Quick coupling sockets/plugs

FESTO



Quick coupling sockets/plugs

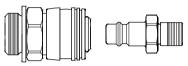


Key features

Mode of operation

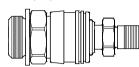
Plug-in coupling with quick coupling socket KD and quick coupling plug KS, shut-off at one or both ends

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

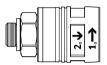


To unlock, push the releasing sleeve.

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

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

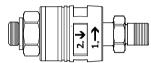
Coupling





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

Uncoupling



 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.



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

Quick coupling sockets/plugs

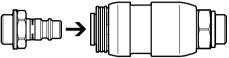
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Key features

Mode of operation

Safety coupling with quick coupling socket NPHS-D6 and quick coupling plug NPHS-S6

Coupling



To lock the coupling, push the plug into the socket. The plug automatic-

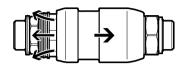
ally engages with an audible click when in a specific position.



When the plug is engaged, the releasing sleeve shifts one position in the direction of the plug. This releases the locking mechanism between the

releasing sleeve and the sliding sleeve. The sliding sleeve can now be actuated.

Exhausting



To exhaust, slide the sliding sleeve in the direction of the thread on the quick coupling socket. The air from the plug and the components

connected to it can escape. The air on the coupling side is shut off. The releasing sleeve is now accessible.

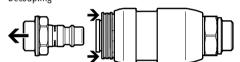
Pressurising



To exhaust, slide the sliding sleeve in the direction of the plug.



Pressurise or exhaust the coupling to a maximum of 10 bar only. Hearing protection is recommended, especially at higher operating pressures. Decoupling



Unlock the plug fully by pushing the releasing sleeve. The plug should only be removed after all the air has

been vented. With the plug removed, the two sleeves cannot slide or be pushed.

Quick coupling sockets/plugs Product range overview



Function	Version	Туре	Brief description	Standard nominal flow rate	Nominal width	→ Page/Internet
				[l/min]	[mm]	
Plug-in coupling	Shut off on on	ie side				
		KD1/KS1	For standard applications, without	44	1.5	6
		KD2/KS2	safety function	68 139	2 3.2	8
		KD3/KS3		158 666	2.9 5	11
		KD4/KS4		252 1350	2.9 10	14
		KD5/KS5		1710 2043	11 13	18
						•
	Shut off on bo	oth sides				
		KD3R/	Both sides are sealed after unlocking	563	4.2 5	20
		KS3R				
		KD4R/		765	8	20
		KS4R				
Safety coupling	Shut off on on	ie side				
		KDS6/KSS6	Exhaust the air on the plug side by	882 1818	5 10	22
			turning the releasing sleeve and then			
			unlocking the coupling			
		NPHS-D6/ NPHS-	Exhaust the air on the plug side by	1750 2100	5.5 10	27
		S 6	sliding the sliding sleeve and then			
			unlocking the coupling			

Coupling/tubing com	oination options							
ubing		Quick coupling	g socket/plug					
		KD1/KS1	KD2/KS2	KD3/KS3	KD4/KS4	KD5/KS5	KDS6/KSS6	NPHS-D6/ NPHS-S6
With standard I.D.	Polyurethan	е						
	PU-9	-	_	_		-		
	PU-13	-	-	-	-			-
	Nitrile rubbe	er						
	P-6	-	-	-		_	_	1
	P-9	_	-	-		_		
	P-13	-	-	-	-			-
With standard O.D.	Polyurethan	e						
	PUN-3		-	-	-	-	-	-
	PUN-4	-	-	-	-	-	-	-
	PUN-6	-	-	-		-	-	-
	PUN-8	-	-			-	-	-
	Polyamide							
	PAN-4	-	-	-	-	-	-	-
	PAN-6	-	-	-		-	-	-
	PAN-8	_	_	•	•	_	_	_

Quick coupling sockets/plugs Product range overview



Quick coupling	g socket/plug	g combinatio		5					Size 5					
Connection	Size 1				Size 31)						Size 6		Size 6	
	Socket KD1	Plug KS1	Socket KD2	Plug KS2	Socket KD3	Plug KS3	Socket KD4	Plug KS4	Socket KD5	Plug KS5	Socket KDS6	Plug KSS6	Socket NPHS- D6	Plug NPHS-S6
Male thread														
M3		-	-	-	-	-	-	-	-	-	-	-	-	-
M5	-	-			-	-	-	-	-	-	-	-	-	-
G1/8	-	-	-	-			-	-	-	-	-		-	
G1/4	-	-	-	-					-	-				
G3/8	-	-	-	-	-	-			-	-				
G1/2	-	-	-	-	-	-			-					
Female thread														
M5	-	-	-	•	_	-	_	_	_	_	_	_	_	_
G1/8	-	-	_	-	-	-	-	-	-	-	-	_	-	-
G1/4	-	-	-	-	-	-			-	-		-	-	
G3/8	-	-	-	-	-	-			-	-			-	
G1/2	-	-	-	-	-	-				-			-	
Quick connecto	arwith union	nut												
CK-3	- With union				_	T -	_	_	_	T -	_	Ι -	_	_
CK-4	_	_					_	•	_	_	_	_	_	_
CK-4	_	_	-	_			•	_	_	_	_	_	_	_
CK-9	_		_	_	-	-	-		_	_	_		_	_
CK-3		_	_	_	_	_	_	_	_	-			_	_
CRTJ										_				
Bulkhead quicl	k connector													
CK-9	-	-	-	_	_	_			-	-			_	-
Barbed fitting														
CN-2			_	I _	_	T -	_	_	_	Ι -	_	T _		T -
CN-2		_	-	_	_	_	_	_	_	_	_	_	_	_
CN-4		_	-	_	_	_	_	_	_	_	_	_	_	_
N-6	_	_	_	_	-	-	_	-	_	_	_	_	_	_
N-9		_	_	_	_	_	_		_	_	_	_	_	-
N-13		-	_	-	_	-	-	-	_	•	_	_	_	-
-		1				1			1	1				
Barbed bulkhe	ad fitting					_				_				
CN-4	-	-			-	-	-	-	-	-	-	-	-	-
CN-6	-	-	-	-			-	-	-	-	-	-	-	-

