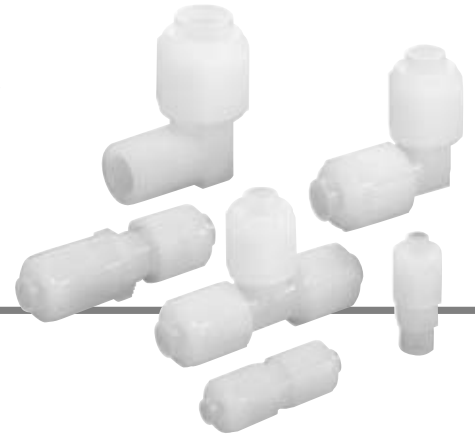


High Purity Fluoropolymer Fittings

HYPER FITTING®

Series LQ2



How to Order

Threaded connection

LQ2 H 21 [] - M []

Fitting type

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

Thread type

| Symbol | Type |
|--------|-------|
| Nil | R, Rc |
| N | NPT |

Piping type

| Symbol | Type |
|--------|--------|
| M | Male |
| F | Female |

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. |
| LQ2B | |
| Branch tee male | Branch tee female |
| | |
| LQ2R | |
| Run tee male | Run tee female |
| | |

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

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

Size combination

| Class | No. | Applicable tubing size (mm) | Tubing O.D. |
|-------|-----|-----------------------------|-------------|
| 2 | 1 | 6 x 4 | 1/8" |
| 2 | 2 | 4 x 3 | |
| 2 | 3 | 6 x 4 | 1/4" |
| 2 | 4 | 4 x 3 | |
| 3 | 1 | 10 x 8 | 1/4" |
| 3 | 2 | 8 x 6 | |
| 3 | 3 | 6 x 4 | 3/8" |
| 3 | 4 | 10 x 8 | |
| 3 | 5 | 8 x 6 | |
| 3 | 6 | 6 x 4 | |
| 4 | 1 | 12 x 10 | 3/8" |
| 4 | 2 | 10 x 8 | |
| 4 | 3 | 12 x 10 | 1/2" |
| 4 | 4 | 10 x 8 | |
| 5 | 1 | 19 x 16 | 1/2" |
| 5 | 2 | 12 x 10 | |
| 5 | 3 | 19 x 16 | 3/4" |
| 5 | 4 | 12 x 10 | |

| Class | No. | Applicable tubing size (inch) | Tubing O.D. |
|-------|-----|-------------------------------|-------------|
| 2 | A | 1/4" x 5/32" | 1/8" |
| 2 | B | 3/16" x 1/8" | |
| 2 | C | 1/8" x 0.086" | |
| 2 | D | 1/4" x 5/32" | 1/4" |
| 2 | E | 3/16" x 1/8" | |
| 2 | F | 1/8" x 0.086" | |
| 3 | A | 3/8" x 1/4" | 1/4" |
| 3 | B | 1/4" x 5/32" | |
| 3 | C | 3/8" x 1/4" | 3/8" |
| 3 | D | 1/4" x 5/32" | |
| 4 | A | 1/2" x 3/8" | 3/8" |
| 4 | B | 3/8" x 1/4" | |
| 4 | C | 1/2" x 3/8" | 1/2" |
| 4 | D | 3/8" x 1/4" | |
| 5 | A | 3/4" x 5/8" | 1/2" |
| 5 | B | 1/2" x 3/8" | |
| 5 | C | 3/4" x 5/8" | 3/4" |
| 5 | D | 1/2" x 3/8" | |

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

How to Order

Tubing connection

LQ2 E 21

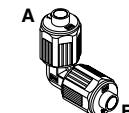
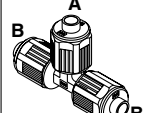
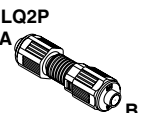
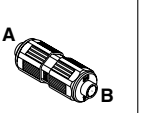
Fitting type

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

Combination of different diameter (on B side)

| Class | No. | Applicable tubing size (mm) | Class | No. | Applicable tubing size (inch) |
|-------|-----|-----------------------------|-------|-----|-------------------------------|
| 2 | 1 | 6 x 4 | 2 | A | 1/4" x 5/32" |
| 2 | 2 | 4 x 3 | 2 | B | 3/16" x 1/8" |
| 3 | 1 | 10 x 8 | 2 | C | 1/8" x 0.086" |
| 3 | 2 | 8 x 6 | 3 | A | 3/8" x 1/4" |
| 3 | 3 | 6 x 4 | 3 | B | 1/4" x 5/32" |
| 4 | 1 | 12 x 10 | 4 | A | 1/2" x 3/8" |
| 4 | 2 | 10 x 8 | 4 | B | 3/8" x 1/4" |
| 5 | 1 | 19 x 16 | 5 | A | 3/4" x 5/8" |
| 5 | 2 | 12 x 10 | 5 | B | 1/2" x 3/8" |

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

| Symbol | Application |
|--|---|
| Nil | Same tubing size |
| Refer to the applicable tubing table. | Different diameter tubing can be selected within the same body class. |
| Union elbow LQ2E  | Union tee LQ2T  |
| Panel mount union LQ2P  | Union LQ2U  |

Size combination

| Class | No. | Applicable tubing size (mm) | Class | No. | Applicable tubing size (inch) |
|-------|-----|-----------------------------|-------|-----|-------------------------------|
| 2 | 1 | 6 x 4 | 2 | A | 1/4" x 5/32" |
| 2 | 2 | 4 x 3 | 2 | B | 3/16" x 1/8" |
| 3 | 1 | 10 x 8 | 2 | C | 1/8" x 0.086" |
| 3 | 2 | 8 x 6 | 3 | A | 3/8" x 1/4" |
| 3 | 3 | 6 x 4 | 3 | B | 1/4" x 5/32" |
| 4 | 1 | 12 x 10 | 4 | A | 1/2" x 3/8" |
| 4 | 2 | 10 x 8 | 4 | B | 3/8" x 1/4" |
| 5 | 1 | 19 x 16 | 5 | A | 3/4" x 5/8" |
| 5 | 2 | 12 x 10 | 5 | B | 1/2" x 3/8" |

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

Different diameter tubing order example

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

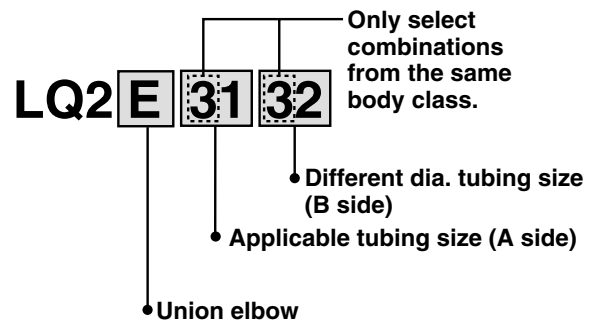
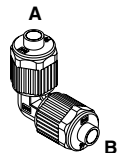
(Example) Union elbow

Body class 3

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

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

Order as shown below.



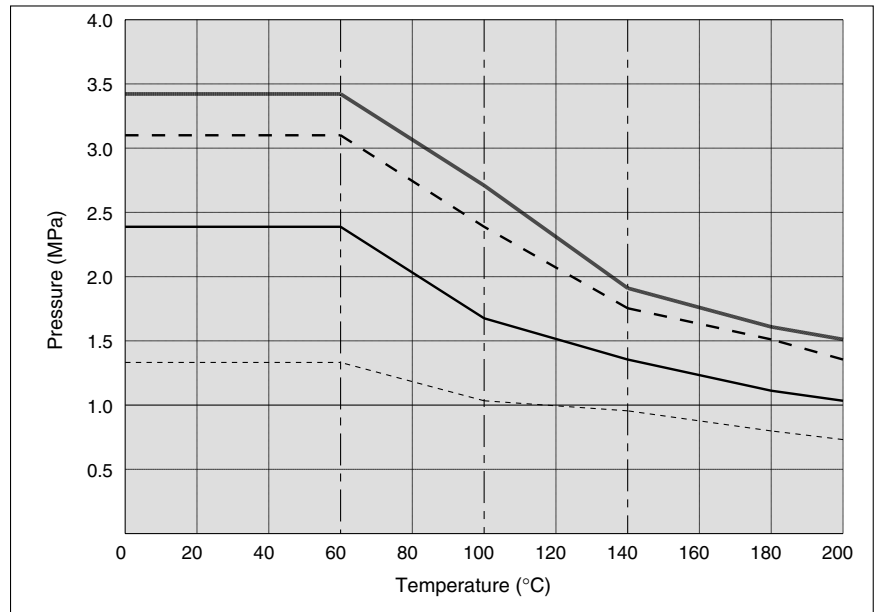
Series LQ2



Specifications

| Feature \ Model | LQ2□20 | LQ2□30 | LQ2□40 | LQ2□50 |
|--------------------------------------|---|--------|--------|--------|
| Material | NEW PFA | | | |
| 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 | | | |

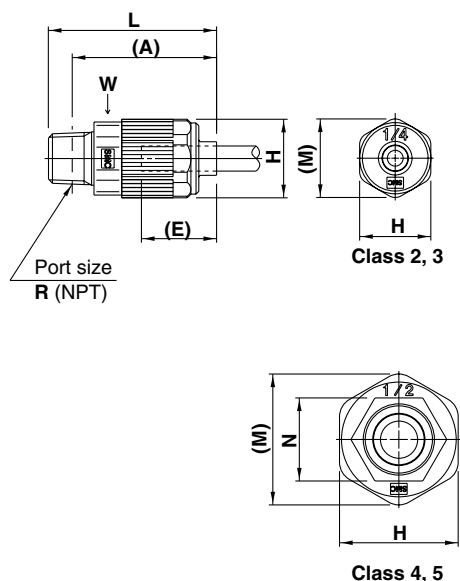
Burst Pressure and Heat Resistance Performance



— 1/8", 3/16", 1/4", ø4, ø6 tubing - - 3/8", ø10 tubing
 — 1/2", ø12 tubing - - - 3/4", ø19, 1" tubing

Dimensions

Male Connector: LQ2H-M



Metric sizes

| Model | Applicable tubing O.D. | Connection threads R/NPT | A | E | H | L | M | N | W |
|-----------|------------------------|--------------------------|------|----|----|------|------|----|----|
| LQ2H21-M□ | ø6 | 1/8" | 39 | 19 | 18 | 42.5 | 19.9 | — | 16 |
| LQ2H22-M□ | ø4 | | | | | | | | |
| LQ2H23-M□ | ø6 | 1/4" | 36.5 | 22 | 24 | 49 | 26.2 | — | 24 |
| LQ2H24-M□ | ø4 | | | | | | | | |
| LQ2H31-M□ | ø10 | 1/4" | 43 | 28 | 30 | 59 | 33.1 | 21 | 30 |
| LQ2H32-M□ | ø8 | | | | | | | | |
| LQ2H33-M□ | ø6 | 3/8" | 42.5 | 32 | 36 | 68 | 40 | 26 | 36 |
| LQ2H34-M□ | ø10 | | | | | | | | |
| LQ2H35-M□ | ø8 | 1/2" | 51 | 28 | 30 | 59 | 33.1 | 21 | 30 |
| LQ2H36-M□ | ø6 | | | | | | | | |
| LQ2H41-M□ | ø12 | 1/2" | 60.5 | 32 | 36 | 68 | 40 | 26 | 36 |
| LQ2H42-M□ | ø10 | | | | | | | | |
| LQ2H43-M□ | ø12 | 3/4" | 58.5 | 32 | 36 | 68 | 40 | 26 | 36 |
| LQ2H44-M□ | ø10 | | | | | | | | |
| LQ2H51-M□ | ø19 | 1/2" | 59.5 | 32 | 36 | 67 | 40 | 26 | 36 |
| LQ2H52-M□ | ø12 | | | | | | | | |
| LQ2H53-M□ | ø19 | 3/4" | 57.5 | 32 | 36 | 67 | 40 | 26 | 36 |
| LQ2H54-M□ | ø12 | | | | | | | | |

(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.

