

Quick coupling sockets/plugs



Quick coupling sockets/plugs

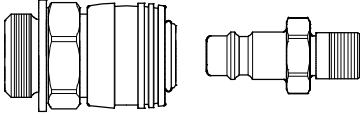
Key features

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Mode of operation

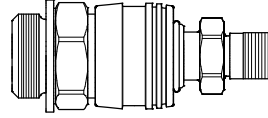
Plug-in coupling with quick coupling socket KD and quick coupling plug KS, shut-off at one or both ends

Coupling



To lock the coupling, push the plug into the socket. The plug automatically engages with an audible click when in a specific position.

Uncoupling

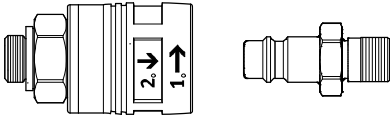


To unlock, push the releasing sleeve.

When uncoupling it is important to hold the quick coupling plug until it is fully vented.

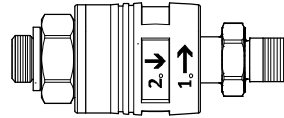
Safety coupling with quick coupling socket KDMS/KDS and quick coupling plug KSS

Coupling



To lock the coupling, push the plug into the socket. The plug automatically engages with an audible click when in a specific position.

Uncoupling



KDS/KSS:


1. To vent, start by turning the releasing sleeve. This releases the pin locking mechanism of the coupling. The plug moves approx. 5 mm out of the coupling and is held in this position by the ball locking mechanism of the coupling. The air from the

- plug and the components connected to it can escape. The air on the coupling side is shut off.
2. Then unlock the plug fully by pulling the releasing sleeve. The plug should only be removed after all the air has been vented.

KDMS/KSS (not illustrated):

1. To vent, start by pushing the releasing sleeve. This releases the pin locking mechanism of the coupling. The plug moves approx. 5 mm out of the coupling and is held in this position by the ball locking mechanism of the coupling. The air from the plug and the components connected to it can escape. The air



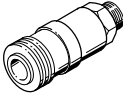

- on the coupling side is shut off.
2. Then unlock the plug fully by pushing the releasing sleeve. The plug should only be removed after all the air has been vented. An integrated pressure indicator in the coupling signals the presence of residual pressure in the coupling (red O-ring is visible).

-  - Note

The maximum pressure that should be applied when mating and releasing the couplings is 10 bar.

Quick coupling sockets/plugs

Product range overview

Function	Version	Type	Brief description	Standard nominal flow rate [l/min]	Nominal size [mm]	→ Page/Internet
Plug-in coupling	Shut-off on one side					
		KD1/KS1	For standard applications, without safety function	44	1.5	5
		KD2/KS2		68 ... 139	2 ... 3.2	7
		KD3/KS3		158 ... 666	2.9 ... 5	10
		KD4/KS4		252 ... 1,350	2.9 ... 10	13
		KD5/KS5		1,710 ... 2,043	11 ... 13	17
	Shut-off on both sides					
	KD3-...-R/ KS3-...-R	Both sides are sealed after unlocking	563	4.2 ... 5	19	
	KD4-...-R/ KS4-...-R		765	8	19	
Safety coupling	Shut-off on one side					
		KDMS6/KSS6	Vent the air on the plug side by pushing the releasing sleeve and then unlocking the coupling	968 ... 2,043	5 ... 13	21
			KDS6/KSS6	Vent the air on the plug side by turning the releasing sleeve and then unlocking the coupling	882 ... 1,818	5 ... 10

Coupling/tubing combination options							
Tubing	Quick coupling socket/plug	Quick coupling socket/plug					
		KD1/KS1	KD2/KS2	KD3/KS3	KD4/KS4	KD5/KS5	KDS6/KSS6
With standard I.D.	Polyurethane						
	PU-9	-	-	-	■	-	■
	PU-13	-	-	-	-	■	■
	Nitrile rubber						
	P-6	-	-	-	■	-	-
	P-9	-	-	-	■	-	■
	P-13	-	-	-	-	■	-
With standard O.D.	Polyurethane						
	PUN-3	■	-	-	-	-	-
	PUN-4	-	■	-	-	-	-
	PUN-6	-	■	■	■	-	-
	PUN-8	-	-	■	■	-	-
	Polyamide						
	PAN-4	-	■	-	-	-	-
	PAN-6	-	■	■	■	-	-
	PAN-8	-	-	■	■	-	-

Quick coupling sockets/plugs

Product range overview

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Quick coupling socket/plug combination options												
Connection	Size 1		Size 2		Size 3 ¹⁾		Size 4 ¹⁾		Size 5		Size 6 ²⁾	
	Socket	Plug	Socket	Plug	Socket	Plug	Socket	Plug	Socket	Plug	Socket	Plug
Male thread												
M3	■	-	-	-	-	-	-	-	-	-	-	-
M5	-	-	■	■	-	-	-	-	-	-	-	-
G ¹ / ₈	-	-	-	-	■	■	-	-	-	-	-	■
G ¹ / ₄	-	-	-	-	■	■	■	■	-	-	■	■
G ³ / ₈	-	-	-	-	-	-	■	■	-	-	■	■
G ¹ / ₂	-	-	-	-	-	-	■	■	-	■	■	■
Female thread												
M5	-	-	■	■	-	-	-	-	-	-	-	-
G ¹ / ₈	-	-	-	-	■	■	-	-	-	-	-	-
G ¹ / ₄	-	-	-	-	■	■	■	■	-	-	■	■
G ³ / ₈	-	-	-	-	-	-	■	■	-	-	■	■
G ¹ / ₂	-	-	-	-	-	-	■	■	■	-	■	■
Quick connector with union nut												
CK-3	-	-	■	■	-	-	-	-	-	-	-	-
CK-4	-	-	■	■	■	■	-	■	-	-	-	-
CK-6	-	-	-	-	■	■	■	■	-	-	-	-
CK-9	-	-	-	-	-	-	■	■	-	-	■	■
CK-13	-	-	-	-	-	-	-	-	-	■	■	■
Bulkhead quick connector												
CK-9	-	-	-	-	-	-	■	■	-	-	■	■
Barbed fitting												
CN-2	-	■	-	-	-	-	-	-	-	-	-	-
CN-4	-	-	■	■	-	-	-	-	-	-	-	-
CN-6	-	-	-	-	■	■	-	-	-	-	-	-
N-6	-	-	-	-	-	-	-	■	-	-	-	-
N-9	-	-	-	-	-	-	■	■	-	-	■	■
N-13	-	-	-	-	-	-	-	-	-	■	-	-
Barbed bulkhead fitting												
CN-4	-	-	■	■	-	-	-	-	-	-	-	-
CN-6	-	-	-	-	■	■	-	-	-	-	-	-



1) Quick coupling socket, shut-off on both sides KD...-A-R: thread G¹/₈, G¹/₄ only

2) Quick coupling socket KDMS6: male thread G¹/₄, G³/₈, G¹/₂ only

Quick coupling sockets/plugs KD/KS, shut-off on one side

Technical data

Plug-in coupling KD1/KS1

-  - Flow rate
44 l/min
-  - Nominal size
1.5 mm



General technical data		
Pneumatic connection 1	Quick coupling socket KD1	Quick coupling plug KS1
	Male thread	Barbed fitting
	M3	CN-2
Nominal size [mm]	1.5	1.5
Max. tightening torque [Nm]	0.7	–
Product weight [g]	2.9	0.4

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]		
Quick coupling socket/plug combination	Quick coupling socket KD1	
	Male thread	
	M3	
Quick coupling plug KS1		
Barbed fitting CN-2	44	

