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test couplings and accessories



series M16x2 (MKK1620)

- made from steel for oil – zinc nickel, transparent
- made from steel for inert gases – zinc nickel, transparent
- connectors and adaptors – zinc nickel, transparent
- made from stainless steel for oil

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series S16x1,5 (MKK1604)

- made from steel – zinc nickel, black
- made from stainless steel

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series M16x1,5 (MKK1615)

- made from steel for oil – zinc nickel, black
- connectors and adaptors – zinc nickel, black
- made from stainless steel (upon request)

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page f. 31



series S12x1,5 (MKK1215)

- made from steel for oil – zinc nickel, transparent
- connectors and adaptors – zinc nickel, transparent

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series Steck (MKSteck)

- valve function by ball – zinc nickel, transparent
- connectors and adaptors – zinc nickel, transparent

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test box

- Spradow Test Box with 2 and more pressure gauges
Standard equipment or according to your specifications
- Smart Logger Box with 1 or 2 devices
Standard equipment or according to your specifications

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pressure gauges

- NG63, G1/4 A bottom, different pressure stages
- Spradow Smart Logger

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hoses and connectors DN2 and DN4

- hose material
- hose end fittings

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adaptor / accessories and annex

- filling valves for inert gases
- fittings BE, GE, RED (reducer) as single parts
- caps and weld-on nipple
- annex (port connection and seals and definitions)

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Application:

Spradow test couplings are applied for monitoring and control pressure as well as the ventilation. The advantages of this system are - among other - connection at system pressure level, the easy connection to measurement control and switching devices, the leakproof connection and the integrated vibration security of the metal cap.

Media:

Hydraulic oils and mineral based fluids.
(Please check compatibility of seal material.)

Materials:

Metal parts: Steel, Stainless steel upon request
Seals: NBR (-25 °C to +110 °C)
FKM (-20 °C to +200 °C)
EPDM (-40°C to +150 °C)
Hose: Polyamide (-35 °C to +100 °C)

Surface:

Zinc nickel, transparent, CrVI-free.

Pressure:

Maximum working pressure (PN) of the test couplings - 630 bar, at 4-fold security. Connection under pressure up to 400 bar. For the union pieces please observe the instructions given by the corresponding producer.



design types of caps

type B (round)	type A (universal)	type A (universal) plastic
standard: incl. vibration security		(temperature range -20°C to +100°C)

port connection and seals

type 1	type 2	type 3	type 4	type 5	type 6
Design types of port connection and seals please see annex.					