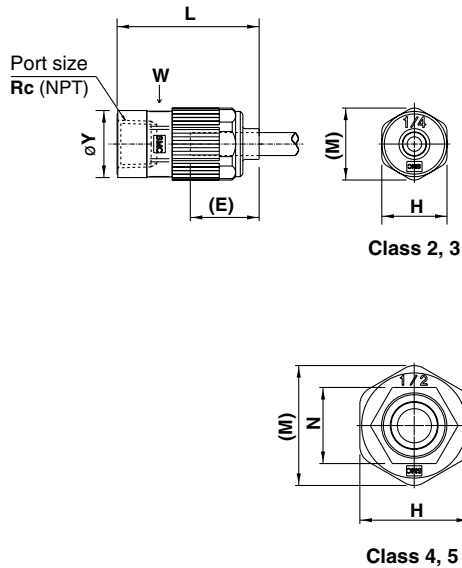
Inch sizes

| Model | Applicable tubing O.D. | Connection threads NPT | A | E | H | L | M | N | W |
|-----------|------------------------|------------------------|------|----|----|------|------|----|----|
| LQ2H2A-M□ | 1/4" | 1/8" | 39 | 19 | 18 | 42.5 | 19.9 | — | 16 |
| LQ2H2B-M□ | 3/16" | | | | | | | | |
| LQ2H2C-M□ | 1/8" | 1/4" | 36.5 | 22 | 24 | 49 | 26.2 | — | 24 |
| LQ2H2D-M□ | 1/4" | | | | | | | | |
| LQ2H2E-M□ | 3/16" | 3/8" | 42.5 | 28 | 30 | 59 | 33.1 | 21 | 30 |
| LQ2H2F-M□ | 1/8" | | | | | | | | |
| LQ2H3A-M□ | 3/8" | 1/4" | 43 | 32 | 36 | 68 | 40 | 26 | 36 |
| LQ2H3B-M□ | 1/4" | | | | | | | | |
| LQ2H3C-M□ | 3/8" | 3/8" | 42.5 | 32 | 36 | 68 | 40 | 26 | 36 |
| LQ2H3D-M□ | 1/4" | | | | | | | | |
| LQ2H4A-M□ | 1/2" | 3/8" | 53 | 28 | 30 | 59 | 33.1 | 21 | 30 |
| LQ2H4B-M□ | 3/8" | | | | | | | | |
| LQ2H4C-M□ | 1/2" | 1/2" | 51 | 32 | 36 | 59 | 40 | 26 | 36 |
| LQ2H4D-M□ | 3/8" | | | | | | | | |
| LQ2H5A-M□ | 3/4" | 1/2" | 60.5 | 32 | 36 | 68 | 40 | 26 | 36 |
| LQ2H5B-M□ | 1/2" | | | | | | | | |
| LQ2H5C-M□ | 3/4" | 3/4" | 58.5 | 32 | 36 | 68 | 40 | 26 | 36 |
| LQ2H5D-M□ | 1/2" | | | | | | | | |

Series LQ2

Dimensions

Female Connector: LQ2H-F



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

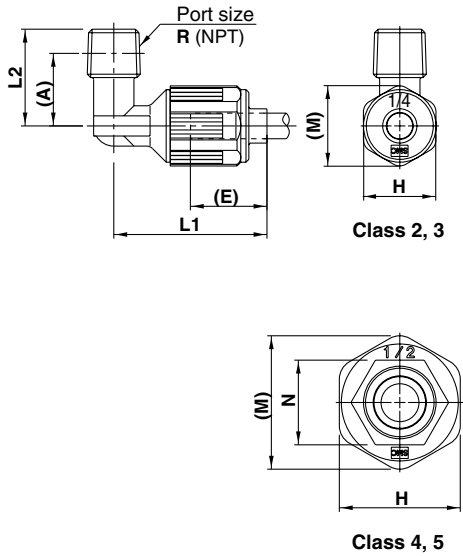
Metric sizes

| Model | Applicable tubing O.D. | Connection threads Rc/NPT | E | H | L | M | N | W | Y |
|-----------|------------------------|---------------------------|----|----|------|------|----|----|------|
| LQ2H21-F□ | ø6 | 1/8" | 19 | 18 | 39.2 | 19.9 | - | 16 | 18.5 |
| LQ2H22-F□ | ø4 | | | | | | | | 21.5 |
| LQ2H23-F□ | ø6 | 1/4" | 22 | 24 | 44.2 | 26.2 | - | 24 | 21.5 |
| LQ2H24-F□ | ø4 | | | | 43.7 | | | | |
| LQ2H31-F□ | ø10 | 1/4" | 22 | 24 | 46 | 26.2 | - | 24 | 25 |
| LQ2H32-F□ | ø8 | | | | 45.5 | | | | |
| LQ2H33-F□ | ø6 | 3/8" | 28 | 30 | 52 | 33.1 | 21 | 30 | 25 |
| LQ2H34-F□ | ø10 | | | | 51 | | | | |
| LQ2H35-F□ | ø8 | 1/2" | 32 | 36 | 57 | 40 | 26 | 36 | 29.5 |
| LQ2H36-F□ | ø6 | | | | 56 | | | | |
| LQ2H41-F□ | ø12 | 1/2" | 32 | 36 | 63.5 | 40 | 26 | 36 | 29.5 |
| LQ2H42-F□ | ø10 | | | | 64.5 | | | | |
| LQ2H43-F□ | ø12 | 3/4" | 32 | 36 | 65 | 40 | 26 | 36 | 36 |
| LQ2H44-F□ | ø10 | | | | 66 | | | | |
| LQ2H51-F□ | ø19 | 1/2" | 32 | 36 | 63.5 | 40 | 26 | 36 | 29.5 |
| LQ2H52-F□ | ø12 | | | | 64.5 | | | | |
| LQ2H53-F□ | ø19 | 3/4" | 32 | 36 | 65 | 40 | 26 | 36 | 36 |
| LQ2H54-F□ | ø12 | | | | 66 | | | | |

Inch sizes

| Model | Applicable tubing O.D. | Connection threads Rc/NPT | E | H | L | M | N | W | Y |
|-----------|------------------------|---------------------------|----|----|------|------|----|----|------|
| LQ2H2A-F□ | 1/4" | 1/8" | 19 | 18 | 39.2 | 19.9 | - | 16 | 18.5 |
| LQ2H2B-F□ | 3/16" | | | | | | | | 21.5 |
| LQ2H2C-F□ | 1/8" | 1/4" | 22 | 24 | 44.2 | 26.2 | - | 24 | 21.5 |
| LQ2H2D-F□ | 1/4" | | | | 43.7 | | | | |
| LQ2H2E-F□ | 3/16" | 3/8" | 22 | 24 | 46 | 26.2 | - | 24 | 25 |
| LQ2H2F-F□ | 1/8" | | | | 45.5 | | | | |
| LQ2H3A-F□ | 3/8" | 1/4" | 22 | 24 | 52 | 26.2 | - | 24 | 25 |
| LQ2H3B-F□ | 1/4" | | | | 51 | | | | |
| LQ2H3C-F□ | 3/8" | 3/8" | 28 | 30 | 57 | 33.1 | 21 | 30 | 29.5 |
| LQ2H3D-F□ | 1/4" | | | | 56 | | | | |
| LQ2H4A-F□ | 1/2" | 1/2" | 32 | 36 | 63.5 | 40 | 26 | 36 | 29.5 |
| LQ2H4B-F□ | 3/8" | | | | 64.5 | | | | |
| LQ2H4C-F□ | 1/2" | 3/4" | 32 | 36 | 65 | 40 | 26 | 36 | 36 |
| LQ2H4D-F□ | 3/8" | | | | 66 | | | | |
| LQ2H5A-F□ | 3/4" | 1/2" | 32 | 36 | 63.5 | 40 | 26 | 36 | 29.5 |
| LQ2H5B-F□ | 1/2" | | | | 64.5 | | | | |
| LQ2H5C-F□ | 3/4" | 3/4" | 32 | 36 | 65 | 40 | 26 | 36 | 36 |
| LQ2H5D-F□ | 1/2" | | | | 66 | | | | |

Male Elbow: LQ2L-M



Metric sizes

| Model | Applicable tubing O.D. | Connection threads R/NPT | A | E | H | L1 | L2 | M | N |
|-----------|------------------------|--------------------------|------|----|----|----|----|------|----|
| LQ2L21-M□ | ø6 | 1/8" | 20.5 | 19 | 18 | 38 | 24 | 19.9 | — |
| LQ2L22-M□ | ø4 | | | | | | | | |
| LQ2L23-M□ | ø6 | 1/4" | 18 | 22 | 24 | 43 | 28 | 26.2 | — |
| LQ2L24-M□ | ø4 | | | | | | | | |
| LQ2L31-M□ | ø10 | 1/4" | 22 | 22 | 24 | 43 | 28 | 26.2 | — |
| LQ2L32-M□ | ø8 | | | | | | | | |
| LQ2L33-M□ | ø6 | 3/8" | 21.5 | 28 | 30 | 43 | 35 | 33.1 | 21 |
| LQ2L34-M□ | ø10 | | | | | | | | |
| LQ2L35-M□ | ø8 | 1/2" | 27 | 32 | 36 | 52 | 43 | 40 | 26 |
| LQ2L36-M□ | ø6 | | | | | | | | |
| LQ2L41-M□ | ø12 | 1/2" | 35.5 | 32 | 36 | 51 | 43 | 40 | 26 |
| LQ2L42-M□ | ø10 | | | | | | | | |
| LQ2L43-M□ | ø12 | 3/4" | 33.5 | 32 | 36 | 52 | 43 | 40 | 26 |
| LQ2L44-M□ | ø10 | | | | | | | | |
| LQ2L51-M□ | ø19 | 1/2" | 35.5 | 32 | 36 | 59 | 43 | 40 | 26 |
| LQ2L52-M□ | ø12 | | | | | | | | |
| LQ2L53-M□ | ø19 | 3/4" | 33.5 | 32 | 36 | 59 | 43 | 40 | 26 |
| LQ2L54-M□ | ø12 | | | | | | | | |