¹⁾ Quick coupling socket/plug, shut off on both sides: KD3-...-A-R thread G1/8 only, KD4-...-A-R G1/4 only



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 qnN ¹⁾ [l/min]				
Quick coupling socket/plug	Quick coupling socket KD1			
combination	Male thread			
	M3			
Quick coupling plug KS1				
Barbed fitting CN-2	44			

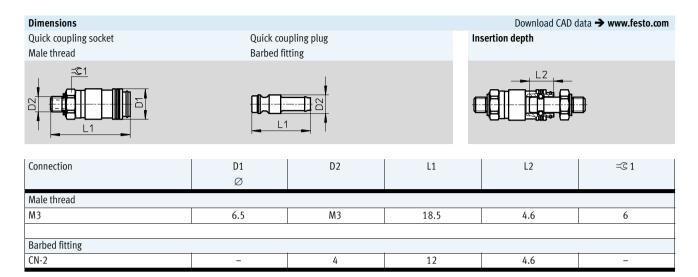
¹⁾ Measured at p1 = 6 bar and $\Delta p = 1$ bar

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

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





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		



Plug-in coupling KD2/KS2

Note

- N - Flow rate 68 ... 139 l/min

Nominal size

2 ... 3.2 mm



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





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%	0.85 ±15%				
Product weight	[g]	10	12	11	16	11	21

General technical data – Quick coupling plug KS2							
Pneumatic connection 1		n 1 Male thread Femal		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 of	nN ¹⁾ [l/min]								
Quick coupling socket/plug		Quick coupling s	Quick coupling socket KD2							
combination		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 p1 = 6 bar and Δ p = 1 bar

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

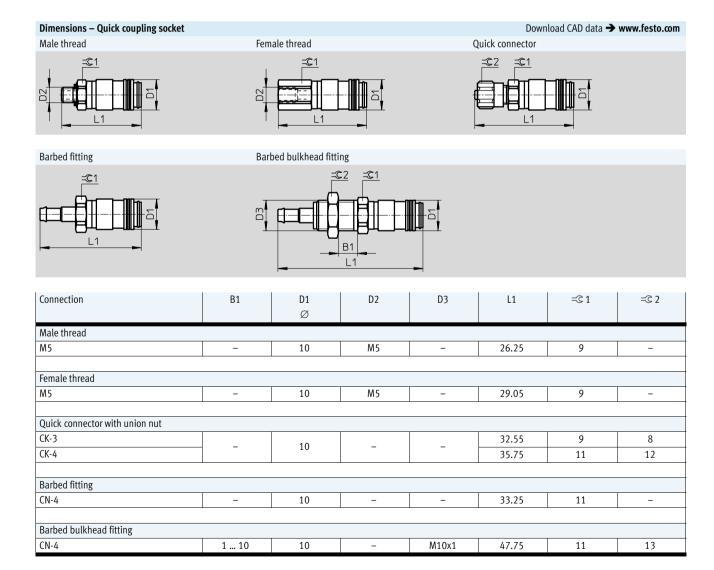


Technical data

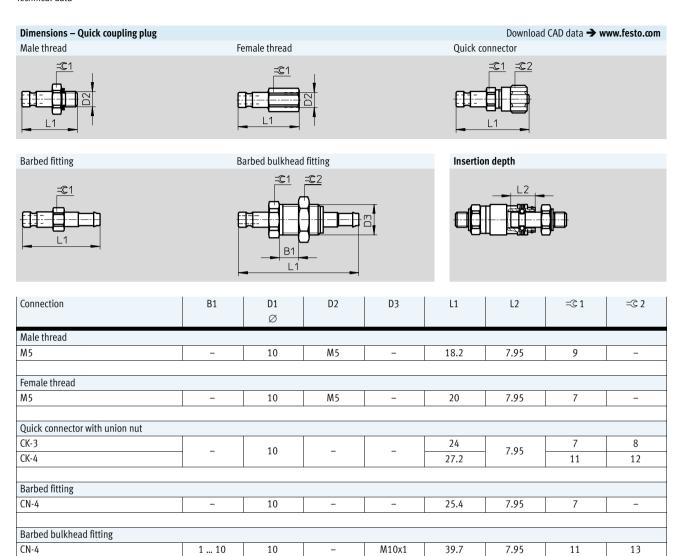
Operating and environmental conditions					
Operating pressure complete [bar]	-0.95 +12				
temperature range					
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]				
Note on operating/pilot medium	Operation with lubricated medium possible				
Ambient temperature [°C]	-10 +60				
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 KD2	Quick coupling plug KS2
Housing	Nickel-plated brass	Nickel-plated brass
Releasing sleeve	Nickel-plated brass	-
Note on materials	RoHS-compliant	







