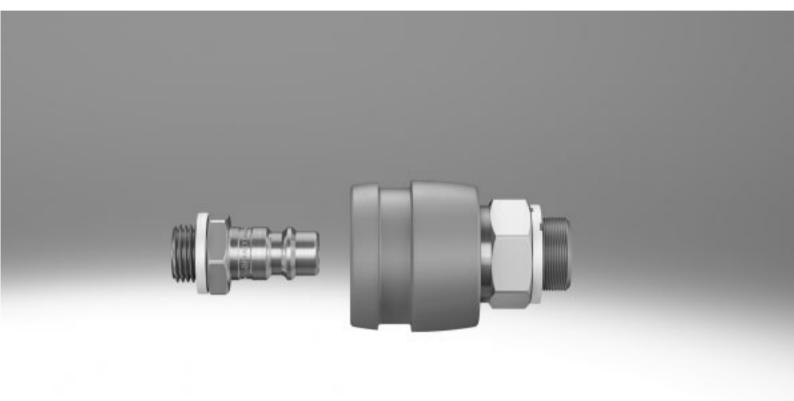
Quick coupling sockets/plugs





★/☆ Festo core product range

Covers 80% of your automation tasks

Worldwide: Always in stock

Superb: Festo quality at an attractive price
Easy: Reduces procurement and storing complexity

★ Ready for dispatch from the Festo factory in 24 hours Held in stock in 13 service centres worldwide More than 2200 products

Ready for dispatch in 5 days maximum from stock
Assembled for you in 4 service centres worldwide
Up to 6 x 10¹² variants per product series



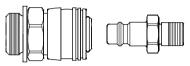
Quick coupling sockets/plugs Keyfeatures



Mode of operation

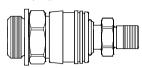
Plug-in coupling with quick coupling socket KD and quick coupling plug KS, shut-off at one or both ends

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.

Quick coupling sockets/plugs

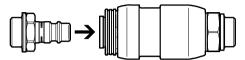
Key features



Mode of operation

Quick coupling socket NPHS-D6-M 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.

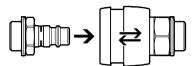


When the plug is engaged, the releasing sleeve shifts one position in the direction of the plug. This releases the locking mechanism between the

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

Quick coupling socket NPHS-D6-P and quick coupling plug NPHS-S6

Coupling



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

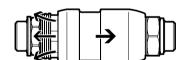
process, the releasing sleeve moves briefly backwards and then forwards again.

Pressurising



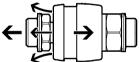
To pressurise, slide the sliding sleeve in the direction of the plug.

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.

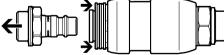
Exhausting



To exhaust, first slide the releasing sleeve in the direction of the thread on the quick coupling socket. 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.

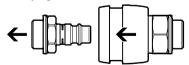
Decoupling



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

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

Decoupling



Next release the plug from the ball locking mechanism by pulling the releasing sleeve. This releases the plug completely so that it can be removed

from the socket. The plug should only be removed after all the air has been exhausted.



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

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 one	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 both	sides				
		KD3R/	Both sides are sealed after unlocking	563	4.2 5	20
		KS3R				
		KD4R/		765	8	20
		KS4R				
Safety coupling	Shut off on one					
		NPHS-D6-M/	Exhaust the air on the plug side by	1750 2100	5.5 10	22
		NPHS-S6	sliding the sliding sleeve and then			
			unlocking the coupling			
		NPHS-D6-P/	Exhaust the air on the plug side by	875 2083	5 11	22
		NPHS-S6	pushing the releasing sleeve and			
			then unlocking the coupling			

Coupling/tubing com	bination options								
Tubing		Quick coupling socket/plug							
		KD1/KS1	KD2/KS2	KD3/KS3	KD4/KS4	KD5/KS5	NPHS-D6/		
							NPHS-S6		
With standard I.D.	Polyurethane								
	PU-9	-	-	-		-			
	PU-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