Inch sizes

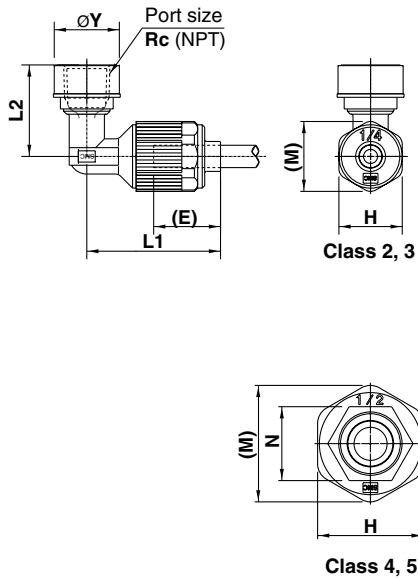
| Model | Applicable tubing O.D. | Connection threads R/NPT | A | E | H | L1 | L2 | M | N |
|-----------|------------------------|--------------------------|------|----|----|----|----|------|----|
| LQ2L2A-M□ | 1/4" | 1/8" | 20.5 | 19 | 18 | 38 | 24 | 19.9 | — |
| LQ2L2B-M□ | 3/16" | | | | | | | | |
| LQ2L2C-M□ | 1/8" | 1/4" | 18 | 22 | 24 | 43 | 28 | 26.2 | — |
| LQ2L2D-M□ | 1/4" | | | | | | | | |
| LQ2L2E-M□ | 3/16" | 3/8" | 21.5 | 28 | 30 | 43 | 35 | 33.1 | 21 |
| LQ2L2F-M□ | 1/8" | | | | | | | | |
| LQ2L3A-M□ | 3/8" | 1/4" | 22 | 22 | 24 | 43 | 28 | 26.2 | — |
| LQ2L3B-M□ | 1/4" | | | | | | | | |
| LQ2L3C-M□ | 3/8" | 3/8" | 21.5 | 28 | 30 | 43 | 35 | 33.1 | 21 |
| LQ2L3D-M□ | 1/4" | | | | | | | | |
| LQ2L4A-M□ | 1/2" | 3/8" | 29 | 32 | 36 | 52 | 43 | 40 | 26 |
| LQ2L4B-M□ | 3/8" | | | | | | | | |
| LQ2L4C-M□ | 1/2" | 1/2" | 27 | 32 | 36 | 51 | 43 | 40 | 26 |
| LQ2L4D-M□ | 3/8" | | | | | | | | |
| LQ2L5A-M□ | 3/4" | 1/2" | 35.5 | 32 | 36 | 59 | 43 | 40 | 26 |
| LQ2L5B-M□ | 1/2" | | | | | | | | |
| LQ2L5C-M□ | 3/4" | 3/4" | 33.5 | 32 | 36 | 59 | 43 | 40 | 26 |
| LQ2L5D-M□ | 1/2" | | | | | | | | |

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

Series LQ2

Dimensions

Female Elbow: LQ2L-F



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

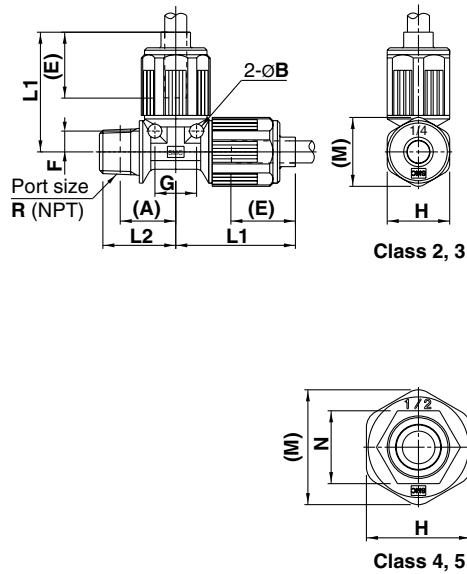
Metric sizes

| Model | Applicable tubing O.D. | Connection threads Rc/NPT | E | H | L ₁ | L ₂ | M | N | Y |
|-----------|------------------------|---------------------------|----|----|----------------|----------------|------|----|-------|
| LQ2L21-F□ | ø6 | 1/8" | 19 | 18 | 38 | 24 | 19.9 | — | ø18.5 |
| LQ2L22-F□ | ø4 | | | | | 26 | | | ø21.5 |
| LQ2L23-F□ | ø6 | 1/4" | 22 | 24 | 43 | 28 | 26.2 | — | ø21.5 |
| LQ2L24-F□ | ø4 | | | | | | | | |
| LQ2L31-F□ | ø10 | 1/4" | 22 | 24 | 43 | 28 | 26.2 | — | ø25 |
| LQ2L32-F□ | ø8 | | | | | | | | |
| LQ2L33-F□ | ø6 | 3/8" | 28 | 30 | 52 | 50.5 | 33.1 | 21 | ø25 |
| LQ2L34-F□ | ø10 | | | | | | | | |
| LQ2L35-F□ | ø8 | 1/2" | 28 | 30 | 52 | 54 | 33.1 | 21 | ø29.5 |
| LQ2L36-F□ | ø6 | | | | | | | | |
| LQ2L41-F□ | ø12 | 1/2" | 32 | 36 | 59 | 43 | 40 | 26 | ø29.5 |
| LQ2L42-F□ | ø10 | | | | | | | | |
| LQ2L43-F□ | ø12 | 3/4" | 32 | 36 | 59 | 43 | 40 | 26 | ø36 |
| LQ2L44-F□ | ø10 | | | | | | | | |
| LQ2L51-F□ | ø19 | 1/2" | 32 | 36 | 59 | 43 | 40 | 26 | ø29.5 |
| LQ2L52-F□ | ø12 | | | | | | | | |
| LQ2L53-F□ | ø19 | 3/4" | 32 | 36 | 59 | 43 | 40 | 26 | ø36 |
| LQ2L54-F□ | ø12 | | | | | | | | |

Inch sizes

| Model | Applicable tubing O.D. | Connection threads Rc/NPT | E | H | L ₁ | L ₂ | M | N | Y |
|-----------|------------------------|---------------------------|----|----|----------------|----------------|------|----|-------|
| LQ2L2A-F□ | 1/4" | 1/8" | 19 | 18 | 38 | 24 | 19.9 | — | ø18.5 |
| LQ2L2B-F□ | 3/16" | | | | | 26 | | | |
| LQ2L2C-F□ | 1/8" | 1/4" | 22 | 24 | 43 | 28 | 26.2 | — | ø21.5 |
| LQ2L2D-F□ | 1/4" | | | | | | | | |
| LQ2L2E-F□ | 3/16" | 3/8" | 28 | 30 | 52 | 50.5 | 33.1 | 21 | ø25 |
| LQ2L2F-F□ | 1/8" | | | | | | | | |
| LQ2L3A-F□ | 3/8" | 1/4" | 22 | 24 | 43 | 28 | 26.2 | — | ø21.5 |
| LQ2L3B-F□ | 1/4" | | | | | | | | |
| LQ2L3C-F□ | 3/8" | 3/8" | 28 | 30 | 43 | 28 | 26.2 | — | ø25 |
| LQ2L3D-F□ | 1/4" | | | | | | | | |
| LQ2L4A-F□ | 1/2" | 3/8" | 28 | 30 | 52 | 50.5 | 33.1 | 21 | ø25 |
| LQ2L4B-F□ | 3/8" | | | | | | | | |
| LQ2L4C-F□ | 1/2" | 1/2" | 28 | 30 | 52 | 54 | 33.1 | 21 | ø29.5 |
| LQ2L4D-F□ | 3/8" | | | | | | | | |
| LQ2L5A-F□ | 3/4" | 1/2" | 32 | 36 | 59 | 43 | 40 | 26 | ø29.5 |
| LQ2L5B-F□ | 1/2" | | | | | | | | |
| LQ2L5C-F□ | 3/4" | 3/4" | 32 | 36 | 59 | 43 | 40 | 26 | ø36 |
| LQ2L5D-F□ | 1/2" | | | | | | | | |

Male Run Tee: LQ2R-M



Metric sizes

| Model | Applicable tubing O.D. | Connection threads R/NPT | A | B | E | F | G | H | L1 | L2 | M | N |
|----------|------------------------|--------------------------|------|----|----|----|----|----|------|------|------|----|
| LQ2R21-M | ø6 | 1/8" | 18.5 | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — |
| LQ2R22-M | ø4 | | | | | | | | | | | |
| LQ2R23-M | ø6 | 1/4" | 16.5 | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — |
| LQ2R24-M | ø4 | | | | | | | | | | | |
| LQ2R31-M | ø10 | 1/4" | 23.5 | ø5 | 22 | 9 | 18 | 24 | 43 | 29.5 | 26.2 | — |
| LQ2R32-M | ø8 | | | | | | | | | | | |
| LQ2R33-M | ø6 | 3/8" | 23 | ø5 | 22 | 9 | 18 | 24 | 43 | 29.5 | 26.2 | — |
| LQ2R34-M | ø10 | | | | | | | | | | | |
| LQ2R35-M | ø8 | 3/8" | 23 | ø5 | 22 | 9 | 18 | 24 | 43 | 29.5 | 26.2 | — |
| LQ2R36-M | ø6 | | | | | | | | | | | |
| LQ2R41-M | ø12 | 3/8" | 30 | ø6 | 28 | 11 | 22 | 30 | 52 | 36 | 33.1 | 21 |
| LQ2R42-M | ø10 | | | | | | | | | | | |
| LQ2R43-M | ø12 | 1/2" | 28.5 | ø6 | 28 | 11 | 22 | 30 | 52 | 36 | 33.1 | 21 |
| LQ2R44-M | ø10 | | | | | | | | | | | |
| LQ2R51-M | ø19 | 1/2" | 35 | ø7 | 32 | 14 | 28 | 36 | 59.5 | 42.5 | 40 | 26 |
| LQ2R52-M | ø12 | | | | | | | | | | | |
| LQ2R53-M | ø19 | 3/4" | 33.5 | ø7 | 32 | 14 | 28 | 36 | 58.5 | 42.5 | 40 | 26 |
| LQ2R54-M | ø12 | | | | | | | | | | | |

