

Coupling socket, quick coupling plug KD

FESTO



Characteristics

At a glance

Coupling to ISO 4414, with shut-off on one side or both sides.

- Quick connection coupling for standard applications without safety function
- Shut off at one or both ends
- With male or female thread or with barbed connector or quick connector
- Nickel-plated brass, PP
- Operating medium: compressed air, vacuum

Notes on product selection:

- All coupling sockets of the same size are compatible with all plugs of this size.
- Coupling sockets KD4 can be combined with all quick coupling plugs NPHS-S6. For couplings that are frequently subject to pressure surges or that have to be frequently mated, it is recommended to use the hardened quick coupling plugs NPHS-S6.

Additional documents

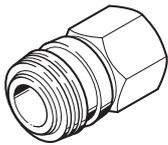
Link [ks/kd](#)



The additional document KD-KS-ADD contains further information on the operating principle of the coupling sockets/plugs KD/KS.

Coupling element

[D] Coupling socket



[S] Coupling plug



Additional function

[R] Self-locking

When used with the quick coupling plug KD...-...-A-R, the coupling KD...-...-A-R has a shut-off function on both sides. It is possible to use other plugs, but the function would then correspond to the coupling KD...-...-A with shut-off on one side and reduced cross-section.

It is not advisable to use the quick coupling plug KS...-...-A-R with other couplings, as the valve in the plug is not opened when it is plugged in.

Type code

| 001 | Series |
|-----------|-----------------|
| KD | Coupling socket |
| KS | Coupling plug |

| 002 | Coupling size |
|----------|---------------|
| 1 | Size 1 |
| 2 | Size 2 |
| 3 | Size 3 |
| 4 | Size 4 |

| 003 | Connection type |
|-----------|---------------------|
| | Thread |
| CK | Quick connector CK |
| CN | Barbed connector CN |
| N | Barbed connector N |

| 004 | Connection size |
|------------|-----------------|
| 1/8 | 1/8 |
| 1/4 | 1/4 |
| 3/8 | 3/8 |
| 1/2 | 1/2 |
| 2 | 2 mm |
| 3 | 3 mm |
| 4 | 4 mm |
| 6 | 6 mm |
| 9 | 9 mm |
| M3 | M3 |
| M5 | M5 |

| 005 | Connection design |
|----------|-------------------|
| | Standard |
| A | Outside |
| I | Inside |

| 006 | Additional function |
|----------|---------------------|
| | None |
| R | Self-locking |

Datasheet

| Technical data – Coupling sockets KD1 | |
|---------------------------------------------------------------------|-------------------------------------------|
| Short type code | KD1 |
| Pneumatic connection, port 1 | Male thread M3 |
| Nominal size | 1.5 mm |
| Nominal torque | 0.6 Nm |
| Tolerance for nominal tightening torque | ± 10% |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | 44 l/min |
| Nominal flow rate standardised according to ISO 8778 | 47.7 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa |
| Operating pressure complete temperature range | -0.95 ... 12 bar |
| Operating pressure complete temperature range | -13.775 ... 174 psi |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:-:-] |
| Note on operating and pilot medium | Lubricated operation possible |
| Ambient temperature | -10 ... 60°C |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress |
| Material housing | Brass, nickel-plated |
| Material releasing sleeve | Nickel-plated brass |
| Valve body material | Brass |
| Material seals | NBR |
| Material spring | High-alloy stainless steel |
| Material thread seal | NBR, High-alloy stainless steel |
| Material thread piece | Nickel-plated brass |
| Material ball | High-alloy stainless steel |
| Note on materials | RoHS-compliant |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |

1) Measured at p₁ = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

| Technical data – Quick coupling plug KS1 | |
|---------------------------------------------------------------------|-------------------------------------------|
| Short type code | KS1 |
| Pneumatic connection, port 1 | Barbed hose fitting 2 mm |
| Nominal size | 1.5 mm |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | 44 l/min |
| Nominal flow rate standardised according to ISO 8778 | 47.7 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa |
| Operating pressure complete temperature range | -0.95 ... 12 bar |
| Operating pressure complete temperature range | -13.775 ... 174 psi |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:-:-] |
| Note on operating and pilot medium | Lubricated operation possible |
| Ambient temperature | -10 ... 60°C |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress |
| Information on materials | Brass, nickel plated |
| Note on materials | RoHS-compliant |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |

1) Measured at p₁ = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Datasheet

| Technical data – Coupling sockets KD2 | | | | |
|---------------------------------------------------------------------|-------------------------------------------|----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Short type code | KD2 | | | |
| Pneumatic connection, port 1 | Male thread M5 | Female thread M5 | For tubing outer diameter of 4 mm, For barbed fitting I.D. 3 mm with union nut | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut |
| Nominal size | 2.4 mm | 2.7 mm | 2 mm | 2.9 mm |
| Nominal torque | 0.85 Nm | | – | |
| Tolerance for nominal tightening torque | ± 15% | | – | |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | 83 ... 131 l/min | 84 ... 135 l/min | 68 ... 88 l/min | 82 ... 130 l/min |
| Nominal flow rate standardised according to ISO 8778 | 90 ... 142 l/min | 91.1 ... 146.3 l/min | 73.7 ... 95.4 l/min | 88.9 ... 140.9 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa | | | |
| Operating pressure complete temperature range | -0.95 ... 12 bar | | | |
| Operating pressure complete temperature range | -13.775 ... 174 psi | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:-:-] | | | |
| Note on operating and pilot medium | Lubricated operation possible | | | |
| Ambient temperature | -10 ... 60°C | | | |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress | | | |
| Material housing | Brass, nickel-plated | | | |
| Material releasing sleeve | Nickel-plated brass | | | |
| Valve body material | Brass | | | |
| Material seals | NBR | | | |
| Material spring | High-alloy stainless steel | | | |
| Material thread seal | NBR, High-alloy stainless steel | – | | |
| Material thread piece | Nickel-plated brass | – | | |
| Material snap ring | High-alloy stainless steel | | | |
| Material ball | High-alloy stainless steel | | | |
| Material union nut | – | | Wrought aluminium alloy, anodised | |
| Note on materials | RoHS-compliant | | | |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L | | | |