Quick coupling		combination							Size 5			
Connection	Size 1			Size 2		Size 31 ⁾		Size 4 ¹⁾			Size 6	
	Socket KD1	Plug KS1	Socket KD2	Plug KS2	Socket KD3	Plug KS3	Socket KD4	Plug KS4	Socket KD5	Plug KS5	Socket NPHS-D6	Plug NPHS-Se
Male thread												
M3		_	_	_	_	_	_	_	-	_	_	_
M5	_	_	-	•	_	-	-	_	-	-	-	-
G1/8	_	_	_	_			_	_	_	_	_	
G1/4	_	_	-	_	•	•	•	•	-	_	•	-
G3/8	_	_	-	-	-	-	-		-	_	•	-
G1/2	-	-	-	-	_	-			-			
Female thread												
M5		_			_	_	_	_	_	_	_	_
G1/8	-	-	-	_	-	-	-	-	-	-	-	_
G1/4	_	_	-	_	•	•	-	-	-	_	-	
G3/8	_	_	-	_	_	_	-	-	-	_	-	
G ¹ / ₂	-	-	-	-	-	-				-	-	
Quick connecto							T		<u> </u>			
CK-3	-	-			-	-	-	-	-	-	-	_
CK-4	-	-					-	•	-	-	-	-
CK-6	-	-	-	-		-	-	-	-	-	-	-
CK-9	-	-	-	-	-	-	-	•	-	-	-	-
CK-13	-	-	-	-	-	-	-	-	-	•	-	-
Bulkhead quick	c connector											
CK-9	-	-	-	-	-	-			-	-	-	-
Barbed fitting												
CN-2	_		_	-	-	-	_	-	-	_	_	_
CN-4	-	-	-	-	_	-	-	-	-	_	-	-
CN-6	-	-	-	_		-	-	-	-	_	-	-
N-6	-	-	-	_	_	-	-	-	-	_	-	-
N-9	-	-	-	_	_	-	-	-	-	_	-	-
N-13	-	-	-	-	-	-	-	-	-		-	-
Barbed bulkhe	ad fitting											
CN-4	au IIIIIIg –				T -	_	_	_	T -	_	_	_
CN-4	_	_	_	_	_	-	_	_	_	_	_	_
CIN-O	_	_		-	-			_	_	_		

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
Nominal tightening torque	[Nm]	0.6 ±10%	-
Product weight	[g]	2.9	0.4

Standard nominal flow rate qnN ¹⁾ [l/min	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				

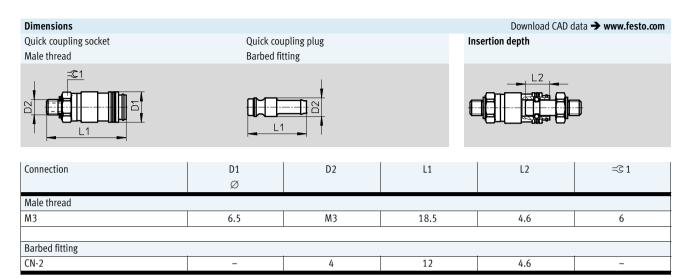
¹⁾ Measured at p1 = 6 bar and $\Delta p = 1$ bar

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

plugs of this size.

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

- N - Flow rate







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 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