1) Measured at $p_1 = 6$ bar and $\Delta p = 1$ bar

Operating and environmental conditions	
Operating pressure complete temperature range [bar]	–0.95 ... +12
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:--:--]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature [°C]	–10 ... +60
Corrosion resistance class CRC ¹⁾	1

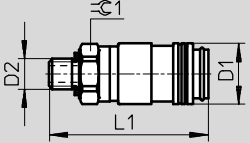
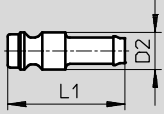
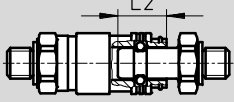
1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Materials		
	Quick coupling socket KD1	Quick coupling plug KS1
Housing	Nickel-plated brass	Nickel-plated brass
Releasing sleeve	Nickel-plated brass	–

Quick coupling sockets/plugs KD/KS, shut-off on one side

Technical data

Dimensions Download CAD data → www.festo.com

Quick coupling socket Male thread	Quick coupling plug Barbed fitting	Insertion depth
		


Connection	D1 ∅	D2	L1	L2	H9/k9
Male thread					
M3	6.5	M3	18.5	4.6	6
Barbed fitting					
CN-2	-	4	12	4.6	-



Ordering data					
Connection	Quick coupling socket		Quick coupling plug		
	Part No.	Type	Part No.	Type	
Male thread					
M3	151995	KD1-M3-A	-		
Barbed fitting					
CN-2	-		151996	KS1-CN-2	

Quick coupling sockets/plugs KD/KS, shut-off on one side

Technical data

Plug-in coupling KD2/KS2

 Note
All quick coupling socket types of the same size are compatible with all plugs of this size.

-  Flow rate
68 ... 139 l/min
-  Nominal size
2 ... 3.2 mm



General technical data – Quick coupling socket KD2						
Pneumatic connection 1	Male thread	Female thread	Quick connector		Barbed fitting	Barbed bulkhead fitting
	M5	M5	CK-3	CK-4	CN-4	CN-4
Nominal size [mm]	2.4	2.7	2	2.9	3.2	2.5
Nominal tightening torque [Nm]	0.85 ±15%		–			
Product weight [g]	10	12	11	16	11	21

General technical data – Quick coupling plug KS2						
Pneumatic connection 1	Male thread	Female thread	Quick connector		Barbed fitting	Barbed bulkhead fitting
	M5	M5	CK-3	CK-4	CN-4	CN-4
Nominal size [mm]	2.4	2.7	2	2.7	2.4	2.7
Nominal tightening torque [Nm]	0.85 ±15%		–			
Product weight [g]	5	5	4	11	5	16

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]							
Quick coupling socket/plug combination		Quick coupling socket KD2					
		Male thread	Female thread	Quick connector		Barbed fitting	Barbed bulkhead fitting
		M5	M5	CK-3	CK-4	CN-4	CN-4
Quick coupling plug KS2							
Male thread	M5	126	133	85	129	136	119
Female thread	M5	131	135	88	130	139	121
Quick connector	CK-3	83	84	68	82	84	79
	CK-4	120	126	86	123	129	113
Barbed fitting	CN-4	113	116	82	113	119	105
Barbed bulkhead fitting	CN-4	115	121	83	119	122	110

1) Measured at $p_1 = 6 \text{ bar}$ and $\Delta p = 1 \text{ bar}$

Quick coupling sockets/plugs KD/KS, shut-off on one side

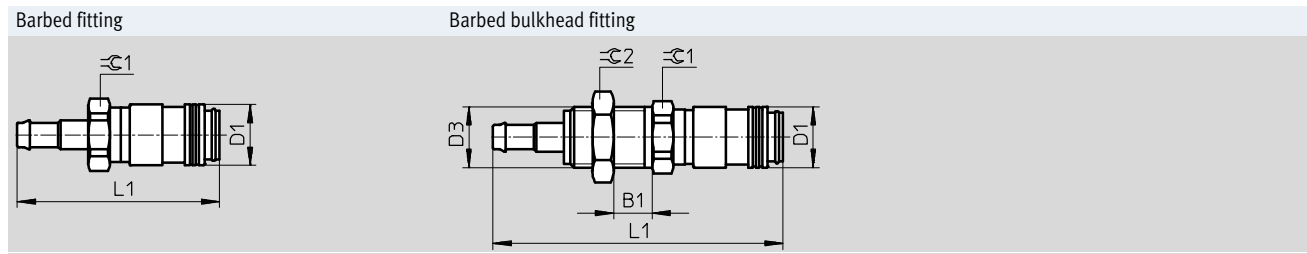
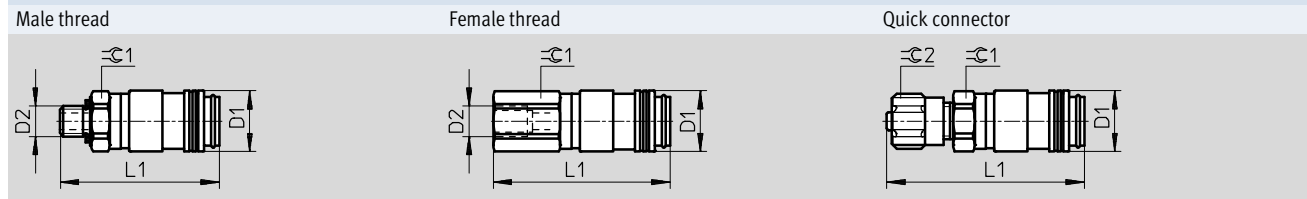
Technical data

Operating and environmental conditions	
Operating pressure complete [bar]	-0.95 ... +12
temperature range	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:--:-]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature [°C]	-10 ... +60
Corrosion resistance class CRC ¹⁾	1

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
 Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Materials	Quick coupling socket KD2	Quick coupling plug KS2
Housing	Nickel-plated brass	Nickel-plated brass
Releasing sleeve	Nickel-plated brass	-
Note on materials	RoHS-compliant	

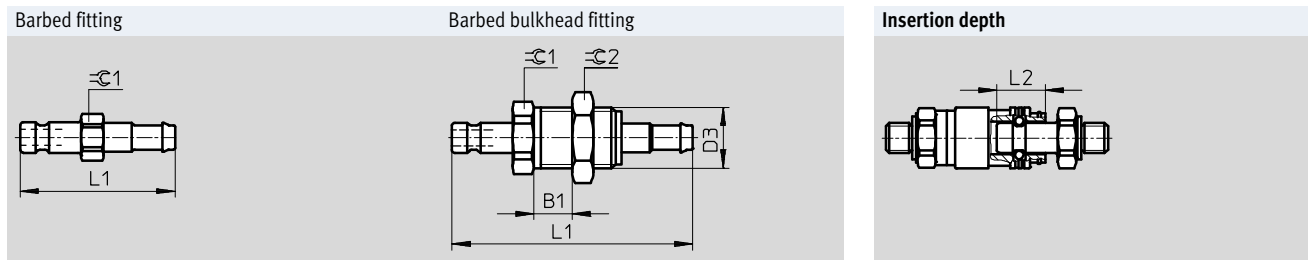
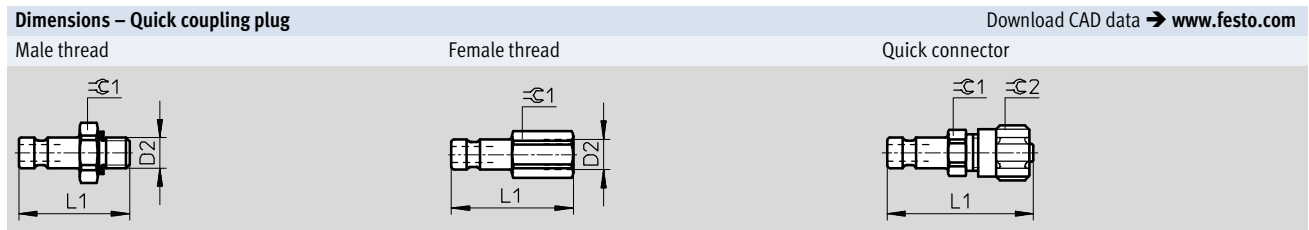
Dimensions – Quick coupling socket Download CAD data → www.festo.com



