), depending on the combination, 2 identical part numbers may be listed in series. Be sure to list symbols in ascending alphanumerical order.

LQ1B 31 32 - M

Listed in ascending numerical order

Example 1) Ascending numerical order

Correct) LQ1B 31 32 -M

Incorrect) LQ1B 32 31 -M

Example 2) Ascending alphanumerical order

Correct) LQ1B 37 3E -M

Incorrect) LQ1B 3E 37 -M



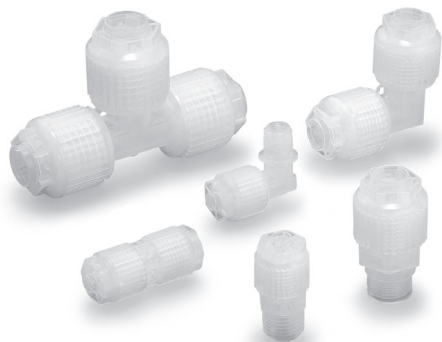
Note 1) Tubing of different sizes can only be used in combination if within the same body class. However, for class 1, tubing of different sizes cannot be used in combination.

Note 2) Combinations will differ depending on the type of each fitting. For the availability of combinations, refer to pages 4 to 11.

These are produced upon receipt of order by part number.

Note 3) For details of the applicable tubing sizes, refer to page 72.

Series LQ1

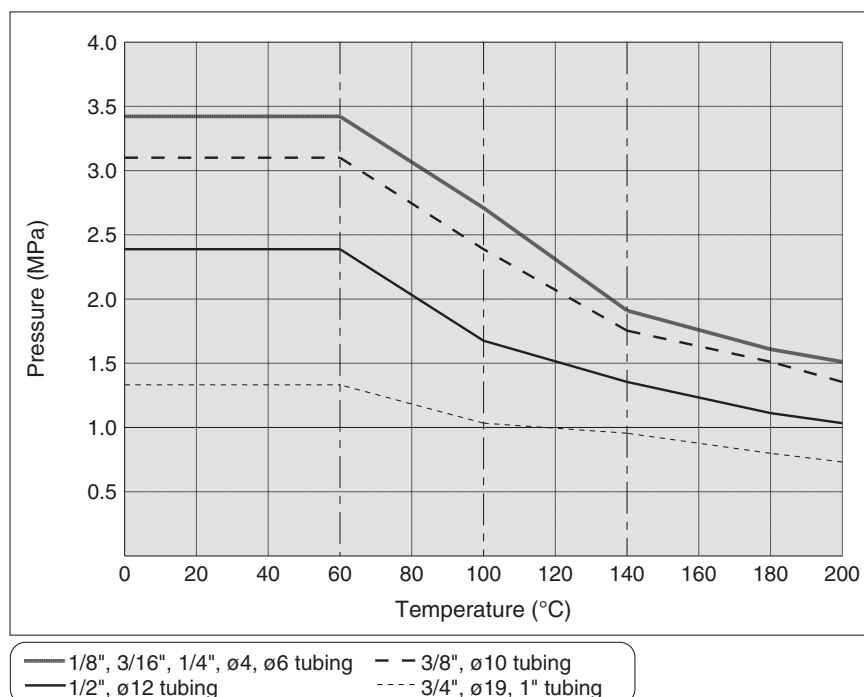


Specifications

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

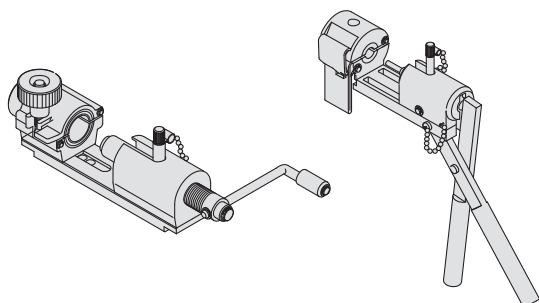


Piping

⚠ 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.)



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.