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

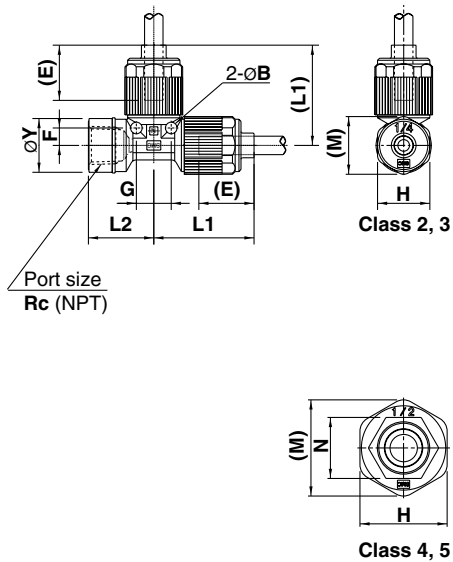
Inch sizes

| Model | Applicable tubing O.D. | Connection threads R/NPT | A | B | E | F | G | H | L1 | L2 | M | N |
|----------|------------------------|--------------------------|------|----|----|----|----|----|------|------|------|----|
| LQ2R2A-M | 1/4" | 1/8" | 18.5 | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — |
| LQ2R2B-M | 3/16" | | | | | | | | | | | |
| LQ2R2C-M | 1/8" | 1/4" | 16.5 | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — |
| LQ2R2D-M | 1/4" | | | | | | | | | | | |
| LQ2R2E-M | 3/16" | 1/4" | 16.5 | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — |
| LQ2R2F-M | 1/8" | | | | | | | | | | | |
| LQ2R3A-M | 3/8" | 1/4" | 23.5 | ø5 | 22 | 9 | 18 | 24 | 43 | 29.5 | 26.2 | — |
| LQ2R3B-M | 1/4" | | | | | | | | | | | |
| LQ2R3C-M | 3/8" | 3/8" | 23 | ø5 | 22 | 9 | 18 | 24 | 43 | 29.5 | 26.2 | — |
| LQ2R3D-M | 1/4" | | | | | | | | | | | |
| LQ2R4A-M | 1/2" | 3/8" | 30 | ø6 | 28 | 11 | 22 | 30 | 52 | 36 | 33.1 | 21 |
| LQ2R4B-M | 3/8" | | | | | | | | | | | |
| LQ2R4C-M | 1/2" | 1/2" | 28.5 | ø6 | 28 | 11 | 22 | 30 | 52 | 36 | 33.1 | 21 |
| LQ2R4D-M | 3/8" | | | | | | | | | | | |
| LQ2R5A-M | 3/4" | 1/2" | 35 | ø7 | 32 | 14 | 28 | 36 | 59.5 | 42.5 | 40 | 26 |
| LQ2R5B-M | 1/2" | | | | | | | | | | | |
| LQ2R5C-M | 3/4" | 3/4" | 33.5 | ø7 | 32 | 14 | 28 | 36 | 58.5 | 42.5 | 40 | 26 |
| LQ2R5D-M | 1/2" | | | | | | | | | | | |

Series LQ2

Dimensions

Female Run Tee: LQ2R-F



Metric sizes

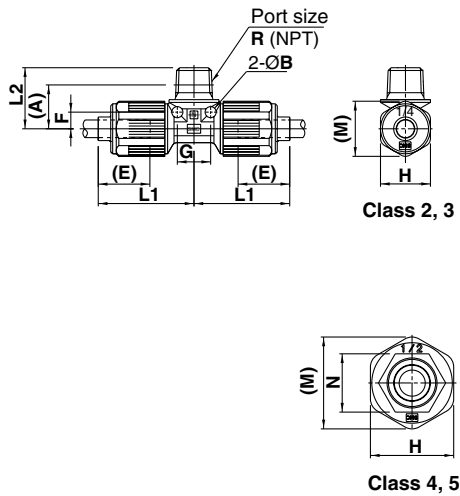
| Model | Applicable tubing O.D. | Connection threads Rc/NPT | B | E | F | G | H | L1 | L2 | M | N | Y |
|-----------|------------------------|---------------------------|----|----|----|----|----|------|------|------|----|-------|
| LQ2R21-F□ | ø6 | 1/8" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 18.7 | 19.9 | — | ø18.5 |
| LQ2R22-F□ | ø4 | | | | | | | | 22.5 | | | |
| LQ2R23-F□ | ø6 | 1/4" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22.5 | 19.9 | — | ø21.5 |
| LQ2R24-F□ | ø4 | | | | | | | | 22.5 | | | |
| LQ2R31-F□ | ø10 | 1/4" | ø5 | 22 | 9 | 18 | 24 | 43 | 23.5 | 26.2 | — | ø21.5 |
| LQ2R32-F□ | ø8 | | | | | | | 42.5 | | | | |
| LQ2R33-F□ | ø6 | 3/8" | ø5 | 22 | 9 | 18 | 24 | 43 | 26 | 26.2 | — | ø25 |
| LQ2R34-F□ | ø10 | | | | | | | 42.5 | | | | |
| LQ2R35-F□ | ø8 | 3/8" | ø5 | 22 | 9 | 18 | 24 | 43 | 26 | 26.2 | — | ø25 |
| LQ2R36-F□ | ø6 | | | | | | | 42.5 | | | | |
| LQ2R41-F□ | ø12 | 3/8" | ø6 | 28 | 11 | 22 | 30 | 52 | 27 | 33.1 | 21 | ø25 |
| LQ2R42-F□ | ø10 | | | | | | | 51 | | | | |
| LQ2R43-F□ | ø12 | 1/2" | ø6 | 28 | 11 | 22 | 30 | 52 | 32 | 33.1 | 21 | ø29.5 |
| LQ2R44-F□ | ø10 | | | | | | | 51 | | | | |
| LQ2R51-F□ | ø19 | 1/2" | ø7 | 32 | 14 | 28 | 36 | 59.5 | 35.5 | 40 | 26 | ø29.5 |
| LQ2R52-F□ | ø12 | | | | | | | 58.5 | | | | |
| LQ2R53-F□ | ø19 | 3/4" | ø7 | 32 | 14 | 28 | 36 | 59.5 | 37 | 40 | 26 | ø36 |
| LQ2R54-F□ | ø12 | | | | | | | 58.5 | | | | |

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

Inch sizes

| Model | Applicable tubing O.D. | Connection threads Rc/NPT | B | E | F | G | H | L1 | L2 | M | N | Y |
|-----------|------------------------|---------------------------|----|----|----|----|----|------|------|------|----|-------|
| LQ2R2A-F□ | 1/4" | 1/8" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 18.7 | 19.9 | — | ø18.5 |
| LQ2R2B-F□ | 3/16" | | | | | | | | 22.5 | | | |
| LQ2R2C-F□ | 1/8" | 1/4" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22.5 | 19.9 | — | ø21.5 |
| LQ2R2D-F□ | 1/4" | | | | | | | | 22.5 | | | |
| LQ2R2E-F□ | 3/16" | 1/4" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22.5 | 19.9 | — | ø21.5 |
| LQ2R2F-F□ | 1/8" | | | | | | | | 22.5 | | | |
| LQ2R3A-F□ | 3/8" | 1/4" | ø5 | 22 | 9 | 18 | 24 | 43 | 23.5 | 26.2 | — | ø21.5 |
| LQ2R3B-F□ | 1/4" | | | | | | | 42.5 | | | | |
| LQ2R3C-F□ | 3/8" | 3/8" | ø5 | 22 | 9 | 18 | 24 | 43 | 26 | 26.2 | — | ø25 |
| LQ2R3D-F□ | 1/4" | | | | | | | 42.5 | | | | |
| LQ2R4A-F□ | 1/2" | 3/8" | ø6 | 28 | 11 | 22 | 30 | 52 | 27 | 33.1 | 21 | ø25 |
| LQ2R4B-F□ | 3/8" | | | | | | | 51 | | | | |
| LQ2R4C-F□ | 1/2" | 1/2" | ø6 | 28 | 11 | 22 | 30 | 51 | 32 | 33.1 | 21 | ø29.5 |
| LQ2R4D-F□ | 3/8" | | | | | | | 51 | | | | |
| LQ2R5A-F□ | 3/4" | 1/2" | ø7 | 32 | 14 | 28 | 36 | 59.5 | 35.5 | 40 | 26 | ø29.5 |
| LQ2R5B-F□ | 1/2" | | | | | | | 58.5 | | | | |
| LQ2R5C-F□ | 3/4" | 3/4" | ø7 | 32 | 14 | 28 | 36 | 59.5 | 37 | 40 | 26 | ø36 |
| LQ2R5D-F□ | 1/2" | | | | | | | 58.5 | | | | |

Male Branch Tee: LQ2B-M



(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 | B | E | F | G | H | L1 | L2 | M | N |
|-----------|------------------------|--------------------------|------|----|----|----|----|----|------|------|------|----|
| LQ2B21-M□ | ø6 | 1/8" | 18.5 | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — |
| LQ2B22-M□ | ø4 | | | | | | | | | | | |
| LQ2B23-M□ | ø6 | | | | | | | | | | | |
| LQ2B24-M□ | ø4 | 1/4" | 16.5 | ø5 | 22 | 9 | 18 | 24 | 29.5 | 26.2 | — | |
| LQ2B31-M□ | ø10 | | | | | | | | | | | |
| LQ2B32-M□ | ø8 | 1/4" | 23.5 | ø5 | 22 | 9 | 18 | 24 | 43 | 29.5 | 26.2 | — |
| LQ2B33-M□ | ø6 | | | | | | | | 42.5 | | | |
| LQ2B34-M□ | ø10 | | | | | | | | 43 | | | |
| LQ2B35-M□ | ø8 | 3/8" | 23 | ø6 | 28 | 11 | 22 | 30 | 43 | 36 | 33.1 | 21 |
| LQ2B36-M□ | ø6 | | | | | | | | 42.5 | | | |
| LQ2B41-M□ | ø12 | 3/8" | 30 | ø6 | 28 | 11 | 22 | 30 | 52 | 36 | 33.1 | 21 |
| LQ2B42-M□ | ø10 | | | | | | | | 51 | | | |
| LQ2B43-M□ | ø12 | | | | | | | | 52 | | | |
| LQ2B44-M□ | ø10 | 1/2" | 28.5 | ø6 | 28 | 11 | 22 | 30 | 51 | 36 | 33.1 | 21 |
| LQ2B51-M□ | ø19 | | | | | | | | 59.5 | | | |
| LQ2B52-M□ | ø12 | 1/2" | 35 | ø7 | 32 | 14 | 28 | 36 | 58.5 | 42.5 | 40 | 26 |
| LQ2B53-M□ | ø19 | | | | | | | | 59.5 | | | |
| LQ2B54-M□ | ø12 | | | | | | | | 58.5 | | | |