Connection	B1	D1 Ø	D2	D3	L1	⌀ C1	⌀ C2
Male thread							
M5	-	10	M5	-	26.25	9	-
Female thread							
M5	-	10	M5	-	29.05	9	-
Quick connector with union nut							
CK-3	-	10	-	-	32.55	9	8
CK-4	-	10	-	-	35.75	11	12
Barbed fitting							
CN-4	-	10	-	-	33.25	11	-
Barbed bulkhead fitting							
CN-4	1 ... 10	10	-	M10x1	47.75	11	13

Quick coupling sockets/plugs KD/KS, shut-off on one side

Technical data



Connection	B1	D1 Ø	D2	D3	L1	L2	⌀ C1	⌀ C2
Male thread								
M5	–	10	M5	–	18.2	7.95	9	–
Female thread								
M5	–	10	M5	–	20	7.95	7	–
Quick connector with union nut								
CK-3	–	10	–	–	24	7.95	7	8
CK-4					27.2		11	12
Barbed fitting								
CN-4	–	10	–	–	25.4	7.95	7	–
Barbed bulkhead fitting								
CN-4	1 ... 10	10	–	M10x1	39.7	7.95	11	13



Ordering data				
Connection	Quick coupling socket		Quick coupling plug	
	Part No.	Type	Part No.	Type
Male thread				
M5	4087	KD2-M5-A	531658	KS2-M5-A
Female thread				
M5	531620	KD2-M5-I	531660	KS2-M5-I
Quick connector with union nut				
CK-3	531621	KD2-CK-3	4091	KS2-CK-3
CK-4	531622	KD2-CK-4	4090	KS2-CK-4
Barbed fitting				
CN-4	531623	KD2-CN-4	531663	KS2-CN-4
Barbed bulkhead fitting				
CN-4	531624	KD2-CN-4-S	531664	KS2-CN-4-S


Quick coupling sockets/plugs KD/KS, shut-off on one side

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Technical data

Plug-in coupling KD3/KS3

-  - Flow rate
158 ... 666 l/min
-  - Nominal size
2.9 ... 5 mm

-  - Note
All quick coupling socket types of the same size are compatible with all plugs of this size.



General technical data – Quick coupling socket KD3									
Pneumatic connection 1	Male thread		Female thread		Quick connector		Barbed fitting	Barbed bulkhead fitting	
	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{8}$	G $\frac{1}{4}$	CK-4	CK-6	CN-6	CN-6	
Nominal size [mm]	4.95	5	5	5	2.9	4.9	4.9	4.9	
Nominal tightening torque [Nm]	5 ±15%	9.5 ±15%	5 ±15%	9.5 ±15%	–				
Product weight [g]	28	35	32	47	31	32	27	44	

General technical data – Quick coupling plug KS3									
Pneumatic connection 1	Male thread		Female thread		Quick connector		Barbed fitting	Barbed bulkhead fitting	
	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{8}$	G $\frac{1}{4}$	CK-4	CK-6	CN-6	CN-6	
Nominal size [mm]	4.95	4.95	4.95	4.95	2.9	4.9	4.9	4.9	
Nominal tightening torque [Nm]	5 ±15%	9.5 ±15%	5 ±15%	9.5 ±15%	–				
Product weight [g]	13	23	16	27	16	21	8	32	

Standard nominal flow rate q_{nN^1} [l/min]										
Quick coupling socket/plug combination	Quick coupling socket KD3									
	Male thread		Female thread		Quick connector		Barbed fitting	Barbed bulkhead fitting		
	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{8}$	G $\frac{1}{4}$	CK-4	CK-6	CN-6	CN-6		
Quick coupling plug KS3										
Male thread	G $\frac{1}{8}$	563	581	585	648	225	464	504	459	
	G $\frac{1}{4}$	558	581	594	653	225	455	500	459	
Female thread	G $\frac{1}{8}$	536	554	558	617	225	446	486	450	
	G $\frac{1}{4}$	572	594	603	666	225	468	504	468	
Quick connector	CK-4	185	185	185	185	158	180	180	180	
	CK-6	428	437	441	464	216	378	401	374	
Barbed fitting	CN-6	410	432	414	441	216	365	387	360	
Barbed bulkhead fitting	CN-6	423	441	432	459	216	374	401	378	

1) Measured at $p_1 = 6$ bar and $\Delta p = 1$ bar

Operating and environmental conditions	
Operating pressure complete [bar]	–0.95 ... +12
temperature range	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:--:--]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature [°C]	–10 ... +60
Corrosion resistance class CRC ¹⁾	1

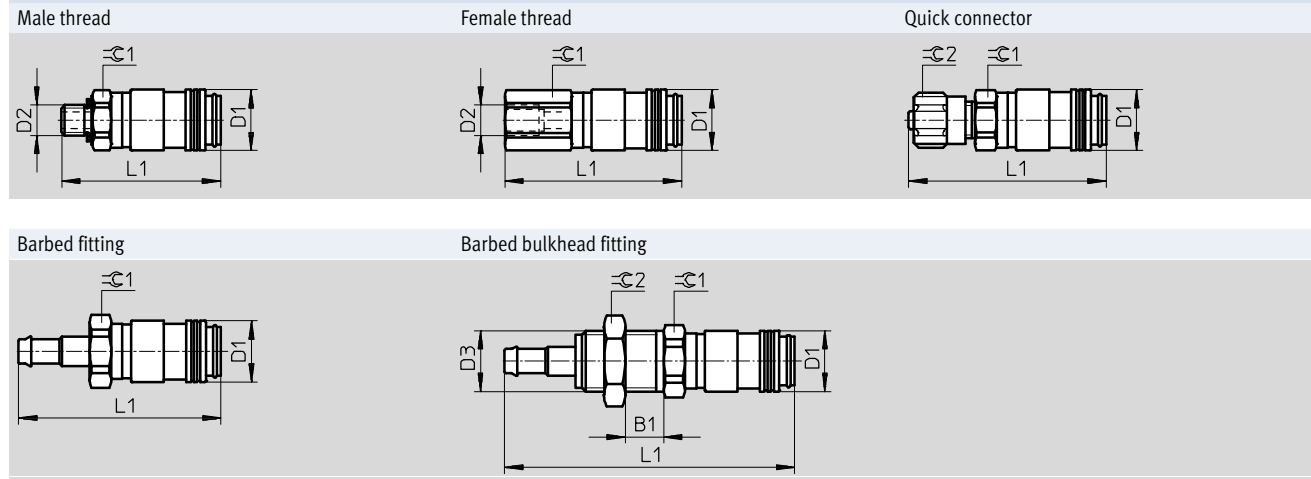
1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Quick coupling sockets/plugs KD/KS, shut-off on one side

Technical data

Materials		
	Quick coupling socket KD3	Quick coupling plug KS3
Housing	Nickel-plated brass	Nickel-plated brass
Releasing sleeve	Nickel-plated brass	-
Note on materials	RoHS-compliant	

