

S Couplers

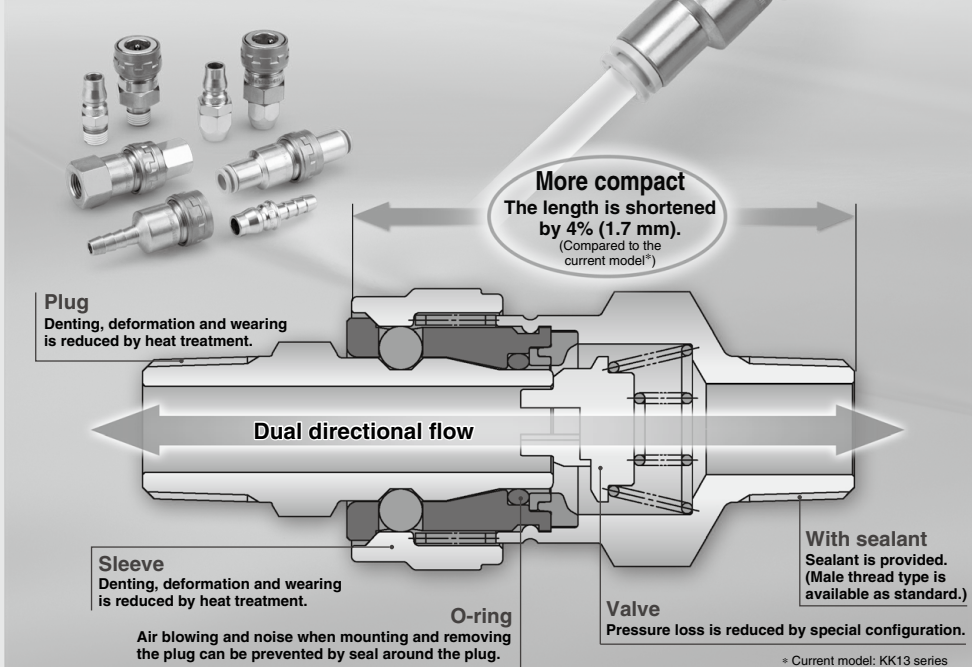
KK130 Series

Energy saving by pressure loss reduction

C factor increased by **34%** (Thread R1/4 type Compared to the current model*)

Plug insertion force reduced by **22% (20 N)** (Compared to the current model* at 0.5 MPa)

Lightweight reduced by **14% (12 g)** (Compared to the current model*)



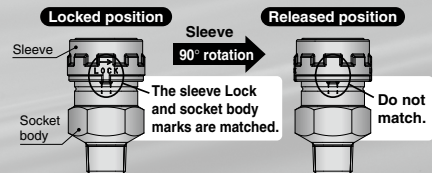
One-touch fitting provided type is standardized.



Metric size: $\phi 6$, $\phi 8$, $\phi 10$, $\phi 12$
Inch size: $\phi 1/4$ ", $\phi 5/16$ ", $\phi 3/8$ ", $\phi 1/2$ "

With lock mechanism (Semi-standard)

Removal by unexpected impact can be prevented. Locked and released position can be maintained by the detent on the sleeve.

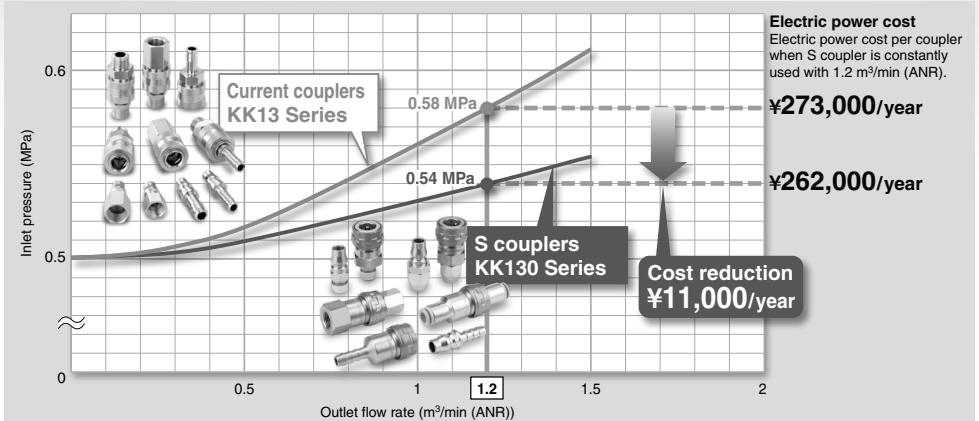


| |
|--------------|
| KQ2 |
| KQB2 |
| KS |
| KX |
| KM |
| KF |
| M |
| H/DL |
| L/LL |
| KC |
| KK |
| KK130 |
| DM |
| KDM |
| KB |
| KR |
| KA |
| KQG2 |
| KG |
| KFG2 |
| MS |
| KKA |
| KP |
| LQ |
| MQR |
| T |
| IDK |

Energy saving and cost reduction

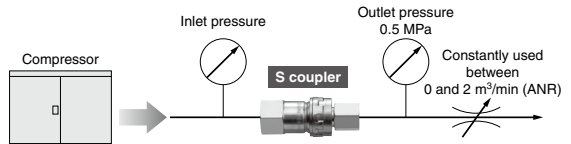
Since pressure loss is smaller than the current product (KK13 series), even if inlet pressure is reduced, equivalent outlet pressure and flow rate can be achieved when it is used for air blow. It is possible to reduce the cost with lower air and energy consumption of compressors.