1) Measured at p1 = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Datasheet

General technical data – Quick coupling plug KS2

| | | | | |
|---------------------------------------------------------------------|------------------------------------------|----------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Short type code | KS2 | | | |
| Pneumatic connection, port 1 | Male thread M5 | Female thread M5 | For tubing outer diameter of 4 mm, For barbed fitting I.D. 3 mm with union nut | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut |
| Nominal size | 2.4 mm | 2.7 mm | 2 mm | 2.7 mm |
| Nominal torque | 0.85 Nm | | – | |
| Tolerance for nominal tightening torque | ± 15% | | – | |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | 85 ... 136 l/min | 88 ... 139 l/min | 68 ... 84 l/min | 86 ... 129 l/min |
| Nominal flow rate standardised according to ISO 8778 | 92.1 ... 147.4 l/min | 95.4 ... 150.7 l/min | 73.7 ... 91.1 l/min | 93.2 ... 139.8 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa | | | |
| Operating pressure complete temperature range | -0.95 ... 12 bar | | | |
| Operating pressure complete temperature range | -13.775 ... 174 psi | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:::] | | | |
| Note on operating and pilot medium | Lubricated operation possible | | | |
| Ambient temperature | -10 ... 60°C | | | |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress | | | |
| Material thread seal | NBR, High-alloy stainless steel | – | | |
| Material union nut | – | | Wrought aluminium alloy, anodised | |
| Information on materials | Brass, nickel plated | | | |
| Note on materials | RoHS-compliant | | | |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L | | | |

1) Measured at p₁ = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Datasheet

| Technical data – Coupling sockets KD3 | | | | | | |
|---------------------------------------------------------------------|------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Short type code | KD3 | | | | | |
| Pneumatic connection, port 1 | Male thread G1/8 | Male thread G1/4 | Female thread G1/8 | Female thread G1/4 | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut | For tubing outer diameter of 8 mm, For barbed fitting I.D. 6 mm with union nut |
| Nominal size | 4.95 mm | 5 mm | | 2.9 mm | | 4.9 mm |
| Nominal torque | 5 Nm | 9.5 Nm | 5 Nm | 9.5 Nm | – | |
| Tolerance for nominal tightening torque | ± 15% | | | | – | |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | 185 ... 572 l/min | 185 ... 594 l/min | 185 ... 603 l/min | 185 ... 666 l/min | 158 ... 225 l/min | 180 ... 468 l/min |
| Nominal flow rate standardised according to ISO 8778 | 200.5 ... 620 l/min | 200.5 ... 643.9 l/min | 200.5 ... 653.7 l/min | 200.5 ... 721.9 l/min | 171.3 ... 243.9 l/min | 195.1 ... 507.3 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa | | | | | |
| Operating pressure complete temperature range | -0.95 ... 12 bar | | | | | |
| Operating pressure complete temperature range | -13.775 ... 174 psi | | | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:::] | | | | | |
| Note on operating and pilot medium | Lubricated operation possible | | | | | |
| Ambient temperature | -10 ... 60°C | | | | | |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress | | | | | |
| Material housing | Brass, nickel-plated | | | | | |
| Material releasing sleeve | Nickel-plated brass | | | | | |
| Valve body material | Brass | | | | | |
| Material seals | NBR | | | | | |
| Material spring | High-alloy stainless steel | | | | | |
| Material thread seal | PA66-GF30/TPE-U | – | | | | |
| Material thread piece | Nickel-plated brass | | | | – | |
| Material snap ring | High-alloy stainless steel | | | | | |
| Material ball | High-alloy stainless steel | | | | | |
| Material union nut | – | | | | Wrought aluminium alloy, anodised | |
| Note on materials | RoHS-compliant | | | | | |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L | | | | | |

1) Measured at p₁ = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Datasheet

| Technical data – Quick coupling plug KS3 | | | | | | |
|---------------------------------------------------------------------|-------------------------------------------|-----------------------|-----------------------|-----------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------|
| Short type code | KS3 | | | | | |
| Pneumatic connection, port 1 | Male thread G1/8 | Male thread G1/4 | Female thread G1/8 | Female thread G1/4 | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut | For tubing outer diameter of 8 mm, For barbed fitting I.D. 6 mm with union nut |
| Nominal size | 4.95 mm | | | 2.9 mm | | 4.9 mm |
| Nominal torque | 5 Nm | 9.5 Nm | 5 Nm | 9.5 Nm | – | |
| Tolerance for nominal tightening torque | ± 15% | | | | – | |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | 225 ... 648 l/min | 225 ... 653 l/min | 225 ... 617 l/min | 225 ... 666 l/min | 158 ... 185 l/min | 216 ... 464 l/min |
| Nominal flow rate standardised according to ISO 8778 | 243.9 ... 702.4 l/min | 243.9 ... 707.9 l/min | 243.9 ... 668.8 l/min | 243.9 ... 721.9 l/min | 171.3 ... 200.5 l/min | 234.1 ... 503 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa | | | | | |
| Operating pressure complete temperature range | -0.95 ... 12 bar | | | | | |
| Operating pressure complete temperature range | -13.775 ... 174 psi | | | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:-:-] | | | | | |
| Note on operating and pilot medium | Lubricated operation possible | | | | | |
| Ambient temperature | -10 ... 60°C | | | | | |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress | | | | | |
| Material thread seal | PA66-GF30/TPE-U | | – | | | |
| Material union nut | – | | | | Wrought aluminium alloy, anodised | |
| Information on materials | Brass, nickel plated | | | | | |
| Note on materials | RoHS-compliant | | | | | |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L | | | | | |