Dimensions – Quick coupling socket Download CAD data → www.festo.com



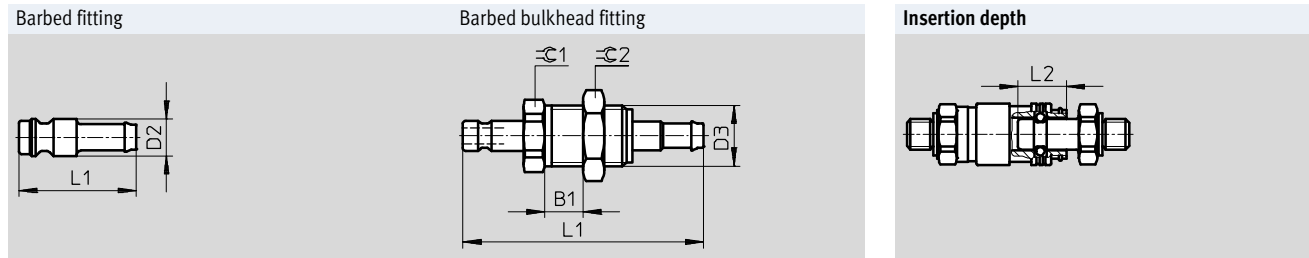
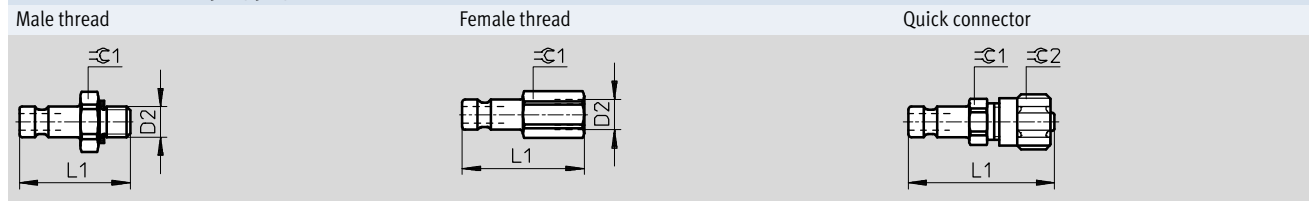
Connection	B1	D1 ∅	D2	D3	L1	⌀ 1	⌀ 2
Male thread							
G ¹ / ₈	-	16	G ¹ / ₈	-	36	14	-
G ¹ / ₄			G ¹ / ₄	-	37.6	17	
Female thread							
G ¹ / ₈	-	16	G ¹ / ₈	-	38.2	14	-
G ¹ / ₄			G ¹ / ₄	-	45.2	17	
Quick connector with union nut							
CK-4	-	16	-	-	43.1	14	12
CK-6					43.2		14
Barbed fitting							
CN-6	-	16	9 d10	-	43.2	14	-
Barbed bulkhead fitting							
CN-6	1.1 ... 10	16	-	M12x1	58.2	17	17

Quick coupling sockets/plugs KD/KS, shut-off on one side

FESTO

Technical data

Dimensions – Quick coupling plug Download CAD data → www.festo.com



Connection	B1	D1 ∅	D2	D3	L1	L2	∅ 1	∅ 2
Male thread								
G ¹ / ₈	-	16	G ¹ / ₈	-	25	13.6	13	-
G ¹ / ₄			G ¹ / ₄	-	27.6		17	
Female thread								
G ¹ / ₈	-	16	G ¹ / ₈	-	28	13.6	13	-
G ¹ / ₄			G ¹ / ₄	-	32.6		17	
Quick connector with union nut								
CK-4	-	16	-	-	34.5	13.6	12	12
CK-6					34.6		14	14
Barbed fitting								
CN-6	-	16	9 d10	-	28.6	13.6	-	-
Barbed bulkhead fitting								
CN-6	1.1 ... 10	16	-	M12x1	48.6	13.6	17	17



Ordering data				
Connection	Quick coupling socket		Quick coupling plug	
	Part No.	Type	Part No.	Type
Male thread				
G ¹ / ₈	2142	KD3- ¹ / ₈ -A	3492	KS3- ¹ / ₈ -A
G ¹ / ₄	531626	KD3- ¹ / ₄ -A	531666	KS3- ¹ / ₄ -A
Female thread				
G ¹ / ₈	531627	KD3- ¹ / ₈ -I	531668	KS3- ¹ / ₈ -I
G ¹ / ₄	531628	KD3- ¹ / ₄ -I	531669	KS3- ¹ / ₄ -I
Quick connector with union nut				
CK-4	531629	KD3-CK-4	3326	KS3-CK-4
CK-6	531630	KD3-CK-6	3478	KS3-CK-6
Barbed fitting				
CN-6	531631	KD3-CN-6	531672	KS3-CN-6
Barbed bulkhead fitting				
CN-6	531632	KD3-CN-6-S	531673	KS3-CN-6-S

Quick coupling sockets/plugs KD/KS, shut-off on one side


Technical data

Plug-in coupling KD4/KS4

- Releasing sleeve made from polymer material
- Quick coupling sockets KD4 can be combined with all quick coupling plugs KSS6 → 21

-  Flow rate
252 ... 1,350 l/min
-  Nominal size
2.9 ... 10 mm



 Note

All quick coupling socket types of the same size are compatible with all plugs of this size.
The hardened quick coupling plugs KSS6 are recommended for use with couplings that are frequently subject to pressure surges or that have to be frequently mated.

General technical data – Quick coupling socket KD4										
Pneumatic connection 1	Male thread			Female thread			Quick connector		Bulkhead quick connector	Barbed fitting
	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	CK-6	CK-9	CK-9	N-9
Nominal size [mm]	8	10		7.2			4.9	7.4	7.4	7.4
Nominal tightening torque [Nm]	9.5 ±15%	21.5 ±15%	32.5 ±20%	9.5 ±15%	21.5 ±15%	32.5 ±20%	-			
Product weight [g]	57	62	78	88	82	86	63	71	97	57

General technical data – Quick coupling plug KS4												
Pneumatic connection 1	Male thread			Female thread			Quick connector			Bulkhead quick connector	Barbed fitting	
	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	CK-4	CK-6	CK-9	CK-9	N-6	N-9
Nominal size [mm]	7.85			7.85			2.9	4.9	7.4	7.4	4.5	7
Nominal tightening torque [Nm]	9.5 ±15%	21.5 ±15%	32.5 ±20%	9.5 ±15%	21.5 ±15%	32.5 ±20%	-					
Product weight [g]	21	29	55	31	32	57	26	26	26	69	15	18

Standard nominal flow rate q _{nN} ¹⁾ [l/min]											
Quick coupling socket/plug combination	Quick coupling socket KD4										
	Male thread			Female thread			Quick connector		Bulkhead quick connector	Barbed fitting	
	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	CK-6	CK-9	CK-9	N-9	
Quick coupling plug KS4											
Male thread	G $\frac{1}{4}$	1,260	1,242	1,296	1,283	1,305	1,323	756	1,098	1,098	1,143
	G $\frac{3}{8}$	1,283	1,274	1,319	1,283	1,323	1,323	756	1,116	1,116	1,152
	G $\frac{1}{2}$	1,283	1,260	1,301	1,283	1,323	1,323	756	1,098	1,098	1,143
Female thread	G $\frac{1}{4}$	1,125	1,125	1,148	1,130	1,161	1,161	720	1,008	1,008	1,035
	G $\frac{3}{8}$	1,287	1,274	1,337	1,292	1,350	1,332	756	1,116	1,116	1,152
	G $\frac{1}{2}$	1,287	1,260	1,305	1,292	1,314	1,305	756	1,116	1,116	1,152
Quick connector	CK-4	261	261	257	257	261	257	252	261	261	
	CK-6	486	482	482	482	486	495	432	477	477	
	CK-9	1,152	1,143	1,179	1,161	1,197	1,197	725	1,017	1,017	1,044
Bulkhead quick connector	CK-9	1,152	1,143	1,179	1,161	1,197	1,197	725	1,017	1,017	1,044
Barbed fitting	N-6	486	482	482	482	486	495	441	477	477	
	N-9	1,107	1,089	1,107	1,098	1,134	1,125	711	981	981	1,008