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 unio	n 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



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 thr	Female thread		ector	Barbed fitting	Barbed bulkhead
									fitting
		G1/8	G1/4	G ¹ / ₈	G1/4	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 F		Female thre	Female thread		ector	Barbed fitting	Barbed bulkhead fitting
		G1/8	G1/4	G1/8	G1/4	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 of	IUN _T) ([/min]											
Quick coupling socket/plug combination		Quick coupling socket KD3											
		Male thread		Female	Female thread		nnector	Barbed fitting	Barbed bulkhead fitting				
		G1/8	G1/4	G1/8	G1/4	CK-4	CK-6	CN-6	CN-6				
Quick coupling plug KS3													
Male thread	G1/8	563	581	585	648	225	464	504	459				
	G1/4	558	581	594	653	225	455	500	459				
Female thread	G1/8	536	554	558	617	225	446	486	450				
	G1/4	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				

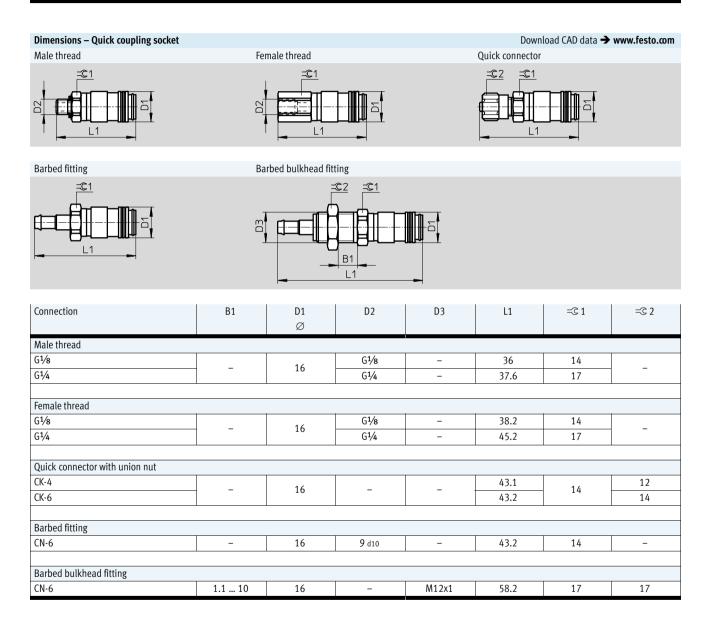
¹⁾ Measured at p1 = 6 bar and $\Delta p = 1$ bar

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						

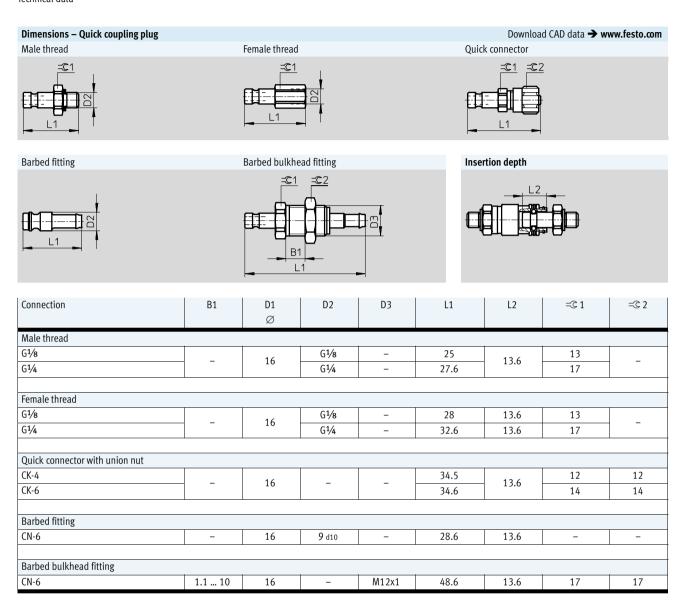
¹⁾ Corrosion resistance class CRC 1 to Festo standard FN 940070 Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive



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	





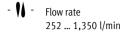


Ordering data		
Connection	Quick coupling socket	Quick coupling plug
	Part No. Type	Part No. Type
Male thread		
G1/8	2142 KD3-½-A	3492 KS3-1/8-A
G1/4	531626 KD3- ¹ / ₄ -A	531666 KS3-1⁄4-A
Female thread		
G½8	531627 KD3-½8-I	531668 KS3-½-I
G1/4	531628 KD3-¼-I	531669 KS3- ¹ / ₄ -I
Quick connector with union	nut	
CK-4	531629 KD3-CK-4	3326 KS3-CK-4
CK-6	531630 KD3-CK-6	3478 KS3-CK-6
Danka d Guina		
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