Inlet pressure and compressor electric power cost against operating flow rate (per coupler)



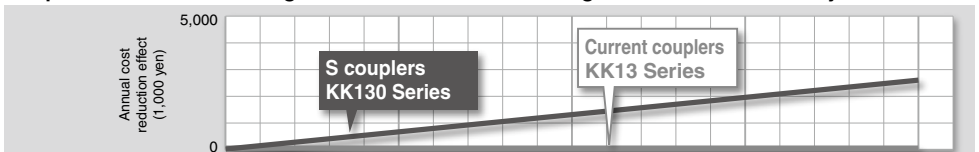
[Calculation conditions]

Operating pressure at the outlet: 0.5 MPa
 Compressor efficiency: 0.7
 Electric power cost: 15 yen/kWh
 Annual operating time: 2500 hours



Cost reduction effect by using S couplers in a factory

It is possible to achieve a large cost reduction when looking at the effect on a factory scale.

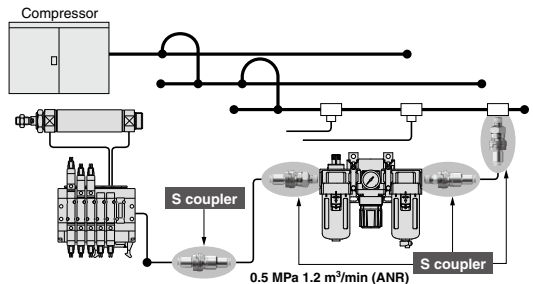


| | | | | |
|---|-------|-------|--------|--------|
| Quantity of S couplers used in a factory (pcs.) | 500 | 1,000 | 1,500 | 2,000 |
| Air consumption of whole factory (m ³ /hr (ANR)) | 3,600 | 7,200 | 10,800 | 14,400 |
| Compressor capacity of whole factory (kWh) | 650 | 1,300 | 1,950 | 2,600 |

Note) The relationship between the total compressor capacity, air consumption and quantity of S couplers is shown as a general guideline.

[Calculation conditions]

50% of the total air consumed in the factory passes through the S coupler, and 4 S couplers are used at the end of the line.
 Operating pressure at the outlet: 0.5 MPa
 Air consumption of one line at end: 1.2 m³/min (ANR)
 Air consumption time: 20% of annual operating time of 2500 hours
 Compressor efficiency: 0.7
 Electric power cost: 15 yen/kWh
 Compressor capacity: 8 m³/kWh




KK130 Series Variations




Plug (P)


Male thread type

|  | Port size | Model |
|---|---------------|--------------------|
| | R1/8 | KK130P-01MS |
| R1/4 | -02MS | |
| R3/8 | -03MS | |
| R1/2 | -04MS | |
| NPT1/8 | -N01MS | |
| NPT1/4 | -N02MS | |
| NPT3/8 | -N03MS | |
| NPT1/2 | -N04MS | |

Female thread type


|  | Port size | Model |
|---|--------------|-------------------|
| | Rc1/8 | KK130P-01F |
| Rc1/4 | -02F | |
| Rc3/8 | -03F | |
| Rc1/2 | -04F | |
| NPT1/8 | -N01F | |
| NPT1/4 | -N02F | |
| NPT3/8 | -N03F | |
| NPT1/2 | -N04F | |

Barb fitting type (for rubber hose)


|  | Hose nominal | Model |
|---|--------------|-------------------|
| | 6 (1/4") | KK130P-07B |
| 8 (1/4") | -09B | |
| 9 (3/8") | -11B | |
| 12 (1/2") | -13B | |

* The figures in () indicate the internal diameter of the applicable hose.

Nut fitting type (for fiber reinforced urethane hose)

|  | Applicable hose I.D./O.D. | Model |
|---|---------------------------|-------------------|
| | 5/8 | KK130P-50N |
| 6/9 | -60N | |
| 6.5/10 | -65N | |
| 8/12 | -80N | |
| 8.5/12.5 | -85N | |
| 11/16 | -110N | |

One-touch fitting type


|  | Applicable tube O.D. | Model |
|---|----------------------|-------------|
| | Metric size mm | 6 |
| | 8 | -08H |
| | 10 | -10H |
| | 12 | -12H |
| Inch size | 1/4" | -07H |
| | 5/16" | -09H |
| | 3/8" | -11H |
| | 1/2" | -13H |

Refer to pages 227 and 228 for specific product precautions.