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

Quick coupling sockets/plugs KD/KS, shut-off on one side

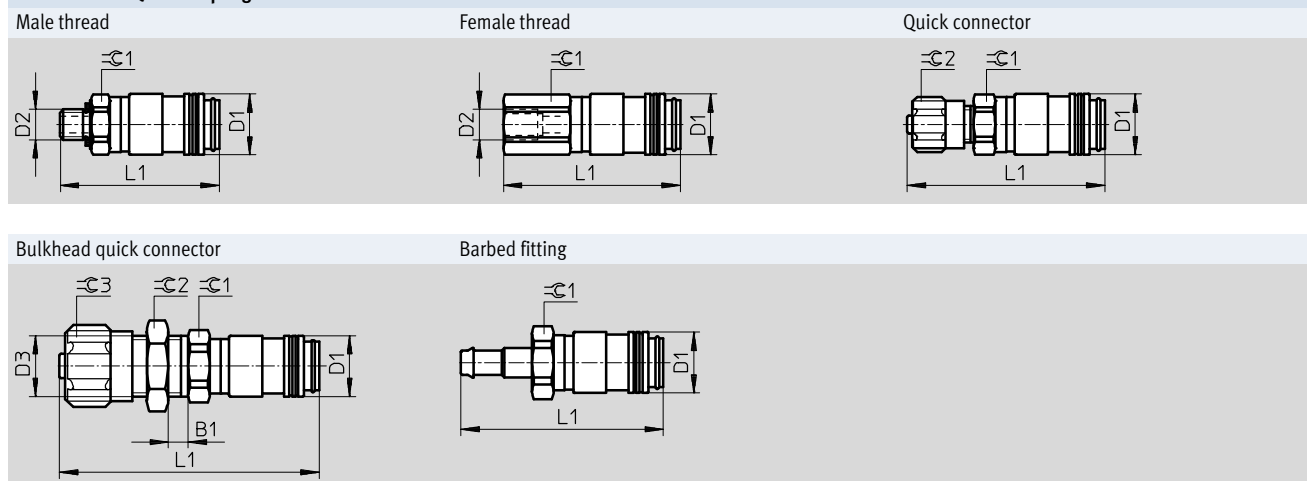
Technical data

Operating and environmental conditions	
Operating pressure complete [bar]	-0.95 ... +12
temperature range	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:--:-]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature [°C]	-10 ... +60
Corrosion resistance class CRC ¹⁾	1

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
 Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Materials	Quick coupling socket KD4	Quick coupling plug KS4
Housing	Nickel-plated brass	Nickel-plated brass
Releasing sleeve	Polypropylene	-
Note on materials	RoHS-compliant	

Dimensions – Quick coupling socket Download CAD data → www.festo.com

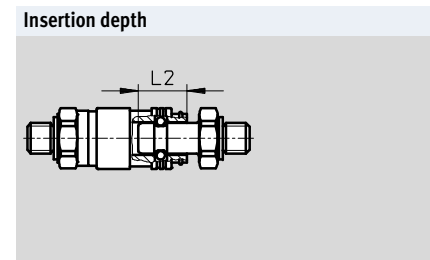
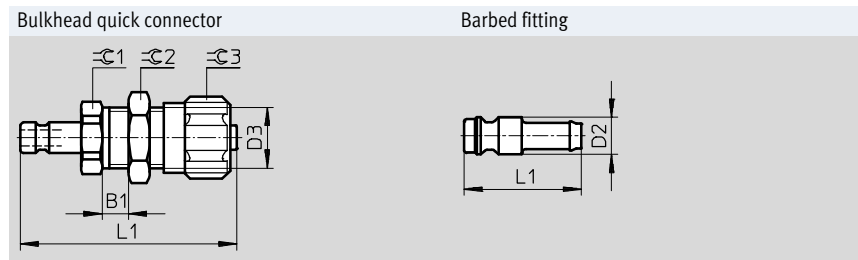
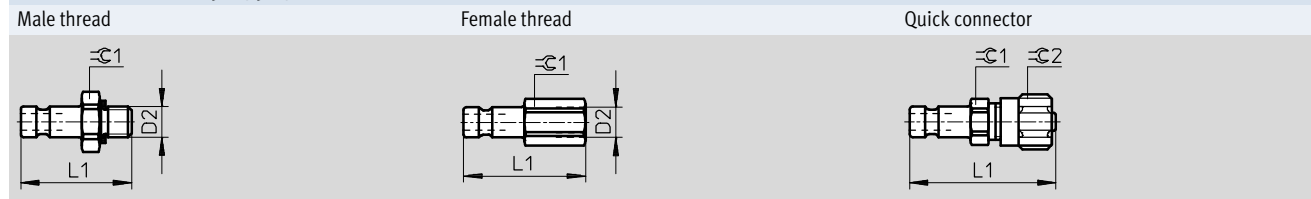


Connection	B1	D1 Ø	D2	D3	L1	⌀ C1	⌀ C2	⌀ C3
Male thread								
G1/4	-	26.4	G1/4	-	40.5	22	-	-
G3/8			G3/8		41.5			
G1/2			G1/2		43			
Female thread								
G1/4	-	26.4	G1/4	-	46	22	-	-
G3/8			G3/8		47.5			
G1/2			G1/2		50.5			
Quick connector with union nut								
CK-6	-	26.4	-	-	46.4	22	14	-
CK-9					49.8		19	
Bulkhead quick connector with union nut								
CK-9	1.2 ... 18.2	26.4	-	M16x1	64.8	22	19	22
Barbed fitting								
N-9	-	26.4	12	-	56.2	21	-	-

Quick coupling sockets/plugs KD/KS, shut-off on one side

Technical data

Dimensions – Quick coupling plug Download CAD data → www.festo.com



Connection	B1	D1 Ø	D2	D3	L1	L2	≅C1	≅C2	≅C3
Male thread									
G1/4	-	26.4	G1/4	-	32.5	14.95	17	-	-
G3/8			G3/8		34		19		
G1/2			G1/2		37.5		24		
Female thread									
G1/4	-	26.4	G1/4	-	38.5	14.95	17	-	-
G3/8			G3/8		39.5		19		
G1/2			G1/2		44		24		
Quick connector with union nut									
CK-4	-	-	-	-	40.2	14.95	17	12	-
CK-6		26.4			40.3			14	
CK-9		26.4			43.7			19	
Bulkhead quick connector with union nut									
CK-9	1.2 ... 18.2	26.4	-	M16x1	57.7	14.95	22	19	22
Barbed fitting									
N-6	-	26.4	12	-	47	14.95	-	-	-
N-9									

Quick coupling sockets/plugs KD/KS, shut-off on one side

FESTO

Technical data



Ordering data				
Connection	Quick coupling socket		Quick coupling plug	
	Part No.	Type	Part No.	Type
Male thread				
G $\frac{1}{4}$	2143	KD4- $\frac{1}{4}$ -A	2154	KS4- $\frac{1}{4}$ -A
G $\frac{3}{8}$	2144	KD4- $\frac{3}{8}$ -A	2155	KS4- $\frac{3}{8}$ -A
G $\frac{1}{2}$	2145	KD4- $\frac{1}{2}$ -A	531676	KS4- $\frac{1}{2}$ -A
Female thread				
G $\frac{1}{4}$	531636	KD4- $\frac{1}{4}$ -I	531678	KS4- $\frac{1}{4}$ -I
G $\frac{3}{8}$	531637	KD4- $\frac{3}{8}$ -I	531679	KS4- $\frac{3}{8}$ -I
G $\frac{1}{2}$	531638	KD4- $\frac{1}{2}$ -I	531680	KS4- $\frac{1}{2}$ -I
Quick connector with union nut				
CK-4	–		2150	KS4-CK-4
CK-6	531639	KD4-CK-6	2151	KS4-CK-6
CK-9	531640	KD4-CK-9	531683	KS4-CK-9
Bulkhead quick connector with union nut				
CK-9	531642	KD4-CK-9-S	531686	KS4-CK-9-S
Barbed fitting				
N-6	–		2152	KS4-N-6
N-9	531641	KD4-N-9	2153	KS4-N-9