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Plug-in coupling KD4/KS4

- Releasing sleeve made from polymer material
- Quick coupling sockets KD4 can be combined with all quick coupling plugs KSS6 → 22



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 th		Male thread			thread		Quick conn	ector	Bulkhead quick	Barbed fitting	
										connector	
		G1/4	G3/8	G1/2	G1/4	G3/8	G1/2	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	21.5	32.5	9.5	21.5	32.5	-	•		
		±15%	±15%	±20%	±15%	±15%	±20%				
			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 fitti	ng
		G1/4	G3/8	G1/2	G1/4	G3/8	G1/2	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	21.5	32.5	9.5	21.5	32.5	-					
		±15%	±15%	±20%	±15%	±15%	±20%						
Product weight	[g]	21	29	55	31	32	57	26	26	26	69	15	18

Standard nominal flow rate qnM	l ¹⁾ [l/min]											
Quick coupling socket/plug		Quick coupling socket KD4											
combination		Male th	read		Female	Female thread			nector	Bulkhead quick	Barbed fitting		
										connector			
		G1/4	G3/8	G ¹ / ₂	G1/4	G3/8	G½	CK-6	CK-9	CK-9	N-9		
Quick coupling plug KS4													
Male thread	G1/4	1,260	1,242	1,296	1,283	1,305	1,323	756	1,098	1,098	1,143		
	G3/8	1,283	1,274	1,319	1,283	1,323	1,323	756	1,116	1,116	1,152		
	G1/2	1,283	1,260	1,301	1,283	1,323	1,323	756	1,098	1,098	1,143		
Female thread	G1/4	1,125	1,125	1,148	1,130	1,161	1,161	720	1,008	1,008	1,035		
	G3/8	1,287	1,274	1,337	1,292	1,350	1,332	756	1,116	1,116	1,152		
	G1/2	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		

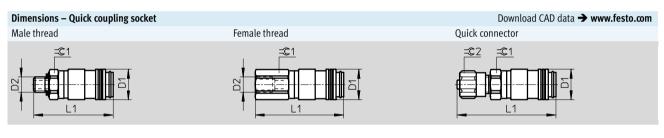
¹⁾ Measured at p1 = 6 bar and Δp = 1 bar

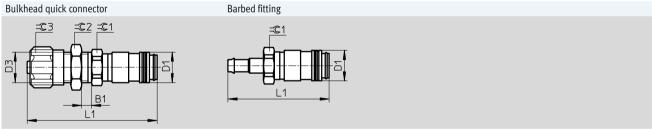


Operating and environmental conditions								
Operating pressure complete [bar]	-0.95 +12							
temperature range								
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]							
Note on operating/pilot medium	Operation with lubricated medium possible							
Ambient temperature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

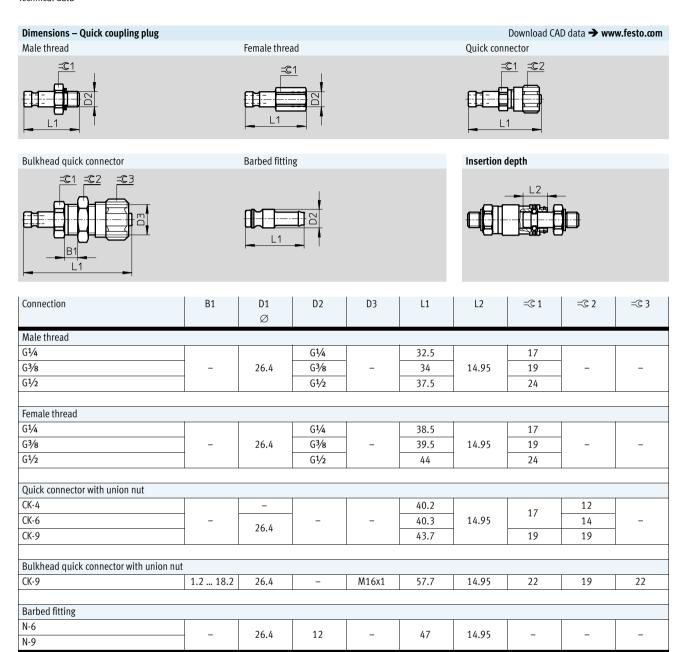
Materials		
	Quick coupling socket KD4	Quick coupling plug KS4
Housing	Nickel-plated brass	Nickel-plated brass
Releasing sleeve	Polypropylene	_
Note on materials	RoHS-compliant	





Connection	B1	D1 Ø	D2	D3	L1	=©1	=© 2	=© 3
Male thread								
G ¹ / ₄			G1/4		40.5	- 22		
G3/8	-	26.4	G3//8	_	41.5	22	-	-
G½			G1/2		43	24		
Female thread								
G1/4			G1/4		46			
G3/8		26.4	G3/8	_	47.5	- 22	-	-
G½			G1/2		50.5	24		
Quick connector with union nut								
CK-6		26.4			46.4	- 22	14	
CK-9	_	20.4	_	_	49.8	22	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	_	-







