

Connection adapters for pressure measuring instruments

Model 910.14

WIKA data sheet AC 09.05

Applications

For the mounting of pressure measuring instruments, stopcocks, shut-off valves, syphons, snubbers and other accessory components

Types of connection adapters

Male-female connection adapters

are used where one of the parts to be connected has a male and the other a female thread.

Female-female connection adapters

are used where both parts to be connected have male threads.

Male-male connection adapters

are used where both parts to be connected have female threads.

Self-sealing connecting nipples (SS)

are used to adapt a smaller size threaded connection to a larger one (e.g. G ¼ to G ½). Due to their design, the connecting nipples are self-sealing (i.e. the taper turned into the nipple presses into the bore of the pressure measuring instrument's connection shank. To protect against inadvertent release of the two threaded parts, they are secured with a special adhesive.

LH-RH unions

per DIN 16283 have a right-hand thread (RH) on one side, and a left-hand thread (LH) on the other, which allow the parts to be sealed and orientated into any direction required.

Union nuts with nipple

per DIN 16284 enable mounting without having to change the orientation of the parts to be connected against each other.

Solderless compression fittings with compression ring

are used to connect pressure measuring instruments or fittings with pipelines from copper, steel and stainless steel. Particularly useful mounting, no solder or weld points. A sealing washer is included in delivery.

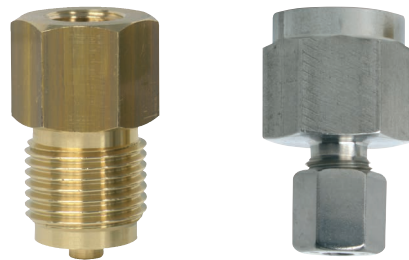


Fig. left: Connection adapter, male-female, G ½ / G ¼ B
Fig. right: Compression fitting with compression ring, G ½ 400/6

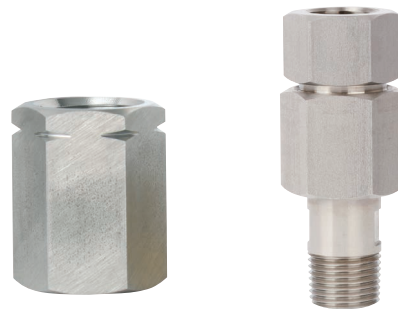


Fig. left: Connection adapter, LH-RH union, G ½ / G ½ LH
Fig. right: Rotatable connection adapter (swivel adapter)

Threaded flange set with lens-type sealing ring

is used for the mounting of high-pressure measuring instruments (up to 4,000 bar). Through the two threaded flanges, which are clamped by four screws, the pressure measuring instrument can be positioned in any orientation required.

Weld-on connection adapters

with male threads are used with left-hand threads (LH) for connections with LH-RH unions, and with right-hand threads (RH, per EN 837-1) they are mostly used as pressure inlet.

Rotatable connection adapters (swivel adapters)

enable the orientation of pressure measuring instruments through a 360 ° range.

Standard version

Dimensions and connection

see table

Material

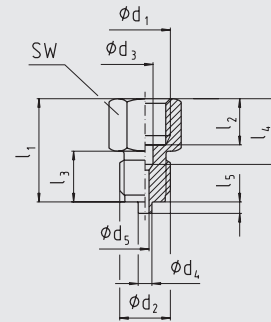
Brass, steel, stainless steel 1.4571

Options

- Brass, chrome-plated
- Special threads

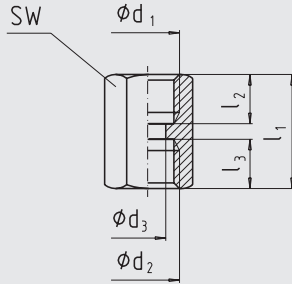
Dimensions

Female-male



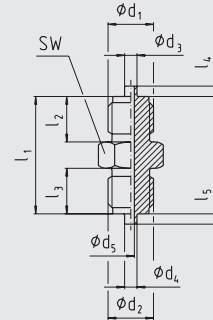
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Female-female



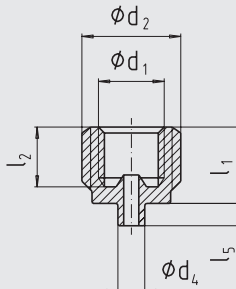
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Male-male