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

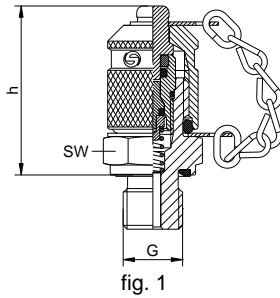


fig. 1

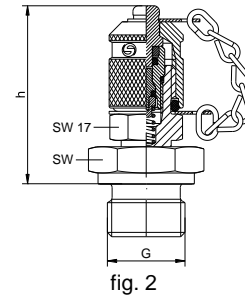


fig. 2

G	PN	SW	h	fig.	sealing	part number (NBR)	part number (FKM)
M8x1	250	17	38	1	o-ring type 1	1-Z06-20-21-600-CF	1-Z06-20-22-600-CF
M8x1		17	38	1	metal sealing type 2	1-Z06-20-30-600-CF	1-Z06-20-32-600-CF
M10x1	630	17	38	1	o-ring type 1	1-Z06-22-21-600-CF	1-Z06-22-22-600-CF
M10x1	400	17	38	1	metal sealing type 2	1-Z06-22-30-600-CF	1-Z06-22-32-600-CF
M10x1	400	17	39	1	soft sealing type 3	1-Z06-22-11-600-CF	1-Z06-22-12-600-CF
M10x1		17	38	1	metal sealing type 6	1-Z06-22-40-600-CF	1-Z06-22-42-600-CF
M10x1,25		17	38	1	o-ring type 1	1-Z06-49-21-600-CF	1-Z06-49-22-600-CF
M10x1,25		17	38	1	soft sealing type 3	1-Z06-49-11-600-CF	1-Z06-49-12-600-CF
M12x1,5	630	17	38	1	metal sealing type 2	1-Z06-23-30-600-CF	1-Z06-23-32-600-CF
M12x1,5	630	17	39	1	soft sealing type 3	1-Z06-23-11-600-CF	1-Z06-23-12-600-CF
M14x1,5	630	19	37	1	metal sealing type 2	1-Z06-24-30-600-CF	1-Z06-24-32-600-CF
M14x1,5	630	19	37	1	soft sealing type 3	1-Z06-24-11-600-CF	1-Z06-24-12-600-CF
M14x1,5	630	19	38	1	o-ring type 5	1-Z06-24-61-600-CF	1-Z06-24-62-600-CF
M16x1,5	630	22	37	1	metal sealing type 2	1-Z06-25-30-600-CF	1-Z06-25-32-600-CF
M16x1,5	630	22	37	1	soft sealing type 3	1-Z06-25-11-600-CF	1-Z06-25-12-600-CF
M18x1,5		24	39	1	metal sealing type 2	1-Z06-26-30-600-CF	1-Z06-26-32-600-CF
M18x1,5		24	39	1	soft sealing type 3	1-Z06-26-11-600-CF	1-Z06-26-12-600-CF
M20x1,5		27	39	1	metal sealing type 2	1-Z06-51-30-600-CF	1-Z06-51-32-600-CF
M20x1,5		27	39	1	soft sealing type 3	1-Z06-51-11-600-CF	1-Z06-51-12-600-CF
M22x1,5		27	39	1	metal sealing type 2	1-Z06-27-30-600-CF	1-Z06-27-32-600-CF
M22x1,5		27	39	1	soft sealing type 3	1-Z06-27-11-600-CF	1-Z06-27-12-600-CF
M26x1,5		32	49	2	metal sealing type 2	1-Z11-52-30-600-CF	1-Z11-52-32-600-CF
M27x2		36	49	2	metal sealing type 2	1-Z11-53-30-600-CF	1-Z11-53-32-600-CF
M33x2		41	49	2	metal sealing type 2	1-Z11-54-30-600-CF	1-Z11-54-32-600-CF
M42x2		50	50	2	metal sealing type 2	1-Z11-55-30-600-CF	1-Z11-55-32-600-CF
M48x2		60	50	2	metal sealing type 2	1-Z11-56-30-600-CF	1-Z11-56-32-600-CF
G 1/8	400	17	38	1	metal sealing type 2	1-Z06-28-30-600-CF	1-Z06-28-32-600-CF
G 1/8	400	17	39	1	soft sealing type 3	1-Z06-28-11-600-CF	1-Z06-28-12-600-CF
G 1/4	630	19	37	1	metal sealing type 2	1-Z06-29-30-600-CF	1-Z06-29-32-600-CF
G 1/4	630	19	37	1	soft sealing type 3	1-Z06-29-11-600-CF	1-Z06-29-12-600-CF
G 1/4		19	37	1	metal sealing type 6	1-Z06-29-40-600-CF	1-Z06-29-42-600-CF
G 3/8	630	22	37	1	metal sealing type 2	1-Z06-30-30-600-CF	1-Z06-30-32-600-CF
G 3/8	630	22	37	1	soft sealing type 3	1-Z06-30-11-600-CF	1-Z06-30-12-600-CF
G 1/2		27	39	1	metal sealing type 2	1-Z06-31-30-600-CF	1-Z06-31-32-600-CF
G 1/2	630	27	39	1	soft sealing type 3	1-Z06-31-11-600-CF	1-Z06-31-12-600-CF
G 3/4		32	40	1	metal sealing type 2	1-Z06-32-30-600-CF	1-Z06-32-32-600-CF
G 1		41	48	2	metal sealing type 2	1-Z11-57-30-600-CF	1-Z11-57-32-600-CF
G 1 1/4		50	50	2	metal sealing type 2	1-Z11-58-30-600-CF	1-Z11-58-32-600-CF
G 1 1/2		60	50	2	metal sealing type 2	1-Z11-59-30-600-CF	1-Z11-59-32-600-CF
Rk 1/8*	400	17	36	1	thread type 4	1-Z06-33-00-600-CF	1-Z06-33-02-600-CF
Rk 1/4*	630	17	35	1	thread type 4	1-Z06-34-00-600-CF	1-Z06-34-02-600-CF
Rk 3/8*		19	35	1	thread type 4	1-Z06-35-00-600-CF	1-Z06-35-02-600-CF
5/16-24 UNF	400	17	38	1	o-ring type 5	1-Z06-38-30-600-CF	1-Z06-38-32-600-CF
7/16-20 UNF	630	17	38	1	o-ring type 5	1-Z06-39-30-600-CF	1-Z06-39-32-600-CF
1/2-20 UNF	630	17	38	1	o-ring type 5	1-Z06-61-30-600-CF	1-Z06-61-32-600-CF
9/16-18 UNF	630	19	38	1	o-ring type 5	1-Z06-40-30-600-CF	1-Z06-40-32-600-CF
3/4-16 UNF	630	27	40	1	o-ring type 5	1-Z06-41-30-600-CF	1-Z06-41-32-600-CF
1/8 NPT	400	17	36	1	thread type 4	1-Z06-43-00-600-CF	1-Z06-43-02-600-CF
1/4 NPT	630	17	35	1	thread type 4	1-Z06-44-00-600-CF	1-Z06-44-02-600-CF
3/8 NPT		19	36	1	thread type 4	1-Z06-45-00-600-CF	1-Z06-45-02-600-CF
1/2 NPT		22	37	1	thread type 4	1-Z06-46-00-600-CF	1-Z06-46-02-600-CF