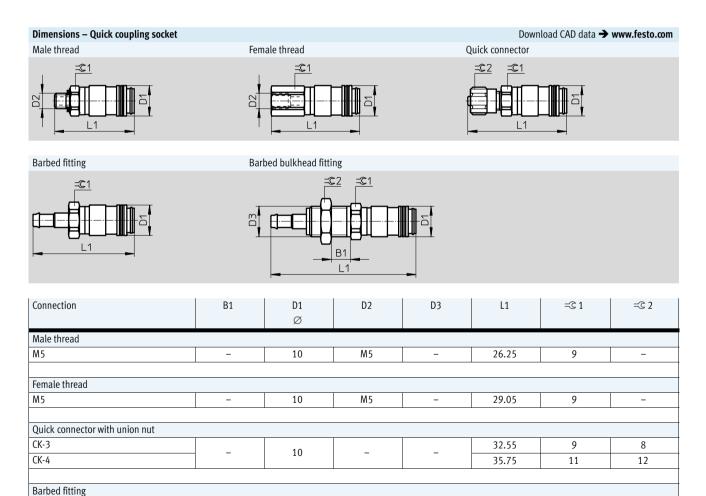


Technical data

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	



10

10

1 ... 10

Barbed bulkhead fitting

CN-4

CN-4

M10x1

33.25

47.75

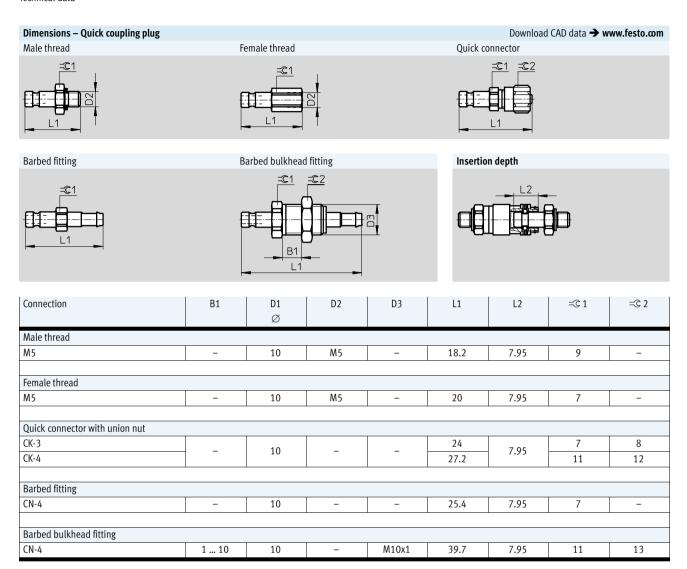
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11

13

- Type discontinued Available up until 2018

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



Ordering data			1			
Connection	Quick coupling	g socket		Quick couplin	g plug	
	Part No.	Туре		Part No.	Туре	
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 r	nut .					
,	<u> </u>	1/D 0 61/ 0			1/04 61/ 4	
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	· J ·	531663	KS2-CN-4	٠٦٠
Barbed bulkhead fitting						
CN-4	531624	KD2-CN-4-S	٠٦٠	531664	KS2-CN-4-S	-1-



Plug-in coupling KD3/KS3

plugs of this size.

Flow rate 158 ... 666 l/min

Nominal size 2.9 ... 5 mm



same size are compatible with all





General technical data – Quick coupling socket KD3									
Pneumatic connection 1	ımatic connection 1		Male thread		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 threa	ıd	Female thread		Quick connector		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	IUM _T) ([/min]											
Quick coupling socket/plug		Quick coupling socket KD3											
combination		Male thread		Female	hread	Quick connector		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				

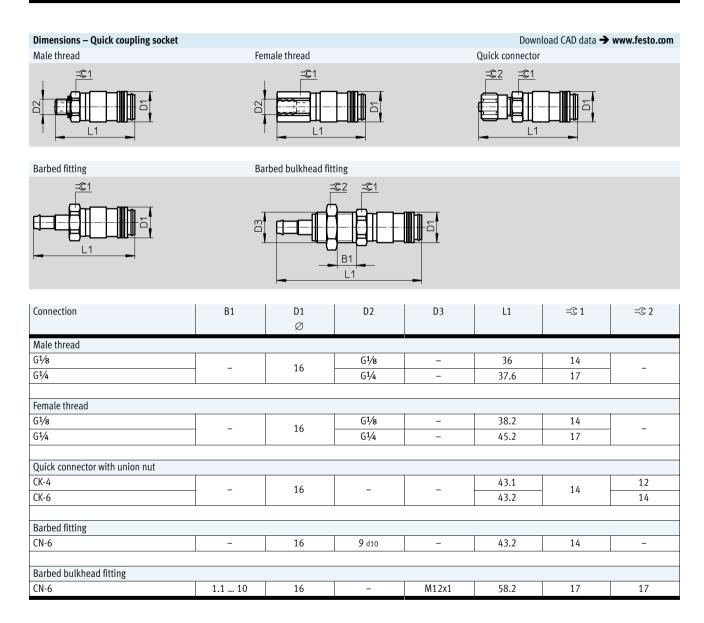
¹⁾ Measured at p1 = 6 bar and $\Delta p = 1$ bar