Ordering data		
Connection	Quick coupling socket	Quick coupling plug
	Part No. Type	Part No. Type
Male thread		
G1/4	2143 KD4-1/4-A	2154 KS4-1/4-A
G3/8	2144 KD4-3/8-A	2155 KS4-3/8-A
G½	2145 KD4-½-A	531676 KS4-½-A
Female thread		
G1/4	531636 KD4- ¹ / ₄ -I	531678 KS4-1⁄4-I
G3/8	531637 KD4-3/8-I	531679 KS4- ³ / ₈ -I
G1/2	531638 KD4-½-I	531680 KS4-½-I
Quick connector with unio		10000
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 connecto	or 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

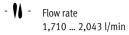
Quick coupling sockets/plugs KD/KS, shut-off on one side



Technical data

Plug-in coupling KD5/KS5

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



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
		G½	G ¹ / ₂	CK-13	N-13
Nominal size	[mm]	13	13	11.7	11
Nominal tightening torque	[Nm]	32.5 ±20%	32.5 ±20%	-	<u> </u>
Product weight	[g]	413	255	251	256

Standard nominal flow rate qnN	l ¹⁾ [l/min]
Quick coupling socket/plug		Quick coupling socket KD5
combination		Female thread
		M3
Quick coupling plug KS5		
Male thread	G1/2	1,872
Quick connector	CK-13	2,043
Barbed fitting	N-13	1,710

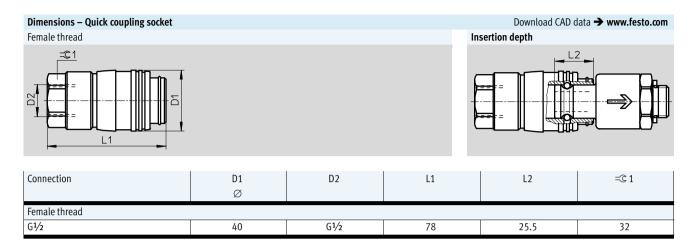
¹⁾ Measured at p1 = 6 bar and $\Delta p = 1$ bar

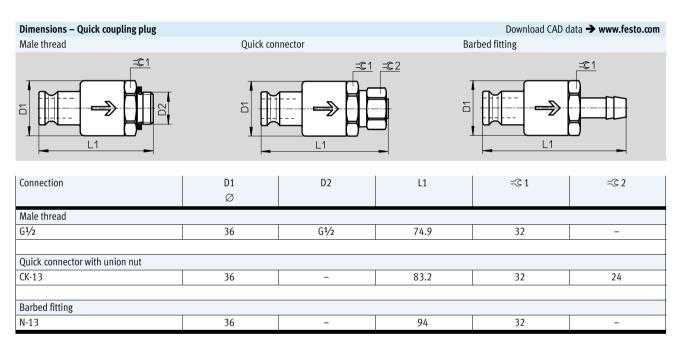
Operating and environmental conditions	
Operating pressure complete [bar]	0 +12
temperature range	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature [°C]	-10 +60
Corrosion resistance 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 KD5	Quick coupling plug KS5
Housing	Galvanised steel	Galvanised steel
Releasing sleeve	Galvanised steel	-







Ordering data		
Connection	Quick coupling socket	Quick coupling plug
	Part No. Type	Part No. Type
Female thread		
G1/2	4088 KD5-½-I	-
Male thread		
G ¹ / ₂	-	531687 KS5-½-A
Quick connector with unio	n nut	
CK-13	-	4096 KS5-CK-13
Barbed fitting		
N-13	-	4089 KS5-N-13



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

• Both sides are sealed after unlocking



Nominal size 4.2 ... 5 mm





Note

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



Nominal size 8 mm





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 ¹ / ₈	G1/8	G1/4	G1/4
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	1	
Quick coupling socket/plug		Quick coupling socket KD3	Quick coupling socket KD4
combination		Male thread	Male thread
		G¹/8	G¹⁄4
Quick coupling plug KS3			
Male thread	G1/8	563	-
Quick coupling plug KS4			
Male thread	G1/4	-	765

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

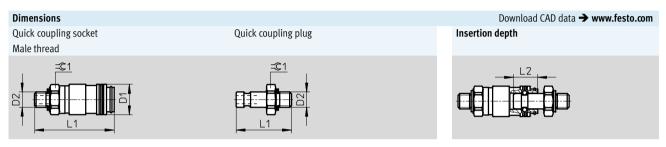
Operating and environmental conditions	
Operating pressure complete [bar]	-0.95 +12
temperature range	
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]
Note on operating/pilot medium	Operation with lubricated medium possible
Ambient temperature [°C]	-10 +60
Corrosion resistance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

20



Materials				
	Quick coupling socket	Quick coupling plug	Quick coupling socket	Quick coupling plug
	KD3	KS3	KD4	KS4
		Brass		
Housing	Brass		Brass	
Housing Releasing sleeve	Brass Nickel-plated brass	_	Brass Polypropylene	_