For metal cap type A (universal) with vibration security replace 600 by 590
 For metal cap type B (round) **without vibration security** replace 600 by 020
 For metal cap type A (universal) **without vibration security** replace 600 by 010
 For plastic cap type A (universal) **with vibration security** replace 600 by 100

*acc. DIN 3858

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

fitting with test coupling series M16x2

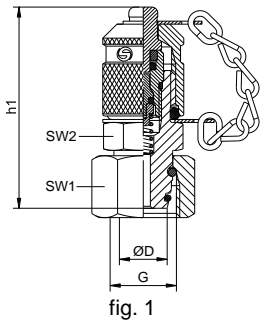


fig. 1

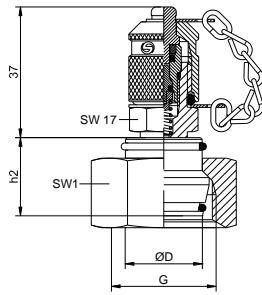


fig. 2

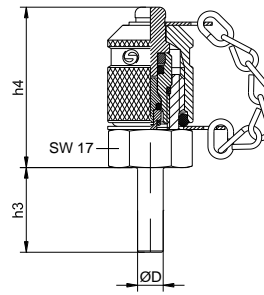


fig. 3

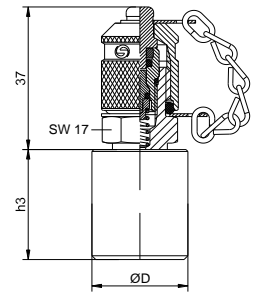


fig. 4

type DKO

test coupling with 24° taper adapter (DIN3865 / ISO8434-1)