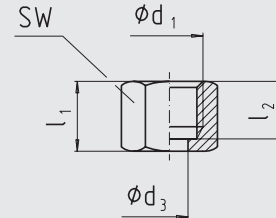
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SS nipple



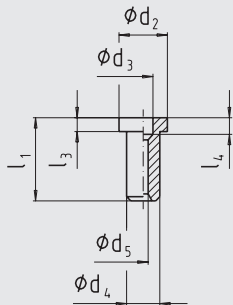
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Union nut



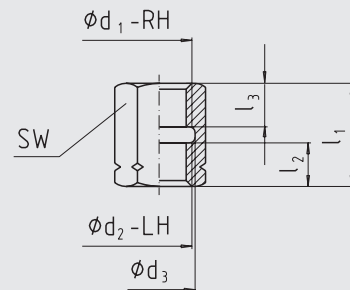
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Nipple



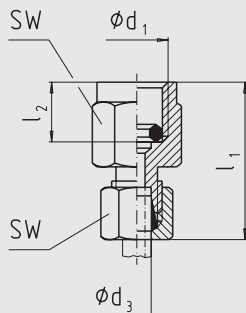
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LH-RH union



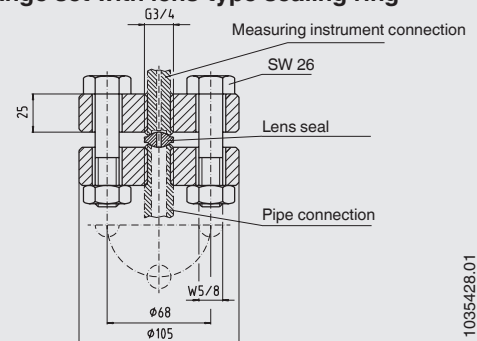
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Compression fitting with compression ring

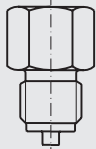
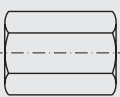


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Threaded flange set with lens-type sealing ring


