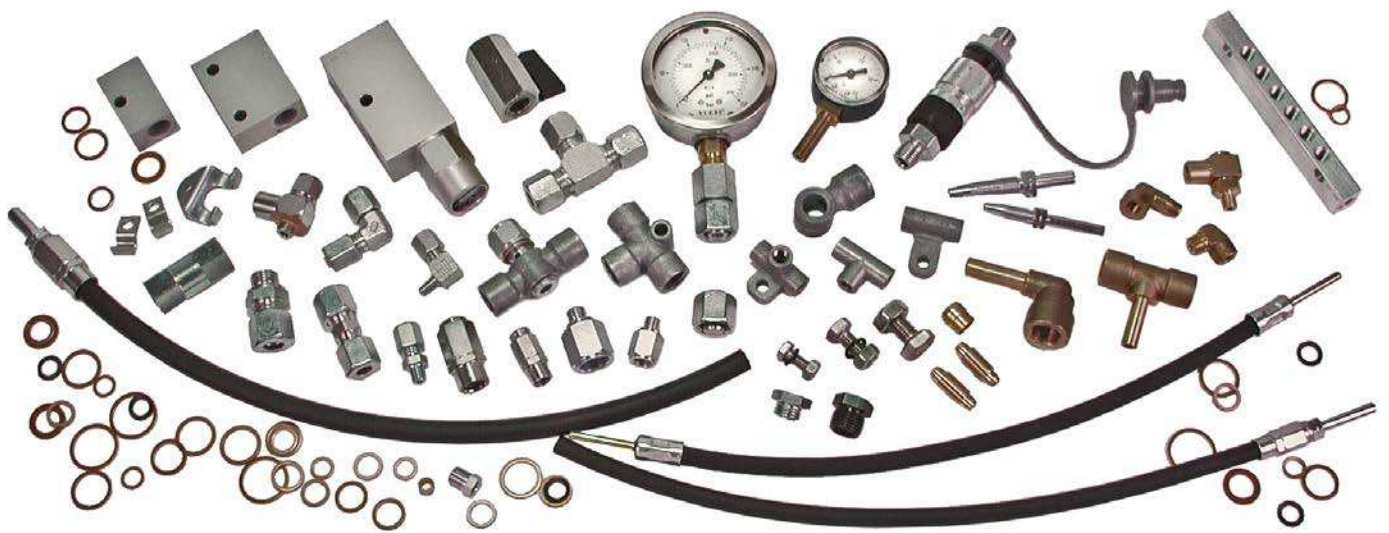


Fittings and Accessories

For oil and grease. For Centralized Lubrication Systems and General Use



Fittings and Accessories

This brochure provides an overview of metallic pipe unions for fluid engineering.

This brochure is divided into the sections

- Accessories for tubes and hoses
- SKF Quick Connectors for pressures up to 300 bar and 350 bar
- Solderless pipe unions with cutting sleeve acc. toh DIN EN ISO 8434-1 and DIN 2353
- Tubes and hoses
- Accessories
- Reservoirs

Dimensions in mm.



Important information on product usage

SKF and Lincoln lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1 013 mbar) by more than 0,5 bar at their maximum permissible temperature.

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Accessories for tubes and hoses

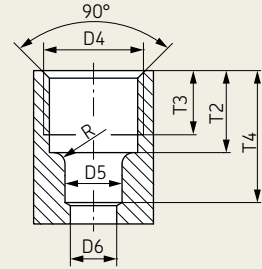
Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Counterbores DIN 3854/DIN 3862 – for solderless tube connection

Specification of counterbores	Tube \varnothing	D5 ^{B11}	D6	D4	T3	T2	T4	R
1102 ¹⁾	2,5	2,5	1,5	M6×0,75	4,5	5,5	8,5	1,3
1404	4	4	3	M8×1	6,5	8,5	12,5	1,6
1406	6	6	4,5	M10×1	7	9	14	1,6
1408	8	8	6,5	M14×1,5	9	11,5	18,5	1,6
1410	10	10	8,5	M16×1,5	9	11,5	19,5	1,6
1412	12	12	10,5	M18×1,5	9,5	12	22	1,6

1) not shown in DIN standard

Counterbore



Form counterbores to tap ports for solderless tube connection

Form counterbore Order No.	Tube \varnothing	for counter-bore	L1	D1	D2	twist drill D6	D3	T1	2
902-111	2,5	1102	60,5	10		1,5	5	4,5	5,5
904-411	4	1404	65	10		3	6,5	7,5	8,5
906-411	6	1406	66	12	10	4,5	8,5	8	9
908-411	8	1408	70	16		6,5	12	10,5	11,5
910-411	10	1410	72	18		8,5	14	10,5	11,5
912-411	12	1412	75	20		10,5	16	11	12

Provision of counterbore → Figure 1

Form counterbore

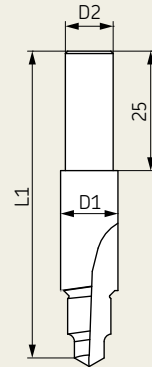
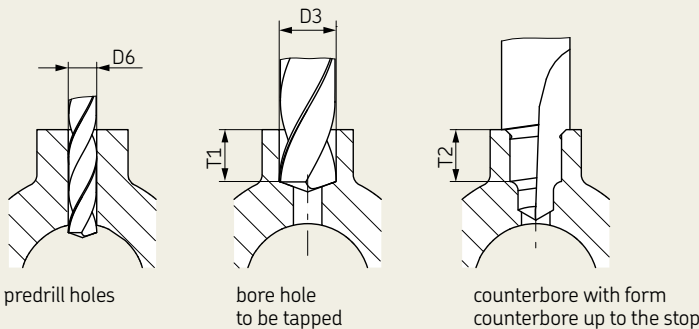


Figure 1

Provision of counterbore



Form counterbore enlarges bore hole diam. d4 to core hole for ISO thread..

! Important note #3: When using a hand drill, take care not to tilt the counterbore out of the drill axis. To avoid damages drill steadily without interruption. Increase pressure slightly at the stop.

Accessories for tubes and hoses

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Double tapered sleeves – DIN 3862

Order No. for tube \varnothing D

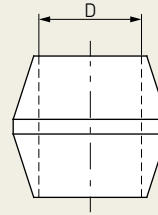
Brass

404-001	4
406-001	6
408-001	8
410-001	10
412-001	12

Stainless steel

404-001-S3	4
406-001-S3	6
408-001-S3	8

Double tapered sleeves



Socket unions – DIN 3871

Order No. for tube \varnothing D1 L1 L2 \mathcal{S} Series

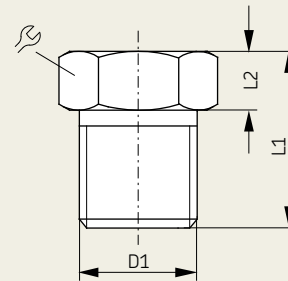
Steel, galvanized surface

404-002	4	M8 x1	12	4	8	LL
406-002	6	M10 x1	13	4	10	
408-202	8	M14 x1,5	16	4,5	14	
410-002	10	M16 x1,5	17	5,5	17	L
412-002	12	M18 x1,5	18	6	19	

Stainless steel

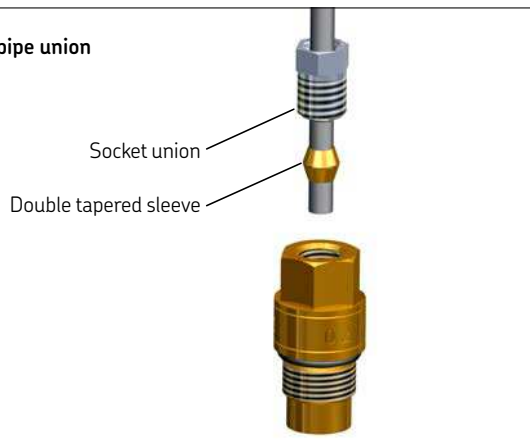
404-002-S3	4	M8 x1	12	4	8
406-002-S3	6	M10 x1	13	4	10
408-002-S3	8	M14 x1,5	16	4,5	14

Socket unions



LL-series (extra light version), L-series (light version)

Solderless pipe union



Installation (steel and copper tubing)

- 1 Push socket union and double tapered sleeve onto tube end.
- 2 Insert tube end into tapped port up to the stop.
- 3 First tighten socket union finger-tight by hand. Then turn another 1 1/2 turns.

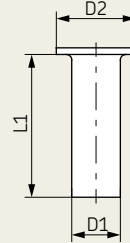
Accessories for tubes and hoses

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Reinforcing sockets (if plastic tubing is used)

Order No.	for tube	D1	D2	L1
Brass				
402-603	2.5×0.5	1.4	2.3	8
404-603	4×0.85	2.2	3.8	10
406-603	6×1	3.9	5.8	12
406-613	6×1.25	3.4	5.8	12
408-603	8×1.25	5.4	7.8	15
410-603	10×1.5	6.9	9.8	18
412-603	12×1.5	8.9	11.8	20

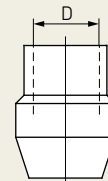
Reinforcing socket



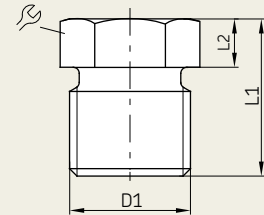
Tapered sleeves – DIN 3862

Order No.	for tube ø D
Brass	
402-611	2.5
404-611	4
406-611	6
408-611	8
410-611	10
412-611	12
Stainless steel	
404-611-S3	4

Tapered sleeve



Socket union



Socket unions – DIN 3871

Order No.	for tube ø	D1	L1	L2	⚡
Steel, galvanized surface					
402-612	2.5	M6×0.75	9	3	7
404-612	4	M8×1	12	4	8
406-612	6	M10×1	13	4	10
408-612	8	M14×1.5	16	4.5	14
410-612	10	M16×1.5	17	5.5	17
412-612	12	M18×1.5	18	6	19
Brass					
404-612-MS	4	M8×1	12	4	8
406-612-MS	6	M10×1	13	4	10
408-612-MS	8	M14×1.5	16	4.5	14
410-612-MS	10	M16×1.5	17	5.5	17
Stainless steel					
404-612-S3	4	M8×1	12	4	8

Solderless pipe union (plastic tubing)



Installation (plastic tubing)

- 1 Insert reinforcing socket into plastic tube.
- 2 Push socket union and tapered sleeve onto tube end.
- 3 Insert tube end into counterbored port up to the stop.
- 4 First tighten socket union finger-tight by hand. Then turn another 1 1/2 turns.

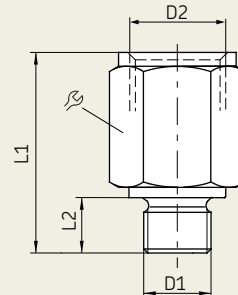
Accessories for tubes and hoses

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Adaptors with cylindrical thread to DIN 71428 (sealed by flat washer to DIN 7603)

Order No.	Tube ø	D1	D2	L1	L2	⌀
Steel, galvanized surface						
402-004	2.5	M6		13	5.5	9
402-003		M6×0.75	M6×0.75	13	5.5	9
402-006		M8×1		15	7.5	11
404-004		M8×1		24	14	11
404-005		M8×1		32	22	11
404-061		M5		20	5.5	11
404-063		M8		22	8	11
404-003	4	M8×1	M8×1	18	7.5	11
404-006		M10×1		18	7.5	14
404-040		G 1/8 A		18	8	14
404-162		M12×1		18	9	17
404-164		M14×1.5		18	9	17
406-158		M8×1		23	7.5	14
406-004		M10×1		18	7.5	14
406-162		M12×1		19	9	17
406-054	6	G 1/4 A	M10×1	20	10	17
301-005		M14×1.5		18	9	17
406-166		M16×1.5		19	9	19
406-055		G 3/8 A		21	10	22
408-004		M10×1		28	7.5	17
408-154		G 1/8 A		29	8	17
408-160		G 1/4 A		30	16	17
408-162		M12×1		29	9	17
301-020	8	G 1/4 A	M14×1.5	23	10	17
301-001		M14×1.5		26	9	17
408-005		M16×1.5		22	9	19
408-006		M18×1.5		22	10	22
408-022		M22×1.5		24	12	27
410-160		M10×1		30	7.5	19
410-162		M12×1		31	9	19
410-163		G 1/4 A		30	10	19
410-164		M14×1.5		29	9	19
410-169	10	G 1/4 A	M16×1.5	52	16	19
410-004		M16×1.5		23	9	19
410-018		M18×1.5		24	10	22
410-171		G 1/2 A		24	12	27
410-022		M22×1.5		24	12	27
412-162		M12×1		35	9	22
412-163		G 1/4 A		35	10	22
412-164		M14×1.5		33	9	22
412-169	12	G 1/4 A	M18×1.5	41	16	22
412-004		M18×1.5		24	10	22
412-014		M22×1.5		26	12	27

Adaptor



Adaptors with cylindrical thread to DIN 71428 (sealed by flat washer to DIN 7603)

Order No.	Tube ø	D1	D2	L1	L2	⌀
Brass						
301-134 ¹⁾	–	M10×1	G 1/4	23	7.5	17
301-034 ¹⁾	–	M14×1.5	G 1/4	22	9	17
267-001.17		G 1/8 A		24	8	14
406-163		M12×1		19	9	17
D301-005-MS	6	M14×1.5	M10×1	20	9	17
406-167		M16×1.5		19	9	19
267-001.19		M18×1.5		21	10	22
D408-004-MS		M10×1		29	7.5	17
D301-001-MS	8	M14×1.5	M14×1.5	28	9	17
D301-020-MS		G 1/4 A		30	10	17
267-001.13		G 1/8 A		24	12	27
Stainless steel						
404-162-S3	4	M12×1	M8×1	18	9	17
301-005-S3	6	M14×1.5	M10×1	18	9	17
406-004-S3	6	M10×1	M10×1	18	7.5	14
406-158-S3	6	M8×1	M10×1	23	7.5	14
301-020-S3	8	G 1/4 A	M14×1.5	23	10	17

1) Pressure gauge screws: pressure gauge screw unions → page 34.

Accessories for tubes and hoses

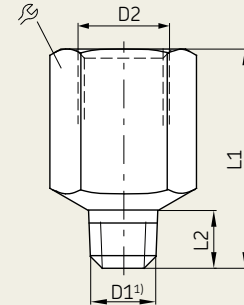
Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Adaptors with tapered thread

Tapered threads are used without washers;
sealed by tapered outer thread and sealant according to DIN 3852-1.
It is not necessary to provide the ports with seal faces.

Order No.	Tube ø	D1 ¹⁾	D2	L1	L2	⌀
Steel, galvanized surface						
402-003K	2.5	M6×0.75 tap.	M6×0.75	11.5	4.5	8
402-006K		M8×1 tap.		15	8	9
402-008K		M10×1 tap.		16	7.5	12
404-662K	4	M6 tap.	M8×1	19	5	11
404-663K		M6 tap.		20	6	11
404-673K		M6×0.75 tap.		20	6	11
404-047K		M7 tap.		20	6	11
404-003K		M8×1 tap.		17	7.4	11
404-045		M8×1 tap.		62.5	7.4	11
404-006K		M10×1 tap.		16	7.4	11
401-004-512		M10×1 tap.		25	7.4	11
404-040K		R 1/8 tap.		16	6	11
404-040K-US		1/8 NPTF		20	6.7	11
404-054K		R 1/4 tap.		14	9	14
404-072		1/4-28 UNF		20	5.6	11
401-004-903	1/4 BSF	20	5	11		
401-004-904	116 BSF	18	5	11		
406-004K	6	M10×1 tap.	M10×1	23	7.4	14
301-105K		M12×1 tap.		18	7.4	14
456-004K		R 1/8 tap.		21	6	14
406-054K		R 1/4 tap.		20	9	17

Adaptor



1) Tapered thread according to DIN 158, short, resp. according to DIN 2999

Reducing adapters with cylindrical thread (sealed by flat washer to DIN 7603)

Order No.	D1	D2	L1	L2	⌀	Figure
Steel, galvanized surface						
843-130-021	M3	M5	22	10	3 ²⁾	2
843-130-022	M4					
843-130-023	M5					
843-130-024	M3	M6×0,75	22	12	7	2
843-130-025	M4					
843-130-026	M5					
406-044-S1	M10×1 tap.					
P-78.01	M12×1	G 1/4	27	8.5	19	
401-013-161	G 1/4 A	G 1/2	40	12	27	
401-016-371	M16×1.5	G 1/4	30	12	19	
243-001.10	M16×1.5	G 1/2	31	9	27	
267-001.36	M18×1.5	G 3/8	32	10	22	
243-001.20	M18×1.5	G 1/2	32	10	27	
44-1755-2029	M20×1.5	G 1/4	28	12	24	
401-011-132	G 1/2 A	G 1	49	14	41	
433-890-131	G 1/2 A	G 1 1/4	53	14	55	
401-013-171	G 3/4 A	G 1/2	41	16	32	
401-013-111	G 1 A	G 1/2	29	18	41	
Brass, galvanized surface						
406-024	M10×1	G 1/8	20	8	14	3
Brass						
401-016-312	M10×1	G 1/4	26.5	7.5	17	3
401-019-352	M14×1,5	G 1/8	20	9	17	3
267-001.47	G 3/8 A	G 1/4	31	22	27	3
267-001.60		G 1/2	34	10	27	
401-019-132	G 1/2 A	G 1/8	24	27	3	
DZ333		G 1/4	24	27		
401-013-131		G 1/2	40,5	12		27
DZ334		G 3/8	31	27		
267-001.03		G 3/4	40	36		

2) With female thread

Figure 2

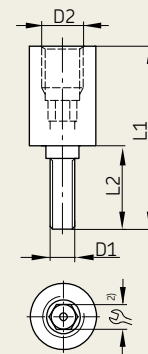
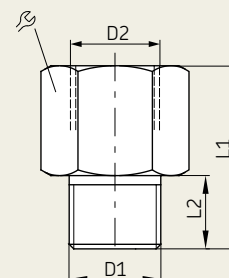


Figure 3



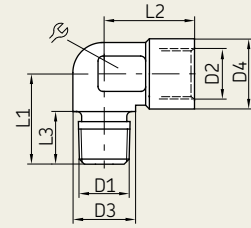
Accessories for tubes and hoses

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Elbows with tapered thread to DIN 71429 (→ Figure 4)

Order No.	Tube \varnothing	D1 ¹⁾	D2	D3	D4	L1	L2	L3	
Die-cast zinc									
504-510K	4	M10×1 tap.	M8×1	13	13	21	16	10	14
514-018K	4	R 1/8 tap.	M8×1	13	13	21	16	10	
506-508K	6	M8×1 tap.	M10×1	12,5	14	18	18	10,5	
506-510K	6	M10×1 tap.	M10×1	12,5	14	18	18	10,5	
506-512K	6	M12×1 tap.	M10×1	12,5	14	18	18	10,5	
508-512K	8	M12×1 tap.	M14×1,5	14	19,5	19,5	24	10	

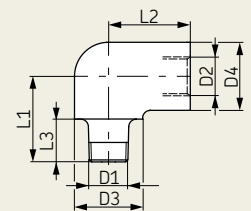
Figure 4



Elbows with tapered thread (→ Figure 5)

Order No.	Tube \varnothing	D1 ¹⁾	D2	D3	D4	L1	L2	L3	
Steel									
502-206K	2.5	M6 tap.	M6×0.75	–	8	10	9,5	6	
403-006-651	6	R 1/4 tap.	M10×1	14	14	17	17,5	8,5	
Brass									
506-202K	6	M10×1 tap.	M10×1	17	17	22	21	11	

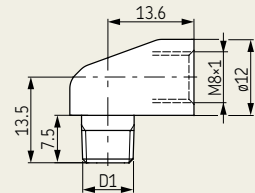
Figure 5



Elbows with tapered thread (→ Figure 6)

Order No.	Tube \varnothing	D1 ¹⁾
Brass		
504-200K		M6 tap.
504-201K		M8×1 tap.
504-202K	4	M10×1 tap.
504-203K		M6×0.75 tap.
514-018K-S1		R 1/8 tap.

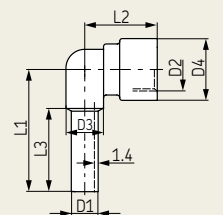
Figure 6



Elbows with tube end for pipe union (→ Figure 7) (for installation in counterbores as per DIN 3854/DIN 3862)

Order No.	Tube \varnothing	D1	D2	D3	D4	L1	L2	L3	
Brass									
DY958	6	6	M10×1	8	14	30.8	21	22	
DY960	8	8	M14×1.5	11	18	37	24.5	27	
DY961	10	10	M16×1.5	15	23	42.5	26.5	29	
DY962	12	12	M18×1.5	15	23	46	26.5	32	

Figure 7

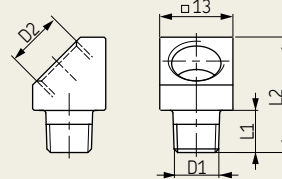


Elbows

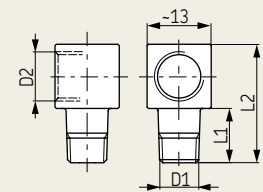
Order No.	D1	D2	L1	L2	Fig.
Steel, galvanized surface					
406-155K	R 1/8 tap.	M10×1	7.5	20.5	a
406-165K	R 1/8 tap.	G 1/8	7.5	20.5	a
406-145K	M8×1 tap.	M10×1	7.5	21	a
406-045K	M10×1 tap.	M10×1	7.5	21	a
406-094K	M8×1.25 tap.	M8×1.25	11	24	b
406-089K	M8×1 tap.	M10×1	11	24	b
406-090K	M10×1 tap.	M10×1	11	24	b
406-091K	R 1/8 tap.	G 1/8	11	24	b
406-092K	M10×1 tap.	M10×1	17	30	b
406-093K	R 1/8 tap.	M10×1	11	24	b

Elbow

a)



b)



1) Tapered thread according to DIN 158. short, resp. according to DIN 2999.