type BE

test coupling for compression ring fittings

type	PN	tube ØD	h1	h2	h3	h4	SW1	SW2	G	type DKO part number	fig.	type BE part number	fig.
L	315	6	53	-	20	39	14	17	M12x1,5	1-Z08-00-10-600-CF	1	1-Z09-00-00-601-CF	3
		8	53	-	20	39	17	17	M14x1,5	1-Z08-02-10-600-CF	1	1-Z09-02-00-601-CF	3
		10	50	-	22	37	19	17	M16x1,5	1-Z08-04-10-600-CF	1	1-Z09-04-00-601-CF	3
		12	50	-	22	37	22	17	M18x1,5	1-Z08-06-10-600-CF	1	1-Z09-06-00-601-CF	3
		15	51	-	22	37	27	19	M22x1,5	1-Z08-09-00-600-CF	1	1-Z09-09-00-601-CF	3
		18	-	22	28	-	32	-	M26x1,5	1-Z08-11-00-600-CF	2	1-Z09-11-00-601-CF	4
	160	22	-	22	30	-	36	-	M30x2	1-Z08-13-00-600-CF	2	1-Z09-13-00-601-CF	4
		28	-	24	32	-	41	-	M36x2	1-Z08-15-00-600-CF	2	1-Z09-15-00-601-CF	4
		35	-	27	42	-	50	-	M45x2	1-Z08-17-00-600-CF	2	1-Z09-17-00-601-CF	4
		42	-	28	45	-	60	-	M52x2	1-Z08-19-00-600-CF	2	1-Z09-19-00-601-CF	4
S	630	6	54	-	20	39	17	17	M14x1,5	1-Z08-01-10-600-CF	1	1-Z09-00-00-601-CF	3
		8	51	-	20	39	19	17	M16x1,5	1-Z08-03-10-600-CF	1	1-Z09-02-00-601-CF	3
		10	51	-	22	37	22	17	M18x1,5	1-Z08-05-10-600-CF	1	1-Z09-04-00-601-CF	3
		12	51	-	22	37	24	17	M20x1,5	1-Z08-07-10-600-CF	1	1-Z09-06-00-601-CF	3
		14	-	24	22	37	27	-	M22x1,5	1-Z08-08-00-600-CF	1	1-Z09-08-00-601-CF	3
		16	-	20	28	37	30	-	M24x1,5	1-Z08-10-00-600-CF	2	1-Z09-10-00-601-CF	3
	400	20	-	25	30	-	36	-	M30x2	1-Z08-12-00-600-CF	2	1-Z09-12-00-601-CF	4
		25	-	27	36	-	46	-	M36x2	1-Z08-14-00-600-CF	2	1-Z09-14-00-601-CF	4
		30	-	29	41	-	50	-	M42x2	1-Z08-16-00-600-CF	2	1-Z09-16-00-601-CF	4
		315	38	-	32	48	-	60	-	M52x2	1-Z08-18-00-600-CF	2	1-Z09-18-00-601-CF

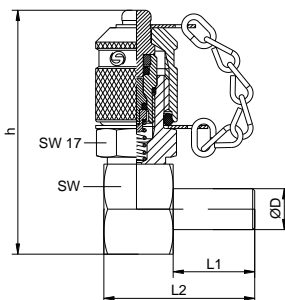
For metal cap type A (universal) with vibration security
 For metal cap type B (round) **without vibration security**
 For metal cap type A (universal) **without vibration security**
 For plastic cap type A (universal) **with vibration security**

Design with sealings made of FKM

replace 600 by 590
 replace 600 by 020
 replace 600 by 010
 replace 600 by 100
 replace 10 by 12
 or replace 00 by 02

replace 601 by 591
 replace 601 by 021
 replace 601 by 011
 replace 601 by 101
 replace 00-601 by 02-601

90° fitting type BE with test coupling series M16x2



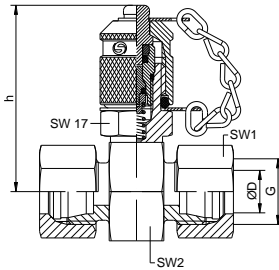
tube ØD	L1	L2	SW	h	part number (NBR)	part number (FKM)
8	20	37	22	59	1-Z80-03-60-080-CF	1-Z80-03-60-081-CF
10	20	37	22	59	1-Z80-05-60-120-CF	1-Z80-05-60-121-CF