Operating and environmental conditions	Operating 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

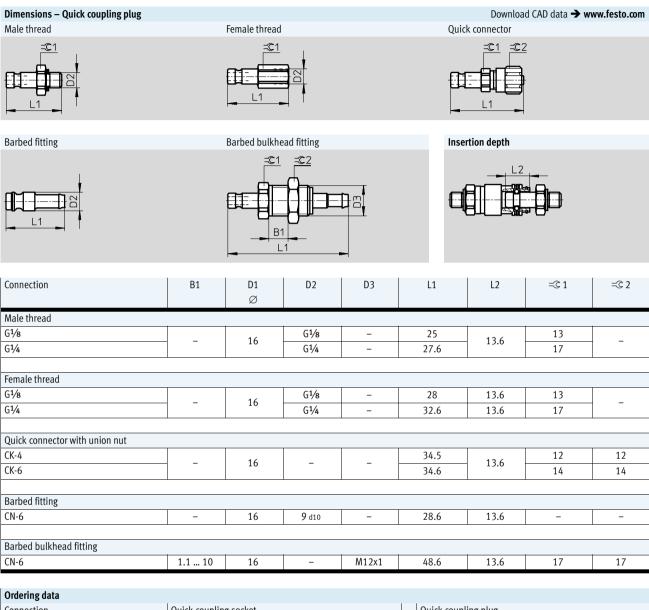


Materials		
	Quick coupling socket KD3	Quick coupling plug KS3
Housing	Nickel-plated brass	Nickel-plated brass
Releasing sleeve	Nickel-plated brass	-
Note on materials	RoHS-compliant	



- Type discontinued Available up until 2018

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

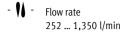


Ordering data						
Connection	Quick coupling	socket		Quick coupling	g plug	
	Part No.	Туре		Part No.	Туре	
Male thread						
G1/8	2142	KD3-1/8-A		3492	KS3-1/8-A	
G1/4	531626	KD3-1/4-A		531666	KS3-1/4-A	
Female thread						
G ¹ / ₈	531627	KD3-1/8-I		531668	KS3-1/8-I	
G1/4	531628	KD3-1/4-I		531669	KS3-1/4-I	
Quick connector with union nu	ıt					
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	-2-	531672	KS3-CN-6	-1-
Barbed bulkhead fitting						
CN-6	531632	KD3-CN-6-S	-1-	531673	KS3-CN-6-S	-1-

FESTO

Plug-in coupling KD4/KS4

- Releasing sleeve made from polymer material
- Quick coupling sockets KD4 can be combined with all quick coupling plugs NPHS-S6 → 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

NPHS-S6 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			Female thread			ector	Bulkhead quick connector	Barbed fitting
		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%				
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 o	Quick connector		Bulkhead quick	Barbed fitti	ng	
											connector		
		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 qnN	¹⁾ [l/min]											
Quick coupling socket/plug		Quick o	Quick coupling socket KD4										
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-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		

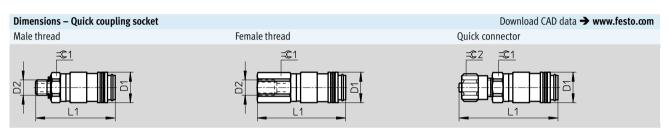
¹⁾ Measured at p1 = 6 bar and Δp = 1 bar

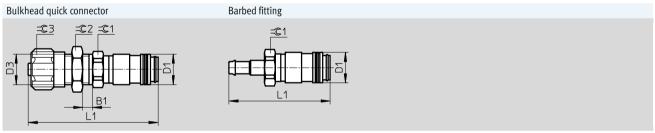


Operating and environmental conditions							
Operating pressure complete [bar]	-0.95 +12						
temperature range							
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:-:-]						
Note on operating/pilot medium	Operation with lubricated medium possible						
Ambient temperature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