Accessories for tubes and hoses

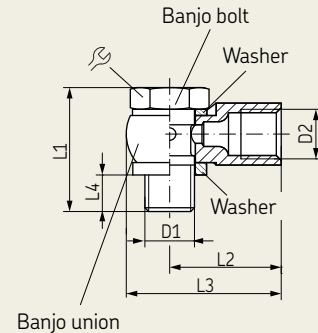
Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Banjo fittings to DIN 71430 Form A

Elbow										Banjo bolt 2)	Banjo union 3)
Order No.	Tube ø	D1	D2	L1	L2	L3	L4	β			
502-161 1)	2.5	M6	M6x0.75	20	13	19	4.5	9	502-056	502-051	
502-101 1)	2.5	M6x0.75	M6x0.75	18	13	19	5	9	502-053	502-051	
502-102 1)	2.5	M8x1	M6x0.75	20	14	21	6.5	11	502-054	502-052	
504-161 1)	4	M6	M8x1	20	17	24	4.1	9	502-056	504-651	
504-162 1)	4	M6x0.75	M8x1	18	17	24	4.5	9	502-053	504-651	
504-411 1)	4	M8	M8x1	23	18	25	7.5	11	502-154	504-851	
504-401 1)	4	M8x1	M8x1	20	18	25	7	11	502-054	504-851	
504-101	4	M8x1	M8x1	26	18	25	6.5	11	504-073	504-072	
504-102	4	M10x1	M8x1	26	19	27.5	6.5	14	504-054	504-052	
504-108	4	G 1/8 A	M8x1	27	19	27.5	6.8	14	504-027	504-052	
506-140	6	M10x1	M10x1	26	21	28.5	6.5	14	504-054	506-033	
506-142	6	M12x1	M10x1	34	25	35.2	7.5	17	558-012	506-030	
506-012	6	M14x1.5	M10x1	34	25	35.2	7.5	17	508-006	506-005	
506-145	6	M16x1.5	M10x1	35	30	41	8.7	19	510-017	506-034	
506-108	6	G 1/8 A	M10x1	27	21	28.5	7	14	504-027	506-033	
506-214	6	G 1/4 A	M10x1	35	25	35.2	8.5	17	508-023	506-005	
508-142	8	M12x1	M14x1.5	34	27	37	7.5	17	558-012	508-030	
508-144	8	M14x1.5	M14x1.5	34	27	37	7.5	17	508-006	508-007	
508-145	8	M16x1.5	M14x1.5	35	30	41	8.7	19	510-017	508-054	
508-024	8	G 1/4 A	M14x1.5	35	27	37	8.5	17	508-023	508-007	
510-142	10	M12x1	M16x1.5	34	30	40	7.5	17	558-012	510-041	
510-145	10	M16x1.5	M16x1.5	35	30	41	10.7	19	510-017	510-044	
510-024	10	G 1/4 A	M16x1.5	35	30	40	7.5	17	508-023	510-023	

1) Miniature design, banjo union steel

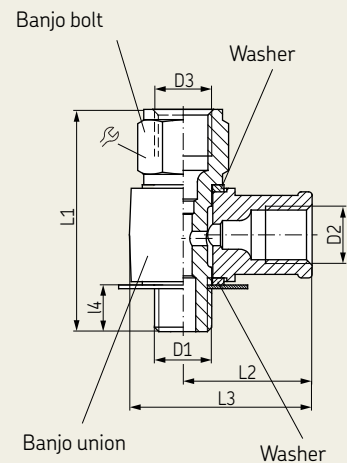
Banjo fitting Form A



Banjo fittings to DIN 71430 Form B

L-Form									Banjo bolt 2)	Banjo union 3)	
Order No.	Tube ø	D1	D2	D3	L1	L2	L3	L4	β		
504-114	4	M8x1	M8x1	M8x1	31	18	25.5	6.5	11	504-075	504-072
504-115	4	M10x1	M8x1	M8x1	31	19	27.5	6.5	14	504-056	504-052
504-105	4/6	M10x1	M8x1	M10x1	33	19	27.5	6.5	14	506-006	504-052
405-619-061	4/6	G 1/8 A	M8x1	M10x1	33	19	27.5	6.3	14	402-606-191	504-052
506-114	6	M10x1	M10x1	M10x1	33	21	28.5	6.3	14	506-006	506-033
506-342	6	M12x1	M10x1	M10x1	38	25	35.2	7.5	17	558-612	506-030
506-101	6	M14x1.5	M10x1	M10x1	40	25	35.2	7.5	17	508-303	506-005
586-342	6/8	M12x1	M10x1	M14x1.5	44	25	35.2	7.5	17	558-812	506-030
506-013	6/8	M14x1.5	M10x1	M14x1.5	43	25	35.2	7.5	17	508-008	506-005
506-345	6/10	M12x1	M10x1	M16x1.5	48.5	25	35	7.7	19	558-912	506-030
506-346	6/10	M16x1.5	M10x1	M16x1.5	50	30	41	8.7	19	510-010	506-034
508-342	8	M12x1	M14x1.5	M14x1.5	44	27	37	7.5	17	558-812	508-030
508-012	8	M14x1.5	M14x1.5	M14x1.5	43	27	37	7.5	17	508-008	508-007
508-034	8	G 1/4 A	M14x1.5	M14x1.5	44	27	37	7.5	17	508-033	508-007
568-342	8/6	M12x1	M14x1.5	M10x1	38	27	37	7.5	17	558-612	508-030
508-304	8/6	M14x1.5	M14x1.5	M10x1	40	27	37	7.5	17	508-303	508-007
508-345	8/10	M12x1	M14x1.5	M16x1.5	48.5	27	37	7.7	19	558-912	508-030
508-346	8/10	M16x1.5	M14x1.5	M16x1.5	50	30	41	8.7	19	510-010	508-054
510-342	10	M12x1	M16x1.5	M16x1.5	48.5	30	40	7.5	19	558-912	510-041
510-344	10	M16x1.5	M16x1.5	M16x1.5	50	30	41	8.7	19	510-010	510-044
510-343	10	G 1/4 A	M16x1.5	M16x1.5	48.5	30	40	7.5	19	558-913	510-023
510-346	10/6	M16x1.5	M16x1.5	M10x1	50	30	41	8.7	19	506-018	510-044
510-341	10/8	M12x1	M16x1.5	M14x1.5	44	30	40	7.5	17	558-812	510-041

Banjo fitting Form B



2) Material banjo bolt: steel, galvanized surface

3) Material banjo union: die-cast zinc

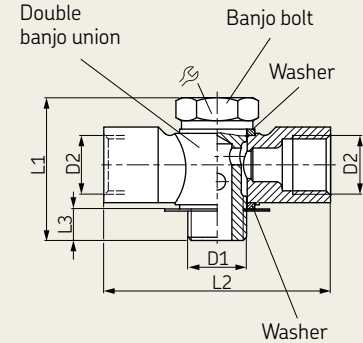
Accessories for tubes and hoses

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Banjo fittings to DIN 71430 Form C

Tee Order No.	Tube \varnothing	D1	D2	L1	L2	L3	\varnothing	Banjo bolt 1)	Double banjo union 2)
504-109	4	M8x1	M8x1	26	38	6.5	11	504-073	504-071
504-112	4	M10x1	M8x1	26	38	6.5	14	504-054	504-051
506-242	6	M12x1	M10x1	34	48	7.5	17	558-012	506-032
506-025	6	M14x1.5	M10x1	34	48	7.5	17	508-006	506-007
508-242	8	M12x1	M14x1.5	34	54	7.5	17	558-012	508-032
508-013	8	M14x1.5	M14x1.5	34	54	7.5	17	508-006	508-005
508-025	8	G 1/4A	M14x1.5	35	54	7.5	17	508-023	508-005
510-242	10	M12x1	M16x1.5	34	60	7.5	17	558-012	510-042

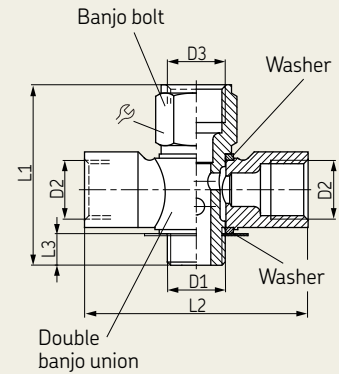
Banjo fitting Form C



Banjo fittings to DIN 71430 Form D

Cross Order No.	Tube \varnothing	D1	D2	D3	L1	L2	L3	\varnothing	Banjo bolt 1)	Double banjo union 2)
504-110	4	M8x1	M8x1	M8x1	31	38	6.5	11	504-071	504-071
504-111	4	M10x1	M8x1	M8x1	31	38	6.5	14	504-056	504-051
504-106	4/6	M10x1	M8x1	M10x1	33	38	6.5	14	506-006	504-051
506-442	6	M12x1	M10x1	M10x1	38	48	7.5	17	558-612	506-032
506-014	6	M14x1.5	M10x1	M10x1	40	48	7.5	17	508-303	506-007
586-442	6/8	M12x1	M10x1	M14x1.5	44	48	7.5	17	558-812	506-032
506-026	6/8	M14x1.5	M10x1	M14x1.5	43	48	7.5	17	508-008	506-007
508-442	8	M12x1	M14x1.5	M14x1.5	44	54	7.5	17	558-812	508-032
508-014	8	M14x1.5	M14x1.5	M14x1.5	43	54	7.5	17	508-008	508-005
568-442	8/6	M12x1	M14x1.5	M10x1	38	54	7.5	17	558-612	508-032
508-305	8/6	M14x1.5	M14x1.5	M10x1	40	54	7.5	17	508-303	508-005
510-442	10	M12x1	M16x1.5	M16x1.5	48.5	60	7.5	19	558-912	210-042

Banjo fitting Form D

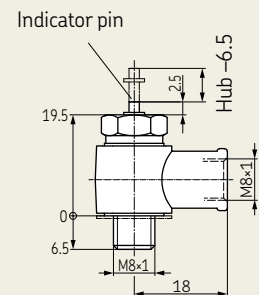


- 1) Material banjo bolt: steel, galvanized surface
- 2) Material banjo union: die-cast zinc

Banjo fitting with indicator pin for lubricant distributor

Order No.	Tube \varnothing
169-200-008	4

Banjo fitting with indicator pin



Accessories for tubes and hoses

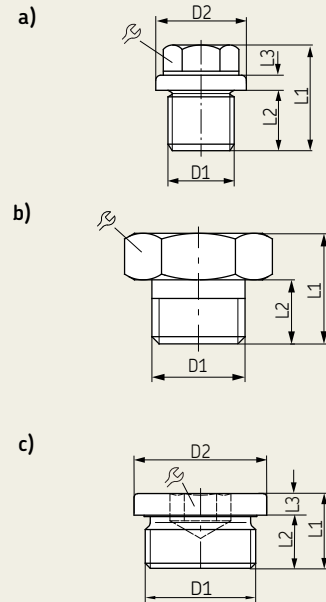
Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Screw plugs (sealed by flat washer to DIN 7603)

Order No.	D1	D2	L1	L2	L3	⌀	Fig.
Steel, galvanized surface							
DIN910-R1-8-5.8	G 1/8 A	14	17	8	3	11	a
DIN910-R1-4x8-5.8	G 1/4 A	18	17	8	3	14	
DIN910-R3-8-5.8	G 3/8 A	22	21	12	3	17	
DIN910-R1-2-5.8	G 1/2 A	26	26	14	4	19	
DIN910-R3-4-5.8	G 3/4 A	32	30	16	4	24	
DIN910-R1-5.8	G 1 A	39	32	16	5	27	
402-011	M6x0.75	-	9	5	-	10	b
404-011	M8x1	-	9.5	5.5	-	11	
406-011	M10x1	-	12	7	-	12	
408-211	M12x1	-	12	7	-	17	
408-011	M14x1.5	-	12	7	-	17	c
410-011	M16x1.5	-	14	8	-	19	
412-011	M18x1.5	-	15	10	-	22	
DIN 908-M10x1-5.8	M10x1	14	11	8	3	5 ¹⁾	c
DIN 908-M12x1.5-5.8	M12x1.5	17	15	12	3	6 ¹⁾	
DIN 908-M14x1.5-5.8	M14x1.5	19	15	12	3	6 ¹⁾	
DIN 908-G1-8A-5.8	G 1/8 A	14	11	8	3	5 ¹⁾	c
DIN 908-G1-4A-5.8	G 1/4 A	18	15	12	3	6 ¹⁾	
DIN 908-G3-8A-5.8	G 3/8 A	22	15	12	3	8 ¹⁾	

1) Hexagon socket

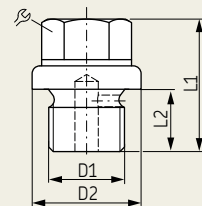
Screw plugs



Vent plugs (sealed by flat washer to DIN 7603)

Order No.	D1	D2	L1	L2	⌀
Steel, galvanized surface					
833-020-022	M8x1	12	13.5	7.5	11
833-330-016	M10x1	14	17	8	11
44-1855-6021	M12x1	17	13.5	7.5	17
833-330-021	G 1/8 A	14	17	8	11
833-340-034	G 1/4	18	17	8	14

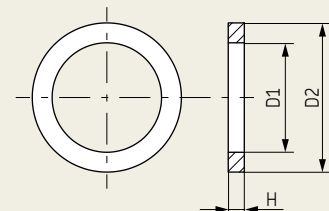
Vent plug



Flat washers

Order No.	D1	D2	H	Suitable for thread mm	inches
Aluminum					
504-019-AL	10.2	13.9	1.1	M10	G 1/8
Copper					
DIN7603-A6x10-CU	6.2	9.9	1	M6	-
DIN7603-A8x11.5-CU	8.2	11.4	1	M8	-
504-019	10.2	13.9	1.1	M10	-
508-215-CU	12.2	15.9	1.4	M12	-
508-320-CU	12.2	15.9	2	M12	-
DIN7603-A12x18-CU	12.2	14.9	1	M12	-
508-108	13.3	17.9	1.5	-	G 1/4
DIN7603-A14x18-CU	14.2	17.9	1.5	M14	-
DIN7603-A16x20-CU	16.2	19.9	1.5	M16	-
DIN7603-A17x21-CU	17.2	20.9	1.5	-	G 3/8
DIN7603-A18x22-CU	18.2	21.9	1.5	M18	-
DIN7603-A20x24-CU	20.2	23.9	1.5	M20	-
DIN7603-A21x26-CU	21.2	25.9	1.5	-	G 1/2
DIN7603-A22x27-CU	22.2	26.9	1.5	M22	-
DIN7603-A27x32-CU	27.3	31.9	2	M27	-
DIN7603-A30x36-CU	30.3	35.9	2	M30	-
DIN7603-A33x39-CU	33.3	38.9	2	M33	-

Flat washer



More screw plugs → page 48

Accessories for tubes and hoses

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Threaded sockets (→ Figure 8)

Order No.	D1	L1	⌀
Steel			
404-203	M8×1	13	3.5
406-203	M10×1	15	3.5
406-243-B 1)	M10×1	18	3.5
408-243-B 1)	M12×1	19	5.5
458-012	M12×1	17	5.5
458-012-B 1)	M12×1	17	5.5
408-023	M14×1.5	18	5.5
410-003	M16×1.5	19	7
410-003-B 1)	M16×1.5	19	7

Stainless steel

408-033-S3 G 1/4 A 15 5.5

1) Coated with microencapsulated adhesive

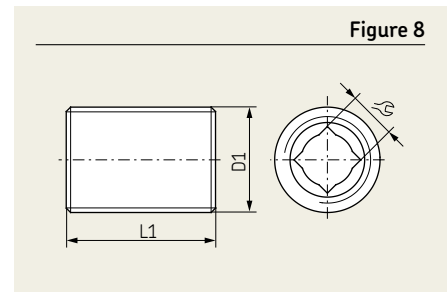


Figure 8

Threaded sockets

Order No.	D1	D2	D3	L1	L2	⌀	Figure
Steel, galvanized surface							
406-103	M10×1	M12×1	5	20	6	14	9
408-103	M12×1	M14×1.5	6	21	7	17	
853-750-024	G 1/4 A	G 1/4 A	7	31	10.5	19	
Brass							
406-233	M6 tap.	-	4	26	-	-	10

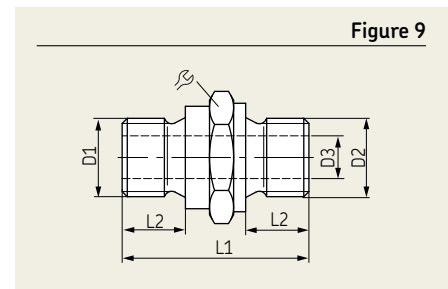
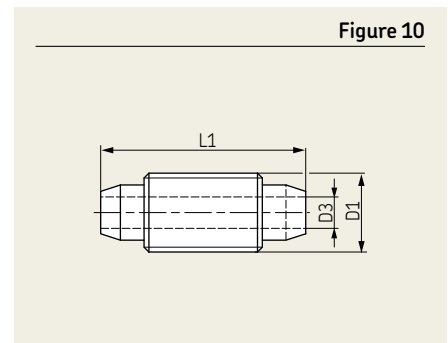


Figure 9

Figure 10



Threaded sockets with profile sealing according to DIN 3869 (→ Figure 11)

Order No.	D1	D2	L1	L2	L3	⌀	Seal
Steel, galvanized surface							
402-116-161	G 1/4 A	G 1/4 A	29	10	10	19	NBR
402-116-165	G 1/2	G 1/2	37	10	12	32	

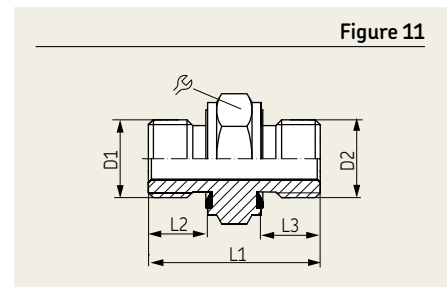


Figure 11

Threaded sockets with profile sealing according to DIN 3869 (→ Figure 12)

Leak-free connectors with soft seal. continuously adjustable

Order No.	D1	D2	L1	L2	L3	⌀1	⌀2	⌀3	Seal
Steel, galvanized surface									
995-014-014	G 1/4	G 1/4	26	8	8	4	24	5	
Brass									
995-340-000	M10×1	M10×1	19.5	6.5	6.5	4	16	4	NBR
995-340-350	M10×1	M12×1	21	6.5	7.2	4	19	5	
995-350-000	M12×1	M12×1	21.5	7	7.2	5	19	5	
995-340-000-S8	M10×1	M10×1	19.5	6.5	6.5	4	16	4	FKM
995-340-350-S8	M10×1	M12×1	21	6.5	7.2	4	19	5	
995-350-000-S8	M12×1	M12×1	21.5	7	7.2	5	19	5	

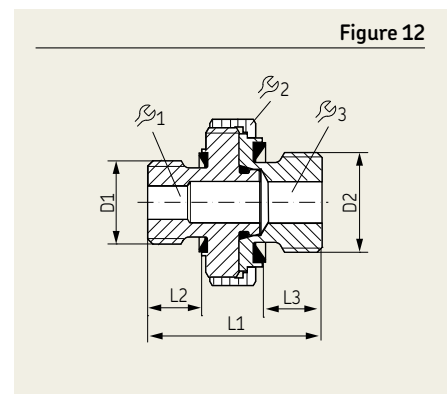


Figure 12

Accessories for tubes and hoses

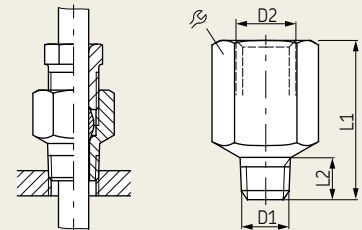
Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Bulkhead connectors with tapered thread (for tight tube feedthrough through a wall without tube discontinuity)

Order No.	Tube \varnothing	D1 ¹⁾	D2	L1	L2	ρ
Steel, galvanized surface						
404-003DK	4	M8x1 tap.	M8x1	17	7.4	11
404-006DK	4	M10x1 tap.	M8x1	16	7.4	11
406-004DK	6	M10x1 tap.	M10x1	18	7.4	14
301-001DK	8	M14x1.5 tap.	M14x1.5	24	11	17
410-004DK	10	M16x1.5 tap.	M16x1.5	24	11	19

1) Tapered thread according to DIN 158. short

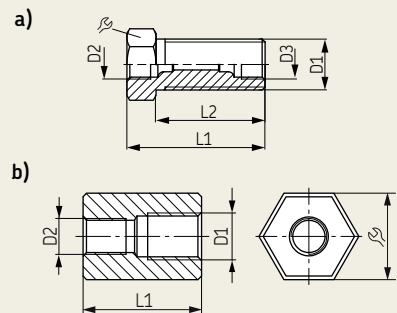
Bulkhead connector



Straight bulkhead fittings according to DIN 71429 Form A

Order No.	Tube \varnothing	D1	D2	D3	L1	IL2	ρ	Fig.
Steel, galvanized surface								
404-008	4	M14x1.5	M8x1	M8x1	27	19	17	
404-009	4	M14x1.5	M8x1	M8x1	38	30	17	
406-008	6	M14x1.5	M10x1	M10x1	30	20	17	
406-005	6 / 8	M16x1.5	M14x1.5	M10x1	35	23	19	a
408-008	8	M20x1.5	M14x1.5	M14x1.5	40	28	24	
410-008	10	M20x1.5	M16x1.5	M16x1.5	42	27	24	
412-008	12	M24x1.5	M18x1.5	M18x1.5	48	33	27	
44-1755-2019	4	G 1/4	M10x1	-	33		24	b

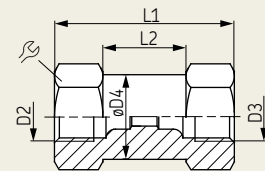
Straight bulkhead fitting



Connectors

Order No.	Tube \varnothing	D2	D3	\varnothing D4	L1	L2	ρ
Steel, galvanized surface							
404-010	4	M8x1	M8x1	10.8	27	13	11
406-010	6	M10x1	M10x1	13.8	30	10	14
406-805	6 / 8	M14x1.5	M10x1	16.8	35	11	17
408-010	8	M14x1.5	M14x1.5	16.8	40	14	17
410-010	10	M16x1.5	M16x1.5	18.8	42	13	19
412-010	12	M18x1.5	M18x1.5	21.8	48	18	22

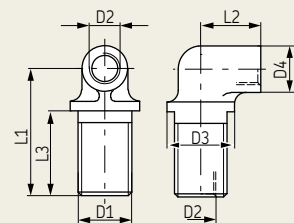
Connector



Elbow bulkhead fittings according to DIN 71429 Form B

Order No.	Tube \varnothing	D1	D2	D3	D4	L1	L2	L3
Die-cast zinc								
504-003	4	M14x1.5	M8x1	18	12	33	16	22
Brass								
504-103	4	M14x1.5	M8x1	18	12	33	18	22
506-004	6	M14x1.5	M10x1	16.5	14	27	17.5	15

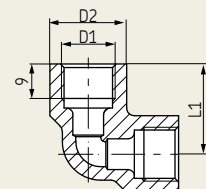
Elbow bulkhead fitting



Elbows to DIN 71433 Form C

Order No.	Tube \varnothing	D1	D2	L1
Die-cast zinc				
408-013	8	M14x1.5	20	23.5
410-013	10	M16x1.5	21	26