Quick coupling sockets/plugs KD/KS, shut-off on one side


Technical data

Plug-in coupling KD5/KS5

- Plug with non-return function that allows the air to escape slowly during uncoupling

-  - Flow rate
1,710 ... 2,043 l/min
-  - Nominal size
11 ... 13 mm



-  - Note

All quick coupling socket types of the same size are compatible with all plugs of this size. The non-return function means that the direction of flow must always follow the direction of the arrow (marked on the plug).

General technical data					
Pneumatic connection 1		Quick coupling socket KD5		Quick coupling plug KS5	
		Female thread	Male thread	Quick connector	Barbed fitting
		G $\frac{1}{2}$	G $\frac{1}{2}$	CK-13	N-13
Nominal size	[mm]	13	13	11.7	11
Nominal tightening torque	[Nm]	32.5 ±20%	32.5 ±20%	-	-
Product weight	[g]	413	255	251	256

Standard nominal flow rate q _{nN} ¹⁾ [l/min]		
Quick coupling socket/plug combination		Quick coupling socket KD5
		Female thread
		M3
Quick coupling plug KS5		
Male thread	G $\frac{1}{2}$	1,872
Quick connector	CK-13	2,043
Barbed fitting	N-13	1,710

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

Operating and environmental conditions	
Operating pressure complete temperature range	[bar] 0 ... +12
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:--:-]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature	[°C] -10 ... +60
Corrosion resistance class CRC ¹⁾	1

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Materials	Quick coupling socket KD5	Quick coupling plug KS5
Housing	Galvanised steel	Galvanised steel
Releasing sleeve	Galvanised steel	-

Quick coupling sockets/plugs KD/KS, shut-off on one side

Technical data

Dimensions – Quick coupling socket			Download CAD data → www.festo.com		
Female thread			Insertion depth		
Connection	D1 ∅	D2	L1	L2	⌀ 1
Female thread					
G½	40	G½	78	25.5	32

Dimensions – Quick coupling plug			Download CAD data → www.festo.com		
Male thread			Quick connector	Barbed fitting	
Connection	D1 ∅	D2	L1	⌀ 1	⌀ 2
Male thread					
G½	36	G½	74.9	32	–
Quick connector with union nut					
CK-13	36	–	83.2	32	24
Barbed fitting					
N-13	36	–	94	32	–

Ordering data					
Connection	Quick coupling socket			Quick coupling plug	
	Part No.	Type		Part No.	Type
Female thread					
G½	4088	KD5-½-I		–	
Male thread					
G½	–	–		531687	KS5-½-A
Quick connector with union nut					
CK-13	–	–		4096	KS5-CK-13
Barbed fitting					
N-13	–	–		4089	KS5-N-13

Quick coupling sockets/plugs KD/KS, shut-off on both sides

Technical data

Plug-in coupling KD...-R/KS...-R

- Both sides are sealed after unlocking

Note
Only quick coupling sockets and plugs with the same function and size can be combined.

- - Flow rate 563 l/min
- - Nominal size 4.2 ... 5 mm



KD3-...-R



KS3-...-R

- - Flow rate 765 l/min
- - Nominal size 8 mm



KD4-...-R



KS4-...-R

General technical data				
Pneumatic connection 1	Quick coupling socket KD3	Quick coupling plug KS3	Quick coupling socket KD4	Quick coupling plug KS4
	Male thread	Male thread	Male thread	Male thread
	G $\frac{1}{8}$	G $\frac{1}{8}$	G $\frac{1}{4}$	G $\frac{1}{4}$
Nominal size [mm]	5	4.2	8	8
Nominal tightening torque [Nm]	5 ±15%	5 ±15%	9.5 ±15%	9.5 ±15%
Product weight [g]	28	32	58	46

Standard nominal flow rate qnN ¹⁾ [l/min]		
Quick coupling socket/plug combination	Quick coupling socket KD3	Quick coupling socket KD4
	Male thread	Male thread
	G $\frac{1}{8}$	G $\frac{1}{4}$
Quick coupling plug KS3		
Male thread G $\frac{1}{8}$	563	-
Quick coupling plug KS4		
Male thread G $\frac{1}{4}$	-	765

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

Operating and environmental conditions	
Operating pressure complete [bar]	-0.95 ... +12
temperature range	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature [°C]	-10 ... +60
Corrosion resistance class CRC ¹⁾	1

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Quick coupling sockets/plugs KD/KS, shut-off on both sides

Technical data

Materials				
	Quick coupling socket		Quick coupling plug	
	KD3	KS3	KD4	KS4
Housing	Brass		Brass	
Releasing sleeve	Nickel-plated brass	-	Polypropylene	-
Note on materials	RoHS-compliant			

Dimensions

Quick coupling socket Quick coupling plug

Male thread

Download CAD data → www.festo.com

Insertion depth

Type	D1 Ø	D2	L1		L2	±0.1
			Quick coupling socket	Quick coupling plug		
Male thread						
G ¹ / ₈	16	G ¹ / ₈	36	39.8	13.6	14
G ¹ / ₄	26.4	G ¹ / ₄	40.5	42.5	14.95	22



Ordering data					
Connection	Quick coupling socket		Quick coupling plug		
	Part No.	Type	Part No.	Type	
G ¹ / ₈	531659	KD3- ¹ / ₈ -A-R	531667	KS3- ¹ / ₈ -A-R	
G ¹ / ₄	531694	KD4- ¹ / ₄ -A-R	531677	KS4- ¹ / ₄ -A-R	

Quick coupling sockets/plugs KDMS/KDS/KSS, shut-off on one side

Technical data

Safety coupling KDMS6/KSS6

- Releasing sleeve made from brass material
- Integrated pressure indicator (red O-ring)

-  - Flow rate
968 ... 2,043 l/min
-  - Nominal size
5 ... 13 mm





KDMS6



KSS6

Safety coupling KDS6/KSS6

- Releasing sleeve made from polymer material


-  - Flow rate
882 ... 1,818 l/min
-  - Nominal size
5 ... 10 mm



KDS6



KSS6

 Note
The quick coupling sockets KDMS6/KSS6 must only be used in combination with the hardened steel plugs KSS6. All quick coupling socket types of the same size are compatible with all plugs of this size.