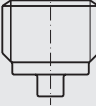



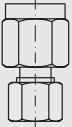



1035428.01

Version	Connection ¹⁾		Dimensions in mm									Material	Order number
	d ₁	d ₂	d ₃	d ₄	d ₅	l ₁ approx.	l ₂ approx.	l ₃ approx.	l ₄ approx.	l ₅ approx.	SW		
Female-male 	G 1/8	G 1/4 B	4.5	5	3	28	10	13	13	2	14	Brass	9090924
	G 1/8	G 1/2 B	4.5	6	3	35	10	20	13	3	22	Brass	9090207
	G 1/4	G 1/8 B	5.5	-	3	29	13	10	16.5	-	17	Brass	9090215
	G 1/4	G 3/8 B	5.5	5.5	3	33	13	16	16.5	3	19	Brass	9090223
	G 1/4	G 1/2 B	5.5	6	3	38	13	20	16.5	3	22	Brass	9090231
	G 1/4	G 1/2 B	5.5	6	3.5	38	13	20	16.5	3	22	1.4571	9084924
	G 1/4	1/4 NPT	5.5	-	3	30	13	13	16.5	-	17	Brass	9054936
	G 1/4	1/2 NPT	5.5	-	3.5	34	13	19	16.5	-	22	1.4571	1045326
	G 1/4	M10 x 1	5.5	-	3	29	13	10	16.5	-	17	Brass	9064931
	G 1/4	M12 x 1.5	5.5	5	3	32	13	13	16.5	2	17	Brass	9090240
	G 3/8	G 1/4 B	7	5	3	36	16	13	19.5	2	22	Brass	9090258
	G 3/8	G 1/2 B	7	6	3	43	16	20	19.5	3	22	Brass	9090266
	G 1/2	G 1/4 B	7	5	3	41	19	13	24.5	2	27	Brass	9090274
	G 1/2	G 1/4 B	7	5	3.5	41	19	13	24.5	2	27	Steel	9074937
	G 1/2	1/4 NPT	7	-	3	43	19	13	24.5	-	27	Brass	9044930
	G 1/2	1/4 NPT	7	-	3.5	43	19	13	24.5	-	27	1.4571	9074929
	G 1/2	G 3/8 B	7	5.5	3	45	19	16	24.5	3	27	Brass	9090282
	G 1/2	G 3/8 B	7	5.5	3.5	45	19	16	24.5	3	27	1.4571	9024930
	G 1/2	G 1/2 B	7	6	3.5	46	19	20	24.5	3	27	1.4571	9094920
	G 1/2	G 1/4 B	7	5	3	44	19	19	24.5	-	27	1.4571	9064923
	G 1/2	1/2 NPT	7	-	3	44	19	19	24.5	-	27	Brass	9034935
	G 1/2	G 3/4 B	7	6	3	45	19	20	24.5	5	27	Brass	9090290
	G 1/2	M12 x 1.5	7	5	3	41	19	13	24.5	2	27	Brass	9090304
	G 1/2	M20 x 1.5	7	6	3.5	46	19	20	24.5	3	27	1.4571	9014934
	G 1/2	M20 x 1.5	7	6	3	46	19	20	24.5	3	27	Brass	9090312
	M10 x 1	G 1/4 B	-	5	3.5	24	9.2	13	-	2	19	1.4571	1576364
	M10 x 1	1/4 NPT	-	-	3.5	24	9.2	13	-	-	19	1.4571	1587226
	M12 x 1.5	G 1/8 B	5.5	-	3	29	13	10	16.5	-	17	Brass	9090320
	M12 x 1.5	G 1/4 B	5.5	5	3	32	13	13	16.5	2	17	Brass	9090339
	M12 x 1.5	G 3/8 B	5.5	5.5	3	33	13	16	16.5	3	19	Brass	9090347
	M20 x 1.5	G 1/2 B	7	6	3	46	19	20	24.5	3	27	Brass	9090355
	1/4 NPT	G 1/8 B	-	-	3	27	14	10	-	-	17	Brass	1248367
	1/4 NPT	G 1/4 B	-	5	3	33	14	13	-	2	22	1.4571	1247573
1/4 NPT	G 1/2 B	-	6	3.5	37	14	20	-	3	22	Brass	0187119	
1/4 NPT	G 1/2 B	-	6	3.5	37	14	20	-	3	22	1.4571	1096621	
1/2 NPT	G 1/4 B	-	5	3.5	38	19	13	-	2	27	1.4571	0287792	
1/2 NPT	1/4 NPT	-	-	3.5	38	19	13	-	-	27	1.4571	0203963	
1/2 NPT	G 1/2 B	-	6	3.5	45	19	20	-	3	27	Brass	0187143	
1/2 NPT	G 1/2 B	-	6	3.5	45	19	20	-	3	27	1.4571	0634603	
Female-female 	G 1/8	G 1/8	4.5	-	-	22	10	10	-	-	14	Brass	9084932
	G 1/4	G 1/8	5.5	-	-	26	13	10	-	-	17	Brass	9094938
	G 1/4	G 1/4	5.5	-	-	30	13	13	-	-	17	Brass	9090363
	G 1/4	1/8 NPT	5.5	-	-	27	13	12	-	-	17	Brass	0797111
	G 1/4	1/4 NPT	5.5	-	-	30	13	14	-	-	17	1.4571	1567942
	G 1/2	G 1/4	7	-	-	36	19	13	-	-	27	1.4571	9014942
	G 1/2	G 3/8	7	-	-	40	19	16	-	-	27	1.4571	0700070
	G 1/2	G 1/2	7	-	-	43	19	19	-	-	27	1.4571	9024948
	G 1/2	G 1/2	7	-	-	43	19	19	-	-	27	Brass	9090371
	G 1/2	1/2 NPT	-	-	-	43	19	19	-	-	27	Brass	0674559
	G 1/2	1/2 NPT	-	-	-	43	19	19	-	-	27	1.4571	0514349
	G 1/2	M20 x 1.5	7	-	-	43	19	19	-	-	27	Brass	9091700
	G 1/2	M20 x 1.5	7	-	-	43	19	19	-	-	27	Steel	11558246
	G 1/2	M20 x 1.5	7	-	-	43	19	19	-	-	27	1.4571	9091726

Connection adapters with other thread combinations (minimum quantity: 500 pieces) are possible, but not available from stock.