Elbow



Accessories for tubes and hoses

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Tee connectors to DIN 71433

Order No.	Tube \varnothing	D1	D2	D3	L1	L2	Fig.
Die-cast zinc							
Form A							
504-008	4	M8x1	M8x1	12	15	30.5	a
506-008	6	M10x1	M10x1	14	18	36	
510-102	10	M16x1.5	M16x1.5	20	25	50	
Form B							
506-408	6/4	M10x1	M8x1	14	18	36	

Tee connectors to DIN 71433

Order No.	Tube \varnothing	D2	Fig.
Die-cast zinc			
Form B			
508-602-2	8/6	M10x1	b
Form A			
508-002-2	8	M14x1.5	

Tee connectors to DIN 71433 Form A

Order No.	Tube \varnothing	Fig.
Die-cast zinc		
504-045	4	c
Brass		
DY964	6	d

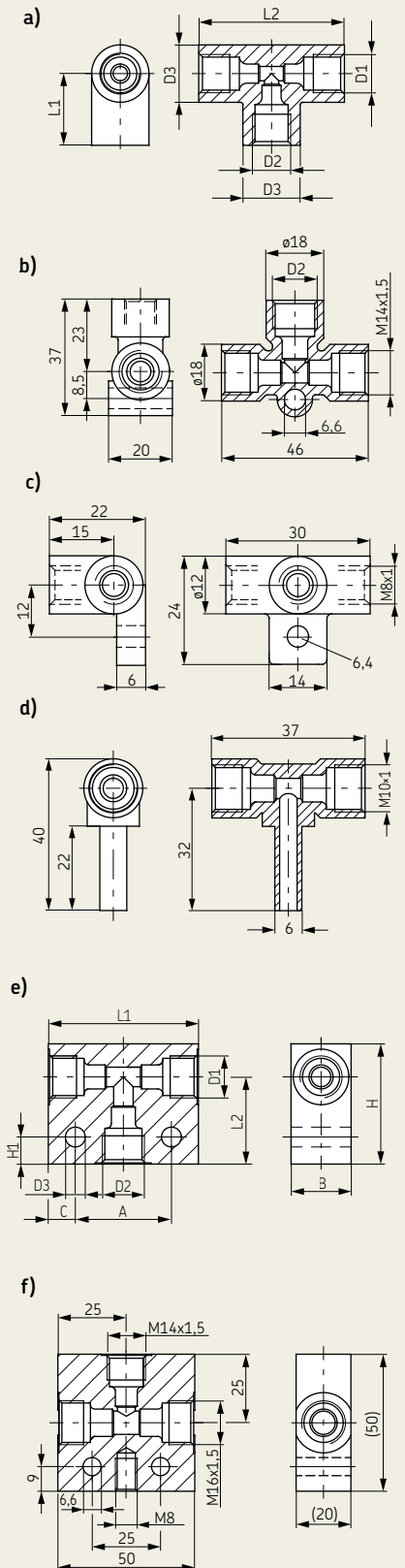
Tee connectors to DIN 71433

Order No.	Tube \varnothing	D1	D2	D3	A	B	C	H	H1	L1	L2	Fig.
Aluminum												
Form A												
DAT506	6	M10x1	M10x1	6.6	22	20	9	30	9	40	20	e
DAT508	8	M14x1.5	M14x1.5	6.6	32	20	9	40	9	50	29	
DAT512	12	M18x1.5	M18x1.5	6.6	42	25	9	40	9	60	29	
Form B												
DAT510-S5	6	M16x1.5	M10x1	7	25	25	13.5	40	15	52	29	
Steel, galvanized surface												
Form A												
DAT510	10	M16x1.5	M16x1.5	7	25	20	13.5	40	15	52	29	e

Tee connectors to DIN 71433 Form B

Order No.	Tube \varnothing	Fig.
Steel, galvanized surface		
DAT510-S1	8 (1x) 10 (2x)	f

Tee connectors



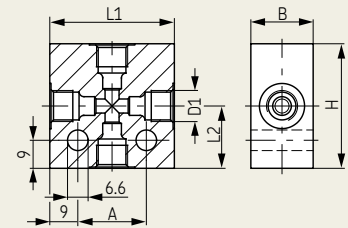
Accessories for tubes and hoses

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Cross joints

Order No.	Tube \varnothing	D1	A	B	H	L1	L2
Aluminum							
DAK504-S1	4/6	M10x1/ M8x1	22	20	40	40	20
DAK506	6	M10x1	22	20	40	40	20
DAK508	8	M14x1.5	32	20	50	50	25
DAK510	10	M16x1.5	25	20	56	50	28
DAK512	12	M18x1.5	42	25	60	60	30

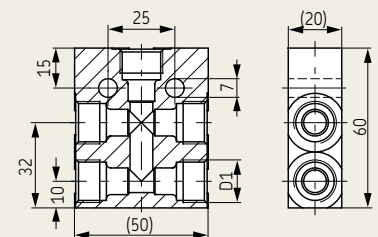
Cross joint



Cross joint

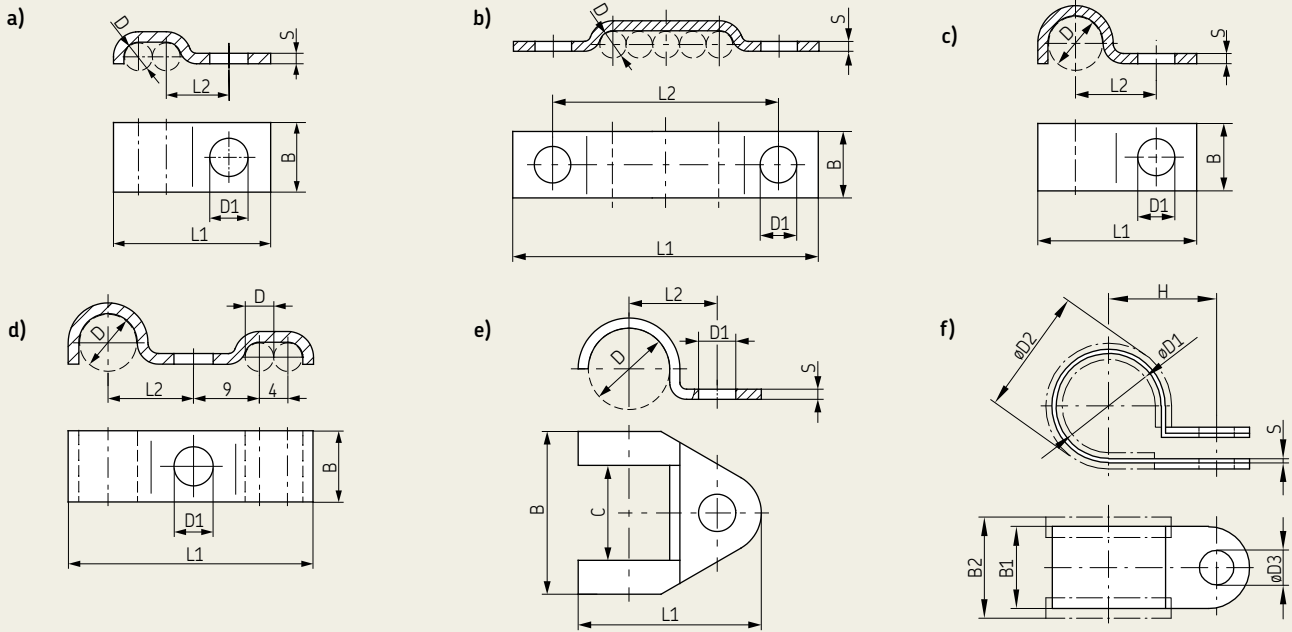
Order No.	Tube \varnothing	D1
Steel, galvanized surface		
DAK510-S1	10	M16x1.5

Cross joint DAK510-S1



Accessories for tubes and hoses

Fixing clips



Fixing clips

Order No.	for tube øD	for tube	B	D1	L1	L2	S	Fig.
Mild steel								
602-002	2.5	2		3.5	13.8	5		
604-002	4	2	10	5.5	22.6	9	1.5	a
604-003	4	3		5.5	26.6	9		
604-014	4	4			42	30		
604-015	4	5			46	34		
604-016	4	6	10	5.5	50	38	1.5	b
604-018	4	8			58	46		
DIN 72573-2x6-ST	6	2			39	27		
DIN 72573-3x6-ST	6	3			45	33		
DIN 72573-4x6-ST	6	4			51	39		
DIN 72573-5x6-ST	6	5			57	45		
DIN 72573-6x6-ST	6	6			64	52		
DIN 72573-2x8-ST	8	2			43	31		
DIN 72573-3x8-ST	8	3	10	4.8	51	39	1	b
DIN 72573-4x8-ST	8	4			59	47		
DIN 72573-5x8-ST	8	5			68	56		
DIN 72573-6x8-ST	8	6			76	64		
DIN 72573-2x10-ST	10	2			45	33		
DIN 72573-3x10-ST	10	3			55	43		
DIN 72573-4x10-ST	10	4			67	55		
DIN 72573-5x10-ST	10	5			77	65		
Stainless steel								
DIN72571-1x6	6	1			20.5	10		
DIN72573-1x6	6	1			32	20		
DIN72573-2x6	6	2			38	26		
DIN72573-3x6	6	3	10	4.8	45	33	1	b
DIN72573-4x6	6	4			51	39		
DIN72573-5x6	6	5			57	45		
DIN72573-6x6	6	6			64	52		

Fixing clips

Order No.	for tube øD	B	C	D1	L1	L2	S	Fig.
Steel								
602-001	2.5			3.5	11.25	5		
604-001	4			5.5	18.5	9		
606-010	6	10	-	5.5	20.5	10	1.5	c
608-001	8			5.5	23.5	12		
610-001	10 or 1/8"			5.5	25.5	13		
612-001	12	20	-	6.8	35	18	2	c
608-003	8 / 4	10	-	5.5	34	12	1.5	d
604-004	12	24	14	5.5	27	13	1.5	
606-014	14 or 1/4"	30	15	6.3	32.5	16	2	e
608-004	18 or 3/8"	36	20	7	40	21	2	
610-004	20 or 1/2"	36	20	7	40	21	2	

Fixing clips

Order No.	ø D1	ø D2	ø D3	B1	B2	H	S	Fig.
Steel, galvanized								
941-206-104	6	11.8	5.2	12	15	11	0.5	
941-206-108	6	11.8	6.4	15	18.5	4.2	0.6	
941-208-108	8	15.4	6.4	15	18.5	15.2	0.6	
941-209-104	9	5	5.2	12	5	12.5	0.5	
941-209-105	9	15	6.4	15	18.5	15.7	0.6	
941-210-104	10	17.4	6.4	15	18.5	16.2	0.6	
941-212-104	12	19.4	6.4	15	18.5	17.2	0.6	
941-213-104	13	20.4	6.4	15	18.5	7.7	0.6	f
941-215-104	15	22.4	6.4	5	18.5	18.7	0.8	
941-217-104	17	23	5.2	12	15	16.5	0.5	
941-217-105	17	23	6.4	15	8.5	19.7	0.8	
941-218-101	18	24	6.4	15	8.5	20.2	0.6	
941-220-104	20	27.6	6.4	15	8.5	21.2	0.8	
941-222-100	22	28	6.4	15	18.5	22.2	0.8	
941-225-104	25	31	6.4	15	18.5	23.7	0.8	

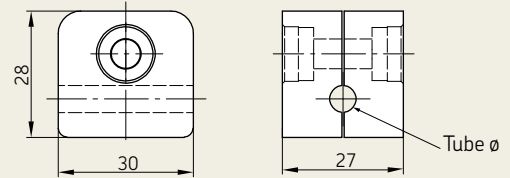
Accessories for tubes and hoses

Pipe bracket to DIN 3015

Order No. Tube \varnothing

941-606-000	6
941-608-000	8
941-610-000	10

Pipe bracket 941-606-000

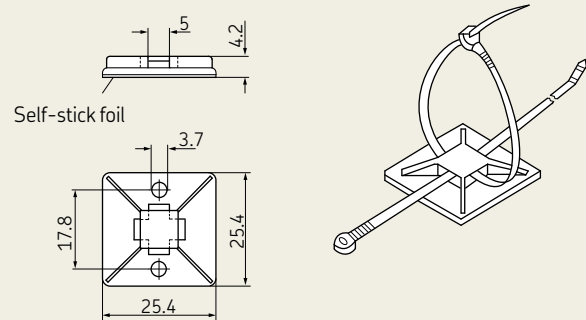


Mounting base

Order No.

179-990-186

Mounting base



Cable strap

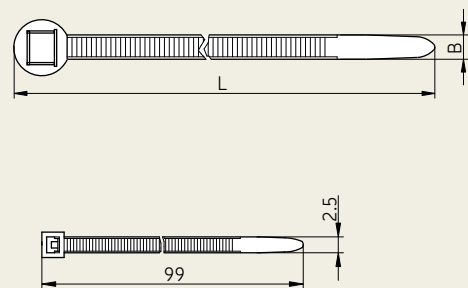
Order No. L B

Polyamide		
898-610-000	197	4.9
898-710-000	302	4.9
898-710-001	360	7.5

For automatic pincers:

Polyamide		
898-510-002		2 rolls of 5 000 pieces
898-510-000		1 piece

Cable strap



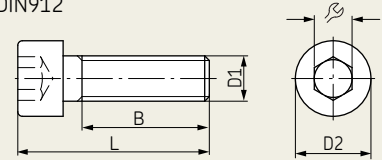
Accessories for tubes and hoses

Fixing bolts

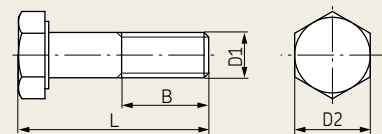
Order No.	D1	L	D2	B	⌀
Steel					
DIN912-M4×20-8.8	M4	20	7	14	3
DIN912-M6×16-8.8	M6	16	10	18	5
DIN912-M6×25-8.8	M6	25	10	18	5
DIN912-M6×60-8.8	M6	60	10	18	5
DIN912-M8×16-8.8	M8	16	13	12	6
DIN931-M6×30-5.8	M6	30	10	18	10
DIN933-M4×10-8.8	M4	10	7	14	-
DIN933-M5×12-8.8	M5	12	8	16	-
DIN933-M6×16-8.8	M6	16	10	18	-
DIN933-M6×20-8.8	M6	20	10	18	-
DIN933-M6×25-8.8	M6	25	10	18	-
DIN933-M8×20-8.8	M8	20	13	22	-
DIN933-M8×25-8.8	M8	25	13	22	-
DIN933-M10×40-8.8	M10	40	17	26	-
DIN7513-BM4×20	M4	20	7	-	-
DIN7513-BM4×25	M4	25	7	-	-
DIN7513-BM5×10	M5	10	8.5	-	-
DIN7513-BM6×16	M6	16	10	-	-
DIN7513-BM6×25	M6	25	10	-	-
Stainless steel					
DIN912-M3×8-A4	M3	8	-	-	-
DIN912-M4×12-A4	M4	12	-	-	-
DIN912-M5×10-A2	M5	10	-	-	-

Fixing bolts

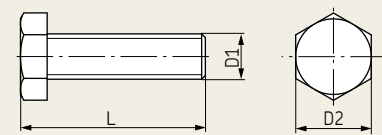
DIN912



DIN931 / DIN933



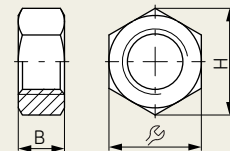
DIN7513



Hexagon nuts

Order No.	Thread	B	⌀	H
Steel				
DIN934-M5-8	M5	4	8	9.2
DIN934-M6-8	M6	5	10	11.5
DIN936-M14×1.5-5	M14×1.5	8	22	25.4
DIN936-M16×1.5-5	M16×1.5	8	24	27.7
DIN936-M20×1.5-5	M20×1.5	9	30	34.6
DIN985-M3-6	M3	2.7	5.5	6
DIN985-M5-6	M5	3.5	8	8.8
DIN985-M6-6	M6	4.5	10	11
DIN985-M8-6	M8	6	13	14.4
DIN985-M10-6	M10	7	17	19
DIN985-M12-6	M12	9	19	21
DIN985-M16-6	M16	11	24	26.8

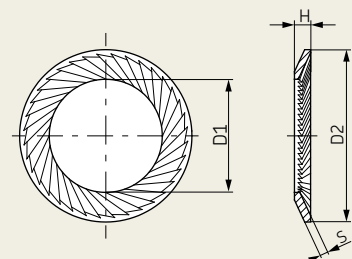
Hexagon nut



Lock washer

Order No.	for bolt	D1	D2	S	H
Spring steel					
650-050	M5	5.3	9	0.6	0.9
650-060	M6	6.4	10	0.7	0.9
650-080	M8	8.4	13	0.8	1.2
650-100	M10	10.5	16	1	1.5
650-120	M12	13	18	1.1	1.5
650-140	M14	15	22	1.2	1.8
650-160	M16	17	24	1.3	1.9
650-180	M18	19	27	1.5	2.2
650-200	M20	21	30	1.5	2.2

Lock washer



Distributor manifolds

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Standard manifolds in conjunction with metering units, configurable → pages 21–23 (→ www.skf-lubrication.partcommunity.com)

Order code

Product series

Number of ports

Design of outlet thread

Material

Design of main line connection



Product series

Number of ports

01 = 1 port 03 = 3 ports 05 = 5 ports 08 = 8 ports
 02 = 2 ports 04 = 4 ports 06 = 6 ports 10 = 10 ports

Design of outlet thread

A = Normal profile, M8×1 with counterbore for O-ring
 B = Normal profile, M10×1 with counterbore for O-ring
 C = Normal profile, M14×1.5 with counterbore for flat washer
 D = Small profile, M8×1 with counterbore for flat washer (can only be selected for main line connection M3)
 E = Small profile, M10×1 with counterbore for flat washer (can only be selected for main line connection M3)
 F = Normal profile, M8×1 with counterbore for flat washer
 G = Normal profile, M10×1 with counterbore for flat washer

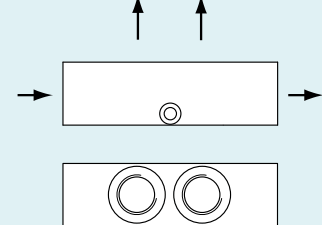
Material

A = Aluminum; E = Stainless steel (only for outlet threads A, B, E, G)

Design of main line connection

G1 = G 1/8 to DIN 3852-2, Form X, small
 G2 = G 1/4 to DIN 3852-2, Form X, small
 M1 = M10×1 to DIN 3852-1, Form X, small
 M2 = M14×1.5 to DIN 3852-1, Form X, small
 M3 = M10×1 with counterbore for solderless pipe connection per DIN 3862
 M4 = M14×1.5 with counterbore for solderless pipe connection per (can only be selected for normal profile)

Order example



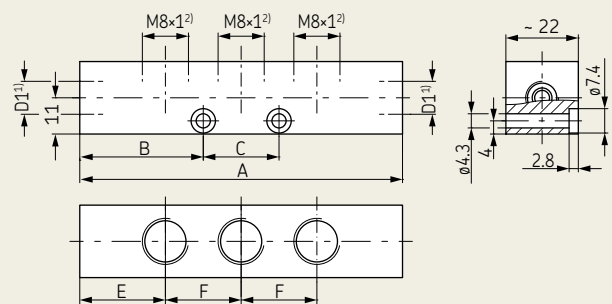
VL-02AAM3

- Product series VL
- 2 ports
- Normal profile made of aluminum
- M8×1 internal thread with counterbore for O-ring
- M10×1 main line connection with counterbore for solderless pipe connection per DIN 3862

Distributor manifold, normal profile A/F

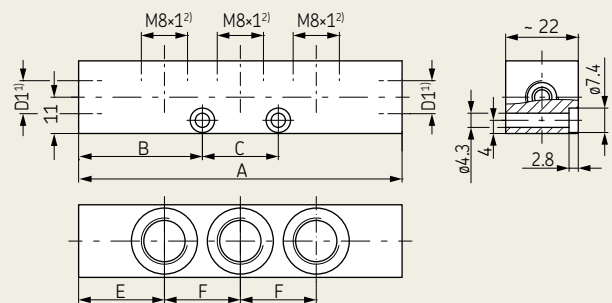
Main line connection D1	Number of ports	Dimensions [mm]			E	F
		A	B	C		
M10×1 (M3)	1	40	20	–	20	–
	2	55	27.5	–	20	1x 15
	3	70	27.5	15	20	2x 15
	4	85	27.5	30	20	3x 15
	5	100	27.5	45	20	4x 15
	6	115	27.5	60	20	5x 15
	8	145	27.5	90	20	7x 15
M10×1 (M1) G 1/8 (G1)	1	34	17	–	17	–
	2	49	24.5	–	17	1x 15
	3	64	24.5	15	17	2x 15
	4	79	24.5	30	17	3x 15
	5	94	24.5	45	17	4x 15
	6	109	24.5	60	17	5x 15
	8	139	24.5	90	17	7x 15
M14×1.5 (M4)	1	48	24	–	24	–
	2	63	31.5	–	24	1x 15
	3	78	31.5	15	24	2x 15
	4	93	31.5	30	24	3x 15
	5	108	31.5	45	24	4x 15
	6	123	31.5	60	24	5x 15
	8	153	31.5	90	24	7x 15
M14×1.5 (M2) G 1/4 (G2)	1	46	23	–	23	–
	2	61	30.5	–	23	1x 15
	3	76	30.5	15	23	2x 15
	4	91	30.5	30	23	3x 15
	5	106	30.5	45	23	4x 15
	6	121	30.5	60	23	5x 15
	8	151	30.5	90	23	7x 15
10	181	30.5	120	23	9x 15	

Distributor manifold, normal profile A



- 1) For solderless pipe connection per DIN 3862
- 2) DIN 3852-3 Form W

Distributor manifold, normal profile F



- 1) For solderless pipe connection per DIN 3862
- 2) DIN 3852-1 Form XK

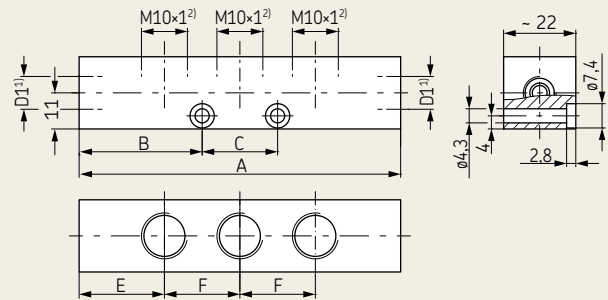
Distributor manifolds

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Distributor manifold, normal profile B/G