General technical data – Quick coupling socket KDMS6/KDS6													
Pneumatic connection 1	Male thread						Female thread			Quick connector		Bulkhead quick connector	Barbed fitting
	KDMS6			KDS6			KDS6			KDS6		KDS6	KDS6
	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	CK-9	CK-13	CK-9	N-9
Nominal size [mm]	8	10	13	8	10		7.2			7.4	10	7.4	7
Pressure indicator	Visual						-						
Nominal tightening torque [Nm]	9.5 ±15%	21.5 ±15%	32.5 ±20%	9.5 ±15%	21.5 ±15%	32.5 ±20%	9.5 ±15%	21.5 ±15%	32.5 ±20%	-			
Product weight [g]	167	170	175	93	96	111	125	115	121	104	121	122	97

General technical data – Quick coupling plug KSS6													
Pneumatic connection 1	Male thread				Female thread			Quick connector		Bulkhead quick connector	Barbed fitting		
	G ¹ / ₈	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	G ¹ / ₄	G ³ / ₈	G ¹ / ₂	CK-9	CK-13	CK-9	N-9		
	Nominal size [mm]	5	7.85			7.85			7.4	7.85	7.4	7	
Nominal tightening torque [Nm]	5 ±15%	9.5 ±15%		21.5 ±15%	32.5 ±20%	9.5 ±15%	21.5 ±15%	32.5 ±20%	-				
Product weight [g]	19	20	27	50	28	29	49	37	50	64	17		

Quick coupling sockets/plugs KDMS/KDS/KSS, shut-off on one side

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Technical data

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]				
Quick coupling socket/plug combination	Quick coupling socket KDMS6			
	Male thread			
	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	
Quick coupling plug KSS6				
Male thread	G $\frac{1}{8}$	968	990	990
	G $\frac{1}{4}$	1,742	1,890	1,944
	G $\frac{3}{8}$	1,764	1,917	1,980
	G $\frac{1}{2}$	1,733	1,872	1,935
Female thread	G $\frac{1}{4}$	1,422	1,503	1,512
	G $\frac{3}{8}$	1,818	1,980	2,043
	G $\frac{1}{2}$	1,791	1,935	2,007
Quick connector	CK-9	1,512	1,593	1,620
	CK-13	1,791	1,926	1,994
Bulkhead quick connector	CK-9	1,512	1,593	1,620
Barbed fitting	N-9	1,377	1,449	1,467

1) Measured at $p_1 = 6$ bar and $\Delta p = 1$ bar

Standard nominal flow rate $q_{nN}^{1)}$ [l/min]											
Quick coupling socket/plug combination	Quick coupling socket KDS6										
	Male thread			Female thread			Quick connector		Bulkhead quick connector	Barbed fitting	
	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	G $\frac{1}{4}$	G $\frac{3}{8}$	G $\frac{1}{2}$	CK-9	CK-13	CK-9	N-9	
Quick coupling plug KSS6											
Male thread	G $\frac{1}{8}$	963	981	972	936	968	990	999	963	905	882
	G $\frac{1}{4}$	1,611	1,791	1,719	1,566	1,683	1,796	1,413	1,724	1,377	1,350
	G $\frac{3}{8}$	1,629	1,755	1,688	1,562	1,656	1,782	1,413	1,647	1,386	1,350
	G $\frac{1}{2}$	1,602	1,733	1,643	1,539	1,652	1,764	1,404	1,634	1,386	1,337
Female thread	G $\frac{1}{4}$	1,436	1,530	1,485	1,373	1,463	1,530	1,278	1,395	1,215	1,179
	G $\frac{3}{8}$	1,697	1,814	1,751	1,584	1,733	1,818	1,427	1,710	1,413	1,355
	G $\frac{1}{2}$	1,674	1,814	1,755	1,584	1,719	1,782	1,436	1,737	1,404	1,364
Quick connector	CK-9	1,440	1,512	1,472	1,377	1,467	1,526	1,269	1,449	1,274	1,224
	CK-13	1,629	1,814	1,719	1,557	1,724	1,800	1,427	1,697	1,418	1,350
Bulkhead quick connector	CK-9	1,440	1,512	1,472	1,377	1,467	1,526	1,269	1,449	1,274	1,224
Barbed fitting	N-9	1,305	1,359	1,332	1,260	1,323	1,368	1,188	1,341	1,197	1,121

1) Measured at $p_1 = 6$ bar and $\Delta p = 1$ bar

Operating and environmental conditions			
	Quick coupling socket		Quick coupling plug
	KDMS6	KDS6	KSS6
Operating pressure complete [bar]	-0.95 ... +12		-0.95 ... +12
temperature range			
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:--:-]		
Note on operating/pilot medium	Operation with lubricated medium possible		
Ambient temperature [°C]	-10 ... +60		
Corrosion resistance class CRC ¹⁾	1		
Certification	-		BIA
	-		TÜV

1) Corrosion resistance class CRC 1 to Festo standard FN 940070

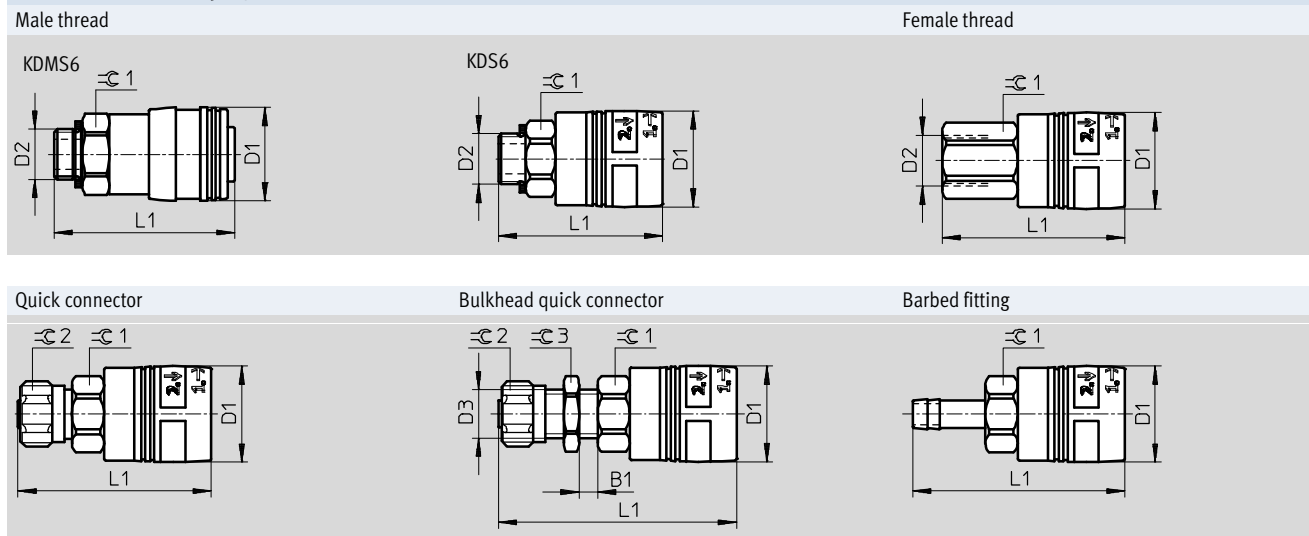
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Quick coupling sockets/plugs KDMS/KDS/KSS, shut-off on one side

Technical data

Materials	Quick coupling socket		Quick coupling plug
	KDMS6	KDS6	KSS6
Housing	Nickel-plated brass	Nickel-plated brass	Hardened steel
Releasing sleeve	Nickel-plated brass	Polyacetal	-
Note on materials	-	RoHS-compliant	RoHS-compliant