For metal cap type A (universal) with vibration security replace 60 by 59
 For metal cap type B (round) **without vibration security** replace 60 by 02
 For metal cap type A (universal) **without vibration security** replace 60 by 01
 For plastic cap type A (universal) **with vibration security** replace 60 by 10

59
02
01
10

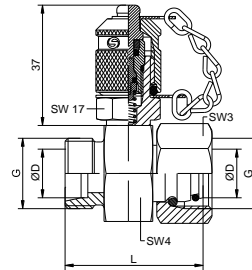
Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

fitting with test coupling series M16x2



type GE

(DIN2353 / ISO8434-1 and -4)



type DKOGE

(DIN2353 / ISO8434-1 and -4)

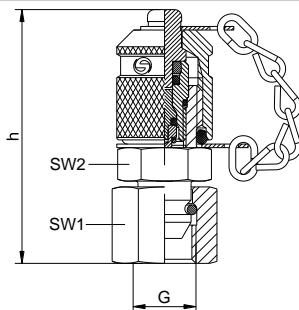
type	PN	tube ØD	G	SW1	SW2	h	L	SW3	SW4	type GE part number	type DKOGE part number
L	315	6	M12x1,5	14	22	48	43	14	24	1-Z10-00-00-600-CF	1-Z10-20-00-601-CF
		8	M14x1,5	17	24	49	43	17	24	1-Z10-02-00-600-CF	1-Z10-22-00-601-CF
		10	M16x1,5	19	24	49	45	19	24	1-Z10-04-00-600-CF	1-Z10-24-00-601-CF
		12	M18x1,5	22	27	51	41	22	27	1-Z10-06-00-600-CF	1-Z10-26-00-601-CF
		15	M22x1,5	27	30	53	43	27	30	1-Z10-09-00-600-CF	1-Z10-29-00-601-CF
		18	M26x1,5	32	32	53	54	32	32	1-Z10-11-00-600-CF	1-Z10-31-00-601-CF
	160	22	M30x2	36	36	55	57	36	36	1-Z10-13-00-600-CF	1-Z10-33-00-601-CF
		28	M36x2	41	41	58		upon request		1-Z10-15-00-600-CF	1-Z10-35-00-601-CF
		35	M45x2	50	46	60		upon request		1-Z10-17-00-600-CF	1-Z10-37-00-601-CF
		42	M52x2	60	55	65		upon request	1-Z10-19-00-600-CF	1-Z10-39-00-601-CF	
S	630	6	M14x1,5	17	24	49	46	17	24	1-Z10-01-00-600-CF	1-Z10-21-00-601-CF
		8	M16x1,5	19	24	49	47	19	24	1-Z10-03-00-600-CF	1-Z10-23-00-601-CF
		10	M18x1,5	22	24	49	48	22	24	1-Z10-05-00-600-CF	1-Z10-25-00-601-CF
		12	M20x1,5	24	24	49	47	24	24	1-Z10-07-00-600-CF	1-Z10-27-00-601-CF
		14	M22x1,5	27	27	51	50	27	27	1-Z10-08-00-600-CF	1-Z10-28-00-601-CF
	400	16	M24x1,5	30	30	52	55	30	30	1-Z10-10-00-600-CF	1-Z10-30-00-601-CF
		20	M30x2	36	32	53	62	36	36	1-Z10-12-00-600-CF	1-Z10-32-00-601-CF
		25	M36x2	46	41	58	62	46	41	1-Z10-14-00-600-CF	1-Z10-34-00-601-CF
		30	M42x2	50	46	60		upon request		1-Z10-16-00-600-CF	1-Z10-36-00-601-CF
315	38	M52x2	60	55	65		upon request	1-Z10-18-00-600-CF	1-Z10-38-00-601-CF		