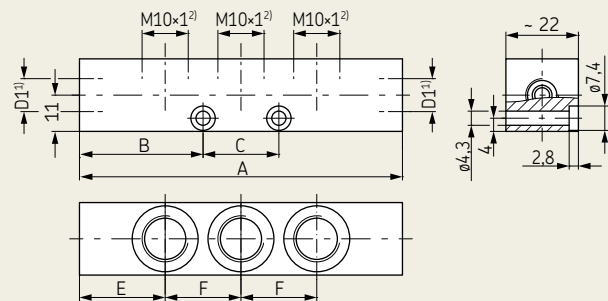
Main line connection D1	Number of ports	Dimensions [mm]			E	F
		A	B	C		
M10×1 (M3)	1	40	20	–	20	–
	2	57	28.5	–	20	1x 17
	3	74	28.5	17	20	2x 17
	4	91	28.5	34	20	3x 17
	5	108	28.5	51	20	4x 17
	6	125	28.5	68	20	5x 17
	8	159	28.5	102	20	7x 17
10	193	28.5	136	20	9x 17	
M10×1 (M1) G 1/8 (G1)	1	34	17	–	17	–
	2	51	25.5	–	17	1x 17
	3	68	25.5	17	17	2x 17
	4	85	25.5	34	17	3x 17
	5	102	25.5	51	17	4x 17
	6	119	25.5	68	17	5x 17
	8	153	25.5	102	17	7x 17
10	187	25.5	136	17	9x 17	
M14×1.5 (M4)	1	52	26	–	26	–
	2	69	34.5	–	26	1x 17
	3	86	34.5	17	26	2x 17
	4	103	34.5	34	26	3x 17
	5	120	34.5	51	26	4x 17
	6	137	34.5	68	26	5x 17
	8	171	34.5	102	26	7x 17
10	205	34.5	136	26	9x 17	
M14×1.5 (M2) G 1/4 (G2)	1	46	23	–	23	–
	2	63	31.5	–	23	1x 17
	3	80	31.5	17	23	2x 17
	4	97	31.5	34	23	3x 17
	5	114	31.5	51	23	4x 17
	6	131	31.5	68	23	5x 17
	8	165	31.5	102	23	7x 17
10	199	31.5	136	23	9x 17	

Distributor manifold, normal profile B



- 1) For solderless pipe connection per DIN 3862
- 2) DIN 3852-3 Form W, small

Distributor manifold, normal profile G

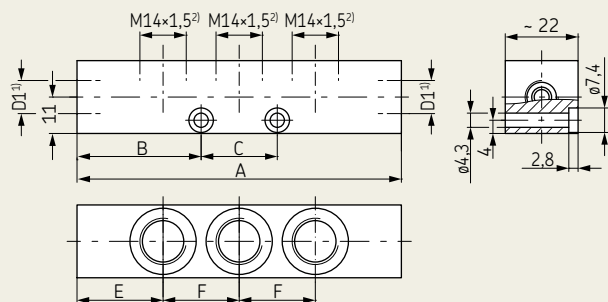


- 1) For solderless pipe connection per DIN 3862
- 2) DIN 3852-1 Form XK, small

Distributor manifold, normal profile C

Main line connection D1	Number of ports	Dimensions [mm]			E	F
		A	B	C		
M10×1 (M3)	1	60	18	24	30	–
	2	70	35	–	23	1x 24
	3	94	35	24	23	2x 24
	4	118	35	48	23	3x 24
	5	142	35	72	23	4x 24
	6	166	35	96	23	5x 24
	8	214	35	144	23	7x 24
10	262	35	192	23	9x 24	
M14×1.5 (M4)	1	68	22	24	34	–
	2	78	39	–	27	1x 24
	3	102	39	24	27	2x 24
	4	126	39	48	27	3x 24
	5	150	39	72	27	4x 24
	6	174	39	96	27	5x 24
	8	222	39	144	27	7x 24
10	270	39	192	27	9x 24	

Distributor manifold, normal profile C



- 1) For solderless pipe connection per DIN 3862
- 2) DIN 3852-1 Form XK, small

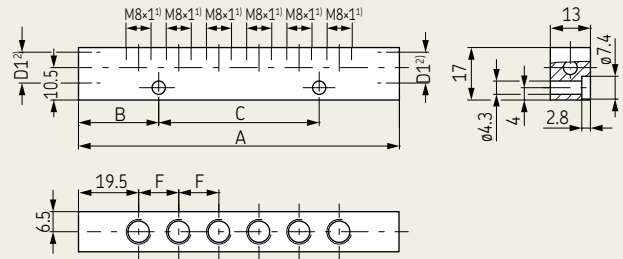
Distributor manifolds

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Distributor manifold, small profile D

Main line connection D1	Number of ports	Dimensions [mm]			
		A	B	C	F
M10×1 (M3)	1	39	19,5	–	–
	2	52	26	–	1x 13
	3	65	32,5	–	2x 13
	4	78	39	–	3x 13
	5	91	45,5	–	4x 13
	6	104	26	52	5x 13
	8	130	39	52	7x 13
	10	156	39	78	9x 13

Distributor manifold, small profile D

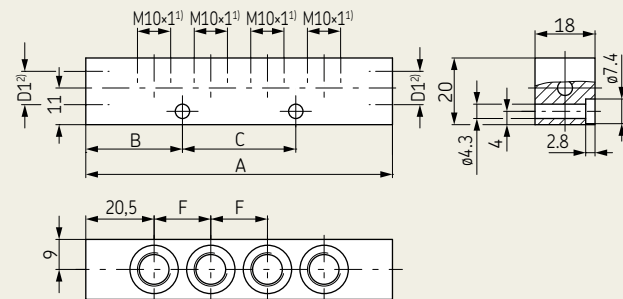


- 1) Depth 5.5 mm with surface suitable for flat washers
- 2) DIN 3852-3 Form W

Distributor manifold, small profile E

Main line connection D1	Number of ports	Dimensions [mm]			
		A	B	C	F
M10×1 (M3)	1	41	20,5	–	–
	2	58	26	–	1x 17
	3	75	37,5	–	2x 17
	4	92	29	34	3x 17
	5	109	29	51	4x 17
	6	126	29	68	5x 17
	8	160	29	102	7x 17
	10	194	29	136	9x 17

Distributor manifold, small profile E



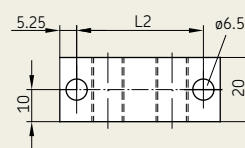
- 1) Depth 8 mm
- 2) For solderless pipe connection per DIN 3862

Lubrication manifolds

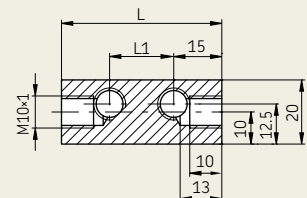
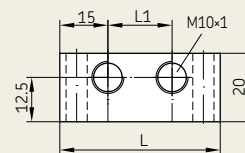
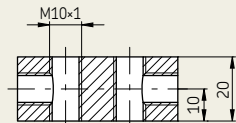
Order No.	L	L1	L2	Number of threaded holes
871-340-006	30	–	19,5	1
871-340-008 1)	30	–	19,5	1
871-360-006	50	20	39,5	2
871-360-008 1)	50	20	39,5	2
871-380-006	70	40	59,5	3
871-390-020	210	20	199,5	10
871-390-023	270	20	200	13

1) Nipple connection; corresponding conical grease nipple with valve, order no. 996-001-890

Lubrication manifolds



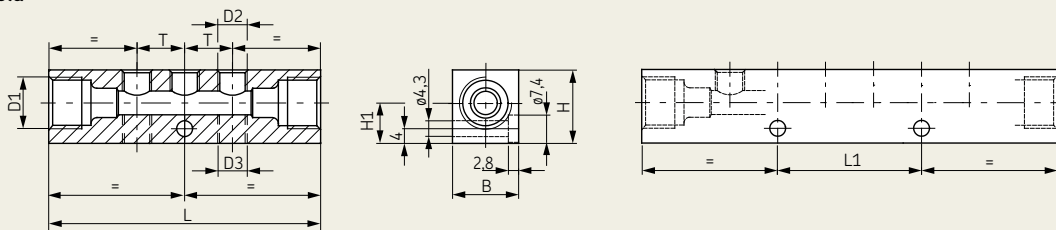
Nipple connection



Distributor manifolds

Solderless pipe union with tapered sleeve acc. to DIN 3862. For pressures up to 45 bar

Distributor manifold



Distributor manifolds

Main tube port tube ø	Order No.	Number-of port	D1	D2	D3	L	L1	H	H1	B	T
Aluminum alloy											
4	VL-322-541	2	M8x1	2x M8x1	M8x1	49	–	17	10.5	13	13
	VL-323-541	3	M8x1	3x M8x1	M8x1	62	–	17	10.5	13	13
	324-581	4	M8x1	4x M8x1	M8x1						
6	VL-01EAM3	1	M10x1		M10x1	41	–	20	11	18	–
	VL-02EAM3	2	M10x1	2x M10x1	M10x1	58	–	20	11	18	17
	VL-03EAM3	3	M10x1	3x M10x1	M10x1	75	–	20	11	18	17
	VL-04EAM3	4	M10x1	4x M10x1	M10x1	92	34	20	11	18	17
	VL-05EAM3	5	M10x1	5x M10x1	M10x1	109	51	20	11	18	17
	VL-06EAM3	6	M10x1	6x M10x1	M10x1	126	68	20	11	18	17
	VL-08EAM3	8	M10x1	8x M10x1	M10x1	160	52	20	11	18	17
	VL-329-761	9	M10x1	9x M10x1	M10x1	177	119	20	11	18	17
	VL-10EAM3	10	M10x1	10x M10x1	M10x1	194	136	20	11	18	17
	331-761	11	M10x1	11x M10x1	M10x1	211	153	20	11	18	17
	332-761	12	M10x1	12x M10x1	M10x1	228	170	20	11	18	17
				(above)		(below)					
6	325-561		M10x1								
	322-861	2	M10x1	1x M10x1	M10x1	41	–	20	11	18	–
	324-861	4	M10x1	2x M10x1	M10x1	58	–	20	11	18	18
	326-663	6	M10x1	3x M10x1	M10x1	77	52	17	11	18	18
	328-861	8	M10x1	4x M10x1	M10x1	92	34	20	11	18	18
	330-861	10	M10x1	5x M10x1	M10x1	109	51	20	11	18	18
	332-861	12	M10x1	6x M10x1	M10x1	126	68	20	11	18	18
	334-861	14	M10x1	7x M10x1	M10x1	143	85	20	11	18	18
	336-861	16	M10x1	8x M10x1	M10x1	160	102	20	11	18	18
	338-861	18	M10x1	9x M10x1	M10x1	177	119	20	11	18	18
	340-861	20	M10x1	10x M10x1	M10x1	194	136	20	11	18	18
	VL-02DAM3	2	M10x1	2x M8x1	M8x1	52	–	17	10.5	13	13
	VL-03DAM3	3	M10x1	3x M8x1	M8x1	65	–	17	10.5	13	13
	VL-04DAM3	4	M10x1	4x M8x1	M8x1	78	–	17	10.5	13	13
VL-05DAM3	5	M10x1	5x M8x1	M8x1	91	–	17	10.5	13	13	
VL-06DAM3	6	M10x1	6x M8x1	M8x1	104	52	20	11	18	13	
VL-07DAM3	7	M10x1	7x M8x1	M8x1	117	39	20	11	18	13	
VL-08DAM3	8	M10x1	8x M8x1	M8x1	130	52	17	10.5	13	13	
VL-10DAM3	10	M10x1	10x M8x1	M8x1	156	78	17	10.5	13	13	
8	321-581	1	M14x1.5	1x M8x1	M8x1	48	–	20		18	–
	322-581	2	M14x1.5	2x M8x1	M8x1	61	–	20	11	18	13
	323-581	3	M14x1.5	3x M8x1	M8x1	74	–	20	11	18	13
	323-661-S1	3	M14x1.5	3x M10x1	M10x1	94	–	20	11	18	22
	324-581	4	M14x1.5	4x M8x1	M8x1	87	–	20	11	18	13
	325-581	5	M14x1.5	5x M8x1	M8x1	74	–	20	11	18	13
	326-581	6	M14x1.5	6x M8x1	M8x1	113	39	20	11	18	13
	328-581	8	M14x1.5	8x M8x1	M8x1	139	65	20	11	18	13
	329-581	9	M14x1.5	9x M8x1	M8x1	152	78	20	11	18	17
	330-581	10	M14x1.5	10x M8x1	M8x1	165	91	20	11	18	13
	330-581-S1	10	M14x1.5	10x M8x1	M8x1	201	85	20	11	18	17
	331-581	11	M14x1.5	11x M8x1	M8x1	178	104	20	11	18	13
332-581	12	M14x1.5	12x M8x1	M8x1	191	117	20	11	18	13	

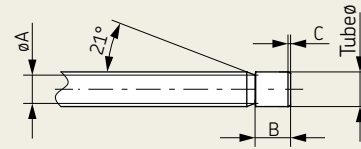
SKF Quick Connectors for oil and grease

For pressures up to 300 bar, 3-O-ring

Claw grooves

for tube \varnothing	A ± 0.3	B ± 0.2	C
4	3.1	5	0.3 ... 0.7
6	4.9	6.2	0.4 ... 0.9
8	6.9	6.2	0.5 ... 0.9

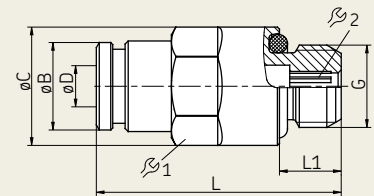
Claw grooves



Adaptors with cylindrical thread (\rightarrow Figure 13)

Order No.	Tube \varnothing D	G	L1	\varnothing B	\varnothing C	L	β 1	β 2	Seal
451-004-260-VS	4	M6	4.5	8.8	11.5	25	10	2.5	NBR
404-073-VS	4	M6x0.75	4.5	8.8	11.5	25.3	10	2.5	NBR
404-063-VS	4	M8	6	8.8	11.5	23.8	10	2.5	NBR
404-003-VS	4	M8x1	6	8.8	11.5	23.8	10	2.5	NBR
404-003-S8-VS	4	M8x1	6	8.8	11.5	23.8	10	2.5	FPM
404-006-VS	4	M10x1	6	8.8	13.5	23.8	12	2.5	NBR
404-006-S8-VS	4	M10x1	6	8.8	13.5	23.8	12	2.5	FPM
404-040-VS	4	G1/8	6	8.8	13.5	23.8	12	2.5	NBR
406-158-VS	6	M8x1	6	11.7	13.2	30.5	12	3	NBR
406-158-VS	6	M8x1	6	11.7	13.2	30.5	12	3	NBR
406-004-VS	6	M10x1	6	11.7	13.5	27	12	4	NBR
406-004-S8-VS	6	M10x1	6	11.7	13.5	27	12	4	FPM
456-004-VS	6	G1/8	6	11.7	13.5	27	12	4	NBR
456-004-VS	6	G1/8	6	11.7	13.5	27	12	4	FPM
406-054-VS	6	G1/4	7	11.7	16.4	28	12	4	NBR
406-162-VS	6	M12x1	7	11.7	15.4	28	14	4	NBR
406-162-S8-VS	6	M12x1	7	11.7	15.4	28	14	4	FPM
408-004-VS	8	M10x1	6	13.9	15.2	32.3	14	5	NBR
408-004-S8-VS	8	M10x1	6	13.9	15.2	32.3	14	5	FPM
408-162-VS	8	M12x1	7	13.9	15.2	32.8	14	6	NBR
408-162-S8-VS	8	M12x1	7	13.9	15.2	32.8	14	6	FPM
408-054-VS	8	G1/4	7	13.9	16.4	30.8	14	6	NBR

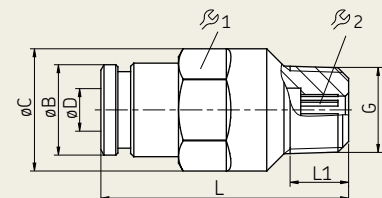
Figure 13



Adaptors with tapered thread (\rightarrow Figure 14)

Order No.	Tube \varnothing D	G	L1	\varnothing B	\varnothing C	L	β 1	β 2
451-004-462-VS	4	M6 tap.	5.5	8.8	11.5	25.8	10	2.5
451-004-471-VS	4	M6x1 tap.	5.5	8.8	11.5	25.8	10	2.5
451-004-498-VS	4	M8x1 tap.	5.5	8.8	11.5	23.3	10	2.5
451-004-518-VS	4	M10x1 tap.	5.5	8.8	11.5	22.8	10	2.5
404-673K-V1-VS	4	1/4-28 SAE LT	5.1	8.8	11.5	26.3	10	2.5
404-040K-V1-VS	4	1/8 NPTF	8	8.8	11.5	24.8	10	2.5
451-006-468-VS	6	M6 tap.	5.5	11.7	13.5	30	12	2.5
451-006-498-VS	6	M8x1 tap.	5.5	11.7	13.5	29.5	12	4
451-006-518-VS	6	M10x1 tap.	5.5	11.7	13.5	27	12	4
406-423W-VS	6	R1/8	6.5	11.7	13.5	28.5	12	4
406-423N-VS	6	1/8 NPTF	7.5	11.7	13.5	28.5	12	4

Figure 14



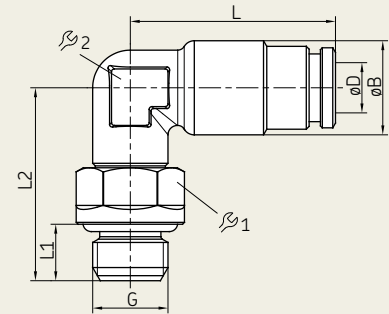
SKF Quick Connectors for oil and grease

For pressures up to 300 bar, 3-O-ring

Banjo fittings with cylindrical thread (→ Figure 15)

Order No.	Tube \varnothing D	G	L1	\varnothing B	L	L2	\varnothing 1	\varnothing 2	Seal
504-100-VS	4	M6×1	4.5	10	21.8	17.5	9	9	NBR
504-101-VS	4	M8×1	6	10	21.8	20.5	10	9	NBR
504-101-S8-VS	4	M8×1	6	10	21.8	20.5	10	9	FPM
504-102-VS	4	M10×1	6	10	21.8	20.5	12	9	NBR
504-102-VS	4	M10×1	6	10	21.8	20.5	12	9	NBR
504-102-S8-VS	4	M10×1	6	10	21.8	20.5	12	9	FPM
504-108-VS	4	G 1/8	6	10	21.8	20.5	12	9	NBR
504-108-S8-VS	4	G 1/8	6	10	21.8	20.5	12	9	FPM
506-139-VS	6	M8×1	6	12.5	26	21	10	10	NBR
506-139-S8-VS	6	M8×1	6	12.5	26	21	10	10	FPM
506-140-VS	6	M10×1	6	12.5	26	21	12	10	NBR
506-140-S8-VS	6	M10×1	6	12.5	26	21	12	10	FPM
506-108-VS	6	G 1/8	6	12.5	26	21	12	10	NBR
506-108-S8-VS	6	G 1/8	6	12.5	26	21	12	10	FPM
506-142-VS	6	M12×1	7	12.5	26	23	14	10	NBR
506-142-S8-VS	6	M12×1	7	12.5	26	23	14	10	FPM
506-143-VS	6	G 1/4	7	12.5	26	23	15	10	NBR
508-142-VS	8	M12×1	7	14.5	28.8	23	14	12	NBR
508-142-S8-VS	8	M12×1	7	14.5	28.8	23	14	12	FPM
508-143-VS	8	G 1/4	7	14.5	28.8	23	14	12	NBR

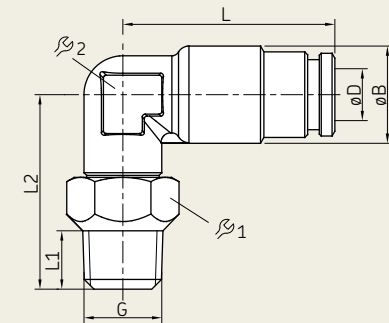
Figure 15



Banjo fittings with tapered thread (→ Figure 16)

Order No.	Tube \varnothing D	G	L1	\varnothing B	L	L2	\varnothing 1	\varnothing 2	Seal
455-546-048-VS	4	M6 tap.	6	10	21.8	20	10	9	NBR
455-546-048-S8-VS	4	M6 tap.	6	10	21.8	20	10	9	FPM
455-529-048-VS	4	M8×1 tap.	6	10	21.8	20	10	9	NBR
455-529-048-S8-VS	4	M8×1 tap.	6	10	21.8	20	10	9	FPM
455-531-048-VS	4	M10×1 tap.	6	10	21.8	20	12	9	NBR
455-531-048-S8-VS	4	M10×1 tap.	6	10	21.8	20	12	9	FPM
455-569-048-VS	4	R 1/8	7.5	10	21.8	20.5	12	9	NBR
455-529-068-VS	6	M8×1 tap.	6	12.5	26	20	10	10	NBR
455-529-068-S8-VS	6	M8×1 tap.	6	12.5	26	20	10	10	FPM
455-531-068-VS	6	M10×1 tap.	6	12.5	26	20.5	12	10	NBR
455-531-068-S8-VS	6	M10×1 tap.	6	12.5	26	20.5	12	10	FPM
455-546-068-VS	6	M6×1 tap.	6	12.5	26	20.5	10	10	NBR
455-565-068-VS	6	R 1/4	11	12.5	26	24.5	14	10	NBR

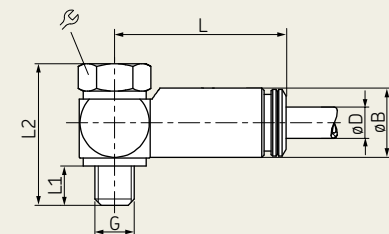
Figure 16



Banjo fittings with banjo bolt and cylindrical thread (→ Figure 17)

Order No.	Tube \varnothing D	G	L1	\varnothing B	L	L2	\varnothing	Seal
504-161-VS	4	M6	5	8.8	22.3	19.5	9	NBR
504-401-S1-VS	4	M5	5	8.8	21.8	18	8	NBR
504-411-VS	4	M8	7	8.8	23.8	20	12	NBR
504-401-VS	4	M8×1	7	8.8	23.8	20	12	NBR
504-103-VS	4	M10×1	7	8.8	24.8	22.5	14	NBR
445-519-041-VS	4	G 1/8	7	8.8	24.8	22.5	14	NBR