1) Measured at p1 = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Datasheet

| Technical data – Coupling sockets KD4 | | | | | | | | | | |
|---------------------------------------------------------------------|------------------------------------------|-----------------------|-------------------------|-------------------------|-------------------------|-------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------|--|
| Short type code | KD4 | | | | | | | | | |
| Pneumatic connection, port 1 | Male thread G1/4 | Male thread G3/8 | Male thread G1/2 | Female thread G1/4 | Female thread G3/8 | Female thread G1/2 | For tubing outer diameter of 8 mm, For barbed fitting I.D. 6 mm with union nut | For barbed fitting inside diameter of 9 mm with union nut | Barbed hose fitting 9 mm | |
| Nominal size | 8 mm | 10 mm | | 7.2 mm | | | 4.9 mm | 7.4 mm | | |
| Nominal torque | 9.5 Nm | 21.5 Nm | 32.5 Nm | 9.5 Nm | 21.5 Nm | 32.5 Nm | – | | | |
| Tolerance for nominal tightening torque | ± 15% | | ± 20% | ± 15% | | | ± 20% | – | | |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | 261 ... 1,287 l/min | 261 ... 1,274 l/min | 257 ... 1,337 l/min | 257 ... 1,292 l/min | 261 ... 1,350 l/min | 257 ... 1,332 l/min | 252 ... 756 l/min | 261 ... 1,116 l/min | 810 ... 1,152 l/min | |
| Nominal flow rate standardised according to ISO 8778 | 282.9 ... 1,395.1 l/min | 282.9 ... 1,381 l/min | 278.6 ... 1,449.3 l/min | 278.6 ... 1,400.5 l/min | 282.9 ... 1,463.4 l/min | 278.6 ... 1,443.9 l/min | 273.2 ... 819.5 l/min | 282.9 ... 1,209.7 l/min | 878 ... 1,248.8 l/min | |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa | | | | | | | | | |
| Operating pressure complete temperature range | -0.95 ... 12 bar | | | | | | | | | |
| Operating pressure complete temperature range | -13.775 ... 174 psi | | | | | | | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:::] | | | | | | | | | |
| Note on operating and pilot medium | Lubricated operation possible | | | | | | | | | |
| Ambient temperature | -10 ... 60°C | | | | | | | | | |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress | | | | | | | | | |
| Material housing | Brass, nickel-plated | | | | | | | | | |
| Material releasing sleeve | PP | | | | | | | | | |
| Valve body material | Brass | | | | | | | | | |
| Material seals | NBR | | | | | | | | | |
| Material spring | High-alloy stainless steel | | | | | | | | | |
| Material thread seal | PA66-GF30/TPE-U | | | – | | | | | | |
| Material thread piece | Nickel-plated brass | | | | | | – | | | |
| Material of inner raceway | Brass | | | | | | | | | |
| Material snap ring | High-alloy stainless steel | | | | | | | | | |
| Material pins | High-alloy stainless steel | | | | | | | | | |
| Material union nut | – | | | | | | Wrought aluminium alloy, anodised | | – | |
| Note on materials | RoHS-compliant | | | | | | | | | |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L | | | | | | | | | |

1) Measured at p1 = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Datasheet

| Technical data – Quick coupling plug KS4 | | | | | | | | | | | |
|---------------------------------------------------------------------|------------------------------------------|------------------|------------------|-------------------------|-------------------------|-------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------|--------------------------|
| Short type code | KS4 | | | | | | | | | | |
| Pneumatic connection, port 1 | Male thread G1/4 | Male thread G3/8 | Male thread G1/2 | Female thread G1/4 | Female thread G3/8 | Female thread G1/2 | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut | For tubing outer diameter of 8 mm, For barbed fitting I.D. 6 mm with union nut | For barbed fitting inside diameter of 9 mm with union nut | Barbed hose fitting 6 mm | Barbed hose fitting 9 mm |
| Nominal size | 7.85 mm | | | | | | 2.9 mm | 4.9 mm | 7.4 mm | 4.5 mm | 7 mm |
| Nominal torque | 9.5 Nm | 21.5 Nm | 32.5 Nm | 9.5 Nm | 21.5 Nm | 32.5 Nm | – | | | | |
| Tolerance for nominal tightening torque | ± 15% | | ± 20% | ± 15% | | ± 20% | – | | | | |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | 756 ... 1,323 l/min | | | 720 ... 1,161 l/min | 756 ... 1,350 l/min | 756 ... 1,314 l/min | 252 ... 261 l/min | 432 ... 495 l/min | 725 ... 1,197 l/min | 441 ... 495 l/min | 711 ... 1,134 l/min |
| Nominal flow rate standardised according to ISO 8778 | 819.5 ... 1,434.1 l/min | | | 780.5 ... 1,258.5 l/min | 819.5 ... 1,463.4 l/min | 819.5 ... 1,424.4 l/min | 273.2 ... 282.9 l/min | 468.3 ... 536.6 l/min | 785.9 ... 1,297.5 l/min | 478 ... 536.6 l/min | 770.7 ... 1,229.3 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa | | | | | | | | | | |
| Operating pressure complete temperature range | -0.95 ... 12 bar | | | | | | | | | | |
| Operating pressure complete temperature range | -13.775 ... 174 psi | | | | | | | | | | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:::] | | | | | | | | | | |
| Note on operating and pilot medium | Lubricated operation possible | | | | | | | | | | |
| Ambient temperature | -10 ... 60°C | | | | | | | | | | |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress | | | | | | | | | | |
| Material thread seal | PA66-GF30/TPE-U | | | – | | | | | | | |
| Material union nut | – | | | | | | Wrought aluminium alloy, anodised | | | – | |
| Information on materials | Brass, nickel plated | | | | | | | | | | |
| Note on materials | RoHS-compliant | | | | | | | | | | |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L | | | | | | | | | | |

1) Measured at p1 = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Datasheet

| Technical data – Coupling sockets KD...-...-A-R (shut-off on both sides) | | |
|--------------------------------------------------------------------------|------------------------------------------|----------------------------|
| Short type code | KD3 | KD4 |
| Pneumatic connection, port 1 | Male thread G1/8 | Male thread G1/4 |
| Nominal size | 5 mm | 8 mm |
| Nominal torque | 5 Nm | 9.5 Nm |
| Tolerance for nominal tightening torque | ± 15% | |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | – | 765 l/min |
| Nominal flow rate standardised according to ISO 8778 | – | 829.3 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa | |
| Operating pressure complete temperature range | -0.95 ... 12 bar | |
| Operating pressure complete temperature range | -13.775 ... 174 psi | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:::] | |
| Note on operating and pilot medium | Lubricated operation possible | |
| Ambient temperature | -10 ... 60°C | |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress | |
| Material housing | Brass | |
| Material releasing sleeve | Nickel-plated brass | PP |
| Valve body material | Brass | |
| Material seals | NBR | |
| Material spring | High-alloy stainless steel | |
| Material thread seal | PA66-GF30/TPE-U | |
| Material thread piece | Brass | |
| Material of inner raceway | – | Brass |
| Material snap ring | High-alloy stainless steel | |
| Material pins | – | High-alloy stainless steel |
| Material ball | High-alloy stainless steel | – |
| Note on materials | RoHS-compliant | |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L | |