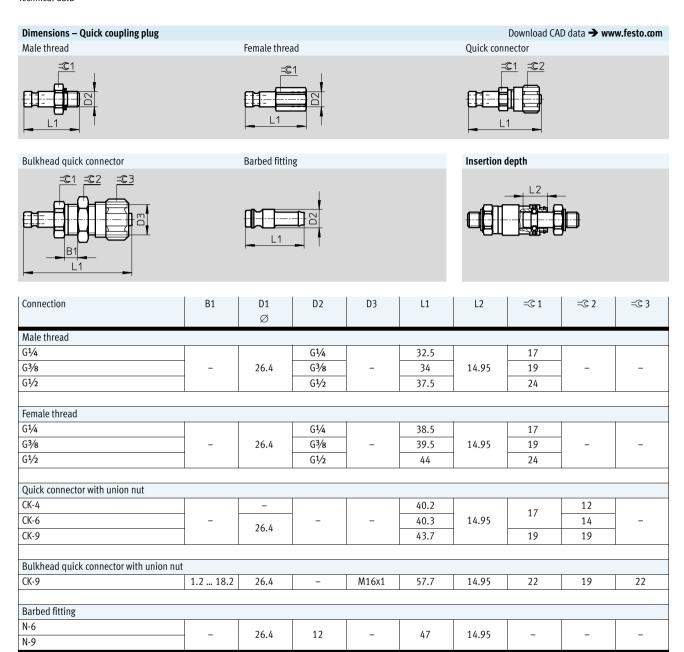
Materials		
	Quick coupling socket KD4	Quick coupling plug KS4
Housing	Nickel-plated brass	Nickel-plated brass
Releasing sleeve	Polypropylene	-
Note on materials	RoHS-compliant	





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	1	
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	_	-





- Type discontinued Available up until 2018

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

Ordering data						
Connection	Quick couplin	g socket		Quick coupling	g plug	
	Part No.	Туре		Part No.	Туре	
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	
G ¹ / ₂	★ 2145	KD4-1/2-A		531676	KS4-½-A	
Female thread						
G ¹ / ₄	531636	KD4-1/4-I		531678	KS4-1/4-I	
G3/8	531637	KD4-3/8-I		531679	KS4-3/8-I	
G ¹ / ₂	531638	KD4-1/2-I		531680	KS4-1/2-I	
Quick connector with unior	n 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	.1.	531686	KS4-CK-9-S	-1-
Barbed fitting						
N-6	-			2152	KS4-N-6	
N-9	531641	KD4-N-9		2153	KS4-N-9	

Ready for dispatch in 5 days maximum from stock

Type discontinued Available up until 2018

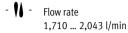
Quick coupling sockets/plugs KD/KS, shut-off on one side

FESTO

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		

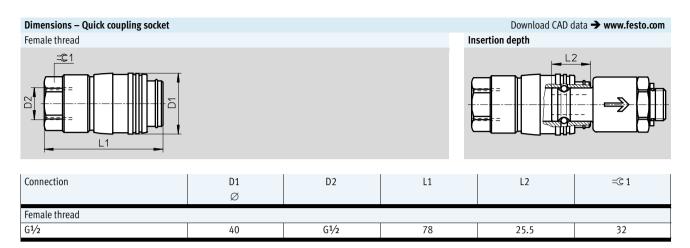
¹⁾ Corrosion resistance class CRC 1 to Festo standard FN 940070

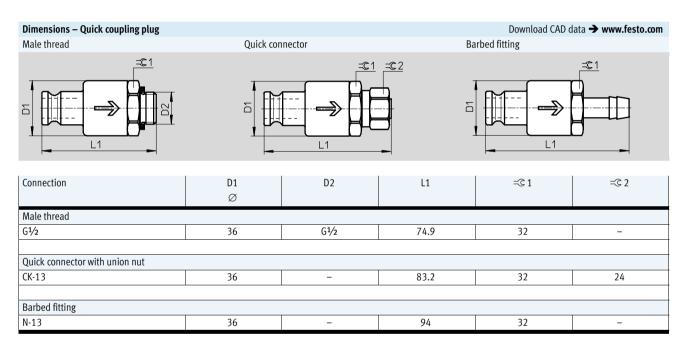
Low corrosion stress. For dry indoor applications or transport and storage protection. Also applies to parts behind covers, in the non-visible interior area, and parts which are covered in the application (e.g. drive trunnions)

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

- Type discontinued Available up until 2018

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





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



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.