1) Connections per EN 837-1 (exception: G 3/4 B)

Version	Connection ¹⁾		Dimensions in mm									Material	Order number
	d ₁	d ₂	d ₃	d ₄	d ₅	l ₁ approx.	l ₂ approx.	l ₃ approx.	l ₄ approx.	l ₅ approx.	SW		
Male-male 	G ¼ B	G ¼ B	5	5	3	34	13	13	2	2	14	Brass	9090380
	G ½ B	G ½ B	6	6	3	50	20	20	3	3	22	Brass	9090398
	G ½ B	G ½ B	6	6	3.5	50	20	20	3	3	22	1.4571	9034943
	G ½ B	½ NPT	6	-	3.5	49	20	-	3	-	22	1.4571	9044949
SS nipple 	G ⅙	G ¼ B	-	5	-	14.5	11	-	-	2	-	Brass	9091076
	G ⅙	¼ NPT	-	-	-	13.5	11	-	-	-	-	Brass	9014950
	G ¼	⅜ NPT	-	-	-	19	15.5	-	-	-	-	Brass	9024956
	G ¼	⅜ NPT	-	-	-	19	15.5	-	-	-	-	1.4571	9074945
	G ¼	G ⅜ B	-	5.5	-	19	15.5	-	-	3	--	1.4571	9064940
	G ¼	G ⅜ B	-	5.5	-	19	15.5	-	-	3	-	Brass	9091084
	G ¼	G ½ B	-	6	-	19	15.5	-	-	3	-	Brass	9091092
	G ¼	G ½ B	-	6	-	19	15.5	-	-	3	-	1.4571	9054944
	G ¼	½ NPT	-	-	-	19	15.5	-	-	-	-	Brass	9034951
	G ¼	½ NPT	-	-	-	19	15.5	-	-	-	-	1.4571	9084940
	G ¼	M20 x 1.5	-	6	-	19	15.5	-	-	3	-	Brass	9094946
LH-RH union DIN 16283 	G ½-RH	G ½-LH	21.5	-	-	36	15.5	15.5	-	-	27	Brass	9090401
	G ½-RH	G ½-LH	21.5	-	-	36	15.5	15.5	-	-	27	Steel	9090410
	G ½-RH	G ½-LH	21.5	-	-	36	15.5	15.5	-	-	27	1.4571	9092412
	G ½-RH	M20 x 1.5-LH	21.5	-	-	36	15.5	15.5	-	-	27	Brass	9090428
	G ½-RH	M20 x 1.5-LH	21.5	-	-	36	15.5	15.5	-	-	27	Steel	9090436
	M20 x 1.5-RH	M20 x 1.5-LH	20.5	-	-	36	15.5	15.5	-	-	27	Brass	9090444
Union nut DIN 16284 	G ¼	PN 250	6.5	-	-	22	17	-	-	-	17	Brass	9090479
	G ¼	PN 400	6.5	-	-	22	17	-	-	-	17	Steel	9090487
	G ½	PN 250	12.5	-	-	30	24	-	-	-	27	Brass	9090495
	G ½	PN 400	12.5	-	-	30	24	-	-	-	27	Steel	9090509
	G ½	PN 400	12.5	-	-	30	24	-	-	-	27	1.4571	9092382
	M12 x 1.5	PN 250	6.5	-	-	22	17	-	-	-	17	Brass	9090517
Nipple DIN 16284 	for G ¼ / M12 x 1.5	9.5	5.5	6	2.5	30	-	6	4	-	-	Brass ³⁾	9090533
	for G ¼ / M12 x 1.5	9.5	5.5	6	2.5	30	-	6	4	-	-	Steel ³⁾	9090541
	for G ½ / M20 x 1.5	17.5	7	12	3.5	30	-	6	6	-	-	Brass ³⁾	9090550
	for G ½ / M20 x 1.5	17.5	7	12	3.5	30	-	6	6	-	-	Steel ³⁾	9090568
	for G ½ / M20 x 1.5	17.5	7	12	3.5	30	-	6	6	-	-	1.4571	9092390
Solderless compression fitting with compression ring ²⁾ 	G ¼	PN 100	4	-	-	33	14.5	-	-	-	19/10	Steel	9090932
	G ¼	PN 250	6	-	-	37	14.5	-	-	-	19/14	Steel	9090452
	G ½	PN 600	6	-	-	46	20	-	-	-	27/17	Steel	9090460
	G ½	PN 600	6	-	-	46	20	-	-	-	27/17	1.4571	9091734
	G ½	PN 600	8	-	-	46	20	-	-	-	27/19	Steel	9090940
	G ½	PN 600	8	-	-	46	20	-	-	-	27/19	1.4571	9091742
	G ½	PN 600	10	-	-	47	20	-	-	-	27/22	Steel	9091246
	G ½	PN 600	10	-	-	47	20	-	-	-	27/22	1.4571	9091750
	G ½	PN 600	12	-	-	47	20	-	-	-	27/24	Steel	9091254
G ½	PN 600	12	-	-	47	20	-	-	-	27/24	1.4571	9091769	
Threaded flange set 	G ¾	≤ 4,000 bar	For dimensions see illustration									Steel	9091165