1) Measured at p1 = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Datasheet

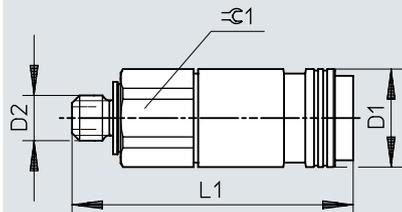
| Technical data – Quick coupling plug KS...-A-R (shut-off on both sides) | | |
|-------------------------------------------------------------------------|-------------------------------------------|------------------|
| Short type code | KS3 | KS4 |
| Pneumatic connection, port 1 | Male thread G1/8 | Male thread G1/4 |
| Nominal size | 4.2 mm | 8 mm |
| Nominal torque | 5 Nm | 9.5 Nm |
| Tolerance for nominal tightening torque | ± 15% | |
| Standard nominal flow rate (standardised to DIN 1343) ¹⁾ | – | 765 l/min |
| Nominal flow rate standardised according to ISO 8778 | – | 829.3 l/min |
| Operating pressure complete temperature range | -0.095 ... 1.2 MPa | |
| Operating pressure complete temperature range | -0.95 ... 12 bar | |
| Operating pressure complete temperature range | -13.775 ... 174 psi | |
| Operating medium | Compressed air to ISO 8573-1:2010 [7:-:-] | |
| Note on operating and pilot medium | Lubricated operation possible | |
| Ambient temperature | -10 ... 60°C | |
| Corrosion resistance class CRC ²⁾ | 1 - Low corrosion stress | |
| Valve body material | Brass | |
| Material seals | NBR | |
| Material spring | High-alloy stainless steel | |
| Material thread seal | PA66-GF30/TPE-U | |
| Information on materials | Brass | |
| Note on materials | RoHS-compliant | |
| LABS (PWS) conformity | VDMA24364-B1/B2-L | |

1) Measured at p₁ = 6 bar and Δp = 1 bar

2) More information visit www.festo.com/x/topic/kbk

Dimensions

Dimensions – Coupling socket KD1, male thread

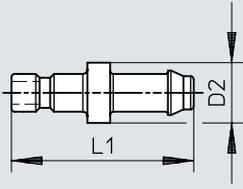
Download CAD data www.festo.com

| | D1 ∅ | D2 | L1 | =C 1 |
|----------|---------|----|------|------|
| KD1-M3-A | 6,5 | M3 | 18,5 | 6 |

Dimensions

Dimensions – Quick coupling plug KS1, barbed fitting

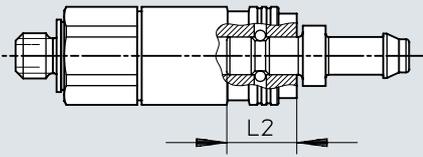
Download CAD data www.festo.com



| | D2 | L1 |
|----------|----|----|
| KS1-CN-2 | 4 | 12 |

Dimensions

Dimensions – Plug-in coupling KD1/KS1, insertion depth

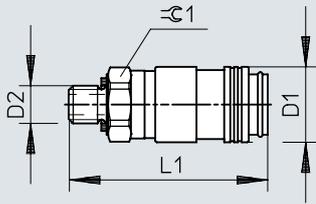
Download CAD data www.festo.com

| | L2 |
|----------|-----|
| KD1-M3-A | 4,6 |
| KS1-CN-2 | 4,6 |

Dimensions

Dimensions – Coupling socket KD2, male thread

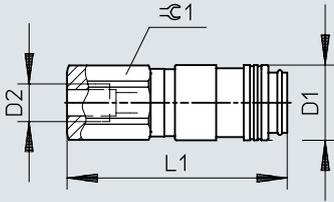
Download CAD data www.festo.com



| | D1 ∅ | D2 | L1 | ±0.1 |
|----------|---------|----|-------|------|
| KD2-M5-A | 10 | M5 | 26,25 | 9 |

Dimensions

Dimensions – Coupling socket KD2, female thread

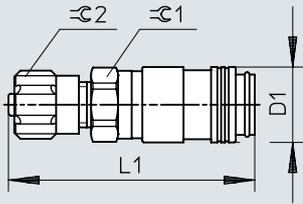
Download CAD data www.festo.com

| | D1 ∅ | D2 | L1 | ± 0.1 |
|----------|---------|----|-------|-----------|
| KD2-M5-I | 10 | M5 | 29,05 | 9 |

Dimensions

Dimensions – Coupling socket KD2, quick connector

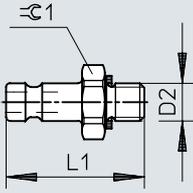
Download CAD data www.festo.com



| | D1 \varnothing | L1 | $\varnothing C1$ | $\varnothing C2$ |
|----------|---------------------|-------|------------------|------------------|
| KD2-CK-3 | 10 | 32,55 | 9 | 8 |
| KD2-CK-4 | 10 | 35,75 | 11 | 12 |