Figure 17



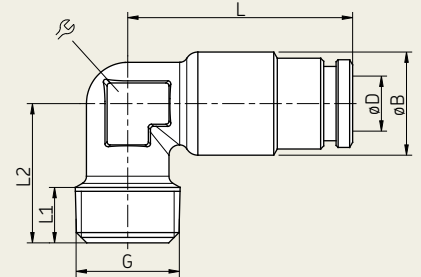
SKF Quick Connectors for oil and grease

For pressures up to 300 bar, 3-O-ring

Elbows, with tapered thread

Order No.	Tube øD	G	L1	øB	L	L2	☞	Seal
453-004-471-VS	4	M6 tap.	6	10	21.8	14	9	NBR
453-004-471-S8-VS	4	M6 tap.	6	10	21.8	14	9	FPM
504-201-VS	4	M8×1 tap.	6	10	21.8	13.5	9	NBR
504-201-S8-VS	4	M8×1 tap.	6	10	21.8	13.5	9	FPM
504-202-VS	4	M10×1 tap.	6	10	21.8	13.5	9	NBR
504-202-S8-VS	4	M10×1 tap.	6	10	21.8	13.5	9	FPM
514-018-VS	4	R 1/8	7.5	10	21.8	15	9	NBR
514-018-S8-VS	4	R 1/8	7.5	10	21.8	15	9	FPM
504-200K-V1-VS	4	1/4-28 SAE LT	5.1	10	21.8	15.5	9	NBR
514-018K-V1-VS	4	1/8 NPTF	7	10	21.8	15	9	NBR
453-006-468-VS	6	M6 tap.	6	12.5	26	15	10	NBR
453-006-468-S8-VS	6	M6 tap.	6	12.5	26	15	10	FPM
506-508-VS	6	M8×1 tap.	6.5	12.5	26	14	10	NBR
506-508-S8-VS	6	M8×1 tap.	6.5	12.5	26	14	10	FPM
506-510-VS	6	M10×1 tap.	6	12.5	26	14	10	NBR
506-510-S8-VS	6	M10×1 tap.	6	12.5	26	14	10	FPM
506-511-VS	6	R 1/8	8.5	12.5	26	16.5	10	NBR
506-511-S8-VS	6	R 1/8	8.5	12.5	26	16.5	10	FPM
506-511K-V1-VS	6	1/8 NPTF	8.5	12.5	26	16.5	10	FPM
506-512-VS	6	M12×1 tap.	7	12.5	26	15	10	NBR
453-006-651-VS	6	R 1/4	11.5	12.5	26	19.5	10	NBR

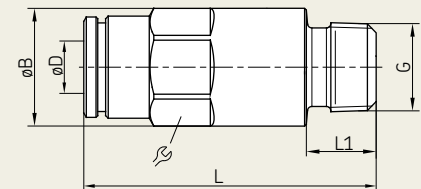
Elbow



Check valves

Order No.	Tube øD	G	Opening pressure [bar]	Pressure, max. [bar]	L1	øB	L	☞	Seal
VPKG-RV4-VS	4	R 1/8	3±1	300	7.9	10	32.3	9	NBR
VPKM-RV-VS	6	M10×1 tap.	3+2	300	8	13.5	33.5	12	NBR
VPKG-RV-VS	6	R 1/8	3+2	300	8	13.5	33.5	12	NBR
SSV-RV-VS	6	M10×1	3±1	300	6	12.8	41.3	12	NBR

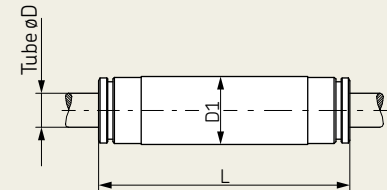
Check valve



Connectors

Order No.	Tube øD	D1	L	Seal
454-504-041-VS	4	10	38.5	NBR
406-426-VS	6	12	44.5	NBR

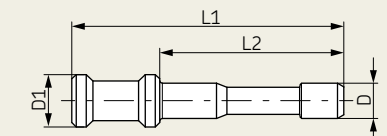
Connector



Locking pin

Order No.	Tube øD	D1	L1	L2
450-204-002	4	6	31	21
450-206-002	6	8	37	25

Locking pin



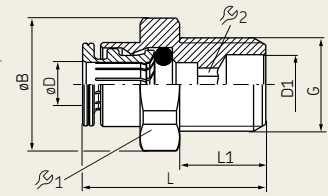
SKF Quick Connectors for grease

For pressures up to 350 bar, 1-O-ring

Straight screw-in connectors (→ Figure 18)

Order No.	Tube \varnothing D	G	L1	\varnothing B	L	β 1	β 2	Seal
226-14139-1	6	G 1/4	12	18.5	25.5	17	4	NBR
226-13752-9	6	R 1/8	7.5	13.2	22	12	4	NBR

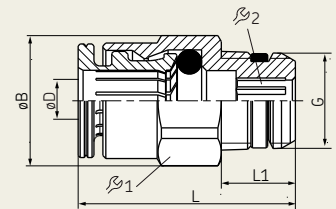
Figure 18



Straight screw-in connectors with threaded seal (→ Figure 19)

Order No.	Tube \varnothing D	G	L1	\varnothing B	L	β 1	β 2	Seal
226-14111-1	6	R 1/8	7.5	13.2	22	12	4	NBR

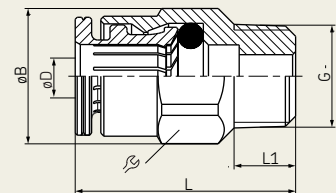
Figure 19



Adaptors with tapered thread (→ Figure 20)

Order No.	Tube \varnothing D	G	L1	\varnothing B	L	β	Seal
226-14111-4	6	M6×1 tap.	6	13.2	24	12	NBR
226-14111-2	6	M8×1 tap.	6	13.2	23.5	12	NBR
226-14111-3	6	M10×1 tap.	6	13.2	21.5	12	NBR

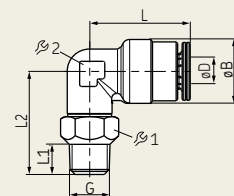
Figure 20



Banjo fittings with threaded seal

Order No.	Tube \varnothing D	G	L1	\varnothing B	L	L2	β 1	β 2	Seal
226-14157-3	6	M6×1 tap.	6	12.7	20	20.5	10	9	NBR
226-14157-1	6	M8×1 tap.	6	12.7	20	20.5	10	9	NBR
226-14157-2	6	M10×1 tap.	6	12.7	20	20.5	12	9	NBR
226-13756-9	6	R 1/8	7.5	12.7	20	21	12	9	NBR

Banjo fittings

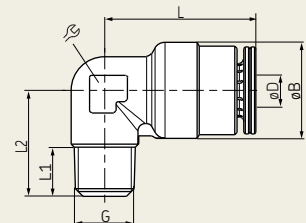


Elbows with tapered thread

Order No.	Tube \varnothing D	G	L1	\varnothing B	L	L2	β	Seal
226-14123-4	6	M6×1 tap.	6	12.7	20	15	9	NBR
226-14123-2	6	M8×1 tap.	6.5	12.7	20	14	9	NBR
226-14123-3	6	M10×1 tap.	6	12.7	20	14	9	NBR
226-14123-5	6	R 1/8	7.5	12.7	20	15.5	9	NBR
226-14123-7 1)	6	R 1/8	7.5	12.7	20	15.5	9	NBR

1) with threaded seal

Elbows



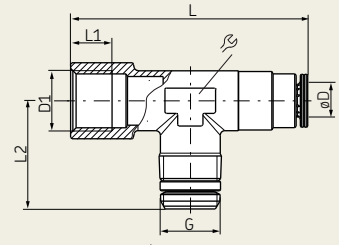
SKF Quick Connectors for grease

For pressures up to 350 bar, 1-O-ring

Tee screw-in connector

Order No.	Tube øD	G	D1	L1	L	L2	⌀	Seal
226-14097-5	6	R 1/4	G 1/4	9	51.5	23.5	14	NBR

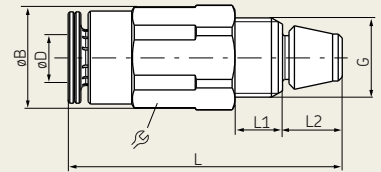
T-Tee screw-in connector



Check valves for progressiv distributors

Order No.	Tube øD	G	L1	ø B	L	L2	⌀	Seal
226-10337-3	6	M10×1 tap.	8	11.7	27.5	-	12	NBR
226-14091-1	6	M10×1	6	12.8	34.5	7.5	12	NBR
226-10328-4	6	M10×1	6	13.2	34.5	7.5	12	FPM

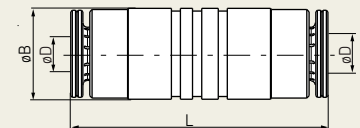
Check valve



Connector

Order No.	Tube øD	ø B	L	Seal
226-13773-4	6	12	34	NBR

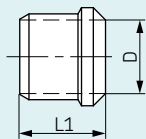
Connector



Fittings

Solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

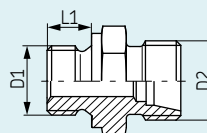
Cutting sleeves to DIN 3861/ISO 8434-1



Order No.	D (Tube ø)	L1	Pressure [bar]	Series
Steel, galvanized surface (Cr-6-free)				
Form A				
404-301	4	6	100	LL
406-331	6	7		
96-5708-0058	8	7		
96-5710-0058	10	7		
406-301	6	9.5	250	AS (L) ¹⁾
408-301	8	10		
410-301	10	10		
412-301	12	10.5		
415-301	15	10	160	L
418-301	18	10.5		
Stainless steel				
99-5704-0058	4	6	100	LL L LL L
406-301-S3	6	9.5		
406-331-S3	6	7		
99-2712-0058	12	10		

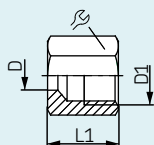
Straight screw-in glands

with short threaded end for screw into thread for use with a counterbore acc. to DIN 3854 / DIN 3862 for solderless pipe union



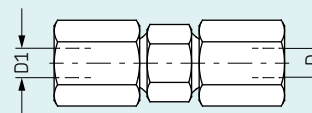
Order No.	Tube øD	D1	D2	L1	Series
Steel, galvanized surface (Cr-6-free)					
406-303	6	M10×1	M12×1.5	8	L
406-323	6	M10×1 tap.	M10×1	–	
406-333	6	M8×1 tap.	M10×1	–	
408-313	8	M14×1.5	M14×1.5	9	
410-313	10	M16×1.5	M16×1.5	9	
410-323	10	M14×1.5	M16×1.5	9	

Union nuts to DIN 3861/ISO 8434-1



Order No.	D (Tube ø)	D1	L1	Pressure [bar]	Series
Steel, galvanized surface (Cr-6-free)					
404-302	4	M8×1	11	10	100
406-332	6	M10×1	12	12	
96-5608-0058	8	M12×1	12	14	
96-5610-0058	10	M14×1	12.5	17	
406-302	6	M12×1.5	14.5	14	250
408-302	8	M14×1.5	14.5	17	250
410-302	10	M16×1.5	16	19	250
412-302	12	M18×1.5	16	22	
415-302	15	M22×1.5	18	27	
418-302	18	M26×1.5	18	32	
Stainless steel					
99-5604-0058	4	M8×1	11.5	10	100
406-332-S3	6	M10×1	12	12	
406-302-S3	6	M12×1.5	14.5	14	
99-5612-0058	12	M18×1.5	16	22	

Straight connectors (tube to tube)



Order No.	Tube ø D, D1	Series	Reducing connectors		
			Order No.	Tube ø D	Tube ø D1
Steel, galvanized surface (Cr-6-free)					
404-404	4	LL	504-410	6	4
			504-412	8	4
406-406	6	L	506-410	8	6
408-408	8		506-412	10	6
410-410	10		508-410	10	8
412-412	12		506-413	12	6
415-415	15		508-412	12	8
418-418	18		510-410	12	10
			508-413	15	8
			510-412	15	10
			512-410	15	12
			510-413	18	10
			512-412	18	12
			515-410	18	15
Stainless steel					
406-406-S3	6	L			
408-408-S3	8				
410-410-S3	10				
415-415-S3	15				

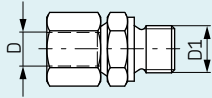
LL-series = extra light version
L-series = light version
S-series = heavy duty version

¹⁾ Construction identical to heavy series S.

Fittings

solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

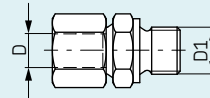
Straight screw-in connectors to DIN 2353
with metrical thread



Order No.	Tube øD	D1	Series
Steel, galvanized surface (Cr-6-free)			
Form C			
406-403	6	M10×1	LL
406-413	6	M14×1.5	
410-403	10	M14×1.5	
410-463	10	M18×1.5	
412-423	12	M14×1.5	
412-403	12	M16×1.5	
412-433	12	M18×1.5	
415-403	15	M18×1.5	
415-413	15	M22×1.5	L
418-403	18	M22×1.5	
96-0319-0058	18	M18×1.5	
96-0322-0058	22	M26×1.5	
96-0328-0058	28	M33×2	
96-0335-0058	35	M42×2	
96-0342-0058	42	M48×2	
Form A			
96-1206-0058	6	M12×1.5	
408-413	8	M14×1.5	
410-413	10	M16×1.5	
412-453	12	M18×1.5	
96-1212-0058	12	M18×1.5	S
96-1214-0058	14	M20×1.5	
96-1216-0058	16	M22×1.5	
96-1220-0058	20	M27×1.5	
96-6002-0058	4	M6×1 tap.	
404-413	4	M8×1 tap.	
404-403	4	M10×1 tap.	
406-443	6	M6 tap.	
406-433	6	M8×1 tap.	LL
406-423	6	M10×1 tap.	
406-446 ¹⁾	6	M6 tap.	
441-008-511	8	M10×1 tap.	
410-443	10	M10×1 tap.	L
Stainless steel			
406-443-S3	6	M6 tap.	
406-433-S3	6	M8×1 tap.	
406-403-S3	6	M10×1	
406-423-S3	6	M10×1 tap.	LL
410-443-S3	6	M10×1 tap.	
441-008-511-S3	8	M10×1 tap.	
410-403-S3	10	M14×1.5	L

1) kurzes Zapfengewinde

Straight screw-in connectors to DIN 2353
with Whitworth pipe thread



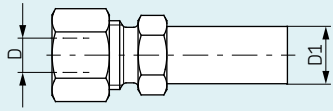
Order No.	Tube øD	D1	Series
Steel, galvanized surface (Cr-6-free)			
Form D			
44-2573-6330	4	G 1/4 A	
406-403W	6	G 1/8 A	
96-0204-0058	6	G 1/4 A	
406-463W	6	G 3/8 A	
96-0203-0058	8	G 1/8 A	
408-403W	8	G 1/4 A	
408-413W	8	G 3/8 A	
408-453W	8	G 1/2 A	
410-403W	10	G 1/4 A	
410-413W	10	G 3/8 A	
410-433W	10	G 1/2 A	
412-423W	12	G 1/4 A	L
412-403W	12	G 3/8 A	
412-453W	12	G 1/2 A	
415-443W	15	G 3/4 A	
415-403W	15	G 1/2 A	
415-433W	15	G 3/8 A	
418-403W	18	G 1/2 A	
418-413W	18	G 3/4 A	
96-0223-0058	22	G 1/2 A	
96-0222-0058	22	G 3/4 A	
428-413W	28	G 3/4 A	
428-403W	28	G 1 A	
96-1106-0058	6	G 1/4 A	
96-1108-0058	8	G 1/4 A	
96-1109-0058	8	G 3/8 A	
96-1111-0058	10	G 1/4 A	
96-1110-0058	10	G 3/8 A	
96-1112-0058	12	G 3/8 A	
96-1113-0058	12	G 1/2 A	S
96-1114-0058	14	G 1/2 A	
96-1117-0058	16	G 3/8 A	
96-1116-0058	16	G 1/2 A	
96-1121-0058	20	G 1/2 A	
96-1120-0058	20	G 3/4 A	
Form B			
404-403W	4	R 1/8 tap.	
406-423W	6	R 1/8 tap.	
408-423W	8	R 1/8 tap.	
96-5909-0058	8	R 1/4 tap.	
96-5911-0058	10	G 1/4 tap.	LL
24-2105-2382	10	G 1/8 tap.	
96-5912-0058	11	G 1/8 tap.	
96-5913-0058	12	G 3/8 tap.	
Stainless steel			
406-403W-S3	6	G 1/8 A	
406-413W-S3	6	G 1/4 A	
99-0204-0058	6	G 1/4 A	
410-403W-S3	10	G 1/4 A	
99-0215-0058	15	G 1/2 A	L
99-0217-0058	15	G 3/8 A	
418-403W-S3	18	G 1/2 A	
99-0222-0058	22	G 3/4 A	
99-0228-0058	28	G 1 A	
406-423W-S3	6	G 1/8 A	LL
408-423W-S3	8	R 1/8 K	

LL-series = extra light version
L-series = light version
S-series = heavy duty version

Fittings

solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

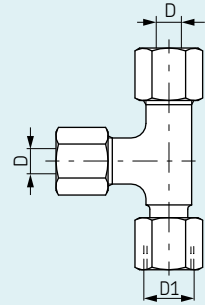
Reducing connectors



Order No.	Tube $\varnothing D$	$\varnothing D1$
408-406	6	8
410-406	6	10
443-706-121	6	12
443-706-151	6	15
443-706-181	6	18
410-408	8	10
443-708-121	8	12
443-708-151	8	15
443-708-181	8	18
443-710-061	10	8
412-410	10	12
415-410	10	15
443-710-181	10	18
443-712-151	12	15
418-412	12	18
422-412	12	22
443-715-181	15	18

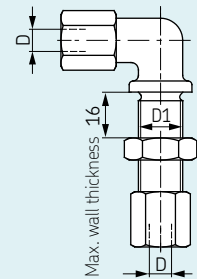
L-screw-in connectors, directionally adjustable

Order No.	Tube \varnothing		Series
	D	D1	
443-406-061	6	M12x1.5	L
443-408-081	8	M14x1.5	
443-410-101	10	M16x1.5	
443-412-121	12	M18x1.5	
443-415-151	15	M22x1.5	
443-418-181	18	M26x1.5	S
443-406-351	6	M14x1.5	
443-408-083	8	M16x1.5	
96-3010-0060	10	M18x1.5	
96-3012-0060	12	M20x1.5	
96-3014-0060	14	M22x1.5	S
96-3016-0060	16	M24x1.5	
443-410-211	10	G 3/8 A	S
443-406-691	6	G 1/8 A	L
443-410-161	10	G 1/4 A	

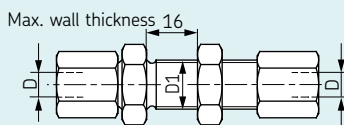


Elbow bulkhead connectors

Order No.	Tube \varnothing	
	D	$\varnothing D1$
406-409	6	12.5
408-409	8	14.5
410-409	10	16.5
412-409	12	18.5
415-409	15	22.5
418-409	18	26.5
443-190-901	22	30.5



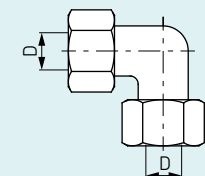
Straight bulkhead connectors



Order No.	Tube $\varnothing D$	$\varnothing D1$
406-416	6	12.5
408-416	8	14.5
410-416	10	16.5
412-416	12	18.5
415-416	15	22.5
418-416	18	26.5
422-416	22	30.5

Elbow connectors

Order No.	Tube $\varnothing D$
406-404	6
96-0408-0058	8
410-404	10
412-404	12
443-215-001	15
443-218-001	18
443-290-001	22



L-series = light version
S-series = heavy duty version

Fittings

solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

Elbow screw-in connectors with metrical thread

Order No.	Tube \varnothing		Series
	D	D1	

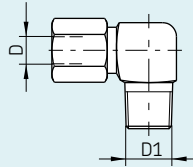
Steel, galvanized surface (Cr-6-free)

Form F

96-6202-0058	4	M6 tap.	
96-6204-0058	4	M8×1 tap.	
404-425	4	M10×1 tap.	
406-445	6	M6 tap.	LL
406-435	6	M8×1 tap.	
406-425	6	M10×1 tap.	
408-425	8	M10×1 tap.	
406-405	6	M10×1 tap.	
408-405	8	M12×1.5 tap.	
410-405	10	M14×1.5 tap.	L
412-405	12	M16×1.5 tap.	
415-405	15	M18×1.5 tap.	
410-425	10	M16×1.5 tap.	S

Stainless steel

404-405-S3	4	M8×1 tap.	
406-435-S3	6	M8×1 tap.	LL
406-445-S3	6	M6 tap.	

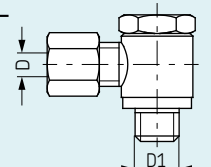


Banjo fittings with metrical thread

Order No.	Tube \varnothing		Series
	d	d1	

Steel, galvanized surface (Cr-6-free)

445-529-041	4	M8×1	
96-7104-0158	4	M10×1	LL
445-531-061	6	M10×1	
96-7808-0058	8	M12×1.5	
445-535-101	10	M14×1.5	
96-7812-0058	12	M16×1.5	L
96-7815-0058	15	M18×1.5	
96-7818-0058	18	M22×1.5	
96-7822-0058	22	M26×1.5	
96-8006-0058	6	M12×1.5	
96-8008-0058	8	M14×1.5	
96-8010-0058	10	M16×1.5	
96-8012-0058	12	M18×1.5	S
96-8014-0058	14	M20×1.5	
96-8016-0058	16	M22×1.5	
96-8020-0058	20	M27×1.5	
96-7106-0058	6	M10×1	
96-7108-0058	8	M10×1	LL



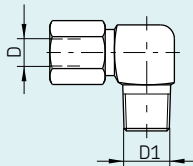
Elbow screw-in connectors with Whitworth pipe thread

Order No.	Tube \varnothing		Series
	D	D1	

Steel, galvanized surface (Cr-6-free)

Form G

404-405W	4	R 1/8 tap.	
96-6108-0058	8	R 1/8 tap.	
96-6110-0058	10	R 1/4 tap.	LL
96-6112-0058	12	R 1/4 tap.	
406-405W	6	R 1/8 tap.	
406-515W	6	R 1/4 tap.	
408-425W	8	R 1/8 tap.	
408-405W	8	R 1/4 tap.	L
410-405W	10	R 1/4 tap.	
412-405W	12	R 3/8 tap.	
415-405W	15	R 1/2 tap.	
418-405W	18	R 1/2 tap.	
96-1406-0058	6	R 1/4 tap.	
96-1408-0058	8	R 1/4 tap.	
96-1410-0058	10	R 3/8 tap.	S
96-1412-0058	12	R 3/8 tap.	
96-1414-0058	14	R 1/2 tap.	
96-1416-0058	16	R 1/2 tap.	