> Flow rate 765 l/min

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

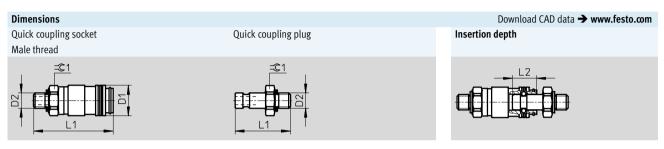
¹⁾ Measured at p1 = 6 bar and Δp = 1 bar

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



Materials				
	Quick coupling socket	Quick coupling plug	Quick coupling socket	Quick coupling plug
	KD3	KS3	KD4	KS4
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						
G ¹ / 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
G ¹ /8	531659 KD3-½-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 NPHS, shut-off on one side

FESTO

Technical data

Safety coupling NPHS-D6-M/NPHS-S6

- Releasing sleeve made of metal
- 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

Flow rate 1750 ... 2100 l/min

Nominal width





Safety coupling NPHS-D6-P/NPHS-S6

- Releasing sleeve made of plastic
- Exhaust the air on the plug side without releasing the coupling
- Flow rate 875 ... 2083 l/min
- **D** Nominal width 5 ... 11 mm





- 🏻 -

Note

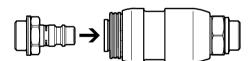
All types of quick coupling socket NPHS-D6 are compatible with all plugs NPHS-S6.

In addition, the quick coupling sockets NPHS-D6-M and all quick

coupling plugs NPHS-S6 can be combined with quick coupling sockets/ plugs KD4/KS4 made of brass. In contrast, the quick coupling sockets NPHS-D6-P may only be used with the hardened quick coupling plugs NPHS-S6. No safety function when combining quick coupling socket KD4 with quick coupling plug NPHS-S6. In this combination, the plug is released directly in one step.

Mode of operation

Quick coupling socket NPHS-D6-M and quick coupling plug NPHS-S6



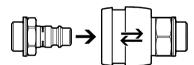
To lock the coupling, push the plug into the socket. The plug automatically engages with an audible click when in a specific position.



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.

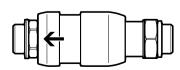
Quick coupling socket NPHS-D6-P and quick coupling plug NPHS-S6 Coupling



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

process, the releasing sleeve moves briefly backwards and then forwards again.

Pressurising



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

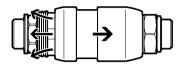


FESTO

Mode of operation

Quick coupling socket NPHS-D6-M and quick coupling plug NPHS-S6

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.

Special features:

To repressurise the plug, the sliding sleeve must once more be slid in the direction of the plug. It is not necessary to release the plug from the

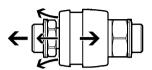
This safety coupling can thus be used

socket completely before doing this.

as an on-off valve, for example.

Quick coupling socket NPHS-D6-P and quick coupling plug NPHS-S6

Exhausting



To exhaust, first slide the releasing sleeve in the direction of the thread on the quick coupling socket. This releases the pin locking mechanism of the coupling. The plug moves

approx. 5 mm out of the coupling

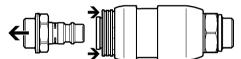
Special features:

To repressurise the plug, it must once more be pushed into the socket. It is not necessary to release the plug

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.

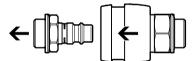
from the socket completely before doing this.

Decoupling



Unlock the plug fully by pushing the releasing sleeve. The plug should only be removed after all the air has been exhausted. With the plug removed, the two sleeves cannot slide or be pushed.

Decoupling



Next release the plug from the ball locking mechanism by pulling the releasing sleeve. This releases the plug completely so that it can be removed

from the socket. The plug should only be removed after all the air has been exhausted.