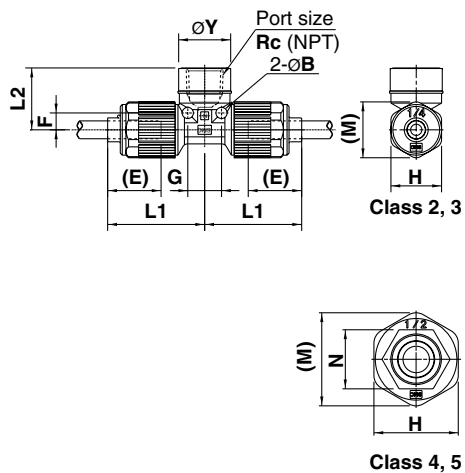
Inch sizes

| Model | Applicable tubing O.D. | Connection threads R/NPT | A | B | E | F | G | H | L1 | L2 | M | N |
|-----------|------------------------|--------------------------|------|----|----|----|----|----|------|------|------|----|
| LQ2B2A-M□ | 1/4" | 1/8" | 18.5 | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — |
| LQ2B2B-M□ | 3/16" | | | | | | | | | | | |
| LQ2B2C-M□ | 1/8" | | | | | | | | | | | |
| LQ2B2D-M□ | 1/4" | 1/4" | 16.5 | ø5 | 22 | 9 | 18 | 24 | 29.5 | 26.2 | — | |
| LQ2B2E-M□ | 3/16" | | | | | | | | | | | |
| LQ2B2F-M□ | 1/8" | 1/4" | 23.5 | ø5 | 22 | 9 | 18 | 24 | 43 | 29.5 | 26.2 | — |
| LQ2B3A-M□ | 3/8" | | | | | | | | 42.5 | | | |
| LQ2B3B-M□ | 1/4" | | | | | | | | 43 | | | |
| LQ2B3C-M□ | 3/8" | 3/8" | 23 | ø6 | 28 | 11 | 22 | 30 | 42.5 | 36 | 33.1 | 21 |
| LQ2B3D-M□ | 1/4" | | | | | | | | 51 | | | |
| LQ2B4A-M□ | 1/2" | 3/8" | 30 | ø6 | 28 | 11 | 22 | 30 | 52 | 36 | 33.1 | 21 |
| LQ2B4B-M□ | 3/8" | | | | | | | | 51 | | | |
| LQ2B4C-M□ | 1/2" | | | | | | | | 52 | | | |
| LQ2B4D-M□ | 3/8" | 1/2" | 28.5 | ø7 | 32 | 14 | 28 | 36 | 51 | 42.5 | 40 | 26 |
| LQ2B5A-M□ | 3/4" | | | | | | | | 59.5 | | | |
| LQ2B5B-M□ | 1/2" | 1/2" | 35 | ø7 | 32 | 14 | 28 | 36 | 58.5 | 42.5 | 40 | 26 |
| LQ2B5C-M□ | 3/4" | | | | | | | | 59.5 | | | |
| LQ2B5D-M□ | 1/2" | | | | | | | | 58.5 | | | |

Series LQ2

Dimensions

Female Branch Tee: LQ2B-F



Metric sizes

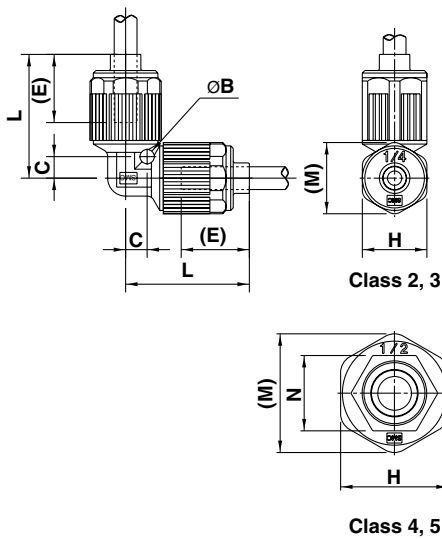
| Model | Applicable tubing O.D. | Connection threads Rc/NPT | B | E | F | G | H | L1 | L2 | M | N | Y |
|-----------|------------------------|---------------------------|----|----|----|----|----|------|------|------|----|-------|
| LQ2B21-F□ | ø6 | 1/8" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 18.7 | 19.9 | — | ø18.5 |
| LQ2B22-F□ | ø4 | | | | | | | | 22 | | | |
| LQ2B23-F□ | ø6 | 1/4" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — | ø21.5 |
| LQ2B24-F□ | ø4 | | | | | | | | 22 | | | |
| LQ2B31-F□ | ø10 | 1/4" | ø5 | 22 | 9 | 18 | 24 | 43 | 22.2 | 26.2 | — | ø21.5 |
| LQ2B32-F□ | ø8 | | | | | | | 47.5 | | | | |
| LQ2B33-F□ | ø6 | 3/8" | ø5 | 22 | 9 | 18 | 24 | 43 | 24 | 26.2 | — | ø25 |
| LQ2B34-F□ | ø10 | | | | | | | 42.5 | | | | |
| LQ2B35-F□ | ø8 | 3/8" | ø5 | 22 | 9 | 18 | 24 | 52 | 27 | 33.1 | 21 | ø25 |
| LQ2B36-F□ | ø6 | | | | | | | 51 | | | | |
| LQ2B41-F□ | ø12 | 3/8" | ø6 | 28 | 11 | 22 | 30 | 52 | 32 | 33.1 | 21 | ø29.5 |
| LQ2B42-F□ | ø10 | | | | | | | 51 | | | | |
| LQ2B43-F□ | ø12 | 1/2" | ø6 | 28 | 11 | 22 | 30 | 52 | 32 | 33.1 | 21 | ø29.5 |
| LQ2B44-F□ | ø10 | | | | | | | 51 | | | | |
| LQ2B51-F□ | ø19 | 1/2" | ø7 | 32 | 14 | 28 | 36 | 59.5 | 35.5 | 40 | 26 | ø29.5 |
| LQ2B52-F□ | ø12 | | | | | | | 58.5 | | | | |
| LQ2B53-F□ | ø19 | 3/4" | ø7 | 32 | 14 | 28 | 36 | 59.5 | 37 | 40 | 26 | ø36 |
| LQ2B54-F□ | ø12 | | | | | | | 58.5 | | | | |

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

Inch sizes

| Model | Applicable tubing O.D. | Connection threads Rc/NPT | B | E | F | G | H | L1 | L2 | M | N | Y |
|-----------|------------------------|---------------------------|----|----|----|----|----|------|------|------|----|-------|
| LQ2B2A-F□ | 1/4" | 1/8" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 18.7 | 19.9 | — | ø18.5 |
| LQ2B2B-F□ | 3/16" | | | | | | | | 22 | | | |
| LQ2B2C-F□ | 1/8" | 1/4" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — | ø21.5 |
| LQ2B2D-F□ | 1/4" | | | | | | | | 22 | | | |
| LQ2B2E-F□ | 3/16" | 1/4" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 22 | 19.9 | — | ø21.5 |
| LQ2B2F-F□ | 1/8" | | | | | | | | 22 | | | |
| LQ2B3A-F□ | 3/8" | 1/4" | ø5 | 22 | 9 | 18 | 24 | 43 | 22.2 | 26.2 | — | ø21.5 |
| LQ2B3B-F□ | 1/4" | | | | | | | 42.5 | | | | |
| LQ2B3C-F□ | 3/8" | 3/8" | ø5 | 22 | 9 | 18 | 24 | 43 | 24 | 26.2 | — | ø25 |
| LQ2B3D-F□ | 1/4" | | | | | | | 42.5 | | | | |
| LQ2B4A-F□ | 1/2" | 3/8" | ø6 | 28 | 11 | 22 | 30 | 52 | 27 | 33.1 | 21 | ø25 |
| LQ2B4B-F□ | 3/8" | | | | | | | 51 | | | | |
| LQ2B4C-F□ | 1/2" | 1/2" | ø6 | 28 | 11 | 22 | 30 | 52 | 32 | 33.1 | 21 | ø29.5 |
| LQ2B4D-F□ | 3/8" | | | | | | | 51 | | | | |
| LQ2B5A-F□ | 3/4" | 1/2" | ø7 | 32 | 14 | 28 | 36 | 59.5 | 35.5 | 40 | 26 | ø29.5 |
| LQ2B5B-F□ | 1/2" | | | | | | | 58.5 | | | | |
| LQ2B5C-F□ | 3/4" | 3/4" | ø7 | 32 | 14 | 28 | 36 | 59.5 | 37 | 40 | 26 | ø36 |
| LQ2B5D-F□ | 1/2" | | | | | | | 58.5 | | | | |

Union Elbow: LQ2E



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

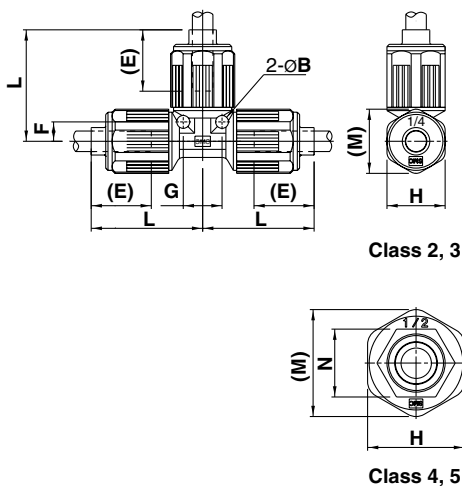
Metric sizes

| Model | Applicable tubing O.D. | B | C | E | H | L | M | N |
|----------|------------------------|----|----|----|----|------|------|----|
| LQ2E21□□ | ø6 | ø4 | 6 | 19 | 18 | 34.5 | 19.9 | — |
| LQ2E22□□ | ø4 | | | | | | | |
| LQ2E31□□ | ø10 | ø5 | 9 | 22 | 24 | 43 | 26.2 | — |
| LQ2E32□□ | ø8 | | | | | | | |
| LQ2E33□□ | ø6 | | | | | 42.5 | | |
| LQ2E41□□ | ø12 | ø6 | 11 | 28 | 30 | 52 | 33.1 | 21 |
| LQ2E42□□ | ø10 | | | | | 51 | | |
| LQ2E51□□ | ø19 | ø7 | 14 | 32 | 36 | 59.5 | 40 | 26 |
| LQ2E52□□ | ø12 | | | | | 58.5 | | |

Inch sizes

| Model | Applicable tubing O.D. | B | C | E | H | L | M | N |
|----------|------------------------|------|----|----|----|------|------|----|
| LQ2E2A□□ | 1/4" | ø4 | 6 | 19 | 18 | 34.5 | 19.9 | — |
| LQ2E2B□□ | 3/16" | | | | | | | |
| LQ2E2C□□ | 1/8" | | | | | | | |
| LQ2E3A□□ | 3/8" | ø5 | 9 | 22 | 24 | 43 | 26.2 | — |
| LQ2E3B□□ | 1/4" | | | | | 42.5 | | |
| LQ2E4A□□ | 1/2" | ø6 | 11 | 28 | 30 | 52 | 33.1 | 21 |
| LQ2E4B□□ | 3/8" | | | | | 51 | | |
| LQ2E5A□□ | 3/4" | | | | | ø7 | | |
| LQ2E5B□□ | 1/2" | 58.5 | | | | | | |