Dimensions

Dimensions – Quick coupling plug KS2, male thread

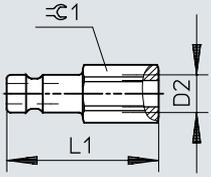
Download CAD data www.festo.com

| | D2 | L1 | ±0.1 |
|----------|----|------|------|
| KS2-M5-A | M5 | 18,2 | 9 |

Dimensions

Dimensions – Quick coupling plug KS2, female thread

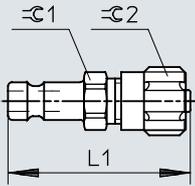
Download CAD data www.festo.com



| | D2 | L1 | ≈ 1° |
|----------|----|----|------|
| KS2-M5-I | M5 | 20 | 7 |

Dimensions

Dimensions – Quick coupling plug KS2, quick connector

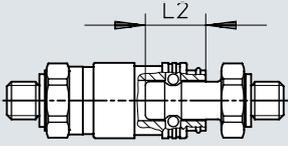
Download CAD data www.festo.com

| | L1 | $\varnothing 1$ | $\varnothing 2$ |
|----------|------|-----------------|-----------------|
| KS2-CK-3 | 24 | 7 | 8 |
| KS2-CK-4 | 27,2 | 11 | 12 |

Dimensions

Dimensions – Quick coupling plug KS2, insertion depth

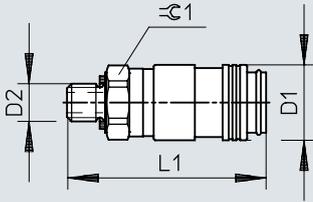
Download CAD data www.festo.com



| | L2 |
|----------|------|
| KS2-M5-A | 7,95 |
| KS2-M5-I | 7,95 |
| KS2-CK-3 | 7,95 |
| KS2-CK-4 | 7,95 |

Dimensions

Dimensions – Coupling socket KD3, male thread

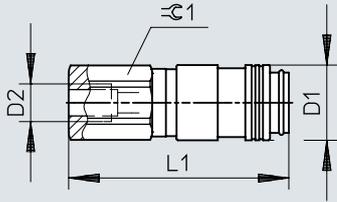
Download CAD data www.festo.com

| | D1 ∅ | D2 | L1 | ± 0.1 |
|-----------|---------|------|------|-----------|
| KD3-1/8-A | 16 | G1/8 | 36 | 14 |
| KD3-1/4-A | | G1/4 | 37,6 | 17 |

Dimensions

Dimensions – Coupling socket KD3, female thread

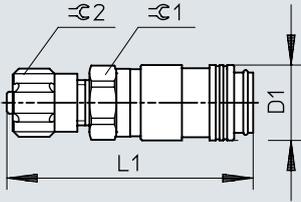
Download CAD data www.festo.com



| | D1 ∅ | D2 | L1 | ±0.1 |
|-----------|---------|------|------|------|
| KD3-1/8-l | 16 | G1/8 | 38,2 | 14 |
| KD3-1/4-l | | G1/4 | 45,2 | 17 |

Dimensions

Dimensions – Coupling socket KD3, quick connector

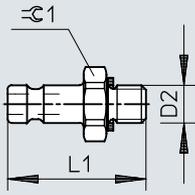
Download CAD data www.festo.com

| | D1 \varnothing | L1 | $\varnothing C1$ | $\varnothing C2$ |
|----------|---------------------|------|------------------|------------------|
| KD3-CK-4 | 16 | 43,1 | 14 | 12 |
| KD3-CK-6 | | 43,2 | | 14 |

Dimensions

Dimensions – Quick coupling plug KS3, male thread

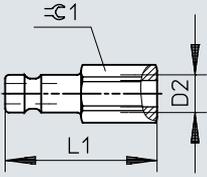
Download CAD data www.festo.com



| | D2 | L1 | ⌀1 |
|-----------|------|------|----|
| KS3-1/8-A | G1/8 | 25 | 13 |
| KS3-1/4-A | G1/4 | 27,6 | 17 |

Dimensions

Dimensions – Quick coupling plug KS3, female thread

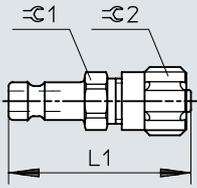
Download CAD data www.festo.com

| | D2 | L1 | ≅1 |
|-----------|------|------|----|
| KS3-1/8-I | G1/8 | 28 | 13 |
| KS3-1/4-I | G1/4 | 32,6 | 17 |

Dimensions

Dimensions – Quick coupling plug KS3, quick connector

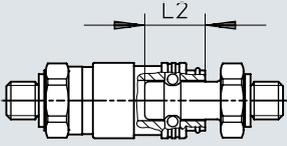
Download CAD data www.festo.com



| | L1 | $\varnothing 1$ | $\varnothing 2$ |
|----------|------|-----------------|-----------------|
| KS3-CK-4 | 34,5 | 12 | 12 |
| KS3-CK-6 | 34,6 | 14 | 14 |

Dimensions

Dimensions – Quick coupling plug KS3, insertion depth

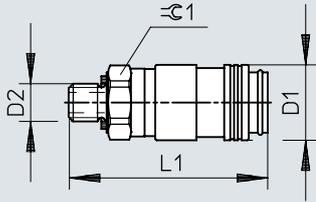
Download CAD data www.festo.com

| | L2 |
|-----------|------|
| KS3-1/8-A | 13,6 |
| KS3-1/4-A | 13,6 |
| KS3-1/8-I | 13,6 |
| KS3-1/4-I | 13,6 |
| KS3-CK-4 | 13,6 |
| KS3-CK-6 | 13,6 |

Dimensions

Dimensions – Coupling socket KD4, male thread

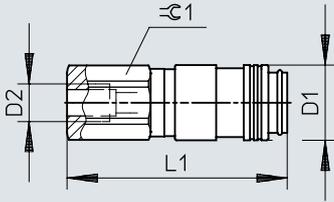
Download CAD data www.festo.com



| | D1 ∅ | D2 | L1 | ± 0.1 |
|-----------|---------|------|------|-----------|
| KD4-1/4-A | 26,4 | G1/4 | 40,5 | 22 |
| KD4-3/8-A | | G3/8 | 41,5 | |
| KD4-1/2-A | | G1/2 | 43 | 24 |

Dimensions

Dimensions – Coupling socket KD4, female thread

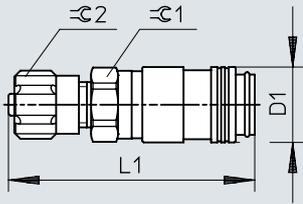
Download CAD data www.festo.com

| | D1 ∅ | D2 | L1 | ±0.1 |
|-----------|---------|------|------|------|
| KD4-1/4-I | 26,4 | G1/4 | 46 | 22 |
| KD4-3/8-I | | G3/8 | 47,5 | |
| KD4-1/2-I | | G1/2 | 50,5 | 24 |