Tightening torque for piping

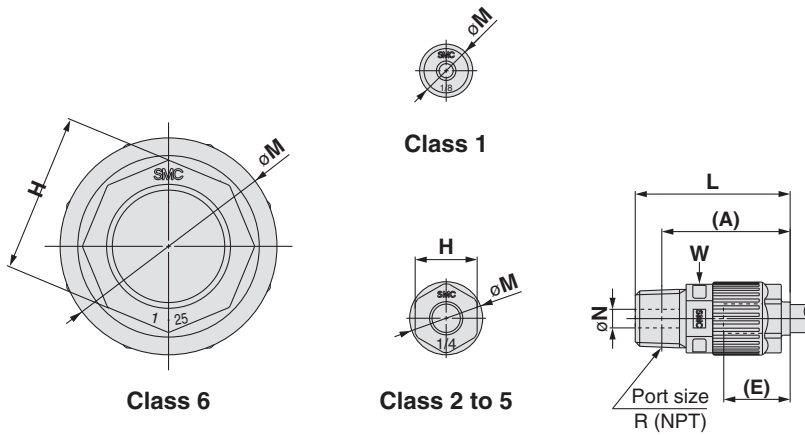
Body class	Torque (N·m)
2	0.3 to 0.4
3	0.8 to 1.0
4	1.0 to 1.2
5	2.5 to 3.0
6	5.5 to 6.0



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

Dimensions

Male Connector: LQ1H-M



Metric sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	E	H	L	M	N	Min. port size	W
LQ1H11-M□	ø4	1/8"	21	10	—	25	11.5	4	2.6	10
LQ1H12-M□	ø3	1/8"	21	10	—	25	11.5	4	1.8	10
LQ1H21-M□	ø6	1/8"	31.5	15	14	35	16.5	4.4	3.6	14
LQ1H22-M□	ø4	1/8"	31.5	15	14	35	16.5	4.4	2.6	14
LQ1H2C-M□	ø3	1/8"	31.5	15	14	35	16.5	4.4	1.8	14
LQ1H23-M□	ø6	1/4"	29	15	14	35	16.5	6	3.6	14
LQ1H24-M□	ø4	1/4"	29	15	14	35	16.5	6	2.6	14
LQ1H2F-M□	ø3	1/4"	29	15	14	35	16.5	6	1.8	14
LQ1H31-M□	ø10	1/4"	36.5	20	17	42.5	23	6	6	19
LQ1H32-M□	ø8	1/4"	36.5	20	17	42.5	23	6	5.5	19
LQ1H33-M□	ø6	1/4"	36.5	20	17	42.5	23	6	3.6	19
LQ1H34-M□	ø10	3/8"	36	20	17	42.5	23	10	7.4	19
LQ1H35-M□	ø8	3/8"	36	20	17	42.5	23	10	5.5	19
LQ1H36-M□	ø6	3/8"	36	20	17	42.5	23	10	3.6	19
LQ1H37-M□	ø4	3/8"	36	20	17	42.5	23	10	2.6	19
LQ1H3E-M□	ø3	3/8"	36	20	17	42.5	23	10	1.8	19
LQ1H39-M□	ø10	1/8"	34.5	20	17	38	23	4.4	4.4	23
LQ1H310-M□	ø8	1/8"	34.5	20	17	38	23	4.4	4.4	23
LQ1H41-M□	ø12	3/8"	46	24	21	52	28	8	8	23
LQ1H42-M□	ø10	3/8"	46	24	21	52	28	8	7.4	23
LQ1H43-M□	ø12	3/8"	46	24	21	52	28	8	9.4	23
LQ1H44-M□	ø10	3/8"	46	24	21	52	28	8	7.4	23
LQ1H45-M□	ø8	1/2"	39.5	20	17	47.5	23	10	5.5	23
LQ1H46-M□	ø6	1/2"	39.5	20	17	47.5	23	10	3.6	23
LQ1H4F-M□	ø3	1/2"	39.5	20	17	47.5	23	10	1.8	23
LQ1H49-M□	ø12	1/4"	42	24	21	48	28	6	6	23
LQ1H51-M□	ø19	1/2"	55	29	26	62.5	39	10	10	32
LQ1H52-M□	ø12	1/2"	55	29	26	62.5	39	10	9.4	32
LQ1H53-M□	ø19	3/4"	53.5	29	26	62.5	39	16	15	32
LQ1H54-M□	ø12	3/4"	53.5	29	26	62.5	39	16	9.4	32
LQ1H55-M□	ø10	3/4"	53.5	29	26	62.5	39	16	7.4	32
LQ1H57-M□	ø6	3/4"	53.5	29	26	62.5	39	16	3.6	32
LQ1H58-M□	ø19	1/4"	52	29	26	58	39	6	6	46
LQ1H59-M□	ø19	3/8"	52	29	26	58	39	6	8	46
LQ1H61-M□	ø25	3/4"	72	39.5	36	81	49	16	16	46
LQ1H62-M□	ø19	3/4"	72	39.5	36	81	49	16	15	46
LQ1H63-M□	ø25	1"	71	39.5	36	81	49	22.5	21.2	46
LQ1H64-M□	ø19	1"	71	39.5	36	81	49	22.5	15	46
LQ1H65-M□	ø12	1"	71	39.5	36	81	49	22.5	9.4	46
LQ1H66-M□	ø25	1/2"	69.5	39.5	36	77.5	49	10	10	46

