

# Inch-size One-touch Fittings

## Series KQ2

Applicable Tubing: Inch Size  
Connection Thread: UNF, NPT

### How to Order

**KQ 2 H 05 — 34 S**

One-touch fittings

Product's color

| Symbol | Body  | Release button |
|--------|-------|----------------|
| 2      | White | Orange         |
| Nil    | Black | Red            |

Applicable tubing O.D.

|    |      |
|----|------|
| 01 | 1/8  |
| 03 | 5/32 |
| 05 | 3/16 |
| 07 | 1/4  |
| 09 | 5/16 |
| 11 | 3/8  |
| 13 | 1/2  |

Port size/Applicable tubing O.D.

| Thread connection | Tubing (Rod) connection | Port size/Applicable tubing O.D. |
|-------------------|-------------------------|----------------------------------|
| 32                |                         | 10-32 UNF                        |
| 33                |                         | NPT 1/16                         |
| 34                |                         | NPT 1/8                          |
| 35                |                         | NPT 1/4                          |
| 36                |                         | NPT 3/8                          |
| 37                |                         | NPT 1/2                          |
| 00                |                         | Same dia. tubing                 |
| 99                |                         | Same dia. rod                    |
| 01                |                         | 1/8 tubing                       |
| 03                |                         | 5/32 tubing                      |
| 05                |                         | 3/16 tubing                      |
| 07                |                         | 1/4 tubing                       |
| 09                |                         | 5/16 tubing                      |
| 11                |                         | 3/8 tubing                       |
| 13                |                         | 1/2 tubing                       |

With thread seal

| Nil | None             |
|-----|------------------|
| S   | With thread seal |

Note) Port size with seal: Only  
NPT 1/16  
NPT 1/8  
NPT 1/4  
NPT 3/8  
NPT 1/2

K□  
M□  
H□  
D□  
MS  
T□  
VMG

#### Model

|    |                                            |
|----|--------------------------------------------|
| H  | Male connector                             |
|    | Straight                                   |
|    | Different dia. straight *                  |
| S  | Hexagon socket head male connector *       |
| F  | Female union *                             |
| L  | Male elbow                                 |
|    | Elbow                                      |
|    | Plug-in elbow                              |
|    | Reducer elbow                              |
| K  | 45° male elbow *                           |
| V  | Universal male elbow *                     |
| VS | Hexagon socket head universal male elbow * |
| VF | Universal female elbow *                   |
| LF | Female elbow *                             |
| VD | Double universal male elbow *              |
| VT | Tripple universal male elbow *             |
| Z  | Branch universal male elbow *              |
| ZD | Double branch universal male elbow *       |
| ZT | Triple branch universal male elbow *       |
| W  | Extended male elbow                        |
|    | Male branch tee                            |
| T  | Union tee                                  |
|    | Different dia. tee *                       |
| TW | Cross union                                |
| Y  | Male run tee *                             |
|    | Branch "Y"                                 |
| U  | Union "Y"                                  |
|    | Plug-in "Y"                                |
|    | Different dia. union "Y" *                 |
| X  | Different dia. plug-in "Y" *               |
| R  | Plug-in reducer                            |
| E  | Bulkhead union                             |
|    | Bulkhead connector                         |
| LE | Bulkhead union elbow *                     |



\* Available only for KQ2 (White color body).

#### Accessory

| Symbol     | Name           |
|------------|----------------|
| KQ2N       | Nipple         |
|            | Reducer nipple |
| KQ2C       | Tube cap       |
| KQ2P (KQP) | Plug (Orange)  |

Use the below part number to order the gasket for sealing 10-32 UNF thread.

Gasket for 10-32 UNF: M-10/32G

# Series KQ2

Series KQ2: White body  
Series KQ: Black body

**Guide**

**Collet**

**Chuck**

Suitable for use with nylon, soft nylon and urethane.  
Large retaining force.

Has large retaining force while holding force is increased by the collet.

**Seal**

Can be used for a wide range of pressures from a low vacuum up to a pressure of 1.0 MPa

The use of a special profile ensures sealing and reduces resistance when the tube is inserted.

**Connection thread**

UNF, NPT

**Release button**

KQ2: Orange

KQ : Red

Light force for removal

When the fitting is removed from the tube, the chuck and collet are released, thus preventing them from biting into the tube excessively.

**Tube**

Inch size

1/8", 5/32", 3/16", 1/4", 5/16", 3/8", 1/2"

**Body**

**O-ring**

**Stud**

Effective when piping in a confined space.

The body and the threaded portion can rotate (for positioning to some extent).

PAT.