Socket (S)

Male thread type

|  | Port size | Model* |
|---|---------------|--------------------|
| | R1/8 | KK130S-01MS |
| R1/4 | -02MS | |
| R3/8 | -03MS | |
| R1/2 | -04MS | |
| NPT1/8 | -N01MS | |
| NPT1/4 | -N02MS | |
| NPT3/8 | -N03MS | |
| NPT1/2 | -N04MS | |


* Refer to the how to order on page 234 for the sleeve lock mechanism provided type.

Female thread type

|  | Port size | Model* |
|---|--------------|-------------------|
| | Rc1/8 | KK130S-01F |
| Rc1/4 | -02F | |
| Rc3/8 | -03F | |
| Rc1/2 | -04F | |
| NPT1/8 | -N01F | |
| NPT1/4 | -N02F | |
| NPT3/8 | -N03F | |
| NPT1/2 | -N04F | |

* Refer to the how to order on page 234 for the sleeve lock mechanism provided type.


Barb fitting type (for rubber hose)

|  | Hose nominal | Model* |
|---|--------------|-------------------|
| | 6 (1/4") | KK130S-07B |
| 8 (1/4") | -09B | |
| 9 (3/8") | -11B | |
| 12 (1/2") | -13B | |

* Refer to the how to order on page 234 for the sleeve lock mechanism provided type.


* The figures in () indicate the internal diameter of the applicable hose.

Nut fitting type (for fiber reinforced urethane hose)

|  | Applicable hose I.D./O.D. | Model* |
|---|---------------------------|-------------------|
| | 5/8 | KK130S-50N |
| 6/9 | -60N | |
| 6.5/10 | -65N | |
| 8/12 | -80N | |
| 8.5/12.5 | -85N | |
| 11/16 | -110N | |

* Refer to the how to order on page 234 for the sleeve lock mechanism provided type.

One-touch fitting type

|  | Applicable tube O.D. | Model* |
|---|----------------------|-------------|
| | Metric size mm | 6 |
| | 8 | -08H |
| | 10 | -10H |
| | 12 | -12H |
| Inch size | 1/4" | -07H |
| | 5/16" | -09H |
| | 3/8" | -11H |
| | 1/2" | -13H |

* Refer to the how to order on page 234 for the sleeve lock mechanism provided type.

QK2

QKB2

KS
KX

KM

KF

M

H/DL
L/LL

KC

KK

KK130

DM

KDM

KB

KR

KA

QKG2

KG

KFG2

MS

KKA

KP

LQ

MQR

T

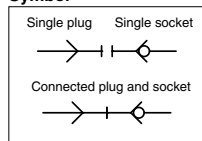
IDK

S Couplers

KK130 Series



Symbol



Specifications

| | |
|-------------------------------|---|
| Fluid | Air <small>Note)</small> |
| Operating pressure range | 0 to 1.5 MPa One-touch fitting type: 0 to 1.0 MPa |
| Proof pressure | 2.0 MPa |
| Ambient and fluid temperature | -20 to 80°C (No freezing) One-touch fitting type: -5 to 60°C (No freezing) |
| Plating | Sleeve: Electroless nickel plated Other external metal parts: Zinc chromated |
| Sealant | Male thread with sealant |

Note) Cannot be used for water.

Performance

| | |
|----------------------------|---|
| Plug and socket connection | Sleeve slide detachable type |
| Check valve | Socket: Built-in check valve |
| Flow direction | Dual directional |
| Sleeve lock mechanism | Manual locking type (with detent) Semi-standard |

How to Order

KK130 P-02 MS

130 series

Socket/Plug

| Symbol | Type |
|----------|--|
| P | Plug |
| S | Socket |
| L | Semi-standard Socket (With sleeve lock mechanism) |

Connection type

| Symbol | Type |
|-----------|----------------------------|
| MS | Male thread (With sealant) |
| F | Female thread |
| B | With barb fitting |
| N | With nut fitting |
| H | With One-touch fitting |

Port size variations

Male/Female thread type

| Symbol | Thread size |
|------------|-------------|
| 01 | R, Rc1/8 |
| 02 | R, Rc1/4 |
| 03 | R, Rc3/8 |
| 04 | R, Rc1/2 |
| N01 | NPT1/8 |
| N02 | NPT1/4 |
| N03 | NPT3/8 |
| N04 | NPT1/2 |

Barb fitting type

| Symbol | Hose nominal |
|-----------|--------------|
| 07 | 6 (1/4") |
| 09 | 8 (1/4") |
| 11 | 9 (3/8") |
| 13 | 12 (1/2") |

* The figures in () indicate the internal diameter of the applicable hose.