Connection adapters with other thread combinations (minimum quantity: 500 pieces) are possible, but not available from stock.

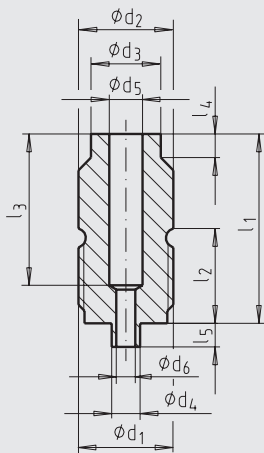
1) Connections per EN 837-1 (exception: G ¼ B)

2) Edge-sealing ring is included in delivery. From PN 250 upwards, the following pressure reductions on the appropriate pressure levels are required for higher temperatures:
at 100 °C = 11 % at 200 °C = 20 % at 300 °C = 29 % at 400 °C = 33 %

3) Brass = CuZn39Pb3 (2.0401); Steel = 9SMnPb28 (1.0718)

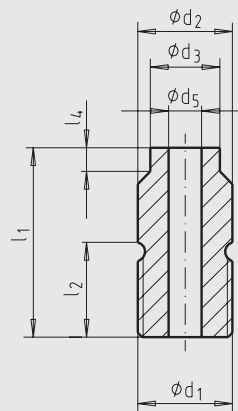
Weld-on connection shanks

With parallel pipe thread per EN 837-1 ¹⁾



1273515.01

Per DIN 16282, Form 6 with left-hand thread LH for LH/RH union



1273515.01

Standard	d ₁	d ₂ SW	d ₃	d ₄	d ₅	d ₆ max.	l ₁	l ₂	l ₃	l ₄	l ₅	Order number	
												1.4571	Steel
EN 837-1	G ½ B	20	14.7	6	7	4	40	20	32	5	5	9094962	9095020
	M20 x 1.5 ²⁾	20	14.7	6	7	4	40	20	32	5	5	9094970	-
	½ NPT	20	14.7	6	7	4	40	20	32	5	5	9094989	9095047
DIN 16282	G ½ B - LH	20	14.7	-	7	-	40	20	-	5	5	9094997	9095055
	M20 x 1.5 - LH ²⁾	20	14.7	-	7	-	40	20	-	5	5	9095004	-

1) Corresponds to the previous form 4 per DIN 16282

2) Metric ISO threads are based upon the withdrawn DIN 16288 : 1987. These threads are no longer standardised in EN 837 and DIN 16282

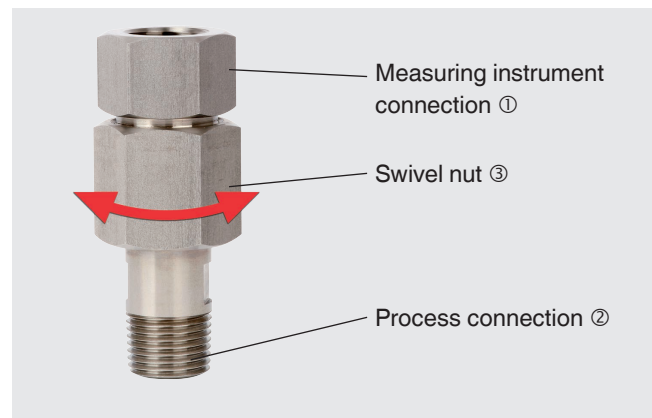
Rotatable connection adapters (swivel adapters)

This 360° swivel connection (swivel adapter) enables the simple orientation of pressure measuring instruments. The measuring instrument can be turned through a 360° range. Also when using an NPT thread, the pressure measuring instrument can be rotated to the position in which the pressure can be read optimally on the dial.