Note

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

General technical data - Quick coupling socket NPHS-D6 Female thread Pneumatic connection 1 Male thread For plug-in nipple NPHS-D6-M NPHS-D6-P NPHS-D6-P NPHS-D6-P G1/4 G1/2 G1/8 G1/4 G3/8 G1/2 G1/4 G1/2 I.D. 9 mm G3/8 G3/8 Nominal width 8.2 7.8 10.2 [mm] 10 10 11 Nominal tightening torque [Nm] 7 ±20% 15 25 3.5 11 12.5 14 ±20% ±20% ±10% ±10% ±20% ±20% Product weight [g] 173 179 200 94 95 98 124 114 122 95 113

General technical data – Quick coupling plug NPHS-S6									
Pneumatic connection 1		Male thread			Female thread				For plug-in nipple
		G ¹ /8	G1/4	G3/8	G ¹ / ₂	G1/4	G3/8	G ¹ / ₂	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



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



Standard nominal flow rate qnl	Standard nominal flow rate qnN ¹⁾ [l/min]								
Quick coupling socket/plug		Quick coupling socket NPHS-D6-M							
combination		Male thread							
		G¹/4	G ³ /8	G1/2					
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 $\Delta p = 1$ bar

Standard nominal flow rate qnN ¹ [l/min]									
Quick coupling socket/plug combination		Quick cou	pling socket N	PHS-D6-P					
		Male thre	ad			Female th	read		For plug-in nipple
		G1/8	G1/4	G3/8	G ¹ / ₂	G1/4	G3/8	G ¹ / ₂	I.D. 9 mm
Quick coupling plug NP	PHS-S6								
Male thread	G1/8	875	1183	1216	1233	1183	1203	1238	1093
	G1/4	1038	1916	2033	2016	2033	2000	1983	1585
	G3/8	1038	1883	2033	1983	2033	1950	1950	1585
	G1/2	1002	1883	1966	1950	1966	1916	1916	1533
Female thread	G1⁄4	1002	1883	1950	1916	1800	1800	1008	1503
	G3/8	1050	1966	2083	2016	2050	2083	2050	1613
	G1/2	1038	1883	2000	1983	1933	2050	1950	1613
For plug-in nipple	I.D. 9 mm	966	1585	1640	1585	1585	1700	1640	1448

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

Operating and environmental conditions							
	Quick coupling socket		Quick coupling plug				
	NPHS-D6-M	NPHS-D6-P NPHS-D6-P					
Operating pressure for entire [bar]	-0.95 +20 ¹⁾	-0.95 +10	-0.95 +10 (-0.95 +20) 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	-10 +60 (-20 +100) ²⁾				
Corrosion resistance class CRC ³⁾	1	1	1				
Noise level ⁴⁾ [dB(A)]	110 (at 6 bar)	93 (at 6 bar)	-				
	113 (at 10 bar)	98.7 (at 10 bar)	-				
	117 (at 16 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).

2) Using a suitable sealing ring (e.g. sealing ring (DL), 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.

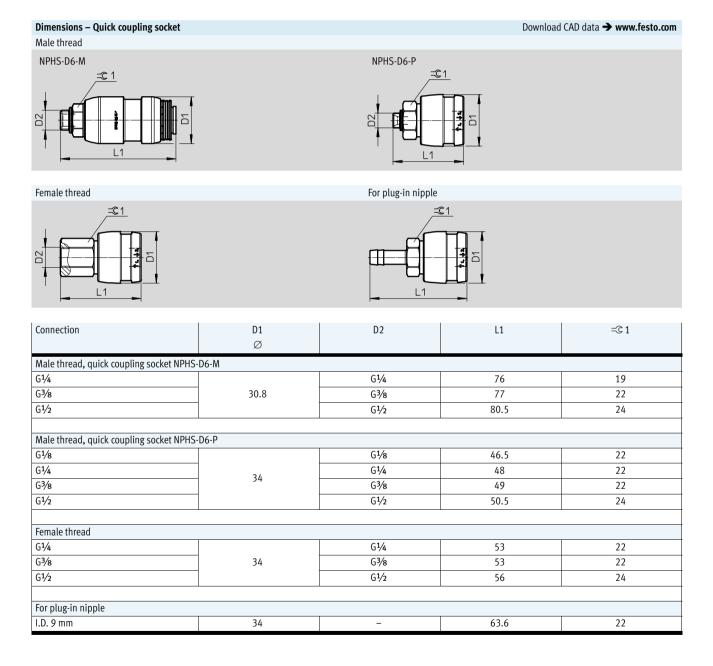
3) Corrosion resistance class CRC 1 to Festo standard FN 940070