Nut fitting type

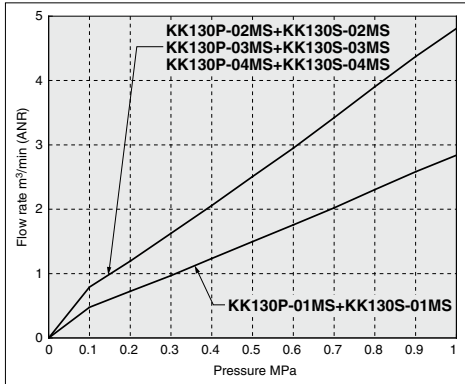
| Symbol | Applicable hose I.D./O.D. mm |
|------------|------------------------------|
| 50 | 5/8 |
| 60 | 6/9 |
| 65 | 6.5/10 |
| 80 | 8/12 |
| 85 | 8.5/12.5 |
| 110 | 11/16 |

One-touch fitting type

| Symbol | Applicable tube O.D. mm | |
|-----------|-------------------------|-------------|
| 06 | ø6 | Metric size |
| 08 | ø8 | |
| 10 | ø10 | |
| 12 | ø12 | |
| 07 | ø1/4" | Inch size |
| 09 | ø5/16" | |
| 11 | ø3/8" | |
| 13 | ø1/2" | |

For details on port size variation and connection type combinations for each model, refer to the charts on the Dimensions page.

Flow Rate Characteristics [Representative Value]



* This flow rate characteristic test method complies with JIS B 8390 (Pneumatic fluid power – Components using compressible fluids – Determination of flow rate characteristics)
 * The figures are representative values when the same type of plug and socket are connected.

| Connection type | | | Sonic conductance C [dm ³ /(s·bar)] | Critical pressure ratio b | Flow coefficient Cv | Effective area S [mm ²] |
|------------------------|--------|------------|--|---------------------------|---------------------|-------------------------------------|
| Type | Symbol | Connection | | | | |
| Male thread | -01MS | R1/8 | 4.2 | 0.4 | 1.2 | 21 |
| | -02MS | R1/4 | 7.0 | 0.4 | 1.9 | 35 |
| | -03MS | R3/8 | 7.0 | 0.5 | 2.1 | 35 |
| | -04MS | R1/2 | 7.0 | 0.5 | 2.1 | 35 |
| Female thread | -01F | Rc1/8 | 6.0 | 0.5 | 1.8 | 30 |
| | -02F | Rc1/4 | 7.0 | 0.5 | 2.1 | 35 |
| | -03F | Rc3/8 | 7.0 | 0.5 | 2.1 | 35 |
| | -04F | Rc1/2 | 7.0 | 0.5 | 2.1 | 35 |
| With barb fitting | -07B | 6 (1/4") | 2.0 | 0.4 | 0.5 | 10 |
| | -09B | 8 (1/4") | 3.0 | 0.4 | 0.8 | 15 |
| | -11B | 10 (3/8") | 6.0 | 0.5 | 1.8 | 30 |
| | -13B | 12 (1/2") | 7.0 | 0.5 | 2.1 | 35 |
| With nut fitting | -50N | 5/8 | 2.0 | 0.4 | 0.5 | 10 |
| | -60N | 6/9 | 3.5 | 0.4 | 1.0 | 18 |
| | -65N | 6.5/10 | 4.2 | 0.4 | 1.2 | 21 |
| | -80N | 8/12 | 7.0 | 0.4 | 1.9 | 35 |
| With One-touch fitting | -85N | 8.5/12.5 | 7.0 | 0.4 | 1.9 | 35 |
| | -110N | 11/16 | 7.0 | 0.5 | 2.1 | 35 |
| | -06H | ø6 | 2.0 | 0.4 | 0.5 | 10 |
| | -08H | ø8 | 4.4 | 0.5 | 1.3 | 22 |
| | -10H | ø10 | 7.0 | 0.5 | 1.8 | 35 |
| | -12H | ø12 | 7.0 | 0.5 | 2.1 | 35 |