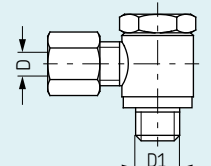


Banjo fittings with Whitworth pipe thread

Order No.	Tube \varnothing		Series
	D	D1	

Steel, galvanized surface (Cr-6-free)

96-7004-0058	4	G 1/8 A	LL
445-519-041	4	G 1/8 A	
445-519-061	6	G 1/8 A	
445-516-061	6	G 1/4 A	
445-516-081	8	G 1/4 A	
445-516-101	10	G 1/4 A	L
445-521-122	12	G 3/8 A	
445-513-181	18	G 1/2 A	
445-517-222	22	G 3/4 A	
96-7906-0058	6	G 1/4 A	
96-7908-0058	8	G 1/4 A	
96-7910-0058	10	G 3/8 A	
96-7912-0058	12	G 3/8 A	S
96-7914-0058	14	G 1/2 A	
96-7916-0058	16	G 1/2 A	
96-7920-0058	20	G 3/4 A	
96-7006-0058	6	G 1/8 A	
96-7008-0058	8	G 1/8 A	LL

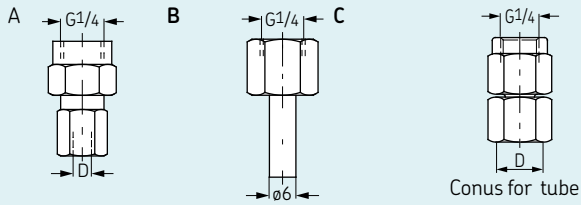


LL-series = extra light version; L-series = light version; S-series = heavy duty version

Verschraubungen

lötlose Rohrverschraubung mit Schneidring nach DIN EN ISO 8434-1 und DIN 2353

Connectors for pressure gauges

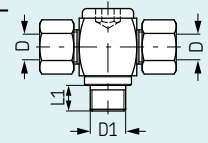


Order No.	Tube ø D	Series	Order No.	Tube ø D	Series
Version A			Version B		
406-411	6		248-610.01	6	L
408-411	8		Version C		
410-411	10	L	96-8804-0058	4	
412-411	12		441-106-162	6	
96-0406-0060	6		96-0308-0060	8	L
441-108-132	8		441-110-163	10	
96-0410-0060	10	S	441-112-162	12	
96-0412-0060	12		96-8906-0058	6	
			96-8908-0058	8	S
			96-8910-0058	10	
			96-8912-0058	12	

Pressure gauge → page 47

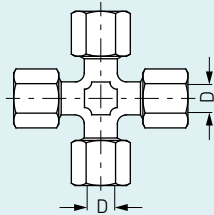
Tee screw-in connectors with metrical thread

Order No.	Tube ø D	D1	L1 Series
96-6404-0058	4	M8×1 tap.	
96-6406-0058	6	M10×1 tap.	8 LL
96-6408-0058	8	M10×1 tap.	
96-0906-0058	6	M10×1 tap.	8 L
96-0908-0058	8	M12×1.5 tap.	
445-910-551	10	M14×1.5 tap.	12 L
96-0912-0058	12	M16×1.5 tap.	
96-0915-0058	15	M18×1.5 tap.	
96-1806-0058	6	M12×1.5 tap.	
96-1808-0058	8	M14×1.5 tap.	12 S
96-1810-0058	10	M16×1.5 tap.	
96-1812-0058	12	M18×1.5 tap.	
96-1814-0058	14	M20×1.5 tap.	11 S
96-1816-0058	16	M22×1.5 tap.	
445-735-101	10	M14×1.5	12 L
445-739-151	15	M18×1.5	14



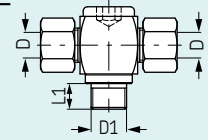
Four-way connectors

Order No.	Tube ø D	Series
96-2106-0058	6	
446-308-001	8	
446-310-001	10	
446-312-001	12	LL
446-315-001	15	
96-2118-0058	18	
96-2122-0058	22	



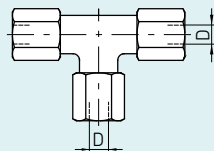
Tee screw-in connectors with Whitworth pipe thread

Order No.	Tube ø D	D1	L1 Series
96-6304-0058	4	R 1/8 tap.	
96-6306-0058	6	R 1/8 tap.	8 LL
96-6308-0058	8	R 1/8 tap.	
96-0806-0058	6	R 1/8 tap.	8 L
96-0808-0058	8	R 1/4 tap.	
96-0810-0058	10	R 1/4 tap.	12 L
96-0812-0058	12	R 3/8 tap.	
96-0815-0058	15	R 1/2 tap.	
96-0818-0058	18	R 1/2 tap.	14 L
96-1706-0058	6	R 1/4 tap.	
96-1708-0058	8	R 1/4 tap.	12 S
96-1710-0058	10	R 3/8 tap.	
96-1712-0058	12	R 3/8 tap.	
96-1714-0058	14	R 1/2 tap.	14 S
96-1716-0058	16	R 1/2 tap.	
445-721-121	12	G 3/8 A	12 L
445-713-151	15	G 1/2 A	14 L
445-717-221	22	G 3/4 A	



Tee connectors

Order No.	Tube ø D	Series
96-6904-0058	4	LL
406-407	6	
408-407	8	
410-407	10	
412-407	12	L
415-407	15	
418-407	18	
422-407	22	

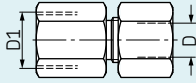


LL-series = extra light version; L-series = light version; S-series = heavy duty version

Fittings

solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

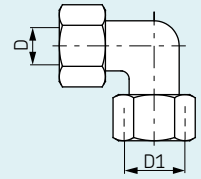
Straight screw-in fitting



Order No.	Tube $\varnothing D$	D1	Series
96-0506-0060	6	M10x1	L
96-0508-0060	8	M12x1.5	
96-0510-0060	10	M14x1.5	
96-0512-0060	12	M16x1.5	
96-0515-0060	15	M18x1.5	
96-0518-0060	18	M22x1.5	
96-0522-0060	22	M26x1.5	
96-0606-0060	6	M12x1.5	S
96-0608-0060	8	M14x1.5	
96-0610-0060	10	M16x1.5	
96-0612-0060	12	M18x1.5	
96-0614-0060	14	M20x1.5	
96-0616-0060	16	M22x1.5	
96-0620-0060	20	M27x2	
96-0706-0060	6	G 1/8 A	L
96-0708-0060	8	G 1/4 A	
96-0709-0060	8	G 3/8 A	
96-0710-0060	10	G 1/4 A	
96-0711-0060	10	G 3/8 A	
96-0712-0060	12	G 3/8 A	
96-0713-0060	12	G 1/2 A	
96-0715-0060	15	G 1/2 A	
96-0718-0060	18	G 1/2 A	
96-0722-0060	22	G 3/4 A	

Elbow female thread unions

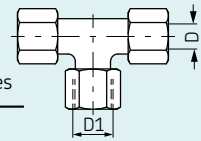
Order No.	Tube $\varnothing D$	D1
443-306-341	6	M12x1.5
443-306-343	6	M14x1.5
443-308-351	8	M14x1.5



Tee female thread unions

directionally adjustable

Order No.	Tube $\varnothing D$	D1	Series
96-3106-0060	6	M12x1.5	L
445-808-351	8	M14x1.5	
445-810-371	10	M16x1.5	
96-3112-0060	12	M18x1.5	
96-3115-0060	15	M22x1.5	
96-3118-0060	18	M26x1.5	
96-3122-0060	22	M30x1.5	
445-806-351	6	M14x1.5	S
96-3208-0060	8	M16x1.5	
96-3210-0060	10	M18x1.5	
96-3212-0060	12	M20x1.5	
96-3214-0060	14	M22x1.5	
96-3216-0060	16	M24x1.5	
96-3220-0060	20	M30x1.5	

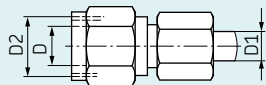


LL-series = extra light version
 L-series = light version
 S-series = heavy duty version

Fittings

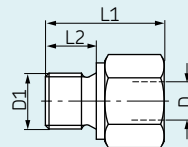
solderless pipe union with cutting-sleeve acc. to DIN EN ISO 8434-1 and DIN 2353

Reducing connections



Order No.	Tube ϕ D	Tube ϕ D1	D2	Series
96-1406-0060	6	4	M10x1	
96-1408-0060	8	4	M12x1	LL
96-1410-0060	8	6	M12x1	
96-1508-0060	8	6	M14x1.5	
96-1511-0060	10	6	M16x1.5	
96-1512-0060	10	8	M16x1.5	
96-1521-0060	12	6	M18x1.5	
96-1522-0060	12	8	M18x1.5	
96-1523-0060	12	10	M18x1.5	
96-1531-0060	15	6	M22x1.5	
96-1532-0060	15	8	M22x1.5	
96-1533-0060	15	10	M22x1.5	
96-1534-0060	15	12	M22x1.5	
96-1541-0060	18	6	M26x1.5	L
96-1542-0060	18	8	M26x1.5	
96-1543-0060	18	10	M26x1.5	
96-1544-0060	18	12	M26x1.5	
96-1545-0060	18	15	M26x1.5	
96-1551-0060	22	6	M30x2	
96-1552-0060	22	8	M30x2	
96-1553-0060	22	10	M30x2	
96-1554-0060	22	12	M30x2	
96-1555-0060	22	15	M30x2	
96-1556-0060	22	18	M30x2	
96-1610-0060	8	6	M16x1.5	
96-1611-0060	10	6	M18x1.5	
96-1612-0060	10	8	M18x1.5	
96-1621-0060	12	6	M20x1.5	
96-1622-0060	12	8	M20x1.5	
96-1623-0060	12	10	M20x1.5	
96-1631-0060	14	6	M22x1.5	
96-1632-0060	14	8	M22x1.5	
96-1633-0060	14	10	M22x1.5	
96-1634-0060	14	12	M22x1.5	
96-1641-0060	16	6	M24x1.5	S
96-1642-0060	16	8	M24x1.5	
96-1643-0060	16	10	M24x1.5	
96-1644-0060	16	12	M24x1.5	
96-1645-0060	16	14	M24x1.5	
96-1651-0060	20	6	M30x2	
96-1652-0060	20	8	M30x2	
96-1653-0060	20	10	M30x2	
96-1654-0060	20	12	M30x2	
96-1655-0060	20	14	M30x2	
96-1656-0060	20	16	M30x2	

Reducing connections, sealing by sealing edge



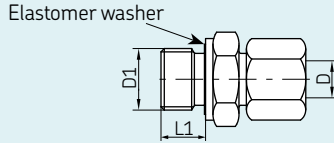
Order No.	D1	Tube ϕ D	L1	L2
96-3114-0058	G 1/8 A	G 1/4	31	8
96-3115-0058	G 1/8 A	G 3/8	32	8
96-3116-0058	G 1/4 A	G 1/8	28	12
96-3117-0058	G 1/4 A	G 3/8 A	36	12
96-3118-0058	G 1/4 A	G 1/2	40	12
96-3119-0058	G 1/4 A	G 3/4	43	12
96-3101-0058	G 3/8 A	G 1/8	22,5	12
96-3120-0058	G 3/8 A	G 1/4	36	12
96-3121-0058	G 3/8 A	G 1/2	41	12
96-3122-0058	G 3/8 A	G 3/4	44	12
96-3102-0058	G 1/2 A	G 1/8	24	14
96-3103-0058	G 1/2 A	G 1/4	24	14
96-3123-0058	G 1/2 A	G 3/8	36	14
96-3124-0058	G 1/2 A	G 3/4	46	14
96-3125-0058	G 1/2 A	G 1	49	14
96-3126-0058	G 1/2 A	G 1 1/4	53	14
96-3104-0058	G 3/4 A	G 1/4	26	16
96-3105-0058	G 3/4 A	G 3/8	26	16
96-3127-0058	G 3/4 A	G 1/2	41	16
96-3128-0058	G 3/4 A	G 1	51	16
96-3129-0058	G 3/4 A	G 1 1/4	55	16
96-3130-0058	G 3/4 A	G 1 1/2	57	16
96-3106-0058	G 1 A	G 1/4	29	18
96-3107-0058	G 1 A	G 3/8	29	18
96-3108-0058	G 1 A	G 1/2	29	18
96-3131-0058	G 1 A	G 3/4	47	18
96-3132-0058	G 1 A	G 1 1/4	57	18
96-3133-0058	G 1 A	G 1 1/2	59	18
96-3109-0058	G 1 1/4 A	G 1/2	32	20
96-3110-0058	G 1 1/4 A	G 3/4	32	20
96-3134-0058	G 1 1/4 A	G 1	52	20
96-3135-0058	G 1 1/4 A	G 1 1/2	60	20
96-3111-0058	G 1 1/2 A	G 1/2	36	22
96-3112-0058	G 1 1/2 A	G 3/4	36	22
96-3113-0058	G 1 1/2 A	G 1	36	22
96-3136-0058	G 1 1/2 A	G 1 1/4	58	22
96-3137-0058	G 2 A	G 1 1/2	62	24

LL-series = extra light version
 L-series = light version
 S-series = heavy duty version

Fittings

solderless pipe union with cutting-sleeve acc. to DIN EN ISO 9974-1/DIN 2353 and elastomer washer

Straight screw-in connectors with elastomer washer and E02 function nut

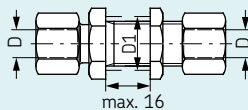


Order No.	Tube \varnothing D	D1	L1	3
471-004-191 ¹⁾	4	G 1/8 A	16	
471-004-311 ¹⁾		M10×1		
471-006-192	6	G 1/8 A	8	
471-006-161		G 1/4 A	12	
471-006-311		M10×1	8	
471-006-314 ²⁾		M10×1	7	
471-006-351		M14×1.5	8	
471-008-130	8	G 1/8	8	
471-008-161		G 1/4 A	12	
461-008-321 ²⁾		G 1/4	11	
471-008-131		G 1/2	14	
471-008-211		G 3/8 A	12	
471-008-314		M10×1	14	
471-008-344 ²⁾		M12×1	7.5	
471-008-345		M12×1.5	12	
471-008-351		M14×1.5	12	
471-008-354 ²⁾		M14×1.5	7.5	
471-008-391	M18×1.5	11		
471-010-161	10	G 1/4 A	12	
471-010-211		G 3/8 A	12	
471-010-312		M10×1	15	
471-010-314 ²⁾		M10×1	7	
471-010-344 ²⁾		M12×1	7.5	
471-010-351		M14×1.5	12	
471-010-391		M18×1.5	11	
471-012-161	12	G 1/4 A	12	
471-012-211		G 3/8 A	12	
471-012-391		M18×1.5		
471-015-131	15	G 1/2 A	14	

¹⁾ LL-series (extra light version)

²⁾ with short threaded end to screw into the thread for use with a counterbore according to DIN 3854/DIN 3862 for solderless pipe union

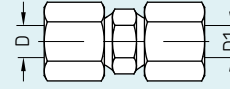
Straight bulkhead connectors with E02 function nut



Order No.	Tube \varnothing D	D1
474-606-331	6	12.5
474-608-351	8	14.5
474-610-351	10	16.5
474-612-391	12	18.5
474-615-431	15	22.5
474-618-441	18	26.5

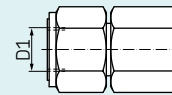
Max. operating pressure 315 bars

Straight connectors (tube to tube) with E02 function nut



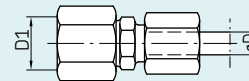
Order No.	Tube \varnothing D, D1
474-506-061	6
474-508-081	8
474-510-101	10
474-512-121	12
474-515-151	15
474-518-181	18

Straight connectors using a threaded pin and E02 function nut



Order No.	Tube \varnothing D	D1	Threaded pin
471-106-311	6		
471-108-311	8	M10×1	406-243-B
471-110-311	10		
471-106-331	6		
471-108-331	8	M12×1	408-243-B
471-110-331	10		

Reducing connectors with E02 function nut



Order No.	Tube \varnothing D	D1
473-806-351	6	M14×1.5
473-806-391	6	M20×1.5
473-808-371	8	M16×1.5
473-808-392	8	
473-810-391	10	M18×1.5
473-810-371 ¹⁾	10	

¹⁾ S-series (heavy duty version)

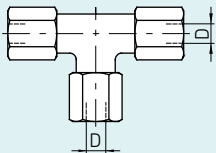
The cutting sleeve screw unions shown correspond to the L-series (light version).

Fittings

solderless pipe union with cutting-sleeve acc. to DIN EN ISO 9974-1/DIN 2353 and elastomer washer

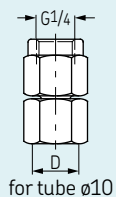
Tee connectors with E02 function nut

Order No.	Tube ϕD
476-006-001	6
476-008-001	8
476-010-001	10
476-012-001	12
476-015-001	15



Connectors for pressure gauges with E02 function nut

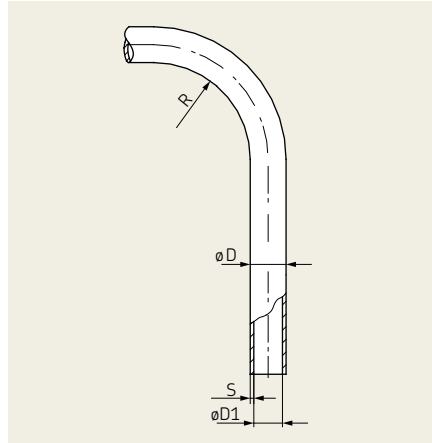
Order No.	Tube ϕD
471-106-163	6
471-108-163	8
471-110-163	10
471-112-163	12



The cutting sleeve screw unions shown correspond to the L-series (light version).

Tubes and hoses

Steel tubing



Steel tubing

Order No.	ø D [mm]	S [mm]	ø D1 [mm]	Minimum bending radius R ¹⁾ [mm]	Permissible operating pressure ²⁾ [bar]	Burst pressure [bar]
Steel tubing, galvanized surface (Cr-6 free)						
WV-R06×0.7 VERZI	6 ±0.05	0.7	4,6 ±0.11	12	320	850
WV-R08×0.7 VERZI	8 ±0.05	0.7	6,6 ±0.11	19	230	675
WV-R010×0.7 VERZI	10 ±0.05	0.7	8,6 ±0.13	27	180	550
Steel tubing nach EN10305-4, verzinkt, Cr-6-frei						
982-120-041	4 ±0.05	0.7	2,6 ±0.10	12	368	952
982-120-040	4 ±0.08	1.0	2 ±0.15	12	500	1360
982-120-060	6 ±0.08	1.0	4 ±0.12	18	372	963
982-120-080	8 ±0.08	1.0	6 ±0.10	24	288	723
982-120-100	10 ±0.08	1.0	8 ±0.08	30	248	612
982-120-120	12 ±0.08	1.5	9 ±0.10	36	303	765
982-120-150	15 ±0.08	1.5	12 ±0.08	45	248	612
982-120-180	18 ±0.08	1.5	15 ±0.08	54	209	510
Stainless steel (material 1.4571)						
D1127R02.5x0.5+A46	2,5 ±0.03	0.5	1,5 +0.05	7,5	386	1664
DIN2462-R04x1+A46	4 ±0.1	1	2 ±0.2	12	466	2080
DIN2462-R06x1+A46	6 ±0.1	1	4 ±0.2	18	347	1473
DIN2462-R08x1+A46	8 ±0.1	1	6 ±0.2	24	269	1105
DIN2462-R010x1+A46	10 ±0.1	1	8 ±0.2	30	231	936

Temperature range -25 to +80 °C

1) For cold bending with bending device or by hand with grooved disk.

2) Dynamic load according to DIN 2413

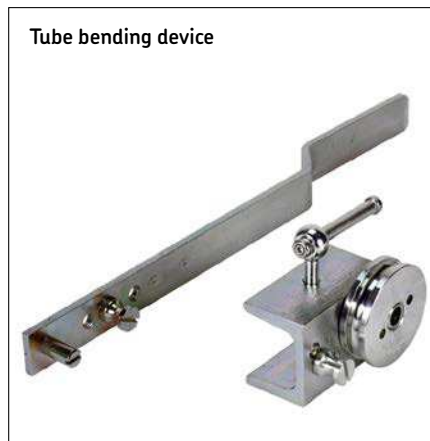
Tube bending device

ø steel pipeline [mm]	Order No.
4, 6, 8, 10	248-803.20
12 (special grooved disk) ³⁾	248-803.17
4 (retro fitting set) ⁴⁾	248-803.16

³⁾ To bend pipes with 12 mm diameter, the special grooved disk **248-803.17** must be ordered in addition to pipe bending device **248-803.20**.

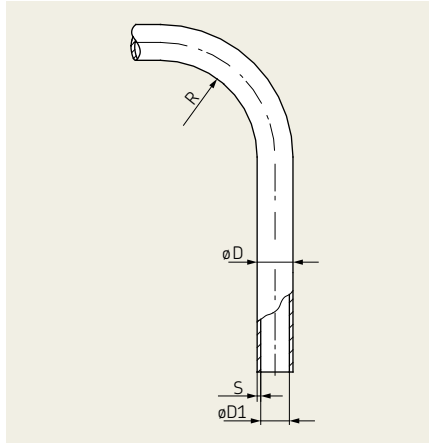
⁴⁾ Retro fitting set with grooved disk for older pipe bending devices **248-803.20**.