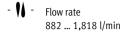
Туре	D1	D2	L	1	L2	=© 1
	Ø		Quick coupling socket	Quick coupling plug		
Male thread						
G1/8	16	G1/8	36	39.8	13.6	14
G1/4	26.4	G1/4	40.5	42.5	14.95	22

Ordering data		
Connection	Quick coupling socket	Quick coupling plug
	Part No. Type	Part No. Type
G1/8	531659 KD3-½-A-R	531667 KS3-½-A-R
G ¹ / ₄	531694 KD4- ¹ / ₄ -A-R	531677 KS4-1⁄4-A-R



Safety coupling KDS6/KSS6

• Releasing sleeve made from polymer material



Nominal size 5 ... 10 mm





Note

The quick coupling sockets KDS6 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 – Qu	ick coupling	socket k	General technical data – Quick coupling socket KDS6										
Pneumatic connection 1		Male thread			Female thread		Quick connector		Bulkhead quick	Barbed fitting			
								connector					
		G1/4	G3/8	G1/2	G1/4	G3/8	G1/2	CK-9	CK-13	CK-9	N-9		
Nominal size	[mm]	8	10	7.2 7.4 10 7.4 7					7				
								7.7		,	,		
Nominal tightening torque	[Nm]	9.5	21.5	32.5	9.5	21.5	32.5	-	10	,,,	,		
Nominal tightening torque	[Nm]	9.5 ±15%		32.5 ±20%			32.5 ±20%	-	10				

General technical data – Quick coupling plug KSS6												
Pneumatic connection 1		Male threa	e thread				Female thread			tor	Bulkhead quick connector	Barbed fitting
		G1/8	G1/4	G3/8	G1/2	G1/4	G3/8	G1/2	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%	-		ı	l
Product weight	[g]	19	20	27	50	28	29	49	37	50	64	17

Standard nominal flow rate qu	nN¹) [l/min]									
Quick coupling socket/plug		Quick o	coupling	socket K	DS6						
combination		Male thread		Female	thread		Quick connector		Bulkhead quick connector	Barbed fitting	
		G1/4	G3/8	G1/2	G1/4	G3/8	G1/2	CK-9	CK-13	CK-9	N-9
Quick coupling plug KSS6											
Male thread	G1/8	963	981	972	936	968	990	999	963	905	882
	G1/4	1,611	1,791	1,719	1,566	1,683	1,796	1,413	1,724	1,377	1,350
	G3/8	1,629	1,755	1,688	1,562	1,656	1,782	1,413	1,647	1,386	1,350
	G1/2	1,602	1,733	1,643	1,539	1,652	1,764	1,404	1,634	1,386	1,337
Female thread	G1/4	1,436	1,530	1,485	1,373	1,463	1,530	1,278	1,395	1,215	1,179
	G3/8	1,697	1,814	1,751	1,584	1,733	1,818	1,427	1,710	1,413	1,355
	G1/2	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 p1 = 6 bar and $\Delta p = 1$ bar

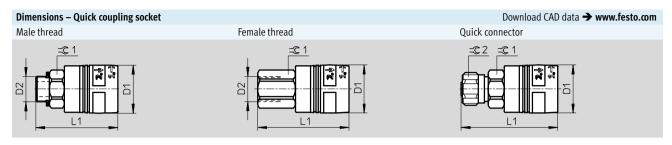


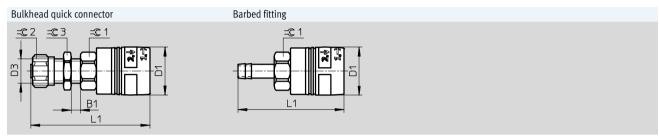
Operating and environmental conditions	S				
	Quick coupling socket	Quick coupling plug			
	KDS6	KSS6			
Operating pressure complete [bar]	-0.5 +12	−0.95 +12			
temperature range					
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]				
Note on operating/pilot medium	Operation with lubricated medium possible				
Ambient temperature [°C]	-10 +60				
Corrosion resistance class CRC ¹⁾	1				
Certification	BIA	BIA			
	TÜV	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).

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

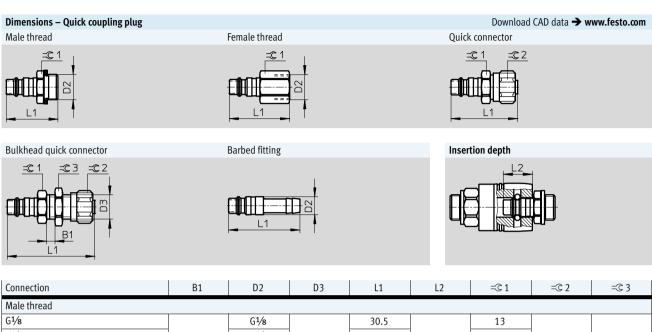






Connection	B1	D1 Ø	D2	D3	L1	=©1	=© 2	=© 3
Male thread	1							
G ¹ / ₄		31.6	G1/4		53	22		
G3/8	-	31.6	G3/8	-	54	22	-	-
G½	-	31.6	G1/2		55.5	24		
Female thread								
G1/4	-	31.6	G1/4		60	22		
G ³ / ₈	-	31.6	G3/8	_	60	22	_	_
G½	-	31.6	G ¹ / ₂		63	24		
Quick connector with union nut								
CK-9	_	31.6			63.5	22	19	
CK-13	-	31.6	_	_	64.5	24	24	-
				•	•			
Bulkhead quick connector with union nu	ì							
CK-9	1.2 18.2	31.6	-	M16x1	78.5	22	19	22
Barbed fitting								
N-9	-	31.6	12	-	69.7	22	-	-