Construction

<With One-touch fitting>

<With One-touch fitting>

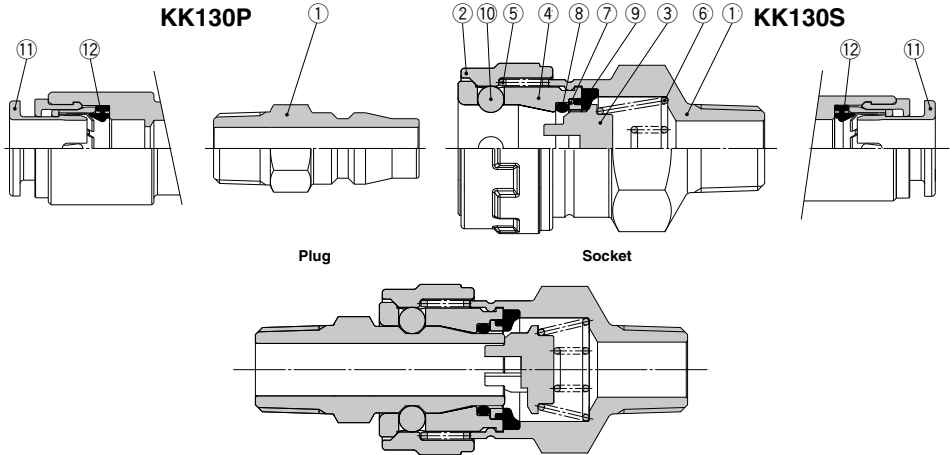


Figure: Connected plug and socket

Plug

| No. | Description | Material | Note |
|-----|-------------|------------------|----------------|
| 1 | Plug | Structural steel | Zinc chromated |
| 11 | Cassette | — | |
| 12 | Seal | NBR | |

Socket

| No. | Description | Material | Note |
|-----|---------------|------------------|---------------------------|
| 1 | Socket body | Structural steel | Zinc chromated |
| 2 | Sleeve | Steel wire | Electroless nickel plated |
| 3 | Valve | Steel wire | Zinc chromated |
| 4 | Main body | Steel wire | Zinc chromated |
| 5 | Sleeve spring | Stainless steel | |
| 6 | Valve spring | Stainless steel | |
| 7 | Holder | Steel band | Zinc chromated |
| 8 | Plug O-ring | NBR | |
| 9 | Seal | NBR | |
| 10 | Steel ball | SUJ | |
| 11 | Cassette | — | |
| 12 | Seal | NBR | |

- QK2
- QKB2
- KS
- KX
- KM
- KF
- M
- H/DL
- L/LL
- KC
- KK
- KK130
- DM
- KDM
- KB
- KR
- KA
- QKG2
- KG
- KFG2
- MS
- KKA
- KP
- LQ
- MQR
- T
- IDK

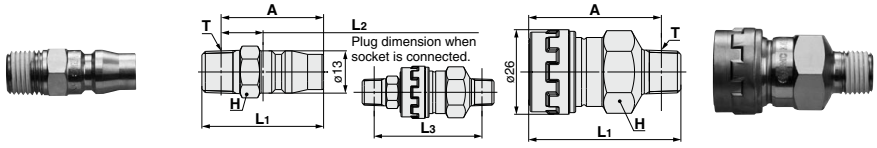
KK130 Series

Dimensions

Plug (KK130P)

Socket (KK130S, L)

Male thread type



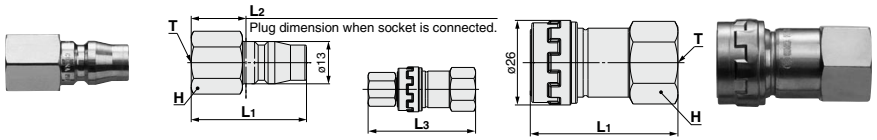
| Model | T Connection male thread | H Width across flats | L1 | L2 | A ⁻¹ | Min. hole size | Weight g | When connected Full length L3 |
|--------------|--------------------------------|-------------------------------|------|------|-----------------|----------------------|-------------|--|
| KK130P-01MS | R1/8 | 14 | 34.0 | 11.1 | 30.0 | 6.0 | 18 | 51.1 |
| -02MS | R1/4 | 14 | 38.0 | 13.1 | 32.0 | 8.0 | 22 | 53.9 |
| -03MS | R3/8 | 19 | 39.0 | 13.6 | 32.5 | 8.0 | 37 | 53.3 |
| -04MS | R1/2 | 22 | 43.0 | 16.1 | 35.0 | 8.0 | 52 | 55.9 |
| KK130P-N01MS | NPT1/8 | 14 | 34.0 | 10.1 | 29.0 | 6.0 | 18 | 49.4 |
| -N02MS | NPT1/4 | 14 | 38.0 | 11.6 | 30.5 | 8.0 | 22 | 51.5 |
| -N03MS | NPT3/8 | 19 | 39.0 | 12.6 | 31.5 | 8.0 | 37 | 51.7 |
| -N04MS | NPT1/2 | 22 | 43.0 | 14.1 | 33.0 | 8.0 | 52 | 52.3 |