Tube bending device



Tubes and hoses

Plastic tubing



Plastic tubing WVN715, semirigid (without plasticizer)

Order No. ²⁾	ø D [mm]	S [mm]	ø D1 ^{+0.15} _{-0.05} [mm]	Minimum bending radius R [mm]	Permissible operating pressure ¹⁾ at 23 °C [bar]	Burst pressure [bar]
				freehand	with fixture	
WVN715-R02.5×0.5	2.5 ±0.1	0.5	1.5	25	9	66
WVN715-R04×0.85	4 ±0.1	0.85	2.3	38	14	72
WVN715-R06×1	6 ±0.1	1	4	63	21	53
WVN715-R06×1.25	6 ±0.1	1.25	3.5	63	21	70
WVN715-R08×1.25	8 ±0.1	1.25	5.5	76	28	49
WVN715-R010×1.5	10 ±0.15	1.5	7	89	35	47

Special scissor for plastic tubing, order No. 226-12508-5

- 1) The permissible operating pressure is lower at higher temperatures (→ the Pressure utilization factor table)
 2) If resistance to light-aging is desired, add the word "BLACK" in the order number (example = WVN715-R08x1.25x50M SCHWARZ)

Plastic tubing WVN716, flexible (containing plasticizer)

Order No. ²⁾	ø D ^{+0.1} _{-0.05} [mm]	S [mm]	ø D1 ^{+0.15} _{-0.05} [mm]	kleinster Biegeradius R [mm]	zulässiger Betriebsdruck ¹⁾ bei 23 °C [bar]	Berstdruck [bar]
				frei gebogen	mit Vorrichtung	
WVN716-R04×0.85	4	0.85	2.3	38	14	36
WVN716-R06×1.25	6	1.25	3.5	63	21	35
WVN716-R08×1.25	8	1.25	5.5	80	30	25

- 1) The permissible operating pressure is lower at higher temperatures (→ the Pressure utilization factor table)
 2) If resistance to light-aging is desired, add the word "BLACK" in the order number (example = WVN716-R08x1.25x50M SCHWARZ)

Pressure utilization factor

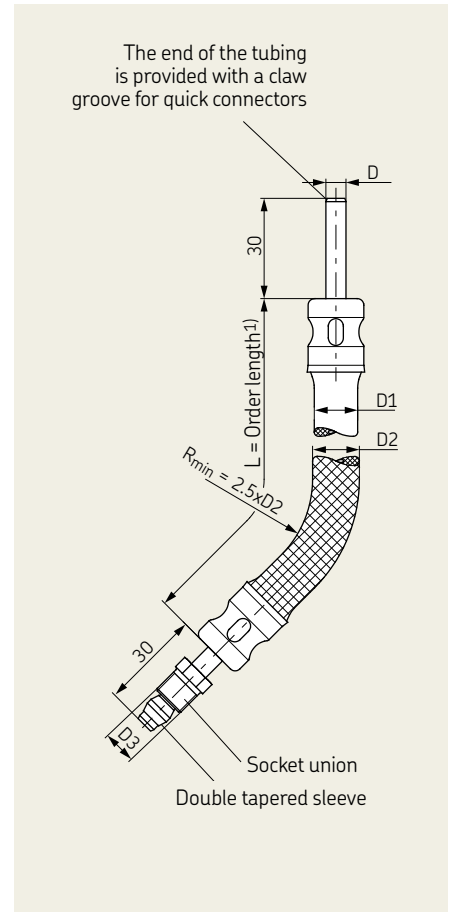
Temperature up to [°C]	Pressure efficiency [%]
30	83
40	72
50	64
60	57
70	52
80	47

Technical Data

WVN715	PA 12 H polyamide 12, semirigid, unplasticized as per DIN 73378, stabilized against heat and aging.	PA 12 HL (black tubing) polyamide 12, semirigid, unplasticized as per DIN 73378, stabilized against light, heat and aging.
WVN716	PA 12 PH polyamide 12, flexible, containing plasticizer as per DIN 73378, stabilized against heat and aging.	PA 12 PHL (black tubing) polyamide 12, flexible, containing plasticizer as per DIN 73378, stabilized against light, heat, and aging.
Temperature range	-60 to +80 °C	-60 to +80 °C

Tubes and hoses

Hoses



Hoses for main lines, operating pressure 45 bar (for short time only)

Order No. 1) 2)	With tapered sleeve and socket union on both ends Order No. 1)	Tube ø D	Thread D3	Rubber ø D1	Metal-braided D2	Max. increase in volume at ~ 80 bar [cm ³ /m]
Standard						
714-...(-VS)	714-...-K	4	M8×1	11	12 ±0.5	2.5
716-...(-VS)	716-...-K	6	M10×1	13	14 ±0.8	3.6
718-...(-VS)	718-...-K	8	M14×1.5	15	16 ±0.8	4.4
Metal-braided						
714-...-M(-VS)	714-...-MK	4	M8×1	11	12 ±0.5	2.5
716-...-M(-VS)	716-...-MK	6	M10×1	13	14 ±0.8	3.6
718-...-M(-VS)	718-...-MK	8	M14×1.5	15	16 ±0.8	4.4

Material: Hose: mineraloilresistant CR rubber inside; 2 layers of braided rayon; outside rubber conditionally oilresistant, resistant to light cracks and ozone.
Metal braid: galvanized steel wire; tube ends: galvanized steel tubing.

Hoses for secondary lines, operating pressure 15 bars (for short time only)

Order No. 1)	With claw groove for quick connectors Order No. 1) 2)	With tapered sleeve and socket union on both ends Order No. 1)	Tube ø D	Thread D3	Rubber D1
734-... 3)	734-...-VS 3)	734-...-K 3)	4	M8×1	8.8

Material: Hose: oilproof rubber inside and outside with a layer of braided rayon
Tube ends: steel tubing
The ends of the tubing are bonded to the hose and cannot be detached.

1) Order length in mm; other lengths available. Standardized lengths ±5 mm with ø 4 tubing: 180, 220, 260, 300, 380, 420, 450, 500, 580
with ø 6 tubing: 220, 300, 340, 380, 420, 500, 580
with ø 8 tubing: 340, 450, 580

2) For Version with claw groove on ends of tubing for quick connectors, Order No.: ...-VS → page 25.

3) **Important note:** To avoid damages do not use these hoses as main lines but only to connect distributors to lube points.

Permissible operating temperature: -30 °C to +70 °C

Order examples: Standard with socket unions and tapered sleeves, ø4 tubing, 300 mm long, order No.: **714-300-K**
Standard, ø4 tubing with claw groove for quick connectors, 300 mm long, order No.: **714-300-VS**
Metal-braided, ø6 tubing, 420 mm long, order No.: **716-420-M**
Metal-braided, ø8 tubing with claw groove for quick connectors 450 mm long, order No.: **718-450-M-VS**

Tubes and hoses

Hoses

Hoses suitable for self-installation, operating pressure 45 bars

Tube ø D	①	②		③		Increase in volume at ~40 bars [cm ³ /m]	
	Male body Order No.	Shell Order No.	Hose Order No. 1)	Hose D1			
4	406-704-001 (-VS) 2)	8	406-804-001	14	WVN701-4	11	1
6	406-706-001 (-VS) 2)	10	406-806-001	17	WVN701-6	13	1.4
8	406-708-001 (-VS) 2)	13	406-808-001	19	WVN701-8	15	1.4

1) Please quote length when ordering. Max. length available 20 m.

2) For version with claw groove on ends of tubing for quick connectors, order No.: ...-VS

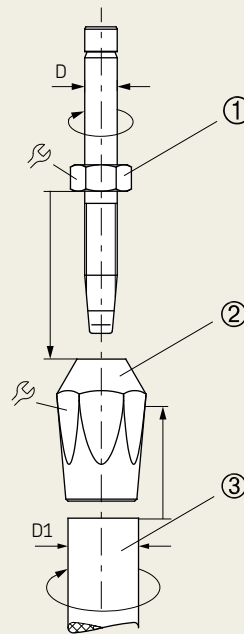
Material: Hose: Perbunan, resistant to mineral oils, with two layers of braided rayon
Male body: steel, galvanized
Shell: brass

Permissible operating pressure: -40 to +100 °C

Installation instructions

- Apply thin film of oil to thread and inside of hose of parts ③ ② ① to be connected.
- Clamp shell ② in vise and screw in hose ③ by turning it to the left up to the stop.
- Important note:** To avoid damages screw in male body ① with a wrench up to the stop.
Do not tighten!

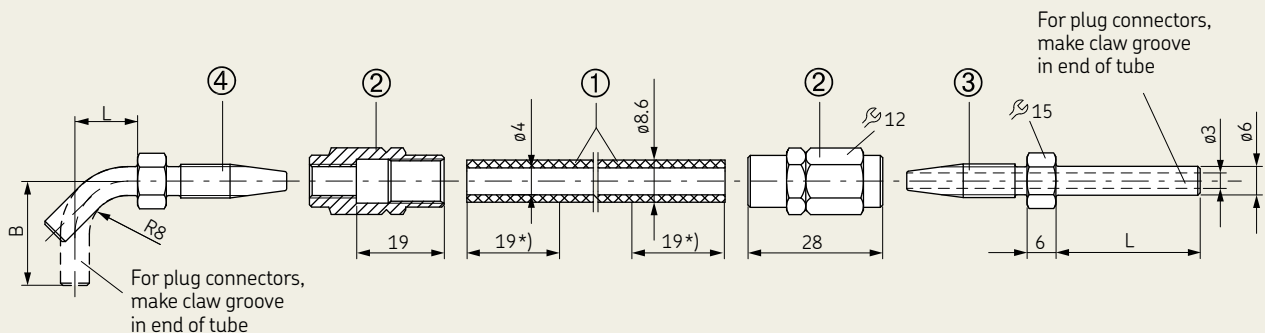
Hose



Tubes and hoses

High pressure hoses for self-installation

High pressure hoses for main line for tube diam. $\varnothing 6$ (NW4) and secondary lines



* Take length of engaged thread and double it when determining the length of the hose.

For main line for tube diam. $\varnothing 6$ (NW4) (connection: feeder – lubrication point) and secondary lines (connection: feeder – lubrication point)

Designation	Order No.	L	B
① High pressure hose, max. length supplied 50 m	982-750-091		
High pressure hose, max. length supplied 50 m filled with NLGI grade 2 grease	982-750-091+AF2		
② Sleeve	853-540-010		
Sleeve in stainless steel	432-23676-1		
③ Tube stud, straight	853-370-002	20	
	853-380-002	30	
	853-390-002	69	
	853-370-002-VS 1)	26	
	853-380-002-VS 1)	33	
Tube stud, straight in stainless steel	855-308-002	30	
④ Tube stud, 10° angle	853-390-006-VS 1)	65	4
Tube stud, 30° angle	853-390-005-VS 1)	64	17
Tube stud, 45° angle	853-380-004	17	11
	853-380-004-VS 1)	59	24
	853-390-004-VS 1)	65	24
Tube stud, 90° angle	853-380-003	13	22
	853-380-003-VS 1)	13	35
	853-390-003	24	50
	853-390-003-VS 1)	24	50
	853-390-004	24	36
Tube stud, 90° angle in stainless steel	855-380-003	13	28

1) Version with claw groove on ends of tubing for quick connectors, order No. : ...-VS → page 25.

Technical Data

Hose

Burst pressure	840 bars
Min. bending radius	35 mm

Material Hose

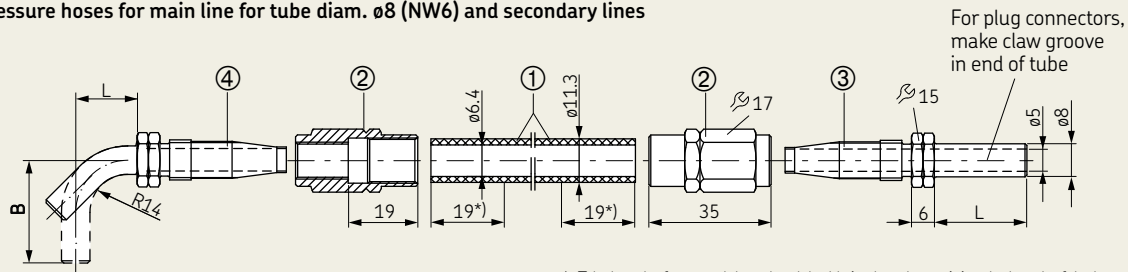
Inner lining	unplasticized polyester
Inner layer	braided synthetic fibers
Outer cover	weatherproof polyurethane
Sleeve, tube stud	steel, galvanized or stainless steel

Permissible operating temperature	-40 to +70 °C
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Tubes and hoses

High pressure hoses for self-installation

High pressure hoses for main line for tube diam. $\varnothing 8$ (NW6) and secondary lines



* Take length of engaged thread and double it when determining the length of the hose.

For main line for tube diam $\varnothing 8$ (NW6) (connection: feeder – lubrication point) and secondary lines (connection: feeder – lubrication point)

Designation	Order No.	L	B
① High pressure hose, max. length supplied 50 m	982-750-111		
High pressure hose, max. length supplied 50 m, filled with NLGI grade 2 grease	982-750-111+AF2		
② Sleeve	406-808-005		
③ Tube stud, straight	406-708-005	20	
	406-708-007¹⁾	47	
	406-708-005-VS²⁾	33	
④ Tube stud, 45° angle	406-708-009	37	26
Tube stud, 90° angle	406-708-008¹⁾	19	34

1) use only for screw-in connectors

2) Version with claw groove on ends of tubing for quick connectors, order No. : ...-VS → page 25.

Technical Data

Hose

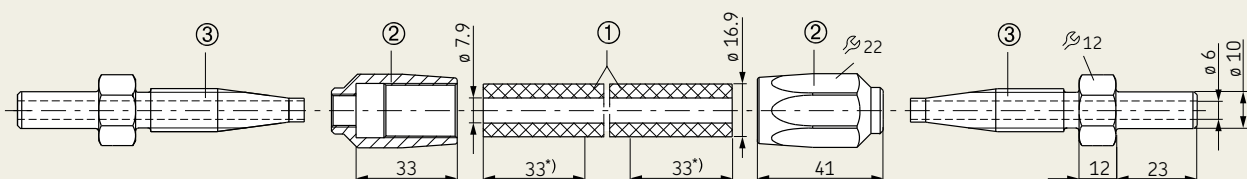
Burst pressure	840 bars
Min. bending radius	45 mm

Material Hose

Inner lining	unplasticized polyamide
Inner layer	braided synthetic fibers
Outer cover	weatherproof polyurethane, black
Sleeve, tube stud	steel, galvanized

Permissible operating temperature –40 to +70 °C

High pressure hoses for main line for tube diam $\varnothing 10$ (NW8) and secondary lines



* Take length of engaged thread and double it when determining the length of the hose.

For main line for tube diam. $\varnothing 10$ (NW8) (connection: feeder – lubrication point)

Designation	Order No.
① High pressure hose, max. length supplied 100 m	WVN711-10
High pressure hose, max. length supplied 50 m filled with NLGI grade 2 grease	WVN711-10+AF2
② Sleeve	406-810-002
③ Tube stud, straight	406-710-002

Technical Data

Hose

Burst pressure	520 bars
Min. bending radius	55 mm

Material Hose

Inner lining	perbunan
Inner layer	diagonally woven synthetic fibers
Outer cover	weatherproof neoprene
Sleeve	Aluminum
Rohrstutzen	steel, galvanized

Permissible operating temperature –40 to +100 °C

Accessories

Quick-disconnect couplings

Quick-disconnect couplings, operating pressure 45 bars

Coupling, complete

Order No.	Tube \varnothing	D1 ¹⁾	L2	Durchfluss- richtung
207-168-2	6	M10x1	65	beliebig
207-188-2	8	M14x1,5	71,5	

Outer coupling member

Order No.	Tube \varnothing	L1
207-168.U7	6	51,5
207-188.U11	8	58

Inner coupling member

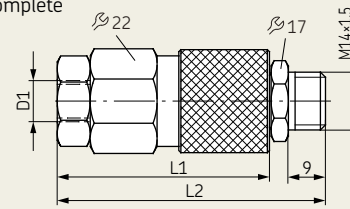
Order No. 207-168.U2

Both coupling members are shut off when disconnected!

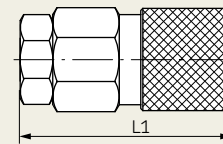
1) Ports tapped for solderless tube connection

Quick-disconnect couplings, operating pressure 45 bars

Coupling, complete



Outer coupling member



Inner coupling member

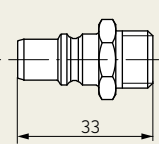
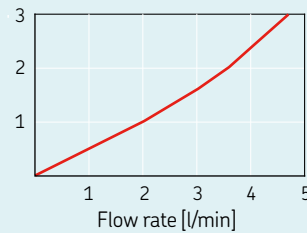


Diagram 1

Pressure loss Δp [bar]

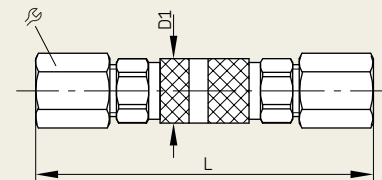


Pressure loss as a function of the flow rate based on an operating oil viscosity of 140 mm²/s

Quick-disconnect couplings, operating pressure 100 bars

Order No.	Tube \varnothing	L	D1	\varnothing
995-001-525	4	68	10	10
995-001-526	6	80	15	12

Quick-disconnect couplings, operating pressure 100 bars



Accessories

Filler coupling for oil and fluid grease

Coupling plugs				
Order No.	øA	L	Respective dust cover Order No.	Respective coupling socket Order No.
995-001-096	G1/4	39	995-001-235	–
995-001-501	G1/4	57.5	995-001-503	995-002-073
995-001-502	G1/2	82	995-001-504	995-001-950
995-000-705	G1/4	–	–	995-001-500
995-001-260	G1/2	83	–	–



Coupling socket with return flow port			
Order No.	Respective coupling plug Order No.	Respective stub Order No.	Respective dust cover Order No.
995-001-620	995-001-621	995-001-622	995-001-623



Accessories

Pressure gauges

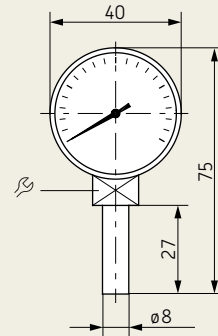
Pressure gauges (→ Figure 21) Damped design with restrictor

Order No.	Indication range	⌀	Restrictor
Steel housing, black			
248-602.25	0–10 bars	4kt 12	–
169-102-506 1)	0–25 bars / 0–360 psi	12	0.4
248-602.20	0–40 bars	12	–
169-104 008 1)	0–40 bars	4kt 14	0.4
ABS housing			
169-106-004	0–60 bars	4kt 14	–

Fixed by means of a double tapered sleeve and socket union (solderless tube connection) in counterbore acc. to DIN 3854/DIN 3862.

1) damped design

Figure 21



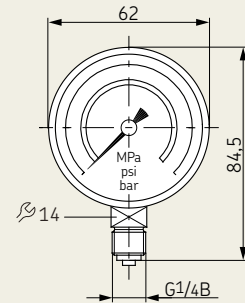
Pressure gauges (→ Figure 22)

Order No.	Indication range
ABS housing	
169-101-004	0–10 bars
169-102-020 2)	0–25 bars / 0–363 psi / 0–2,5 Mpa
169-104-020 2)	0–40 bars / 0–580 psi / 0–4 Mpa
169-106-020 2)	0–60 bars / 0–870 psi / 0–6 Mpa
169-110-020 2)	0–100 bars / 0–1450 psi / 0–10 Mpa
169-116-000	0–160 bars
169-125-020 2)	0–250 bars / 0–3625 psi / 0–25 Mpa

Washer, order No. 248-610.02, must be ordered separately for every pressure gauge.

2) Associated connecting pieces → page 7

Figure 22

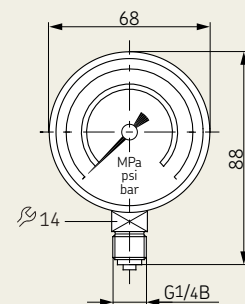


Pressure gauges (→ Figure 23) Damped version with glycerine filling

Order No.	Indication range	Mounting position
Stainless steel housing		
169-102-015	0–25 bars / 0–363 psi / 0–2,5 Mpa	vertically
169-104-015	0–40 bars / 0–580 psi / 0–4 Mpa	
169-106-015	0–60 bars / 0–870 psi / 0–6 Mpa	
169-110-015	0–100 bars / 0–1450 psi / 0–10 Mpa	
169-125-015	0–250 bars / 0–3625 psi / 0–25 Mpa	
169-140-001	0–400 bars	

Washer, order No. 248-610.02, must be ordered separately for every pressure gauge.

Figure 23

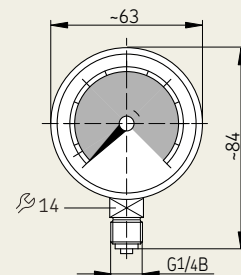


Pressure gauges (→ Figure 24) Damped design with glycerin filling and visualization in red/green

Order No.	Indication range	Mounting position
Stainless steel housing		
169-101-607	0–16 bars / 0–1.6 MPa	vertically
169-104-011	0–40 bars / 0–4 MPa	
169-106-011	0–60 bars / 0–6 MPa	
169-110-010	0–100 bars / 0–10 MPa	

Washer, order No. 248-610.02, must be ordered separately for every pressure gauge.

Figure 24



Accessories

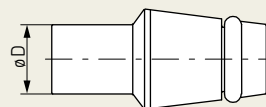
Solderless pipe union with cutting-sleeve according to DIN EN ISO 9974-1 and DIN 2353

Cone plugs

Order No. Tube \varnothing D

460-706-001	6
460-708-001	8
460-710-001	10
460-712-001	12

Cone plug

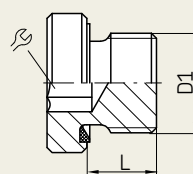


Screw plugs with elastomer seal

Order No. D1 L β

466-411-001	G 1/4 A	16	17
466-413-001	G 1/2 A	14	10
466-416-001	G 3/4 A	12	6
466-418-001	G 1 A	16	12
466-439-001	M18x1.5	12	8

Screw plug



Screw plugs with profile seal according to DIN 3869

Order No. D1 L β

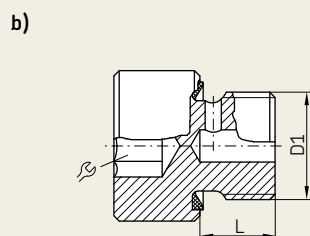
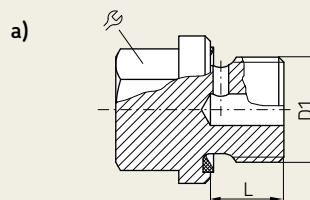
466-419-001	G 1/8 A	8	5
429-429-001	M8x1	8	4
466-431-001	M10x1	8	5

Vent plugs with profile seal according to DIN 3869

Order No. D1 L β Fig.

466-431-006	M10x1	7	10	a
466-431-005	M10x1	7	5	b
466-431-009	G 1/8 A			

Vent plug



More screw plugs → page 12

Accessories

Rotating joints, Banjo fittings

Rotating joints

Order No.	Tube \varnothing	D1	D2 ¹⁾	Max. speed [min ⁻¹]	Max. pressure oil [bar]	Max. pressure air [bar]
401-504-192	4	G 1/8	M8x1	100	30	8
401-504-292	4	M8x1	M8x1			
401-506-313	6	M10x1	M10x1			

Flow media: mineral oils, oiled compressed air

1) Ports tapped for solderless tube connection

Banjo fitting, rotatable

Order No.	Tube \varnothing	D1	Fig.
405-549-049	4	M8x1 tap.	a
405-551-049	4	M10x1 tap.	

Banjo fitting, rotatable

Order No.	Tube \varnothing	D1	Max. speed [min ⁻¹]	Max. pressure oil [bar]	Max. pressure air [bar]	Fig.
DLY930-2 DLY931	8	G 1/4 A R 1/8 tap.	1400	20 ²⁾	8	b

Flow media: mineral oils, oiled compressed air

2) 30 bars in single-line centralized lubrication systems for a short time.