Union Tee: LQ2T



(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 | N |
|----------|------------------------|----|----|----|----|----|------|------|----|
| LQ2T21□□ | ø6 | ø4 | 19 | 6 | 12 | 18 | 34.5 | 19.9 | — |
| LQ2T22□□ | ø4 | | | | | | | | |
| LQ2T31□□ | ø10 | ø5 | 22 | 9 | 18 | 24 | 43 | 26.2 | — |
| LQ2T32□□ | ø8 | | | | | | | | |
| LQ2T33□□ | ø6 | | | | | | 42.5 | | |
| LQ2T41□□ | ø12 | ø6 | 28 | 11 | 22 | 30 | 52 | 33.1 | 21 |
| LQ2T42□□ | ø10 | | | | | | 51 | | |
| LQ2T51□□ | ø19 | ø7 | 32 | 14 | 28 | 36 | 59.5 | 40 | 26 |
| LQ2T52□□ | ø12 | | | | | | 58.5 | | |

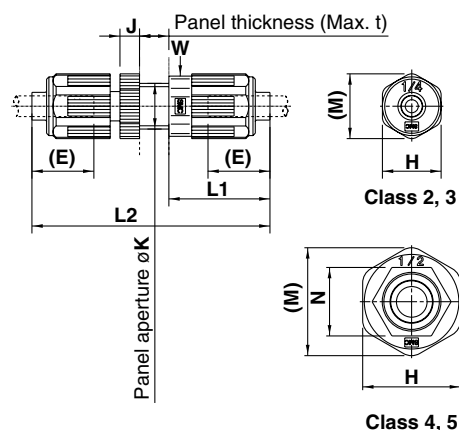
Inch sizes

| Model | Applicable tubing O.D. | B | E | F | G | H | L | M | N |
|----------|------------------------|------|----|----|----|----|------|------|----|
| LQ2T2A□□ | 1/4" | ø4 | 19 | 6 | 12 | 18 | 34.5 | 19.9 | — |
| LQ2T2B□□ | 3/16" | | | | | | | | |
| LQ2T2C□□ | 1/8" | | | | | | | | |
| LQ2T3A□□ | 3/8" | ø5 | 22 | 9 | 18 | 24 | 43 | 26.2 | — |
| LQ2T3B□□ | 1/4" | | | | | | 42.5 | | |
| LQ2T4A□□ | 1/2" | ø6 | 28 | 11 | 22 | 30 | 52 | 33.1 | 21 |
| LQ2T4B□□ | 3/8" | | | | | | 51 | | |
| LQ2T5A□□ | 3/4" | | | | | | ø7 | | |
| LQ2T5B□□ | 1/2" | 58.5 | | | | | | | |

Series LQ2

Dimensions

Panel Mount Union: LQ2P



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

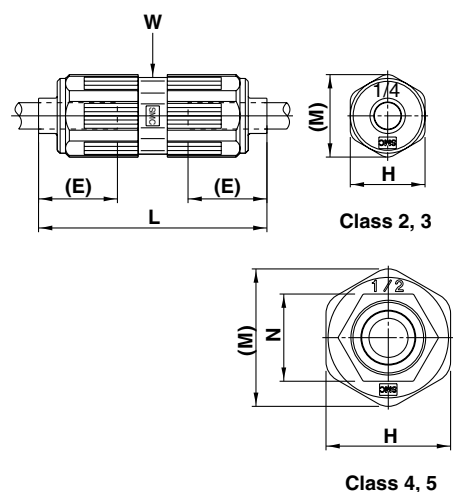
Metric sizes

| Model | Applicable tubing O.D. | E | H | J | K | L1 | L2 | M | N | t | W |
|----------|------------------------|----|----|---|-------|----|-----|------|----|----|----|
| LQ2P21□□ | ø6 | 19 | 18 | 6 | ø14.5 | 31 | 73 | 19.9 | - | 7 | 16 |
| LQ2P22□□ | ø4 | | | | | | | | | | |
| LQ2P31□□ | ø10 | 22 | 24 | 6 | ø20.5 | 36 | 83 | 26.2 | - | 7 | 24 |
| LQ2P32□□ | ø8 | | | | | | | | | | |
| LQ2P33□□ | ø6 | 28 | 30 | 9 | ø24.5 | 42 | 95 | 33.1 | 21 | 7 | 30 |
| LQ2P41□□ | ø12 | | | | | | | | | | |
| LQ2P42□□ | ø10 | 32 | 36 | 9 | ø30.5 | 40 | 93 | 40 | 26 | 10 | 36 |
| LQ2P51□□ | ø19 | | | | | | | | | | |
| LQ2P52□□ | ø12 | | | | | 47 | 108 | | | | |

Inch sizes

| Model | Applicable tubing O.D. | E | H | J | K | L1 | L2 | M | N | t | W |
|----------|------------------------|----|----|---|-------|----|-----|------|----|----|----|
| LQ2P2A□□ | 1/4" | 19 | 18 | 6 | ø14.5 | 31 | 73 | 19.9 | - | 7 | 16 |
| LQ2P2B□□ | 3/16" | | | | | | | | | | |
| LQ2P2C□□ | 1/8" | | | | | | | | | | |
| LQ2P3A□□ | 3/8" | 22 | 24 | 6 | ø20.5 | 36 | 83 | 26.2 | - | 7 | 24 |
| LQ2P3B□□ | 1/4" | | | | | | | | | | |
| LQ2P4A□□ | 1/2" | 28 | 30 | 9 | ø24.5 | 42 | 95 | 33.1 | 21 | 7 | 30 |
| LQ2P4B□□ | 3/8" | | | | | | | | | | |
| LQ2P5A□□ | 3/4" | 32 | 36 | 9 | ø30.5 | 49 | 110 | 40 | 26 | 10 | 36 |
| LQ2P5B□□ | 1/2" | | | | | | | | | | |

Union: LQ2U



(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 | L | M | N | W |
|----------|------------------------|----|----|----|------|----|----|
| LQ2U21□□ | ø6 | 19 | 18 | 55 | 19.9 | - | 16 |
| LQ2U22□□ | ø4 | | | | | | |
| LQ2U31□□ | ø10 | 22 | 24 | 65 | 26.2 | - | 24 |
| LQ2U32□□ | ø8 | | | | | | |
| LQ2U33□□ | ø6 | 28 | 30 | 77 | 33.1 | 21 | 30 |
| LQ2U41□□ | ø12 | | | | | | |
| LQ2U42□□ | ø10 | 32 | 36 | 88 | 40 | 26 | 36 |
| LQ2U51□□ | ø19 | | | | | | |
| LQ2U52□□ | ø12 | | | 86 | | | |

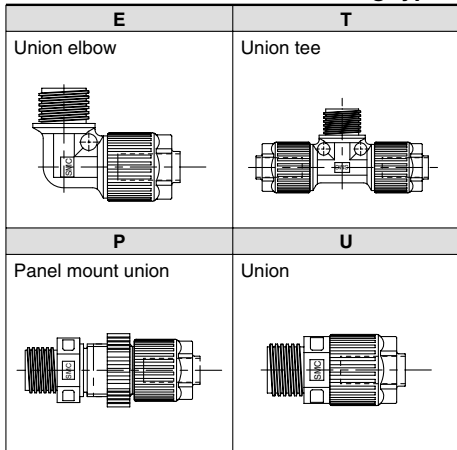
Inch sizes

| Model | Applicable tubing O.D. | E | H | L | M | N | W |
|----------|------------------------|----|----|----|------|----|----|
| LQ2U2A□□ | 1/4" | 19 | 18 | 55 | 19.9 | - | 16 |
| LQ2U2B□□ | 3/16" | | | | | | |
| LQ2U2C□□ | 1/8" | | | | | | |
| LQ2U3A□□ | 3/8" | 22 | 24 | 65 | 26.2 | - | 24 |
| LQ2U3B□□ | 1/4" | | | | | | |
| LQ2U4A□□ | 1/2" | 28 | 30 | 77 | 33.1 | 21 | 30 |
| LQ2U4B□□ | 3/8" | | | | | | |
| LQ2U5A□□ | 3/4" | 32 | 36 | 88 | 40 | 26 | 36 |
| LQ2U5B□□ | 1/2" | | | | | | |

How to Order Space Saving Fittings

LQ1 E 21 - S

Fitting type



• One nut (including insert bushing) of the nuts is not attached.
Please refer to below piping example.

• Combination of different diameter (on B side)

| 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 |
| 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 |

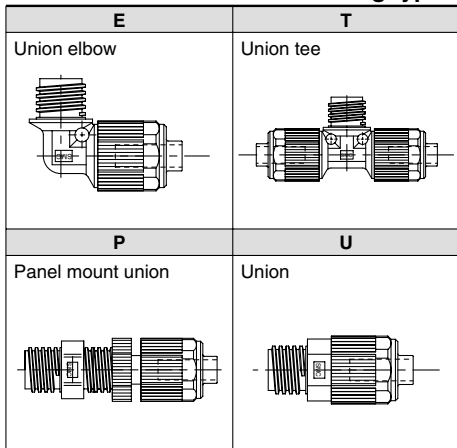
| Class | No. | Applicable tubing size (mm) |
|-------|-----|-----------------------------|
| 1 | A | 1/8" x 0.086" |
| — | — | — |
| 2 | A | 1/4" x 5/32" |
| 2 | B | 3/16" x 1/8" |
| 2 | C | 1/8" x 0.086" |
| 3 | A | 3/8" x 1/4" |
| 3 | B | 1/4" x 5/32" |
| 4 | A | 1/2" x 3/8" |
| 4 | B | 3/8" x 1/4" |
| 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) 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.

LQ2 E 21 - S

Fitting type



• One nut (including insert bushing) of the nuts is not attached.
Please refer to below piping example.

⑤ Applicable tubing size

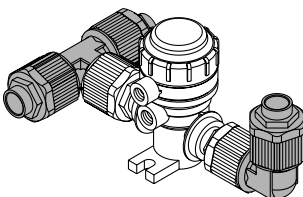
| Class | No. | Applicable tubing size (mm) |
|-------|-----|-----------------------------|
| 2 | 1 | 6 x 4 |
| 2 | 2 | 4 x 3 |
| 3 | 1 | 10 x 8 |
| 3 | 2 | 8 x 6 |
| 3 | 3 | 6 x 4 |
| 4 | 1 | 12 x 10 |
| 4 | 2 | 10 x 8 |
| 5 | 1 | 19 x 16 |
| 5 | 2 | 12 x 10 |

| Class | No. | Applicable tubing size (mm) |
|-------|-----|-----------------------------|
| 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" |



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

Piping Example



Options

Panel mounting nut

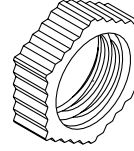
LQN P 2 - []

Applicable fitting

| Symbol | | Class |
|--------|-----|-------|
| LQ1 | LQ2 | |
| 11 | - | 1 |
| 12 | 2 | 2 |
| 13 | 3 | 3 |
| 14 | 4 | 4 |
| 15 | 5 | 5 |
| 16 | - | 6 |

Packaging

| | |
|-----|-------------------------------|
| Nil | Clean packaging Class M3.5 |
| 1 | Standard packaging Class M5.5 |



Used to secure a panel with a panel mount union.