*1 Reference dimension after installation

| Model | T Connection male thread | H Width across flats | L1 | A ⁻¹ | Min. hole size | Weight g |
|-----------------|--------------------------------|-------------------------------|------|-----------------|----------------------|-------------|
| KK130S(L)-01MS | R1/8 | 22 | 44.0 | 40.0 | 6.0 | 73 |
| -02MS | R1/4 | 22 | 46.8 | 40.8 | 8.5 | 74 |
| -03MS | R3/8 | 22 | 46.2 | 39.7 | 8.5 | 82 |
| -04MS | R1/2 | 22 | 47.8 | 39.8 | 14.0 | 83 |
| KK130S(L)-N01MS | NPT1/8 | 22 | 44.3 | 39.3 | 6.0 | 73 |
| -N02MS | NPT1/4 | 22 | 47.4 | 39.9 | 8.5 | 74 |
| -N03MS | NPT3/8 | 22 | 46.6 | 39.1 | 8.5 | 82 |
| -N04MS | NPT1/2 | 22 | 48.2 | 38.2 | 14.0 | 83 |

*1 Reference dimension after installation

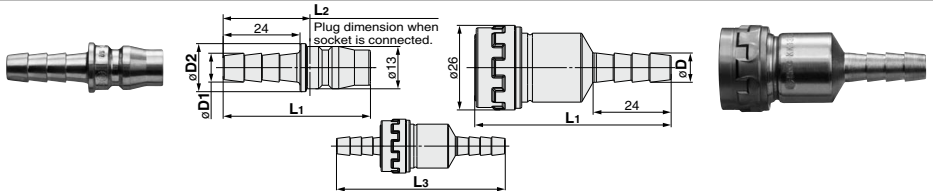
Female thread type



| Model | T Connection male thread | H Width across flats | L1 | L2 | Min. hole size | Weight g | When connected Full length L3 |
|-------------|--------------------------------|-------------------------------|------|------|----------------------|-------------|--|
| KK130P-01F | Rc1/8 | 14 | 30.0 | 11.1 | 8.0 | 18 | 53.0 |
| -02F | Rc1/4 | 17 | 36.0 | 17.1 | 8.0 | 28 | 62.5 |
| -03F | Rc3/8 | 21 | 37.0 | 18.1 | 8.0 | 38 | 66.5 |
| -04F | Rc1/2 | 27 | 42.0 | 23.1 | 8.0 | 73 | 76.0 |
| KK130P-N01F | NPT1/8 | 14 | 30.0 | 11.1 | 8.0 | 18 | 53.0 |
| -N02F | NPT1/4 | 17 | 36.0 | 17.1 | 8.0 | 28 | 62.5 |
| -N03F | NPT3/8 | 21 | 37.0 | 18.1 | 8.0 | 38 | 66.5 |
| -N04F | NPT1/2 | 27 | 42.0 | 23.1 | 8.0 | 73 | 76.0 |

| Model | T Connection male thread | H Width across flats | L1 | Min. hole size | Weight g |
|----------------|--------------------------------|-------------------------------|------|----------------------|-------------|
| KK130S(L)-01F | Rc1/8 | 22 | 41.9 | 8.0 | 90 |
| -02F | Rc1/4 | 22 | 45.4 | 11.0 | 92 |
| -03F | Rc3/8 | 22 | 48.4 | 11.0 | 91 |
| -04F | Rc1/2 | 27 | 52.9 | 14.0 | 117 |
| KK130S(L)-N01F | NPT1/8 | 22 | 41.9 | 8.0 | 90 |
| -N02F | NPT1/4 | 22 | 45.4 | 11.0 | 92 |
| -N03F | NPT3/8 | 22 | 48.4 | 11.0 | 91 |
| -N04F | NPT1/2 | 27 | 52.9 | 14.0 | 117 |

Barb fitting type (for rubber hose)



| Model | Hose nominal | øD1 | øD2 | L1 | L2 | Min. hole size | Weight g | When connected Full length L3 |
|------------|-----------------|------|------|------|------|----------------------|-------------|--|
| KK130P-07B | 6 (1/4") | 7.2 | 14.0 | 46.0 | 27.1 | 4.5 | 16 | 88.0 |
| -09B | 8 (1/4") | 9.0 | 15.0 | 46.0 | 27.1 | 5.0 | 19 | 87.5 |
| -11B | 9 (3/8") | 11.3 | 16.0 | 46.0 | 27.1 | 8.0 | 19 | 87.0 |
| -13B | 12 (1/2") | 15.0 | 18.0 | 46.0 | 27.1 | 8.0 | 33 | 86.0 |

* The figures in () indicate the internal diameter of the applicable hose.