For metal cap type A (universal) with vibration security
 For metal cap type B (round) **without vibration security**
 For metal cap type A (universal) **without vibration security**
 For plastic cap type A (universal) **with vibration security**
 Design with sealings made of FKM

replace 600 by 590
 replace 600 by 020
 replace 600 by 010
 replace 600 by 100
 replace 00-600 by 02-600

replace 601 by 591
 replace 601 by 021
 replace 601 by 011
 replace 601 by 101
 replace 00-601 by 02-601

test coupling with 60° sealing cone (DKR) series M16x2



G	h	SW1	SW2	part number (NBR)	part number (FKM)
G 1/4	54	19	17	1-Z08-76-00-600-CF	1-Z08-76-02-600-CF

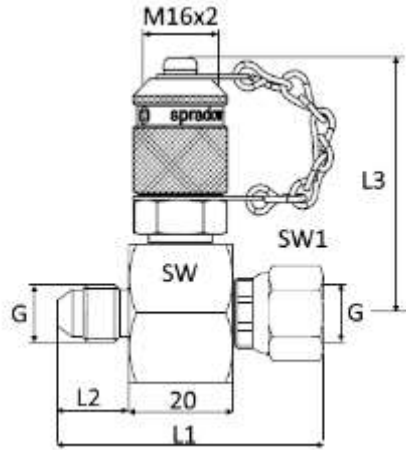
For metal cap type A (universal) with vibration security replace 600 by
 For metal cap type B (round) **without vibration security** replace 600 by
 For metal cap type A (universal) **without vibration security** replace 600 by
 For plastic cap type A (universal) **with vibration security** replace 600 by

590
 020
 010
 100

590
 020
 010
 100

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

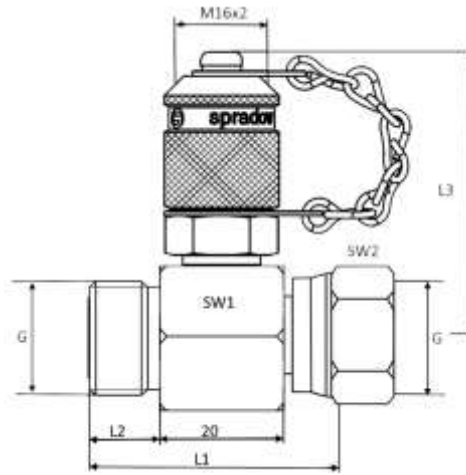
**37°-fitting with test coupling
series M16x2**



type AGJDKJ

Size	G	L1	L2	L3	SW	SW1	part number (NBR)	part number (FKM)
-4	7/16-20 UNF	53	14	52	14	26	1-Z23-39-00-601-CF	1-Z23-39-02-601-CF
-5	1/2-20UNF						1-Z23-61-00-601-CF	1-Z23-61-02-601-CF
-6	9/16-18 UNF	56	14	52	19	26	1-Z23-40-00-601-CF	1-Z23-40-02-601-CF
-8	3/4-16 UNF	60	16	52	24	26	1-Z23-41-00-601-CF	1-Z23-41-02-601-CF
-10	7/8-14 UNF	64	20	52	27	26	1-Z23-42-00-601-CF	1-Z23-42-02-601-CF
-12	1-1/16-12 UNF	70	22	55	32	32	1-Z23-89-00-601-CF	1-Z23-89-02-601-CF
-16	1-5/16-12 UNF	71	23	60	38	41	1-Z23-86-00-601-CF	1-Z23-86-02-601-CF
-20	1-5/8-12 UNF						1-Z23-90-00-601-CF	1-Z23-90-02-601-CF
-24	1-7/8-12 UNF						1-Z23-91-00-601-CF	1-Z23-91-02-601-CF
For metal cap type A (universal) with vibration security							1-Z23-xx-00-591-CF	1-Z23-xx-02-591-CF
For metal cap type B (round) without vibration security							1-Z23-xx-00-021-CF	1-Z23-xx-02-021-CF
For metal cap type A (universal) without vibration security							1-Z23-xx-00-011-CF	1-Z23-xx-02-011-CF
For plastic cap type A (universal) with vibration security							1-Z23-xx-00-101-CF	1-Z23-xx-02-101-CF