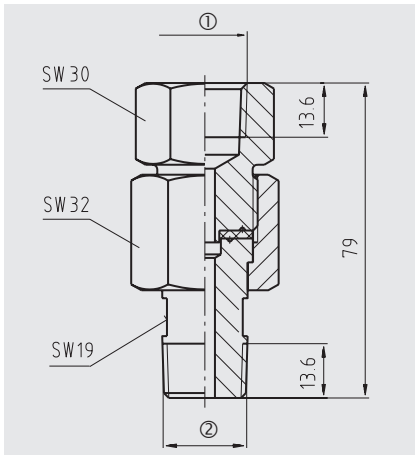


Mounting instructions

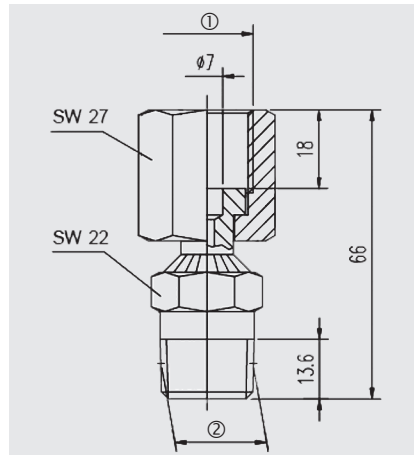
- First, mount the connection adapter with the process connection side ② to the piping (take care it is sealed).
- Then fasten the pressure measuring instrument at the measuring instrument connection side ①.
- Turn the pressure measuring instrument so the window is in the desired position, such that the pressure can be read optimally from the dial.
- Finally, tighten the entire system with the swivel nut ③. Fix the pressure measuring instrument in the desired display direction.



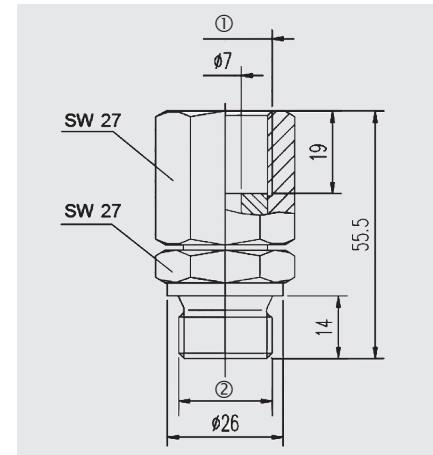
Version 1



Version 2



Version 4



Version	Measuring instrument connection ①	Process connection ②	Material	Sealing	Working pressure	3.1 material test certificate 1)	NACE certificate 2)	Order number
1	¼ NPT (female)	¼ NPT (male)	316L	PTFE	PN 680	yes	yes	14037344
1	½ NPT (female)	¼ NPT (male)	316L	PTFE	PN 680	yes	yes	14037347
1	¼ NPT (female)	½ NPT (male)	316L	PTFE	PN 680	yes	yes	14037350
1	½ NPT (female)	½ NPT (male)	2.4819	PTFE	PN 680	yes	yes	11390388
1	½ NPT (female)	½ NPT (male)	Inconel 625, 1.4571	PTFE	PN 680	yes	yes	11390396
1	½ NPT (female)	½ NPT (male)	Monel 400, 1.4571	PTFE	PN 680	yes	yes	14014609
1	½ NPT (female)	½ NPT (male)	316L	PTFE	PN 680	yes	yes	2481001
1	½ NPT (female)	¾ NPT (male)	316L	PTFE	PN 680	yes	yes	11051418
2	G ½ (female)	½ NPT (male)	316L	-	PN 420	yes	yes	11148144
2	G ½ (female)	½ NPT (male)	Monel 400	-	PN 420	yes	yes	11570688
4	G ½ (female)	G ½ B (male)	316L	-	PN 420	yes	yes	2085278

1) 3.1 material test certificate per EN 10204

2) NACE design per ISO 15156-2

Ordering information

To order the described product the order number is sufficient. Options require additional specification.

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