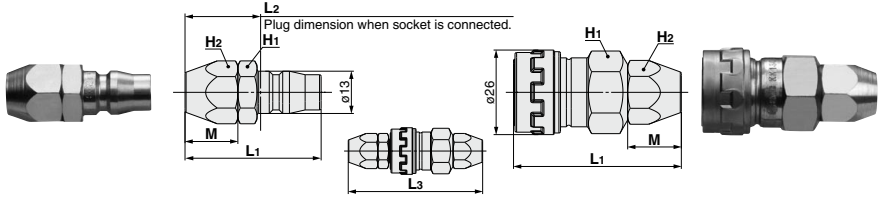
| Model | Hose nominal | øD1 | L1 | Min. hole size | Weight g |
|---------------|-----------------|------|------|----------------------|-------------|
| KK130S(L)-07B | 6 (1/4") | 7.2 | 60.9 | 4.5 | 70 |
| -09B | 8 (1/4") | 9.0 | 60.4 | 5.0 | 72 |
| -11B | 9 (3/8") | 11.3 | 59.9 | 7.7 | 73 |
| -13B | 12 (1/2") | 15.0 | 58.9 | 9.0 | 81 |

* The figures in () indicate the internal diameter of the applicable hose.

Plug (KK130P)

Socket (KK130S, L)

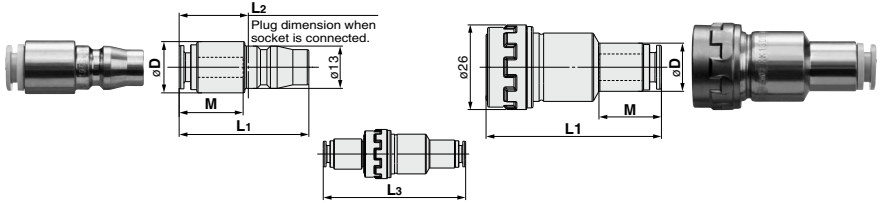
Nut fitting type (for fiber reinforced urethane hose)



| Model | Applicable hose I.D./O.D. | H1 | H2 | L1 | L2 | M | Min. hole size | Weight g | When connected Full length L3 |
|-------------------|---------------------------|----|----|------|------|------|----------------|----------|-------------------------------|
| KK130P-50N | 5/8 | 14 | 14 | 39.7 | 20.8 | 13.7 | 4.5 | 27 | 70.4 |
| -60N | 6/9 | 17 | 17 | 42.4 | 23.5 | 16.4 | 5.5 | 42 | 75.1 |
| -65N | 6.5/10 | 17 | 17 | 42.5 | 23.6 | 16.5 | 6.0 | 39 | 75.2 |
| -80N | 8/12 | 19 | 19 | 43.4 | 24.5 | 17.4 | 8.0 | 46 | 77.1 |
| -85N | 8.5/12.5 | 19 | 19 | 43.4 | 24.5 | 17.4 | 8.0 | 48 | 77.1 |
| -110N | 11/16 | 24 | 24 | 49.1 | 30.2 | 20.1 | 8.0 | 86 | 82.8 |

| Model | Applicable hose I.D./O.D. | H1 | H2 | L1 | M | Min. hole size | Weight g |
|----------------------|---------------------------|----|----|------|------|----------------|----------|
| KK130S(L)-50N | 5/8 | 22 | 14 | 49.6 | 13.7 | 4.5 | 85 |
| -60N | 6/9 | 22 | 17 | 51.6 | 16.4 | 5.5 | 95 |
| -65N | 6.5/10 | 22 | 17 | 51.6 | 16.5 | 6.0 | 92 |
| -80N | 8/12 | 22 | 19 | 52.6 | 17.4 | 8.0 | 97 |
| -85N | 8.5/12.5 | 22 | 19 | 52.6 | 17.4 | 8.0 | 101 |
| -110N | 11/16 | 24 | 24 | 52.6 | 20.1 | 10.0 | 119 |

One-touch fitting type



| Model | Applicable tube O.D. mm | D | L1 | L2 | M | Min. hole size | Weight g | When connected Full length L3 |
|-------------------|-------------------------|------|------|------|------|----------------|----------|-------------------------------|
| KK130P-06H | 6 | 15.0 | 39.9 | 21.0 | 16.7 | 4.5 | 24 | 73.3 |
| -08H | 8 | 16.0 | 39.9 | 21.0 | 18.6 | 6.0 | 24 | 74.3 |
| -10H | 10 | 18.0 | 40.4 | 21.5 | 20.7 | 8.0 | 24 | 76.8 |
| -12H | 12 | 20.0 | 42.7 | 23.8 | 21.7 | 8.0 | 29 | 79.1 |
| -07H | 1/4" | 15.0 | 39.9 | 21.0 | 16.7 | 4.5 | 24 | 73.3 |
| -09H | 5/16" | 16.0 | 39.9 | 21.0 | 18.6 | 6.0 | 24 | 74.3 |
| -11H | 3/8" | 18.0 | 40.4 | 21.5 | 20.7 | 7.0 | 25 | 76.8 |
| -13H | 1/2" | 20.0 | 42.7 | 23.8 | 21.7 | 8.0 | 27 | 79.1 |