Dimensions

Dimensions – Coupling socket KD4, quick connector

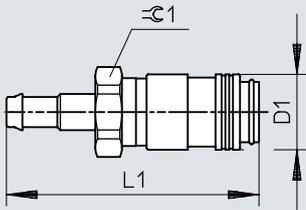
Download CAD data www.festo.com



| | D1 ∅ | L1 | ∅ G 1 | ∅ G 2 |
|----------|---------|------|-------|-------|
| KD4-CK-6 | 26,4 | 46,4 | 22 | 14 |
| KD4-CK-9 | | 49,8 | | 19 |

Dimensions

Dimensions – Coupling socket KD4, barbed fitting

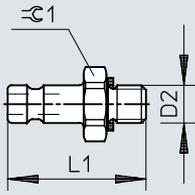
Download CAD data www.festo.com

| | D1 ∅ | L1 | ±0.1 |
|---------|---------|------|------|
| KD4-N-9 | 26,4 | 56,2 | 21 |

Dimensions

Dimensions – Quick coupling plug KS4, male thread

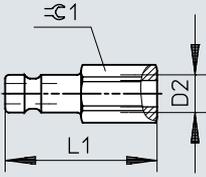
Download CAD data www.festo.com



| | D2 | L1 | $\varnothing 1$ |
|-----------|------|------|-----------------|
| KS4-1/4-A | G1/4 | 32,5 | 17 |
| KS4-3/8-A | G3/8 | 34 | 19 |
| KS4-1/2-A | G1/2 | 37,5 | 24 |

Dimensions

Dimensions – Quick coupling plug KS4, female thread

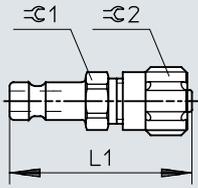
Download CAD data www.festo.com

| | D2 | L1 | $\approx 1^\circ$ |
|-----------|------|------|-------------------|
| KS4-1/4-1 | G1/4 | 38,5 | 17 |
| KS4-3/8-1 | G3/8 | 39,5 | 19 |
| KS4-1/2-1 | G1/2 | 44 | 24 |

Dimensions

Dimensions – Quick coupling plug KS4, quick connector

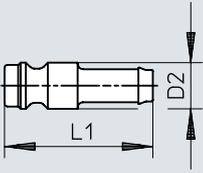
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| | L1 | $\varnothing 1$ | $\varnothing 2$ |
|----------|------|-----------------|-----------------|
| KS4-CK-4 | 40,2 | 17 | 12 |
| KS4-CK-6 | 40,3 | | 14 |
| KS4-CK-9 | 43,7 | 19 | 19 |

Dimensions

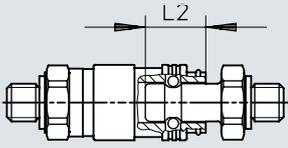
Dimensions – Quick coupling plug KS4, barbed fitting

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| | D2 | L1 |
|---------|----|----|
| KS4-N-6 | 12 | 47 |
| KS4-N-9 | | |

Dimensions

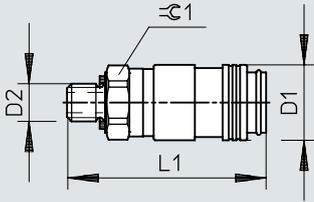
Dimensions – Quick coupling plug KS4, insertion depth

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| | L2 |
|-----------|-------|
| KS4-1/4-A | |
| KS4-3/8-A | 14,95 |
| KS4-1/2-A | |
| KS4-1/4-I | |
| KS4-3/8-I | 14,95 |
| KS4-1/2-I | |
| KS4-CK-4 | |
| KS4-CK-6 | 14,95 |
| KS4-CK-9 | |
| KS4-N-6 | |
| KS4-N-9 | 14,95 |

Dimensions

Dimensions – Coupling socket KD...-R, male thread

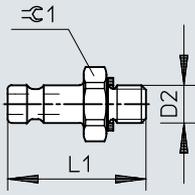
Download CAD data www.festo.com

| | D1 ∅ | D2 | L1 | ±0.1 |
|-------------|---------|------|------|------|
| KD3-1/8-A-R | 16 | G1/8 | 36 | 14 |
| KD4-1/4-A-R | 26,4 | G1/4 | 40,5 | 22 |

Dimensions

Dimensions – Quick coupling plug KS...-R

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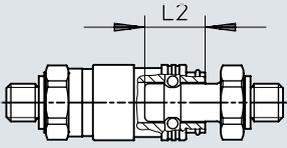


| | D2 | L1 | ⌀1 |
|-------------|------|------|----|
| KS3-1/8-A-R | G1/8 | 39,8 | 14 |
| KS4-1/4-A-R | G1/4 | 42,5 | 22 |

Dimensions

Dimensions – Push-in coupling KD...-R/KS...-R, insertion depth

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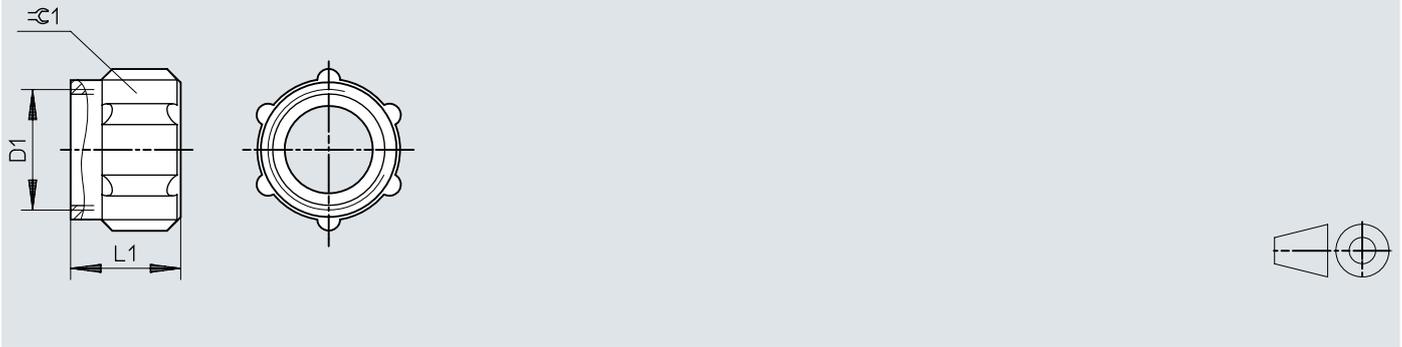


| | L2 |
|-------------|-------|
| KD3-1/8-A-R | 13,6 |
| KD4-1/4-A-R | 14,95 |
| KS3-1/8-A-R | 13,6 |
| KS4-1/4-A-R | 14,95 |