## Product's Color

| Series     | Body  | Release button |
|------------|-------|----------------|
| Series KQ2 | White | Orange         |
| Series KQ  | Black | Red            |

## Applicable Tubing

|                    |                                             |
|--------------------|---------------------------------------------|
| Tubing material    | Nylon, Soft nylon, Polyurethane             |
| Tubing O.D. (inch) | ø1/8, ø5/32, ø3/16, ø1/4, ø5/16, ø3/8, ø1/2 |

## Specifications

|                               |                                            |                                                                             |
|-------------------------------|--------------------------------------------|-----------------------------------------------------------------------------|
| Fluid                         | Air/Water <sup>Note)</sup>                 |                                                                             |
| Maximum operating pressure    | 1.0 MPa                                    |                                                                             |
| Operating vacuum pressure     | -100 kPa                                   |                                                                             |
| Proof pressure                | 3.0 MPa                                    |                                                                             |
| Ambient and fluid temperature | -5 to 60°C, Water: 0 to 40°C (No freezing) |                                                                             |
| Thread                        | Mounting section                           | ANSI/ASME B1.20.1-1983 (NPT thread)<br>JIS B 0212 2A, Class 2B (UNF thread) |
|                               | Nut section                                | JIS B 0212 2A, Class 2B (UNF thread)                                        |
| Seal (Thread portion)         | With thread seal                           |                                                                             |

 Note) Applicable for general industrial water. Please consult with SMC if using for other kinds of fluid.  
Also, the surge pressure must be under the maximum operating pressure.

## Principal Parts Material

|                |                                   |
|----------------|-----------------------------------|
| Body           | C3604BD, PBT, PP                  |
| Stud           | C3604BD (Thread portion)          |
| Chuck          | Stainless steel 304               |
| Guide          | Stainless steel 304, C3604BD, POM |
| Collet         | POM                               |
| Release button | POM                               |
| Seal, O-ring   | NBR                               |
| Gasket         | Stainless steel 304, NBR          |

# Series KQ2

## Reducer elbow

KQ2L



P. 18

Use to change by 90° in tube fetching direction from One-touch fittings and to size down.

## Male branch tee

KQ2T



P. 19

Use to branch line from female thread in both 90° directions.

## Union tee

KQ2T



P. 19

Use to connect tubes in both 90° directions.

## Different diameter tee

KQ2T



P. 20

Use to connect tubes with size down in both 90° directions.

## Cross

KQ2TW



P. 20

Use to four-branch line.

## Male run tee

KQ2Y



P. 20

Use to branch line in the same direction from female thread and in 90° direction.

## Branch "Y"

KQ2U



P. 21

Use to branch line in the same direction from female thread.

## Union "Y"

KQ2U



P. 21

Use to branch line in the same direction.

## Different dia. union "Y"

KQ2U



P. 21

Use to branch line with size down in the same direction.

## Plug-in "Y"

KQ2U



P. 21

Use to branch line in the same direction from One-touch fittings.

## Different diameter plug-in "Y"

KQ2X



P. 22

Use to four-branch line from One-touch fitting with size down.

## Plug-in reducer

KQ2R



P. 22

Use to change size of One-touch fittings.

## Bulkhead male elbow

KQ2LE



P. 22

Use to connect tubes through a panel, changing by 90° in a tube fetching direction.

## Tube cap

KQ2C



P. 23

Use to plug unused tube.

## Plug

KQ2P, KQP

P. 23



Use to plug unused One-touch fittings. KQP (Orange) KQ2P (Orange)

## Gasket/10-32 UNF seal on thread

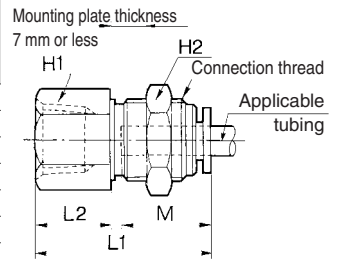
Part no.: M-10/32G

Material: Stainless steel 304, NBR

## Bulkhead Connector: KQ2E



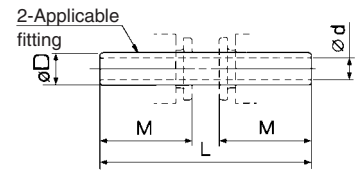
| Applicable tubing O.D. (inch) | Connection thread NPT | Model     | Connection thread UNF | H1 (Width across flats) | H2 (Width across flats) | L1   | L2   | M    | Min. port size | Mounting hole | Weight (g) |
|-------------------------------|-----------------------|-----------|-----------------------|-------------------------|-------------------------|------|------|------|----------------|---------------|------------|
| 1/8                           | 1/4                   | KQ2E01-35 | 1/2 -20               | 17.46                   | 17.46                   | 31   | 15   | 15.5 | 2.5            | 13.5          | 36         |
| 5/32                          | 1/4                   | KQ2E03-35 | 1/2 -20               | 17.46                   | 17.46                   | 31   | 15   | 16   | 3              | 13.5          | 36         |
| 3/16                          | 1/8                   | KQ2E05-34 | 9/16-18               | 17.46                   | 17.46                   | 28   | 10   | 16.5 | 3.5            | 15            | 34         |
| 1/4                           | 1/4                   | KQ2E07-35 | 9/16-18               | 17.46                   | 17.46                   | 32.5 | 14.5 | 17   | 4.6            | 15            | 34         |
| 5/16                          | 3/8                   | KQ2E09-36 | 3/4 -16               | 22.23                   | 22.23                   | 35   | 15   | 18.5 | 6              | 20            | 52         |
| 3/8                           | 3/8                   | KQ2E11-36 | 7/8 -14               | 25.4                    | 25.4                    | 37   | 14.5 | 21   | 7              | 23            | 96         |
| 1/2                           | 3/8                   | KQ2E13-36 | 1-12                  | 28.6                    | 28.6                    | 37   | 14   | 22   | 9.6            | 26            | 125        |
|                               | 1/2                   | KQ2E13-37 | 1-12                  |                         |                         | 41.5 | 18   |      |                |               | 128        |