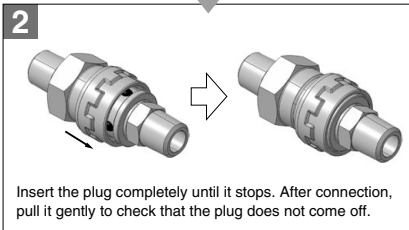
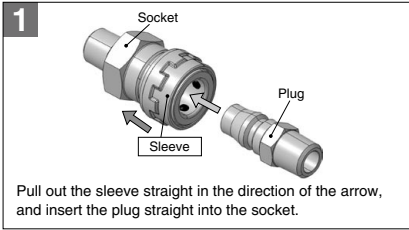
| Model | Applicable tube O.D. mm | D | L1 | M | Min. hole size | Weight g |
|----------------------|-------------------------|------|------|------|----------------|----------|
| KK130S(L)-06H | 6 | 13.0 | 52.3 | 16.7 | 4.5 | 72 |
| -08H | 8 | 14.8 | 53.3 | 18.6 | 6.0 | 74 |
| -10H | 10 | 17.8 | 55.3 | 20.7 | 9.0 | 77 |
| -12H | 12 | 20.0 | 55.3 | 21.7 | 9.0 | 80 |
| -07H | 1/4" | 13.0 | 52.3 | 16.7 | 4.5 | 72 |
| -09H | 5/16" | 14.8 | 53.3 | 18.6 | 6.0 | 74 |
| -11H | 3/8" | 17.6 | 55.3 | 20.7 | 7.0 | 79 |
| -13H | 1/2" | 20.0 | 55.3 | 21.7 | 9.0 | 78 |

- QK2
- QKB2
- KS
- KX
- KM
- KF
- M
- H/DL
- L/LL
- KC
- KK
- KK130
- DM
- KDM
- KB
- KR
- KA
- KQ62
- KG
- KFG2
- MS
- KKA
- KP
- LQ
- MQR
- T
- IDK

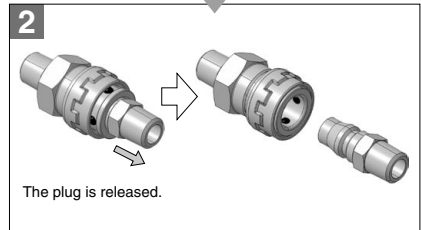
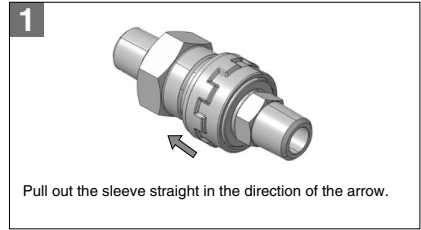
KK130 Series

How to Operate

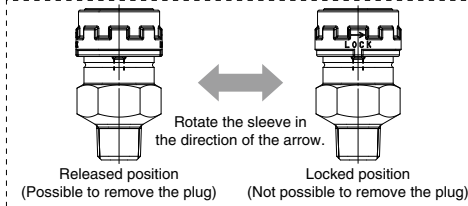
Mounting



Releasing

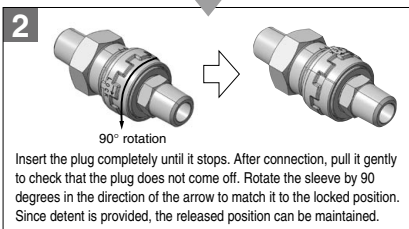
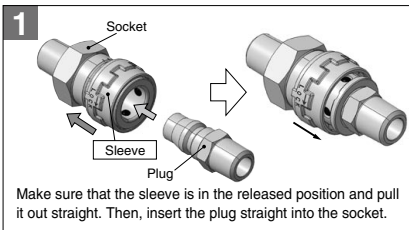


With sleeve lock mechanism (Semi-standard)

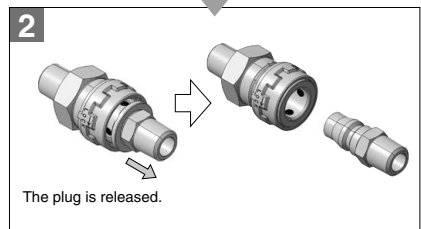
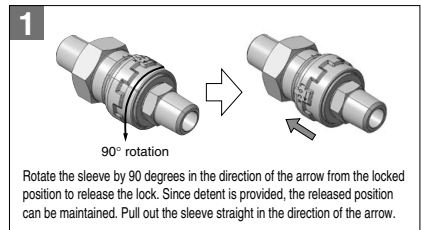


Note) Do not apply pressure when rotating the sleeve. If it is pressurized during rotation, the detent of the locked and released positions may become unclear due to the pressure. In addition, operate the product in accordance with the arrows on the sleeve surface. Failure to do so may result in problems with the attaching and detaching of the mechanism.

Mounting



Releasing



| |
|----------------------------|
| 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 |
| IDK |

| |
|----------------------------|
| 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 |
| IDK |

| |
|----------------------------|
| 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 |
| IDK |