Inch sizes

Model	Applicable tubing O.D.	Connection threads R/NPT	A	E	H	L	M	N	Min. port size	W
LQ1H1A-M□	1/8"	1/8"	21	10	—	25	11.5	4	1.8	10
LQ1H2A-M□	1/4"	1/8"	31.5	15	14	35	16.5	4.4	3.6	14
LQ1H2B-M□	3/16"	1/8"	31.5	15	14	35	16.5	4.4	2.9	14
LQ1H2C-M□	1/8"	1/8"	31.5	15	14	35	16.5	4.4	1.8	14
LQ1H2D-M□	1/4"	1/4"	29	15	14	35	16.5	6	3.6	14
LQ1H2E-M□	3/16"	1/4"	29	15	14	35	16.5	6	2.9	14
LQ1H2F-M□	1/8"	1/4"	29	15	14	35	16.5	6	1.8	14
LQ1H3A-M□	3/8"	1/4"	36.5	20	17	42.5	23	6	5.8	19
LQ1H3B-M□	1/4"	1/4"	36.5	20	17	42.5	23	6	3.6	19
LQ1H3C-M□	3/8"	3/8"	36	20	17	42.5	23	10	5.8	19
LQ1H3D-M□	1/4"	3/8"	36	20	17	42.5	23	10	3.6	19
LQ1H3E-M□	1/8"	1/8"	31.5	15	14	37.6	16.5	4.4	1.8	19
LQ1H3F-M□	3/8"	1/8"	34.5	20	17	38	23	4.4	4.4	19
LQ1H4A-M□	1/2"	3/8"	46	24	21	52	28	8	8	23
LQ1H4B-M□	3/8"	3/8"	46	24	21	52	28	8	5.8	23
LQ1H4C-M□	1/2"	1/2"	44	20	17	47.5	23	10	9	23
LQ1H4D-M□	3/8"	1/2"	44	20	17	47.5	23	10	5.8	23
LQ1H4E-M□	1/4"	1/2"	39.5	20	17	47.5	23	10	3.6	23
LQ1H4F-M□	1/8"	1/2"	34	15	14	42	16.5	6	1.8	23
LQ1H4G-M□	1/2"	1/4"	42	24	21	48	28	6	6	23
LQ1H5A-M□	3/4"	1/2"	55	29	26	62.5	39	10	10	32
LQ1H5B-M□	1/2"	1/2"	55	29	26	62.5	39	10	9	32
LQ1H5C-M□	3/4"	3/4"	53.5	29	26	62.5	39	16	15	32
LQ1H5D-M□	1/2"	3/4"	53.5	29	26	62.5	39	16	9	32
LQ1H5E-M□	3/8"	3/4"	43.5	20	17	52.5	23	16	5.8	32
LQ1H5F-M□	1/4"	3/4"	43.5	20	17	52.5	23	16	3.6	32
LQ1H5G-M□	3/4"	1/4"	52	29	26	58	39	6	6	32
LQ1H5H-M□	3/8"	3/8"	52	29	26	58	39	8	8	32
LQ1H6A-M□	1"	3/4"	72	39.5	36	81	49	16	16	46
LQ1H6B-M□	3/4"	3/4"	72	39.5	36	81	49	16	15	46
LQ1H6C-M□	1"	1"	71	39.5	36	81	49	22.5	21.2	46
LQ1H6D-M□	3/4"	1"	71	39.5	36	81	49	22.5	15	46
LQ1H6E-M□	1/2"	1"	61	29	26	71	39	10	9	46
LQ1H6F-M□	1"	1/2"	69.5	39.5	36	77.5	49	10	10	46