Connection	B1	D2	D3	L1	L2	=© 1	=© 2	=© 3
Male thread								
G1/8		G1/8		30.5		13		
G1/4		G1/4		32.5	10.5	17		
G3/8		G3/8	_	34	19.5	19	_	_
G1/2		G1/2		37.5		24		
Female thread								
G1/4		G1/4		38.5		17		
G ³ / ₈	-	G3/8	_	39.5	19.5	19	_	-
G½		G ¹ / ₂		44		24		
Quick connector with union nut			1	ı		T	T	
CK-9	_	_	_	43.7	19.5	19	19	_
CK-13				45.2	17.5	24	24	
5.00								
Bulkhead quick connector with uni			1	1		1	1	
CK-9	1.2 18.2	-	M16x1	57.5	19.5	22	19	22
Barbed fitting								
N-9	_	12	_	47	19.5	_	_	_

Type discontinued Available up until 2017

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

FESTO

Ordering data						
Connection	Quick cou	pling socket		Quick cou	pling plug	
	Part No.	Туре		Part No.	Туре	
Male thread, releasing sle	eve made from polymer ma	nterial				
G1/8	-			151781	KSS6-1/8-A	
G1/4	531647	KDS6-1/4-A		151779	KSS6-1/4-A	
G3/8	531648	KDS6-3/8-A		151780	KSS6-3/8-A	
G1/2	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	
G3/8	531651	KDS6-3/8-I		531696	KSS6-3/8-I	
G1/2	531652	KDS6-1/2-I		531697	KSS6-1/2-I	
Quick connector with unio	n nut					
CK-9	531653	KDS6-CK-9	.7.	531698	KSS6-CK-9	٠٦٠
CK-13	531654	KDS6-CK-13	-1-	531699	KSS6-CK-13	.1.
Bulkhead quick connector	with union nut					
CK-9	531656	KDS6-CK-9-S	٠٦٠	531701	KSS6-CK-9-S	٠٦٠
			•	•		
Barbed fitting						
N-9	531655	KDS6-N-9		531700	KSS6-N-9	



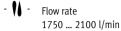
Quick coupling sockets/plugs NPHS, shut off on one side

FESTO

Technical data

Safety coupling NPHS

- Combination of coupling and hand slide valve
- Exhaust the air on the plug side without releasing the coupling
- Can be used as an on-off valve



Nominal width







Note

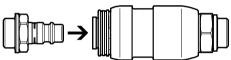
All types of quick coupling socket NPHS-D6 are compatible with all plugs NPHS-S6.

In addition, the quick coupling sockets/plugs NPHS can be combined with quick coupling sockets/plugs KD4/KS4 made of brass.

Mode of operation

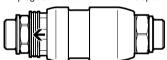
Safety coupling with quick coupling socket NPHS-D6 and quick coupling plug NPHS-S6

Coupling



To lock the coupling, push the plug into the socket. The plug automatic-

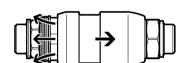
ally engages with an audible click when in a specific position.



When the plug is engaged, the releasing sleeve shifts one position in the direction of the plug. This releases the locking mechanism between the

releasing sleeve and the sliding sleeve. The sliding sleeve can now be actuated.

Exhausting



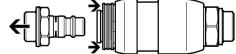
To exhaust, slide the sliding sleeve in the direction of the thread on the quick coupling socket. The air from the plug and the components connected to it can escape. The air on the coupling side is shut off. The releasing sleeve is now accessible.

Pressurising



To exhaust, slide the sliding sleeve in the direction of the plug.

Decoupling



Unlock the plug fully by pushing the releasing sleeve. The plug should only be removed after all the air has

been vented. With the plug removed, the two sleeves cannot slide or be pushed.



Note

Pressurise or exhaust the coupling to a maximum of 10 bar only. Hearing protection is recommended, especially at higher operating pressures.



Note

No safety function when combining quick coupling socket KD4 with quick coupling plug NPHS-S6. In this

combination, the plug is released in one step.