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

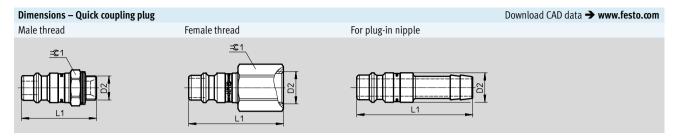
⁴⁾ Measured at a distance of 1 m, 10 l volume via the coupling, at pressure open and exhausted.

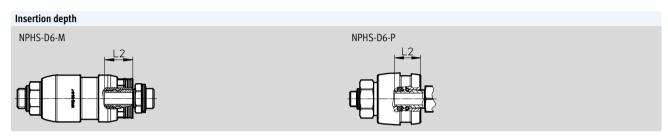


Materials			
	Quick coupling socket		Quick coupling plug
	NPHS-D6-M	NPHS-D6-P	NPHS-S6
Housing	Nickel-plated brass	Nickel-plated brass	Hardened galvanised steel
Sliding sleeve	Clear anodised aluminium	-	-
Releasing sleeve	Nickel-plated brass	PP	-
Note on materials	RoHS compliant	·	·









Туре	D2	L1	L2	2	=© 1
			NPHS-D6-M	NPHS-D6-P	
Male thread					
G1/8	G1/8	30.5		17.1 ±0.3	13
G1/4	G1/4	32.5	18.6 ±0.4		17
G3/8	G3/8	34	10.0 ±0.4		19
G1/2	G1/2	37.5			24
Female thread					
G1/4	G1/4	38.5		17.1 ±0.3	17
G3/8	G3//8	39.5	18.6 ±0.4		19
G1/2	G1/2	44			24
For plug-in nipple					
I.D. 9 mm	12	47	18.6 ±0.4	17.1 ±0.3	-



Ordering data – Quick coup	ling socket	
Connection	Releasing sleeve made of plastic	Releasing sleeve made of metal
	Part No. Type	Part No. Type
Male thread		
G1/8	8059266 NPHS-D6-P-G18	-
G1/4	★ 8059267 NPHS-D6-P-G14	8059275 NPHS-D6-M-G14
G3/8	★ 8059268 NPHS-D6-P-G38	8059276 NPHS-D6-M-G38
G ¹ / ₂	★ 8059269 NPHS-D6-P-G12	8059277 NPHS-D6-M-G12
Female thread		
G1/4	8059271 NPHS-D6-P-G14F	-
G ³ /8	8059272 NPHS-D6-P-G38F	-
G½	8059273 NPHS-D6-P-G12F	-
	,	
For plug-in nipple		
I.D. 9 mm	8059274 NPHS-D6-P-BC9	-

Ordering data – Quick cou	nling nlug	
Connection	Part No.	Туре
Male thread	<u> </u>	
G1/8	★ 8059257	NPHS-S6-M-G18
G1/4	★ 8059258	NPHS-S6-M-G14
G3/8	★ 8059259	NPHS-S6-M-G38
G1/2	★ 8059260	NPHS-S6-M-G12
Female thread		
G1/4	★ 8059262	NPHS-S6-M-G14F
G3/8	★ 8059263	NPHS-S6-M-G38F
G½	★ 8059264	NPHS-S6-M-G12F
	<u> </u>	
For plug-in nipple		
I.D. 9 mm	8059265	NPHS-S6-M-BC9

Union nuts MCK FESTO

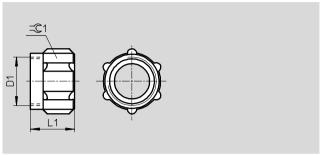
Accessories

Union nut MCK¹⁾

for quick connector

Material: Wrought aluminium alloy Conforms to RoHS





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