Dimensions – Quick coupling socket Download CAD data → www.festo.com

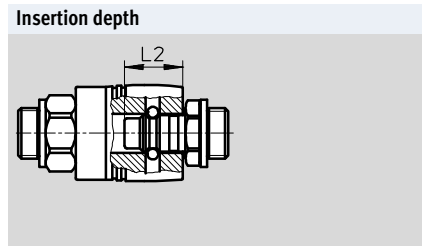
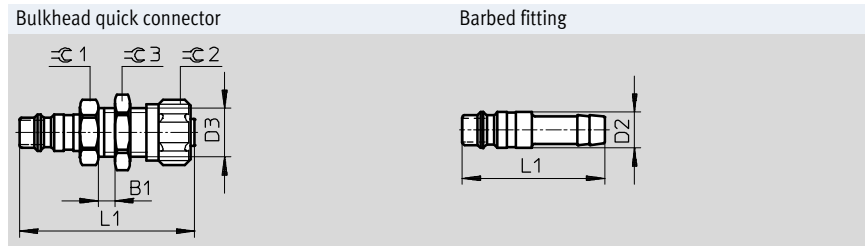
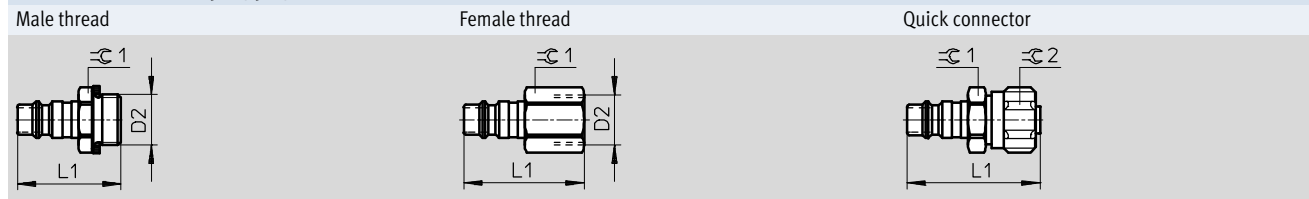


Connection	B1	D1 ∅	D2	D3	L1	∅1	∅2	∅3
Male thread, quick coupling socket KDMS6								
G1/4	-	31	G1/4	-	59	24	-	-
G3/8	-	31	G3/8		60			
G1/2	-	31	G1/2		61.5			
Male thread, quick coupling socket KDS6								
G1/4	-	31.6	G1/4	-	53	22	-	-
G3/8	-	31.6	G3/8		54	22		
G1/2	-	31.6	G1/2		55.5	24		
Female thread								
G1/4	-	31.6	G1/4	-	60	22	-	-
G3/8	-	31.6	G3/8		60	22		
G1/2	-	31.6	G1/2		63	24		
Quick connector with union nut								
CK-9	-	31.6	-	-	63.5	22	19	-
CK-13	-	31.6			64.5	24	24	
Bulkhead quick connector with union nut								
CK-9	1.2 ... 18.2	31.6	-	M16x1	78.5	22	19	22
Barbed fitting								
N-9	-	31.6	12	-	69.7	22	-	-

Quick coupling sockets/plugs KDMS/KDS/KSS, shut-off on one side

Technical data

Dimensions – Quick coupling plug Download CAD data → www.festo.com



Connection	B1	D2	D3	L1	L2	≡C 1	≡C 2	≡C 3
Male thread								
G $\frac{1}{8}$	-	G $\frac{1}{8}$	-	30.5	19.5	13	-	-
G $\frac{1}{4}$		G $\frac{1}{4}$		32.5		17		
G $\frac{3}{8}$		G $\frac{3}{8}$		34		19		
G $\frac{1}{2}$		G $\frac{1}{2}$		37.5		24		
Female thread								
G $\frac{1}{4}$	-	G $\frac{1}{4}$	-	38.5	19.5	17	-	-
G $\frac{3}{8}$		G $\frac{3}{8}$		39.5		19		
G $\frac{1}{2}$		G $\frac{1}{2}$		44		24		
Quick connector with union nut								
CK-9	-	-	-	43.7	19.5	19	19	-
CK-13				45.2		24	24	
Bulkhead quick connector with union nut								
CK-9	1.2 ... 18.2	-	M16x1	57.5	19.5	22	19	22
Barbed fitting								
N-9	-	12	-	47	19.5	-	-	-

Quick coupling sockets/plugs KDMS/KDS/KSS, shut-off on one side

Technical data

Ordering data			
Connection	Quick coupling socket		Quick coupling plug
	Part No.	Type	Part No. Type
Male thread, releasing sleeve made from brass material			
G ¹ / ₄	151776	KDMS6- ¹ / ₄ -A	151779 KSS6- ¹ / ₄ -A
G ³ / ₈	151777	KDMS6- ³ / ₈ -A	151780 KSS6- ³ / ₈ -A
G ¹ / ₂	151778	KDMS6- ¹ / ₂ -A	531693 KSS6- ¹ / ₂ -A
Male thread, releasing sleeve made from polymer material			
G ¹ / ₈	-		151781 KSS6- ¹ / ₈ -A
G ¹ / ₄	531647	KDS6- ¹ / ₄ -A	151779 KSS6- ¹ / ₄ -A
G ³ / ₈	531648	KDS6- ³ / ₈ -A	151780 KSS6- ³ / ₈ -A
G ¹ / ₂	531649	KDS6- ¹ / ₂ -A	531693 KSS6- ¹ / ₂ -A
Female thread			
G ¹ / ₄	531650	KDS6- ¹ / ₄ -I	531695 KSS6- ¹ / ₄ -I
G ³ / ₈	531651	KDS6- ³ / ₈ -I	531696 KSS6- ³ / ₈ -I
G ¹ / ₂	531652	KDS6- ¹ / ₂ -I	531697 KSS6- ¹ / ₂ -I
Quick connector with union nut			
CK-9	531653	KDS6-CK-9	531698 KSS6-CK-9
CK-13	531654	KDS6-CK-13	531699 KSS6-CK-13
Bulkhead quick connector with union nut			
CK-9	531656	KDS6-CK-9-S	531701 KSS6-CK-9-S
Barbed fitting			
N-9	531655	KDS6-N-9	531700 KSS6-N-9

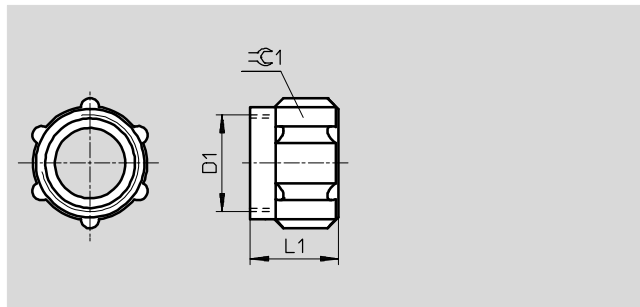
Union nuts MCK

Accessories

FESTO

Union nut MCK¹⁾
for quick connector

Material:
Wrought aluminium alloy
Conforms to RoHS



Ordering data						
Nominal size [mm]	D1	L1	☉ 1	Weight [g]	Part No.	Type
3	M6x0.75	8.5	8	0.6	533672	MCK-PK-3-KD
4	M10x1	11	12	1.6	533673	MCK-PK-4-KD
6	M12x1	11	14	1.9	533674	MCK-PK-6-KD
9	M16x1	14.4	19	5	533675	MCK-PK-9-KD
13	M22x1	18	24	8	533676	MCK-PK-13-KD

1) Corrosion resistance class CRC 1 to Festo standard FN 940070
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions).

Product Range and Company Overview

A Complete Suite and Company Overview

Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



Custom Automation Components
Complete custom engineered solutions



Custom Control Cabinets
Comprehensive engineering support and on-site services



Complete Systems
Shipment, stocking and storage services

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With a comprehensive line of more than 30,000 automation components, Festo is capable of solving the most complex automation requirements.



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PLCs and I/O Devices
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Supporting Advanced Automation... As No One Else Can!

Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 16,000 employees in 60 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

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Festo Corporation is committed to supply all Festo products and services that will meet or exceed our customers' requirements in product quality, delivery, customer service and satisfaction.

To meet this commitment, we strive to ensure a consistent, integrated, and systematic approach to management that will meet or exceed the requirements of the ISO 9001 standard for Quality Management and the ISO 14001 standard for Environmental Management.



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