Banjo fitting, rotatable

Order No.	Tube \varnothing	Max. speed [min ⁻¹]	Max. pressure [bar]	Fig.
DLY932	6	1400	5	c

Flow media: mineral oils

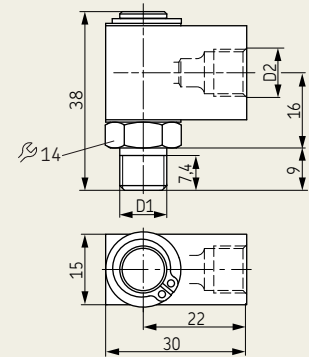
Banjo fitting, rotatable

Order No.	Tube \varnothing	Remark	Max. speed [min ⁻¹]	Max. pressure [bar]	Fig.
408-120	8	Part a rotating in part b	20	10	d

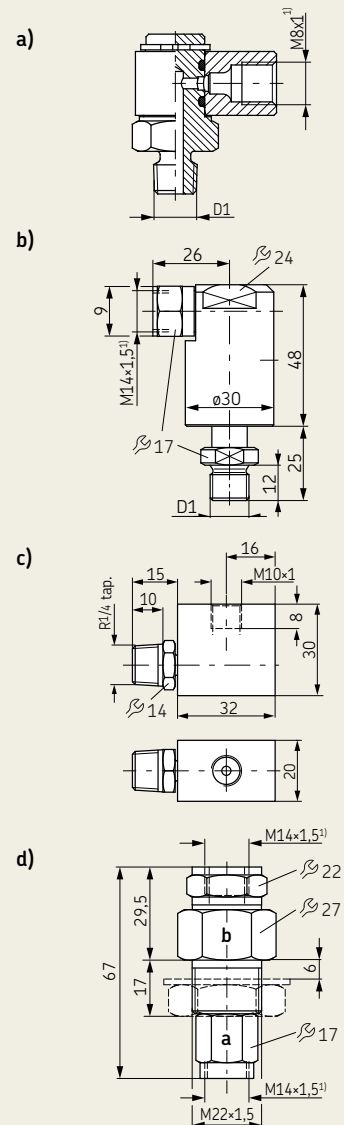
Flow media: mineral oils

The rotating joint is also available with nut DIN936-M22x1.5 and spring washer DIN137-B22.

Rotating joint



Banjo fitting



1) Ports tapped for solderless tube connection

Accessories

Relief valves

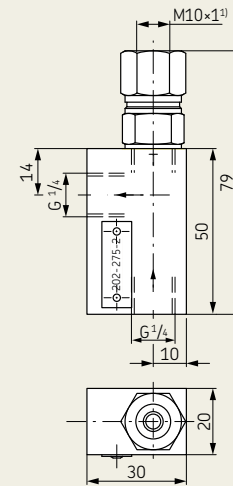
These valves are installed in distributor systems fitted with a pump without pressure relief equipment, mainly in the main line downstream from the pump.

With longer main lines and high viscosity oils, the pressure relief time, which influences the reversing of the distributors, can become too long. The installation of the second relief valve at a suitable position in the main line, e.g. at half the main line length, may remedy this problem.

Relief valve

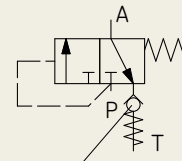
Order No. 202-275-2

Relief valve 202-275-2



1) Ports tapped for solderless tube connection

Connection diagram



Check valve = residual pressure valve 0.5 bar

A = Outlet
P = Inlet
T (R) = Return

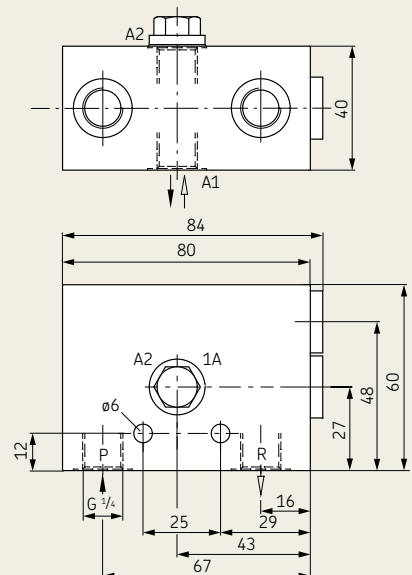
Relief valve with bleed valve and safety valve

Order No. 202-175-30

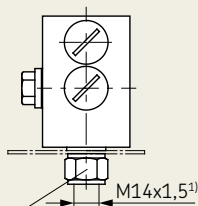
Adaptors ¹⁾ for tube ø6: Order No. 406-054
for tube ø8: Order No. 301-020
for tube ø10: Order No. 410-163

1) Ports tapped for solderless tube connection

Relief valve 202-175-30



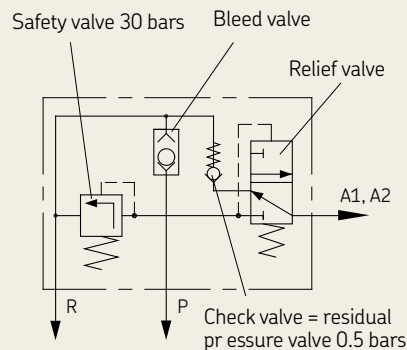
Fitted to reservoir



For P and R
2 adaptors each 408-160
washers 508-108

1) Ports tapped for solderless tube connection

Relief valve circuit diagram



Accessories

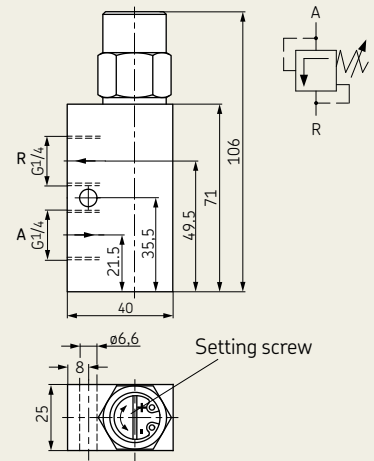
Safety valves, Check valves

Safety valves, adjustable (poppet valve)

Order No.	Rated flow rate [l/min]	Adjustable pres. range [bar]	Operating pres. max. [bar]	Oil temperature max. [°C]	Viscosity range [mm ² /s]	Seal
WVN200-10E6		1 to 6	40			NBR
WVN200-10E12		3 to 12	40			NBR
WVN200-10E12-S8		3 to 12	40			FPM
WVN200-10E25	→ Dia-gram 2	4 to 25	40	80	20 to 1000	NBR
WVN200-10E25-S8		4 to 25	40			FPM
WVN200-10E35		4 to 35	40			NBR
WVN200-10E60		12 to 60	70			NBR
WVN200-10E60-S8		12 to 60	70			FPM

General characteristics Design: poppet valve with hydraulic cushioning directly controlled
 Lubricant: oil
 Connecting thread: G 1/4
 Mounting position: optional

Safety valve



Adaptors for valves 1)

	Order No.
Valves WVN200-10E6 to WVN200-10E35 for tube ø8	301-020
for tube ø10	410-163
for tube ø12	412-163
Washer	508-108
Valves WVN200-10E60 for tube ø8	408-403W
for tube ø10	410-403W
Washer	508-108

If installed on a reservoir
 Two special adaptors with long tube ends
408-160

1) Ports tapped for solderless tube connection

Fitted to reservoir

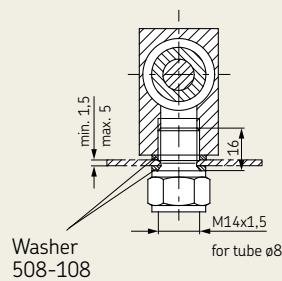
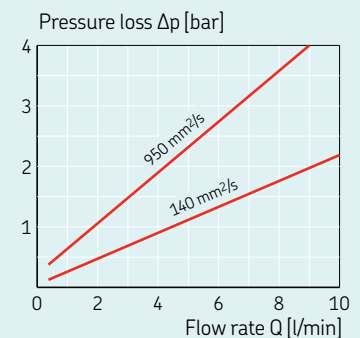


Diagram 2

Pressure loss parameter



With increasing flow rate, the pressure upstream from the valve will also rise in accordance with the curves.

Check valves (ball valves)

Order No.	Tube ø D	G	Opening pressure [bar]	Max. pressure [bar]	Series	Fig.
VPG-RV	4	R 1/8 tap.	10	100	LL	a
VPG-RV6	6	R 1/8 tap.	10	315	L	a
VPG-RV8	8	R 1/8 tap.	10	315	L	a
VPM-RV4	4	M10×1 tap.	10	100	LL	a
VPM-RV6	6	M10×1 tap.	10	315	L	a
VPM-RV8	8	M10×1 tap.	10	315	L	a
VPM-RV10	10	M10×1 tap.	10	315	L	a

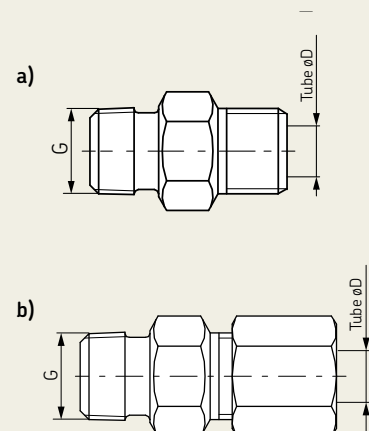
With cutting sleeve and union nut

VPKG-RV	6	R 1/8 tap.	3	100	LL	b
VPKM-RV-S3 2)	6	M10×1 tap.	3	100	LL	b
VPKM-RV-S4	6	M10×1 tap.	2	100	LL	b

2) stainless steel

Check valves for quick connectors → pages 27, 29. LL series = extra light version, L-series = light version

Check valve



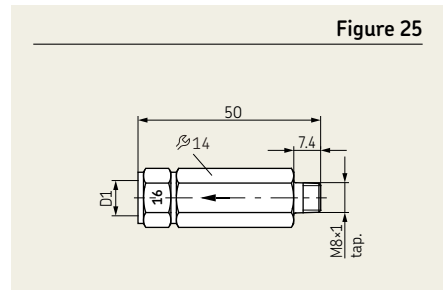
Accessories

Safety valves


Safety valves (ball valves), for flow rates from 0.5–2 l/min (→ Figure 25)

Order No.	Tube \varnothing	Opening pressure [bar]	Marking	D1 1)
WVN200-4A0.4	4	0.4	04	M8×1
WVN200-4A5		5	5	
WVN200-4A8		8	8	
WVN200-4A12		12	12	
WVN200-4A16		16	16	
WVN200-4A25		25	25	
WVN200-4A0.4-S1	6	0.4	04	M10×1

1) Ports tapped for solderless tube connection

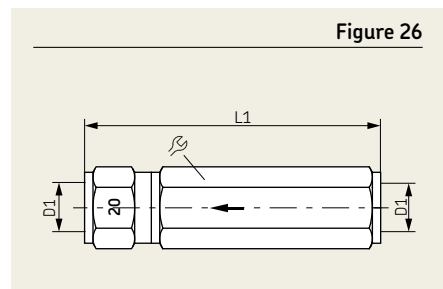


Safety valves (ball valves), for flow rates from 0.5–2 l/min (→ Figure 26)

Order No.	Tube \varnothing	Opening pressure [bar]	Marking	D1 1)	L1	
WVN200-6B0.5	6	0.5	05	M10×1	61	14
WVN200-6B3		3	3			
WVN200-6B8		8	8			
WVN200-6B12		12	12			
WVN200-6B16		16	16			
WVN200-6B20		20	20			
WVN200-6B40	40	40	40			
WVN200-8B0	8	0.04	0	M14×1.5	71	17
WVN200-8B3		3	3			
WVN200-8B5		5	5			
WVN200-8B12		12	12			
WVN200-8B16		16	16			
WVN200-8B20		20	20			
WVN200-8B32	32	32	32			
WVN200-10B0	10	0.04	0	M16×1.5	80	19
WVN200-10B0.5		0.5	05			
WVN200-10B1		1.2	12			
WVN200-10B32		32	32			
161-212-054 2)	8	20	20	M14×1.5	84.5	17

1) Ports tapped for solderless tube connection

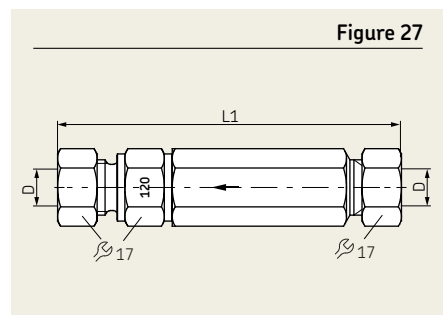
2) This valve is designed as a plunger valve. Because of this design it can also be used for regulating tasks, whereas the ball valves should be used as safety valves.



Safety valves (ball valves), for flow rates from 0.5–2 l/min (→ Figure 27)

Order No.	Tube \varnothing	Opening pressure [bar]	Marking	L1
WVN200-8D50	8	50	50	84
WVN200-8D75		75	75	
WVN200-8D120		120	120	
WVN200-8D220		220	220	
WVN200-10D120-S1	10	120	120	87
WVN200-10D160-S1		60	160	
WVN200-10D220-S1		220	220	

Cutting sleeve screw unions according to DIN 2353



Accessories

Shut-off valves

Shut-off valve

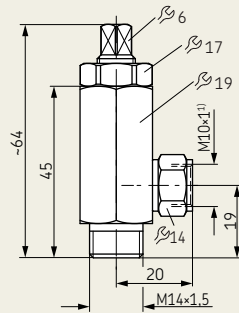
Order No.	p max. [bar]	Max. temperature [°C]	Spindelweg
202-085-S	60	80	max. 3 revs.

Direction of flow optional

Shut-off valves

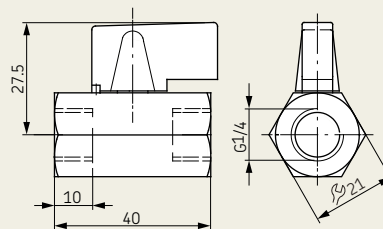
Order No.	p max. [bar]	Max. temperature [°C]
161-600-036	16	90
UFZ.0097	10	90

Shut-off valve 202-085-S

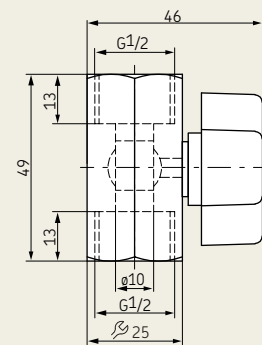


1) Ports tapped for solderless tube connection

Shut-off valve 161-600-036



Shut-off valve UFZ.0097



Accessories

Topping-up pumps, oil trough

Topping-up pumps

Order No.	Drum [kg]	Medium	Operation	Trolley
169-000-004	15			
169-000-012	10			
169-000-016	20	NLGI 1,2	manually operated	no
169-000-056	25			
169-000-082	25 / 50	00/000	manually operated	yes
169-000-084	25			
169-000-042	25	NLGI 1,2	manually operated	yes
169-000-054	50			
169-000-342	25	NLGI 1,2	manually operated	no
169-000-018	25	00 bis 2	pneum. operated	yes

For drums with a maximum inner diameter of 350 mm and maximum height of 450 mm

Topping-up pump 169-000-042



Topping-up pump 169-000-342



Oil trough with shut-off valve

Order No.	Reservoir capacity [l]	B	H	T
B3.U21	3	350	280	140
B7.U271	6	400	380	190

Oil trough



Lever-type grease gun

for checking of feeders in the installed system

Order No.	Tube ø	Connection thread
169-000-143	6	M12×1.5

Lever-type grease gun



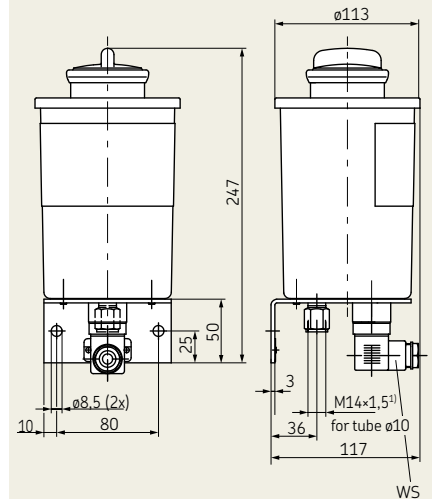
Reservoirs

Oil reservoirs – plastic

Plastic reservoirs

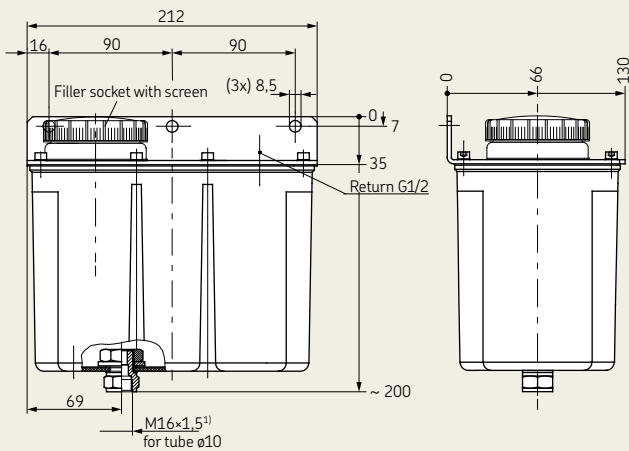
Order No.	Reservoir capacity [liters]	Level indicator WS	Type of contact	Seal material
K1		–	–	
KW1	1	for min. filling level	NC	NBR
KW1-S2		for min. filling level	NC	
K3-S2	3	–	–	
KW3-S1		for min. filling level	changeover	NBR
K6-S5		–	–	
KW6-S1	6	for min. filling level	changeover	NBR
KW6-S2		for min. level with advance warning	2 NCs	NBR
KW6-S81		for min. filling level	changeover	FPM
KW6-V57		for min. level with advance warning	2 NCs	NBR

Plastic reservoir, 1 liter



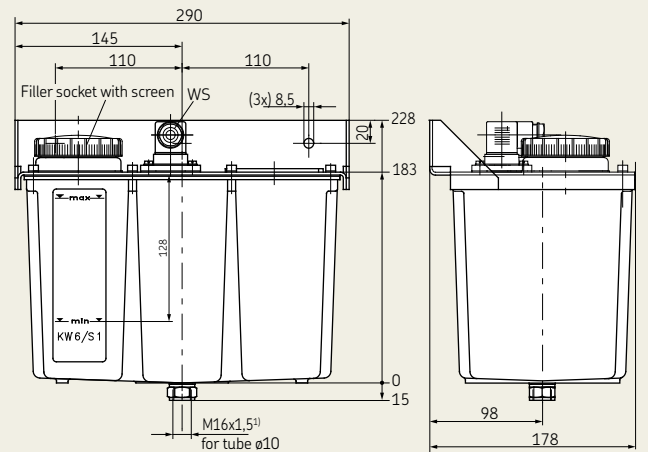
1) Ports tapped for solderless tube connection

Plastic reservoir, 3 liter



1) Ports tapped for solderless tube connection

Plastic reservoir, 6 liter



1) Ports tapped for solderless tube connection

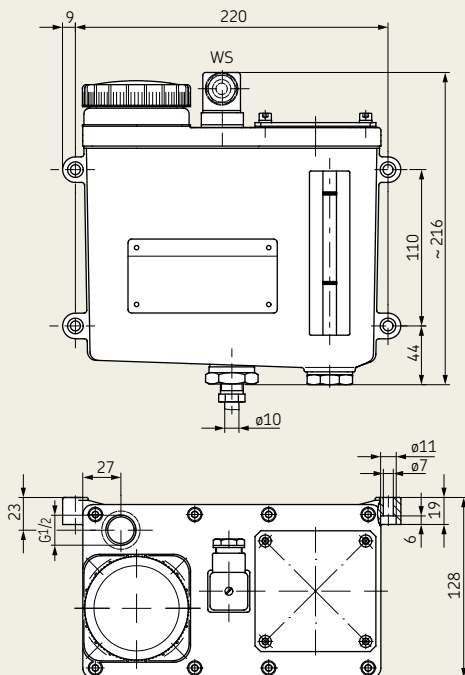
Reservoirs

Oil reservoirs – metal

Metal reservoirs

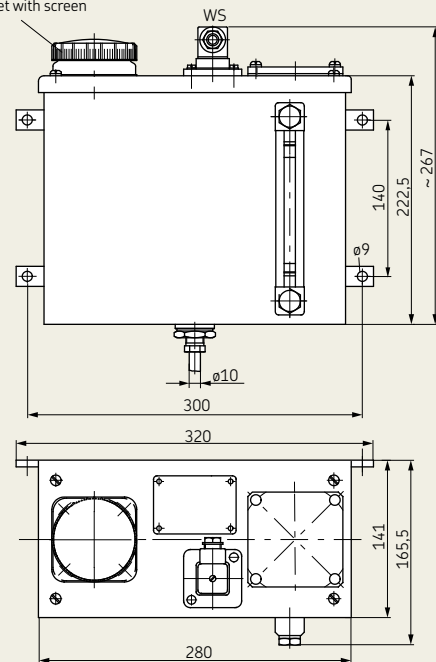
Order No.	Reservoir capacity [liters]	Level indicator WS	Type of contact	Seal material
162-210-005	3	for min. filling level	changeover	NBR
B7		–	–	NBR
BW7-S6		for min. and max. filling level	2 NCs	NBR
BW7-S7		for min. filling level with advance warning	2 NCs	NBR
BW7-S8	6	for min. filling level	changeover	FPM
BW7-S11		for min. filling level with advance warning	1 NO, 1 NC	NBR
BW7-S12		for min. filling level with advance warning	1 NO, 1 NC	NBR
162-310-005		for min. filling level	changeover	NBR

Metal reservoir, 3 liter



Metal reservoir, 6 liter

Filler socket with screen

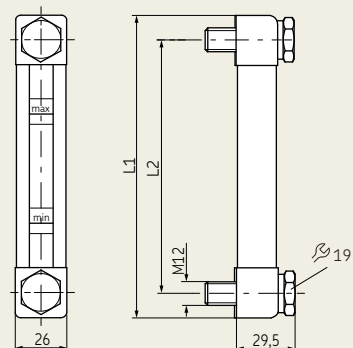


Oil level gauges for metal reservoir

Order No.	Reservoir capacity [Liter]	L	
		L1	L2
995-003-044	6	152	127
995-003-040	6	190	165
995-003-041	15 und 30	215	190
995-003-042	50	279	254
995-003-043	100	305	280

Type: NBR, FKM (FPM) on request

Oil level gauge





Important information on product usage

SKF and Lincoln lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1 013 mbar) by more than 0,5 bar at their maximum permissible temperature.



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