Dimensions

Dimensions – Union nut MCK for quick connector

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| | D1 | L1 | $\approx C1$ |
|----------|---------|------|--------------|
| MCK-PK-3 | M6x0,75 | 8,5 | 8 |
| MCK-PK-4 | M10x1 | 11 | 12 |
| MCK-PK-6 | M12x1 | 11 | 14 |
| MCK-PK-9 | M16x1 | 14,4 | 19 |

Ordering data

| Ordering data – Coupling sockets/plugs KD1/KS1 | | | | | | |
|------------------------------------------------|------------------------------|-------------------------------------------------------|------------------------------------------------------|----------------|----------|----------|
| Short type code ¹⁾ | Pneumatic connection, port 1 | Standard nominal flow rate (standardised to DIN 1343) | Nominal flow rate standardised according to ISO 8778 | Product weight | Part no. | Type |
| KD1 | Male thread M3 | 44 l/min | 47.7 l/min | 2.9 g | 151995 | KD1-M3-A |
| KS1 | Barbed hose fitting 2 mm | | | 0.4 g | 151996 | KS1-CN-2 |

1) KD: Coupling socket; KS: Quick coupling plug

| Ordering data – Coupling sockets/plugs KD2/KS2 | | | | | | |
|------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|----------------|----------|----------|
| Short type code ¹⁾ | Pneumatic connection, port 1 | Standard nominal flow rate (standardised to DIN 1343) | Nominal flow rate standardised according to ISO 8778 | Product weight | Part no. | Type |
| KD2 | Male thread M5 | 83 ... 131 l/min | 90 ... 142 l/min | 10 g | 4087 | KD2-M5-A |
| | Female thread M5 | 84 ... 135 l/min | 91.1 ... 146.3 l/min | 12 g | 531620 | KD2-M5-I |
| | For tubing outer diameter of 4 mm, For barbed fitting I.D. 3 mm with union nut | 68 ... 88 l/min | 73.7 ... 95.4 l/min | 11 g | 531621 | KD2-CK-3 |
| | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut | 82 ... 130 l/min | 88.9 ... 140.9 l/min | 16 g | 531622 | KD2-CK-4 |
| KS2 | Male thread M5 | 85 ... 136 l/min | 92.1 ... 147.4 l/min | 5 g | 531658 | KS2-M5-A |
| | Female thread M5 | 88 ... 139 l/min | 95.4 ... 150.7 l/min | | 531660 | KS2-M5-I |
| | For tubing outer diameter of 4 mm, For barbed fitting I.D. 3 mm with union nut | 68 ... 84 l/min | 73.7 ... 91.1 l/min | 4 g | 4091 | KS2-CK-3 |
| | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut | 86 ... 129 l/min | 93.2 ... 139.8 l/min | 11 g | 4090 | KS2-CK-4 |

1) KD: Coupling socket; KS: Quick coupling plug

| Ordering data – Coupling sockets/plugs KD3/KS3 | | | | | | |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|----------------|----------|-------------|
| Short type code ¹⁾ | Pneumatic connection, port 1 | Standard nominal flow rate (standardised to DIN 1343) | Nominal flow rate standardised according to ISO 8778 | Product weight | Part no. | Type |
| KD3 | Male thread G1/8 | | | 28 g | 531659 | KD3-1/8-A-R |
| | | 185 ... 572 l/min | 200.5 ... 620 l/min | | 2142 | KD3-1/8-A |
| | Male thread G1/4 | 185 ... 594 l/min | 200.5 ... 643.9 l/min | 35 g | 531626 | KD3-1/4-A |
| | Female thread G1/8 | 185 ... 603 l/min | 200.5 ... 653.7 l/min | 32 g | 531627 | KD3-1/8-I |
| | Female thread G1/4 | 185 ... 666 l/min | 200.5 ... 721.9 l/min | 47 g | 531628 | KD3-1/4-I |
| | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut | 158 ... 225 l/min | 171.3 ... 243.9 l/min | 31 g | 531629 | KD3-CK-4 |
| | For tubing outer diameter of 8 mm, For barbed fitting I.D. 6 mm with union nut | 180 ... 468 l/min | 195.1 ... 507.3 l/min | 32 g | 531630 | KD3-CK-6 |
| KS3 | Male thread G1/8 | | | | 531667 | KS3-1/8-A-R |
| | | 225 ... 648 l/min | 243.9 ... 702.4 l/min | 13 g | 3492 | KS3-1/8-A |
| | Male thread G1/4 | 225 ... 653 l/min | 243.9 ... 707.9 l/min | 23 g | 531666 | KS3-1/4-A |
| | Female thread G1/8 | 225 ... 617 l/min | 243.9 ... 668.8 l/min | 16 g | 531668 | KS3-1/8-I |
| | Female thread G1/4 | 225 ... 666 l/min | 243.9 ... 721.9 l/min | 27 g | 531669 | KS3-1/4-I |
| For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut | 158 ... 185 l/min | 171.3 ... 200.5 l/min | 16 g | 3326 | KS3-CK-4 | |