Nut insert bushing

LQ [] - 2 U 03 - []

* The U type is recommended when changing tubing sizes.

Applicable fitting

| Symbol | Application |
|--------|-------------|
| Nil | For LQ2 |
| 1 | For LQ1 |

Packaging

| | |
|-----|-------------------------------|
| Nil | Clean packaging Class M3.5 |
| 1 | Standard packaging Class M5.5 |

Class

| Symbol | Class |
|--------|-------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |
| 6 | 6 |

Applicable tubing size

| Symbol | Connection tubing size | Class | | | | | |
|--------|------------------------|------------------|---|---|---|---|---|
| | | LQ1 LQ1, LQ2 LQ1 | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 |

Metric sizes

| | | | | | | | |
|----|-------------|---|---|---|---|---|---|
| 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 | | | | | | ○ |

| Symbol | Connection tubing size | Class | | | | | |
|--------|------------------------|------------------|---|---|---|---|---|
| | | LQ1 LQ1, LQ2 LQ1 | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 |

Inch sizes

| | | | | | | | |
|----|---------------|---|---|---|---|---|---|
| 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" | | | | | | ○ |

Type of parts

| Symbol | Parts |
|--------|----------------------|
| U | Insert bushing + Nut |
| B | Insert bushing |
| N | Nut |



Note) In case of size 1, the tubing cannot be changed by reducing.

Blanking plug

LQ - 2 P 07 - []

Packaging

| | |
|-----|-------------------------------|
| Nil | Clean packaging Class M3.5 |
| 1 | Standard packaging Class M5.5 |

Applicable fitting

| Symbol | | Class |
|--------|-----|-------|
| LQ1 | LQ2 | |
| 11 | - | 1 |
| 12 | 2 | 2 |
| 13 | 3 | 3 |
| 14 | 4 | 4 |
| 15 | 5 | 5 |
| 16 | - | 6 |

Applicable tubing size

| Symbol | Connection tubing size | Class | | | | | |
|--------|------------------------|------------------|---|---|---|---|---|
| | | LQ1 LQ1, LQ2 LQ1 | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 |

Metric sizes

| | | | | | | | |
|----|-------------|---|---|---|---|---|---|
| 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 | | | | | | ○ |

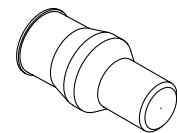
| Symbol | Connection tubing size | Class | | | | | |
|--------|------------------------|------------------|---|---|---|---|---|
| | | LQ1 LQ1, LQ2 LQ1 | | | | | |
| | | 1 | 2 | 3 | 4 | 5 | 6 |

Inch sizes

| | | | | | | | |
|----|---------------|---|---|---|---|---|---|
| 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

○ Basic size ● With reducer



Used to block fittings which are not being used.

Series LQ₂¹ 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 size 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

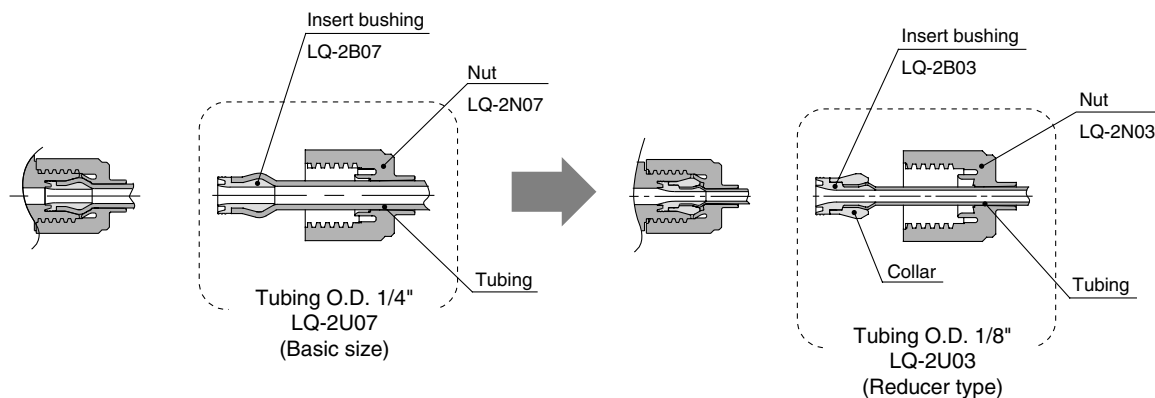
| | Component parts | | |
|----------------|-----------------|--------|--------------------------|
| | Nut | Insert | Collar (Insert assembly) |
| ○ Basic size | Yes | Yes | No |
| ● Reducer type | Yes | Yes | Yes |

Changing the tubing size

Example) Changing the tubing from an O.D. 1/4" to O.D. 1/8" in LQ2 body class 2.

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

 Note) Tubing is sold separately.



Special Tools

How to order insertion tool

LQ-G J [] - [] - []

Insert pin material

| | |
|-----|---------------------------|
| Nil | Resin |
| S | Stainless (J/K type only) |

Insert pin/Holder type

| | |
|-----|-------------|
| Nil | Metric size |
| N | Inch size |

Note 1) Compatible pins and holders are included with all sizes. (with parts case)

Option (L/M type only)

| Symbol | Option |
|--------|---------------|
| Nil | None |
| B | With brackets |

Type

| Symbol | Body class | J type | K type |
|--------|------------------|--------|--------|
| J · K | 1, 2 | | |
| L · M | 1, 2, 3, 4, 5, 6 | | |

Option

| Description | Part no. |
|------------------|----------|
| Bracket assembly | LQ-GBL |

Table 1 Tubing size symbols

| Type | Body class | Tubing O.D. | | | | | | | | | | | | | | | |
|------|------------|--------------|----|----|----|-----|-----|-----|-----|-------------------------|-------|------|------|------|------|----|--|
| | | Metric sizes | | | | | | | | Tubing outside diameter | | | | | | | |
| | | ø3 | ø4 | ø6 | ø8 | ø10 | ø12 | ø19 | ø25 | 1/8" | 3/16" | 1/4" | 3/8" | 1/2" | 3/4" | 1" | |
| J | 1 | 03 | 04 | — | — | — | — | — | — | 03 | — | — | — | — | — | — | |
| | 2 | — | 04 | 06 | — | — | — | — | — | 03 | 05 | 07 | — | — | — | — | |
| L | 1 | 03 | 04 | — | — | — | — | — | — | 03 | — | — | — | — | — | — | |
| | 2 | — | 04 | 06 | — | — | — | — | — | 03 | 05 | 07 | — | — | — | — | |
| | 3 | — | — | 06 | 08 | 10 | — | — | — | — | — | 07 | 11 | — | — | — | |
| | 4 | — | — | — | — | 10 | 12 | — | — | — | — | — | 11 | 13 | — | — | |
| | 5 | — | — | — | — | — | 12 | 19 | — | — | — | — | 13 | 19 | — | | |
| | 6 | — | — | — | — | — | — | 19 | 25 | — | — | — | — | 19 | 25 | | |

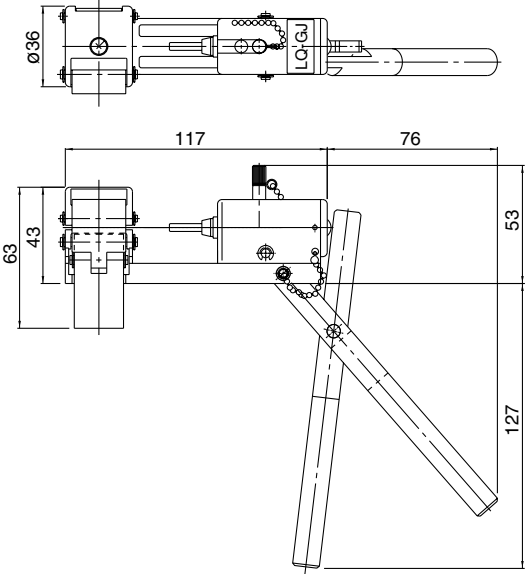
Replacement parts

| Description | Part No. | | | | | | | | |
|--|--|-----|-------|---|-----------------|-----|--------------|---|------------|
| Insert pin holder assembly (with the parts case) | <p>LQ-GP J [] - []</p> <p>Type ↓</p> <p>Insert pin material (J/K type only)</p> <table border="1"> <tr> <td>Nil</td> <td>Resin</td> </tr> <tr> <td>S</td> <td>Stainless steel</td> </tr> </table> <p>Insert pin/Holder type</p> <table border="1"> <tr> <td>Nil</td> <td>Metric sizes</td> </tr> <tr> <td>N</td> <td>Inch sizes</td> </tr> </table> | Nil | Resin | S | Stainless steel | Nil | Metric sizes | N | Inch sizes |
| Nil | Resin | | | | | | | | |
| S | Stainless steel | | | | | | | | |
| Nil | Metric sizes | | | | | | | | |
| N | Inch sizes | | | | | | | | |
| Insert pin (single) | <p>LQ-GP 2 J [] - 07</p> <p>Body class (Refer to Table 1) ↓</p> <p>Type ↓</p> <p>Tubing size symbol (Refer to Table 1) ↓</p> <p>Insert pin material (J/K type only)</p> <table border="1"> <tr> <td>Nil</td> <td>Resin</td> </tr> <tr> <td>S</td> <td>Stainless steel</td> </tr> </table> | Nil | Resin | S | Stainless steel | | | | |
| Nil | Resin | | | | | | | | |
| S | Stainless steel | | | | | | | | |
| Holder (single) | <p>LQ-GH J - 07</p> <p>Tubing size symbol (Refer to Table 1) ↓</p> <p>Type ↓</p> | | | | | | | | |

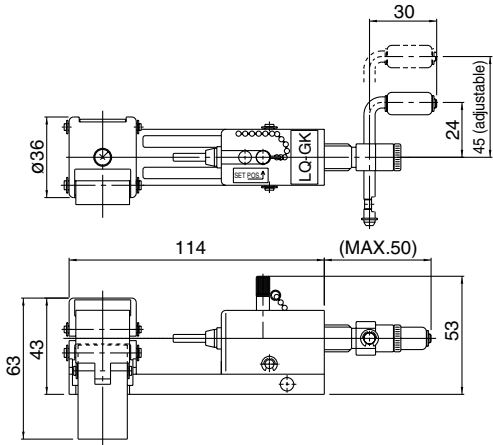
Note 1) Replacement part type J shows the parts for LQ-GJ and LQ-GK. Replacement part type L shows the parts for LQ-GL and LQ-GM.