ORFS-fitting with test coupling series M16x2

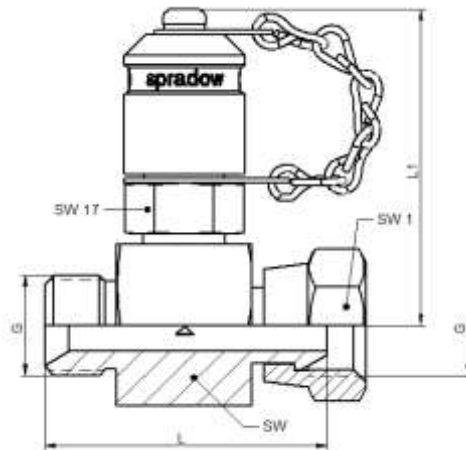


type ORSORFS

Size	G	L1	L2	L3	SW1	SW2	D	part number (NBR)	part number (FKM)
-4	9/16-16 UNF	45,27	10,02		27	17	4,39	1-Z25-81-00-601-CF	1-Z25-81-02-601-CF
-6	11/16-16 UN	48,66	11,17		27	21	6,65	1-Z25-82-00-601-CF	1-Z25-82-02-601-CF
-8	13/16-16 UN	54,38	12,96		27	24	9,45	1-Z25-83-00-601-CF	1-Z25-83-02-601-CF
-10	1-14 UNF	60,06	15,28		27	28	12,33	1-Z25-84-00-601-CF	1-Z25-84-02-601-CF
-12	1-3/16-12 UN	66,18	17,40		32	35	13,86	1-Z25-85-00-601-CF	1-Z25-85-02-601-CF
-16	1-7/16-12 UN	67,68	17,53		41	41	19,9	1-Z25-87-00-601-CF	1-Z25-87-02-601-CF

For metal cap type A (universal) with vibration security replace 60 by 1-Z25-xx-xx-591-CF 1-Z25-xx-x2-591-CF
 For metal cap type B (round) **without vibration security** replace 60 by 1-Z25-xx-xx-021-CF 1-Z25-xx-x2-021-CF
 For metal cap type A (universal) **without vibration security** replace 60 by 1-Z25-xx-xx-011-CF 1-Z25-xx-x2-011-CF
 For plastic cap type A (universal) **with vibration security** replace 60 by 1-Z25-xx-xx-101-CF 1-Z25-xx-x2-101-CF

BSP60°-fitting with test coupling series M16x2



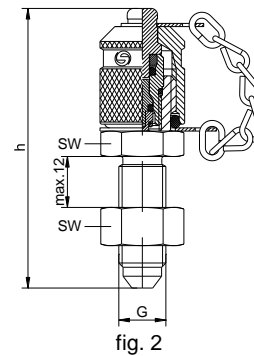
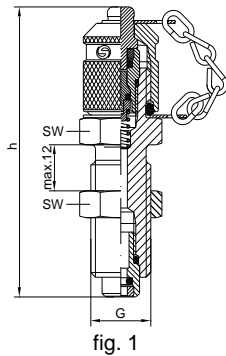
type GEDKRAGR

PN	G	L	h	SW	SW1	Artikelnummer (NBR)	Artikelnummer (FKM)
630	G 1/4	45	55	17	19	1-Z10-68-00-600-CF	1-Z10-68-02-600-CF
630	G 3/8	46	55	17	22	1-Z10-69-00-600-CF	1-Z10-69-02-600-CF
515	G 1/2	53	55	17	27	1-Z10-70-00-600-CF	1-Z10-70-02-600-CF
430	G 3/4	59	57	17	32	1-Z10-72-00-600-CF	1-Z10-72-02-600-CF
345	G 1	58	59	19	41	1-Z10-73-00-600-CF	1-Z10-73-02-600-CF