Ordering data

Ordering data – Coupling sockets/plugs KD3/KS3

| Short type code ¹⁾ | Pneumatic connection, port 1 | Standard nominal flow rate (standardised to DIN 1343) | Nominal flow rate standardised according to ISO 8778 | Product weight | Part no. | Type |
|-------------------------------|--------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|----------------|----------|----------|
| KS3 | For tubing outer diameter of 8 mm, For barbed fitting I.D. 6 mm with union nut | 216 ... 464 l/min | 234.1 ... 503 l/min | 21 g | 3478 | KS3-CK-6 |

1) KD: Coupling socket; KS: Quick coupling plug

Ordering data – Coupling sockets/plugs KD4/KS4

| Short type code ¹⁾ | Pneumatic connection, port 1 | Standard nominal flow rate (standardised to DIN 1343) | Nominal flow rate standardised according to ISO 8778 | Product weight | Part no. | Type |
|-------------------------------|----------------------------------------------------------------------------------|-------------------------------------------------------|------------------------------------------------------|----------------|----------|-------------|
| KD4 | Male thread G1/4 | 261 ... 1287 l/min | 282.9 ... 1395.1 l/min | 57 g | 2143 | KD4-1/4-A |
| | | 765 l/min | 829.3 l/min | 58 g | 531694 | KD4-1/4-A-R |
| | Male thread G3/8 | 261 ... 1274 l/min | 282.9 ... 1381 l/min | 62 g | 2144 | KD4-3/8-A |
| | Male thread G1/2 | 257 ... 1337 l/min | 278.6 ... 1449.3 l/min | 78 g | 2145 | KD4-1/2-A |
| | Female thread G1/4 | 257 ... 1292 l/min | 278.6 ... 1400.5 l/min | 88 g | 531636 | KD4-1/4-I |
| | Female thread G3/8 | 261 ... 1350 l/min | 282.9 ... 1463.4 l/min | 82 g | 531637 | KD4-3/8-I |
| | Female thread G1/2 | 257 ... 1332 l/min | 278.6 ... 1443.9 l/min | 86 g | 531638 | KD4-1/2-I |
| | For tubing outer diameter of 8 mm, For barbed fitting I.D. 6 mm with union nut | 252 ... 756 l/min | 273.2 ... 819.5 l/min | 63 g | 531639 | KD4-CK-6 |
| | For barbed fitting inside diameter of 9 mm with union nut | 261 ... 1116 l/min | 282.9 ... 1209.7 l/min | 71 g | 531640 | KD4-CK-9 |
| Barbed hose fitting 9 mm | 810 ... 1152 l/min | 878 ... 1248.8 l/min | 57 g | 531641 | KD4-N-9 | |
| KS4 | Male thread G1/4 | 756 ... 1323 l/min | 819.5 ... 1434.1 l/min | 21 g | 2154 | KS4-1/4-A |
| | | 765 l/min | 829.3 l/min | 46 g | 531677 | KS4-1/4-A-R |
| | Male thread G3/8 | 756 ... 1323 l/min | 819.5 ... 1434.1 l/min | 29 g | 2155 | KS4-3/8-A |
| | Male thread G1/2 | 720 ... 1161 l/min | 780.5 ... 1258.5 l/min | 55 g | 531676 | KS4-1/2-A |
| | Female thread G1/4 | 720 ... 1161 l/min | 780.5 ... 1258.5 l/min | 31 g | 531678 | KS4-1/4-I |
| | Female thread G3/8 | 756 ... 1350 l/min | 819.5 ... 1463.4 l/min | 32 g | 531679 | KS4-3/8-I |
| | Female thread G1/2 | 756 ... 1314 l/min | 819.5 ... 1424.4 l/min | 57 g | 531680 | KS4-1/2-I |
| | For tubing outside diameter of 6 mm, For barbed fitting I.D. 4 mm with union nut | 252 ... 261 l/min | 273.2 ... 282.9 l/min | 26 g | 2150 | KS4-CK-4 |
| | For tubing outer diameter of 8 mm, For barbed fitting I.D. 6 mm with union nut | 432 ... 495 l/min | 468.3 ... 536.6 l/min | | 2151 | KS4-CK-6 |
| | For barbed fitting inside diameter of 9 mm with union nut | 725 ... 1197 l/min | 785.9 ... 1297.5 l/min | | 531683 | KS4-CK-9 |
| | Barbed hose fitting 6 mm | 441 ... 495 l/min | 478 ... 536.6 l/min | 15 g | 2152 | KS4-N-6 |
| | Barbed hose fitting 9 mm | 711 ... 1134 l/min | 770.7 ... 1229.3 l/min | 18 g | 2153 | KS4-N-9 |

1) KD: Coupling socket; KS: Quick coupling plug

Ordering data

| Ordering data – Coupling sockets/plugs KD...-A-R/KS...-A-R (shut-off on both sides) | | | | | | |
|-------------------------------------------------------------------------------------|------------------------------|-------------------------------------------------------|------------------------------------------------------|----------------|---------------|--------------------|
| Short type code ¹⁾ | Pneumatic connection, port 1 | Standard nominal flow rate (standardised to DIN 1343) | Nominal flow rate standardised according to ISO 8778 | Product weight | Part no. | Type |
| KD3 | Male thread G1/8 | | | 28 g | 531659 | KD3-1/8-A-R |
| KD4 | Male thread G1/4 | 765 l/min | 829.3 l/min | 58 g | 531694 | KD4-1/4-A-R |
| KS3 | Male thread G1/8 | | | 32 g | 531667 | KS3-1/8-A-R |
| KS4 | Male thread G1/4 | 765 l/min | 829.3 l/min | 46 g | 531677 | KS4-1/4-A-R |

1) KD: Coupling socket; KS: Quick coupling plug

Accessories

| Union nut MCK | | | | | |
|----------------------------------------------------------------------------------|-----------------------|------------------------|-------------------|----------|----------|
| | Size | LABS (PWIS) conformity | Note on materials | Part no. | Type |
|  | Female thread M10x1 | VDMA24364-B2-L | RoHS-compliant | 2965 | MCK-PK-4 |
| | Female thread M12x1 | | | 2966 | MCK-PK-6 |
| | Female thread M16x1 | | | 2967 | MCK-PK-9 |
| | Female thread M6x0.75 | | | 205254 | MCK-PK-3 |