Dimensions

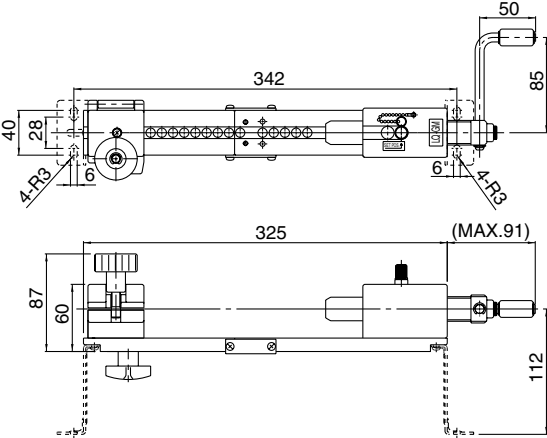
LQ-GJ



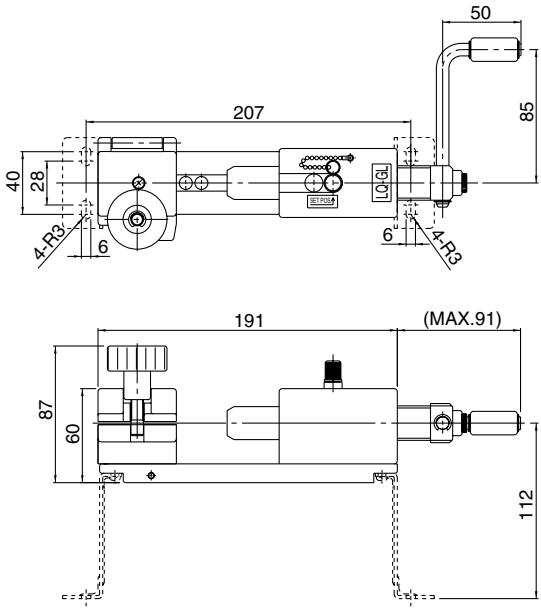
LQ-GK



LQ-GM



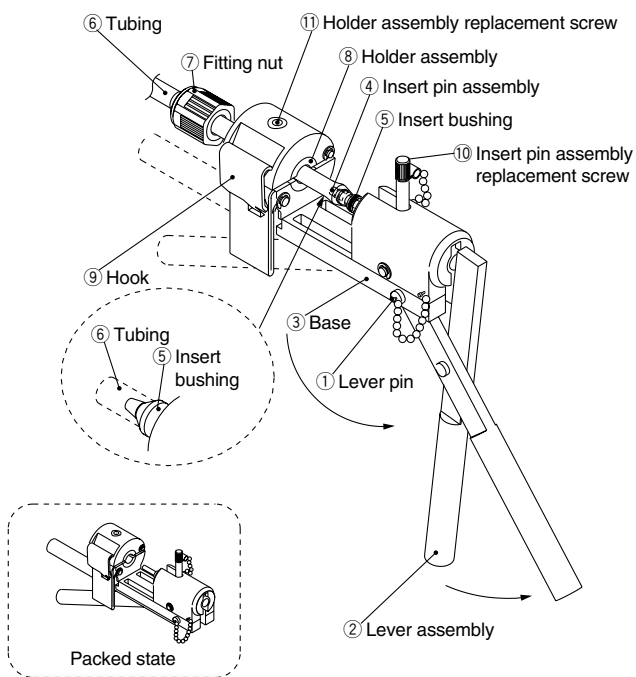
LQ-GL



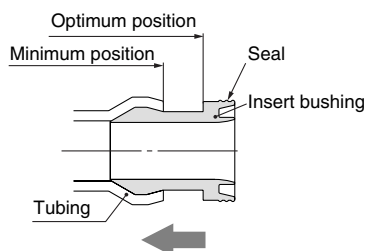
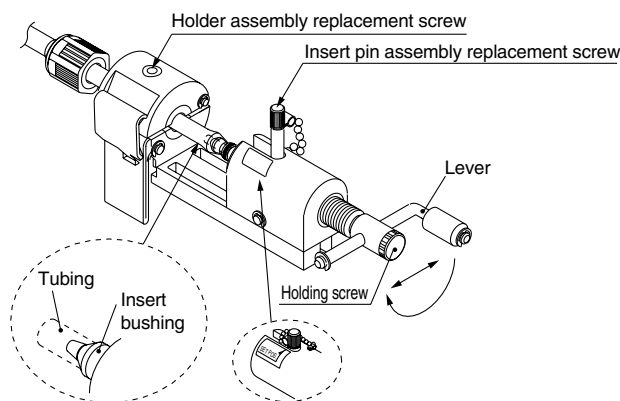
Fitting Assembly Procedure

Assemble fittings following the procedure shown below.

J type



K type



J type fitting assembly procedure

- 1 Pull out the lever pin ①. Rotate the lever assembly ② to align the holes on the lever assembly ② and the base ③. Insert the lever pin ① into the holes to fix the lever assembly ②.
 - 2 Place the insert bushing ⑤ on the insert pin assembly ④.
 - 3 Cut the end of the tubing ⑥ at a right angle and pass it through the fitting nut ⑦. After placing the tubing ⑥ in the holder assembly ⑧, push it onto the insert bushing ⑤ until it stops and clamp it with the hook ⑨.
- ⚠ Caution**
- When the tubing ⑥ is curved, straighten it out before using it.
 - The tubing ⑥ may slip if there is oil or dust, etc., on the holder assembly ⑧. Remove the contamination using alcohol or another suitable cleaner.
- 4 Press the insert bushing ⑤ into the tubing ⑥ by turning the lever assembly ②.
 - 5 To replace the insert pin assembly ④ and holder assembly ⑧, use the insert pin assembly replacement screw ⑩ and the holder assembly replacement screws ⑪, respectively.

K type fitting assembly procedure

- For procedure to set and press fit the insert pin assembly, refer to L, M type fitting assembly procedures.
- For procedure to set the tubing, refer to J type procedure.

- 1 } Refer to J type assembly procedure.
- 5 }
- 6 Tighten the fitting nut ⑦ until it reaches the prescribed position on the body (end face). As a guide, refer to the proper tightening torques shown below.

Nut tightening torque for piping

| Body class | Torque (Nm) | |
|------------|-------------|------------|
| | LQ1 | LQ2 |
| 2 | 0.3 to 0.4 | 1.5 to 2.0 |

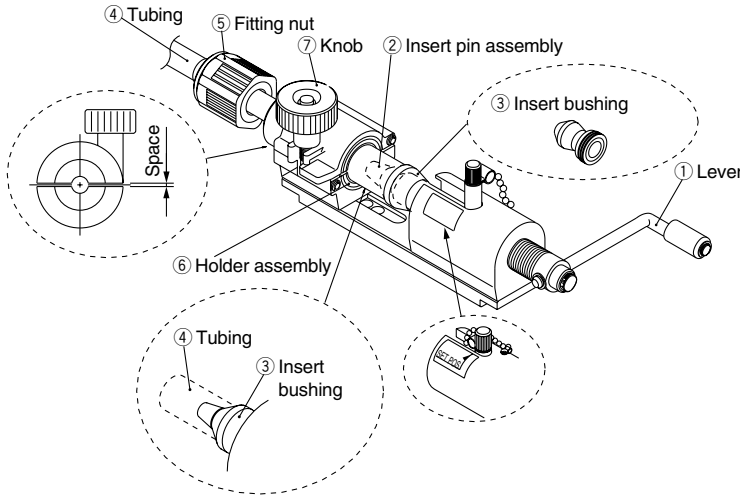
Note 1) In case of body class 1, the nut should be tightened manually.

⚠ Precautions on installation

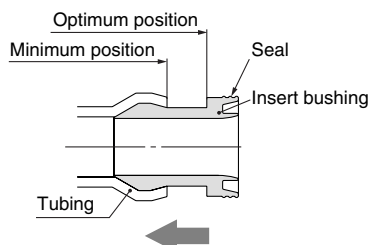
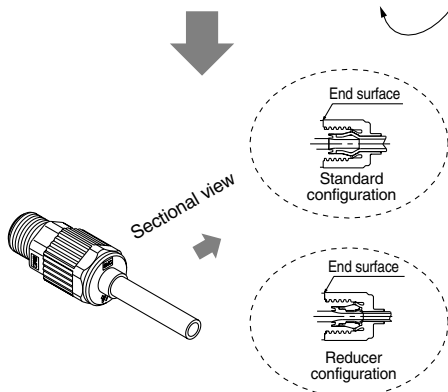
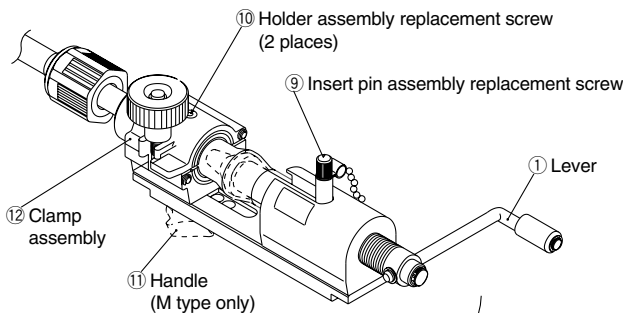
- Be careful not to scratch or dent the seal of the insert bushing. (Refer to the illustration on the left.)
- When the insert bushing inserted, its tubing end should be closer to seal side than the minimum position. (Refer to the illustration on the left.)

Assemble fittings following the procedure shown below.

L type



M type



L/M type fitting assembly procedure

- 1 Turn the lever ① and move to SET POS.
- 2 Place the insert bushing ③ on the insert pin assembly ②.
- 3 Cut the end of the tubing ④ at a right angle and pass it through the fitting nut ⑤. After placing the tubing ④ in the holder assembly ⑥, push it onto the insert bushing ③ until it stops and clamp it with the knob ⑦. As a guide when tightening the tubing ④ with the knob ⑦, maintain a uniform gap on both sides of the holder.
- ⚠ Caution**
 - When the tubing ④ is curved, straighten it out before using it.
 - The tubing ④ may slip if there is oil or dust, etc., on the holder assembly ⑥. Remove the contamination using alcohol or another suitable cleaner.
- 4 Press the insert bushing ③ into the tubing ④ by turning the lever ①. (Pressing in can be accomplished with 2 or 3 turns of the lever ①.)
- 5 To replace the insert pin assembly ② and holder assembly ⑥, use the insert pin assembly replacement screw ⑨ and the holder assembly replacement screws ⑩, respectively.
- 6 In case of M type for short piping, remove the handle ⑪, slide the clamp assembly ⑫ to attain the specified length, then secure it again with the handle.
- 7 Tighten the fitting nut ⑤ to the prescribed position on the body (end face). As a guide, refer to the proper tightening torques shown below.

Nut tightening torque for piping

| Body class | Torque (Nm) | |
|------------|-------------|------------|
| | LQ1 | LQ2 |
| 2 | 0.3 to 0.4 | 1.5 to 2.0 |
| 3 | 0.8 to 1.0 | 3.0 to 3.5 |
| 4 | 1.0 to 1.2 | 7.5 to 9 |
| 5 | 2.5 to 3.0 | 11 to 13 |
| 6 | 5.5 to 6.0 | — |

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

⚠ Precautions on installation

- Be careful not to scratch or dent the seal of the insert bushing. (Refer to the illustration on the left.)
- When the insert bushing inserted, its tubing end should be closer to seal side than the minimum position. (Refer to the illustration on the left.)