## Nipple: KQ2N



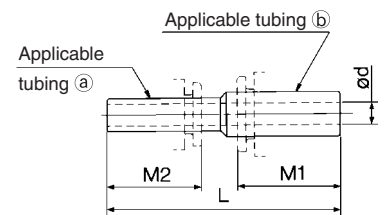
| Applicable fitting øD | Model     | L  | M    | ød  | Weight (g) |
|-----------------------|-----------|----|------|-----|------------|
| 1/8                   | KQ2N01-99 | 36 | 15.5 | 2.2 | 0.2        |
| 3/16                  | KQ2N05-99 | 38 | 16.5 | 3.5 | 0.4        |
| 1/4                   | KQ2N07-99 | 39 | 17   | 4.6 | 1          |
| 3/8                   | KQ2N11-99 | 49 | 21   | 7.5 | 10         |
| 1/2                   | KQ2N13-99 | 51 | 22   | 10  | 15         |



## Reducer Nipple: KQ2N



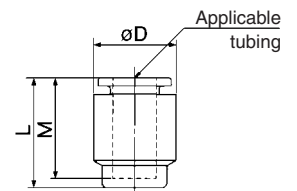
| Applicable tubing O.D. (inch) |      | Model     | L    | M1   | M2   | ød  | Weight (g) |
|-------------------------------|------|-----------|------|------|------|-----|------------|
| (a)                           | (b)  |           |      |      |      |     |            |
| 1/8                           | 5/32 | KQ2N01-03 | 36.5 | 16   | 15.5 | 2.2 | 0.2        |
|                               | 3/16 | KQ2N01-05 | 37   | 16.5 |      |     | 0.4        |
| 5/32                          | 3/16 | KQ2N03-05 | 37.5 | 16.5 | 16   | 2.5 | 0.4        |
|                               | 1/4  | KQ2N03-07 | 38   | 17   |      |     | 0.6        |
| 3/16                          | 1/4  | KQ2N05-07 | 38.5 | 17   | 16.5 | 3.5 | 0.6        |
|                               | 5/16 | KQ2N05-09 | 41   | 18.5 |      |     | 1          |
| 1/4                           | 5/16 | KQ2N07-09 | 41.5 | 18.5 | 17   | 4.6 | 1          |
|                               | 3/8  | KQ2N07-11 | 45   | 21   |      |     | 1          |
| 5/16                          | 3/8  | KQ2N09-11 | 46.5 | 21   | 18.5 | 6   | 11         |
|                               | 1/2  | KQ2N09-13 | 47.5 | 22   |      |     | 22         |
| 3/8                           | 1/2  | KQ2N11-13 | 50   | 22   | 21   | 7   | 24         |



## Tube Cap: KQ2C



| Applicable tubing O.D. (inch) | Model     | øD1  | L    | M    | Weight (g) |
|-------------------------------|-----------|------|------|------|------------|
| 5/32                          | KQ2C03-00 | 10.4 | 17   | 16   | 1          |
| 1/4                           | KQ2C07-00 | 13.2 | 18   | 17   | 2          |
| 5/16                          | KQ2C09-00 | 15.2 | 20.5 | 18.5 | 3          |
| 3/8                           | KQ2C11-00 | 17.9 | 22.5 | 21   | 6          |



## Plug: KQ2P, KQP



| Applicable fitting size ød (inch) | Model   | Note)  | øD   | L    | A    | Weight (g) |
|-----------------------------------|---------|--------|------|------|------|------------|
| 1/8                               | KQ2P-01 | KQP-01 | 5    | 31.5 | 16   | 1          |
| 5/32                              | KQ2P-03 | KQP-03 | 6    | 32   | 16   | 1          |
| 3/16                              | KQ2P-05 | KQP-05 | 6.8  | 34   | 17.5 | 1          |
| 1/4                               | KQ2P-07 | KQP-07 | 8.5  | 35   | 18   | 1          |
| 5/16                              | KQ2P-09 | KQP-09 | 10   | 39   | 20.5 | 2          |
| 3/8                               | KQ2P-11 | KQP-11 | 11.5 | 43   | 22   | 3.5        |
| 1/2                               | KQ2P-13 | KQP-13 | 15   | 46   | 24   | 5          |