General technical data – Qu	General technical data – Quick coupling socket NPHS-D6									
Pneumatic connection 1		Male thread								
		G1/4	G ¹ / ₂							
Nominal width	[mm]	8.2	10	10						
Nominal tightening torque	[Nm]	7 ±20%	15 ±20%	25 ±20%						
Product weight	[g]	173	179	200						

General technical data – Quick coupling plug NPHS-S6										
Pneumatic connection 1	Male thread				Female threa	ıd	For plug-in nipple			
	G ¹ / ₈	G1/4	G3/8	G½	G1/4	G3/8	G½	I.D. 9 mm		
Nominal width	[mm]	5.5	7.85	7.85	7.85	7.85	7.85	7.85	7	
Nominal tightening torque	[Nm]	3.5 ±10%	11 ±10%	12.5 ±20%	14 ±20%	-	-	-	-	
Product weight	[g]	19	20	27	50	28	29	49	17	

Standard nominal flow rate qnN ¹⁾ [I/min]						
Quick coupling socket/plug		Quick coupling socket NPHS-D6				
combination		Male thread				
		G1/4	G3/8	G½		
Quick coupling plug NPHS-S6						
Male thread	G1/4	1833	2100	2100		
	G3/8	1800	2050	2050		
	G1/2	1750	2000	2000		

¹⁾ Measured at p1 = 6 bar and Δ p = 1 bar

Operating and environmental conditions				
	Quick coupling socket	Quick coupling plug		
Operating pressure for entire [bar]	-0.95 +20 ¹⁾	-0.95 +10 ²⁾		
temperature range				
Operating medium	Compressed air to ISO 8573-1:2010 [7:-:-]			
Note on operating/pilot medium	Lubricated operation possible			
Ambient temperature [°C]	-20 +80	-10 +60 ²⁾		
Corrosion resistance class CRC ³⁾	1			
Noise level ⁴⁾ [dB(A)]	110 (at 6 bar)	-		
	113 (at 10 bar)	_		

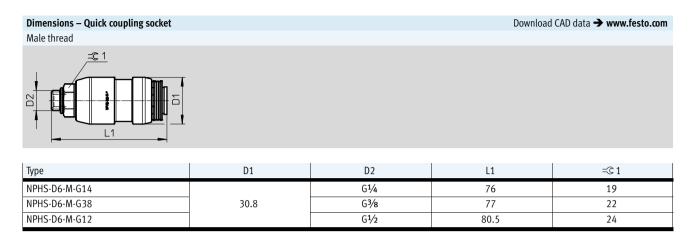
- 1) Pressurise or exhaust the coupling to a maximum of 10 bar only. Hearing protection is recommended, especially at higher operating pressures. 20 bar is the maximum static operating pressure (without pulsation).
- Using a suitable sealing ring, it is possible to achieve a static operating pressure (without pulsation) of up to 20 bar in a temperature range of -20°C to +100°C. Corrosion resistance class CRC 1 to Festo standard FN 940070

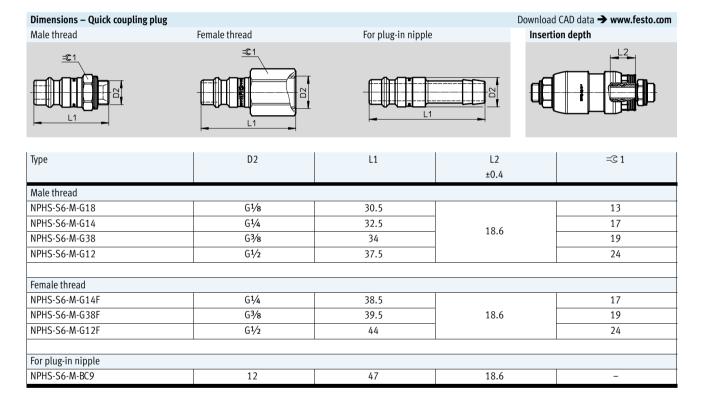
trunnions).
4) Measured at a distance of 1 m, 10 l volume via the coupling, at 6 and 10 bar open and exhausted.

Materials		
	Quick coupling socket	Quick coupling plug
Housing	Nickel-plated brass	Hardened steel, galvanised
Sliding sleeve	Clear anodised aluminium	-
Releasing sleeve	Hardened steel, nickel-plated	-
Note on materials	RoHS compliant	

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

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Ordering data		
Connection	Quick coupling socket	Quick coupling plug
	Part No. Type	Part No. Type
Male thread		
G1/8	-	8059257 NPHS-S6-M-G18
G1/4	8059275 NPHS-D6-M-G14	8059258 NPHS-S6-M-G14
G3/8	8059276 NPHS-D6-M-G38	8059259 NPHS-S6-M-G38
G ¹ / ₂	8059277 NPHS-D6-M-G12	8059260 NPHS-S6-M-G12
Female thread		
G1/4	-	8059262 NPHS-S6-M-G14F
G3/8	-	8059263 NPHS-S6-M-G38F
G ¹ / ₂	-	8059264 NPHS-S6-M-G12F
For plug-in nipple		
I.D. 9 mm	-	8059265 NPHS-S6-M-BC9

Union nuts MCK FESTO

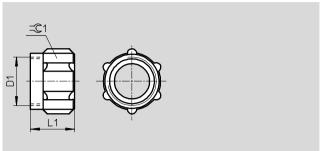
Accessories

Union nut MCK¹⁾

for quick connector

Material: Wrought aluminium alloy Conforms to RoHS





Ordering data						
Nominal size	D1	L1	=© 1	Weight	Part No.	Type
[mm]				[g]		
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).