For metal cap type A (universal) with vibration security replace 60 by 1-Z25-xx-xx-591-CF 1-Z25-xx-x2-591-CF
 For metal cap type B (round) **without vibration security** replace 60 by 1-Z25-xx-xx-021-CF 1-Z25-xx-x2-021-CF
 For metal cap type A (universal) **without vibration security** replace 60 by 1-Z25-xx-xx-011-CF 1-Z25-xx-x2-011-CF
 For plastic cap type A (universal) **with vibration security** replace 60 by 1-Z25-xx-xx-101-CF 1-Z25-xx-x2-101-CF

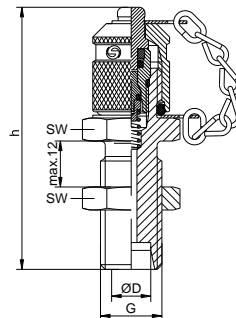
Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

bulkhead coupling series M16x2



G	SW	h	fig.	part number (NBR)	part number (FKM)
M16x2	19	72	1	1-Z80-48-60-040-CF	1-Z80-48-60-041-CF
7/16-20 UNF	17	68	2	upon request	upon request
For metal cap type A (universal) with vibration security replace 60 by				59	59
For metal cap type B (round) without vibration security replace 60 by				02	02
For metal cap type A (universal) without vibration security replace 60 by				01	01
For plastic cap type A (universal) with vibration security replace 60 by				10	10

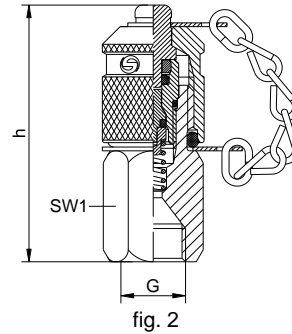
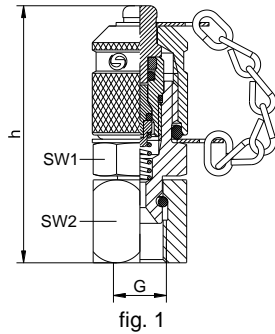
bulkhead coupling series M16x2



type	PN	tube ØD	G	SW1	SW2	h	part number (NBR)	part number (FKM)
L	315	6	M12x1,5	17	17	69	1-Z22-00-00-601-CF	1-Z22-00-02-601-CF
		8	M14x1,5	19	19	72	1-Z22-02-00-601-CF	1-Z22-02-02-601-CF
		10	M16x1,5	22	22	68	1-Z22-04-00-601-CF	1-Z22-04-02-601-CF
		12	M18x1,5	22	24	72	1-Z22-06-00-601-CF	1-Z22-06-02-601-CF
S	630	6	M14x1,5	19	19	71	1-Z22-01-00-601-CF	1-Z22-01-02-601-CF
		8	M16x1,5	22	22	72	1-Z22-03-00-601-CF	1-Z22-03-02-601-CF
		10	M18x1,5	24	24	72	1-Z22-05-00-601-CF	1-Z22-05-02-601-CF
		12	M20x1,5	upon request			1-Z22-07-00-601-CF	1-Z22-07-02-601-CF
For metal cap type A (universal) with vibration security replace 601 by						591	591	
For metal cap type B (round) without vibration security replace 601 by						021	021	
For metal cap type A (universal) without vibration security replace 601 by						011	011	
For plastic cap type A (universal) with vibration security replace 601 by						101	101	

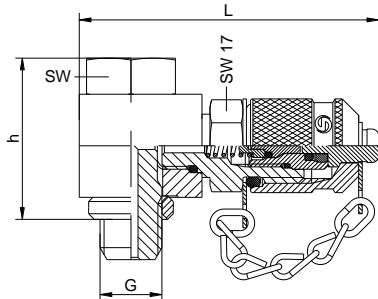
Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

**test coupling with 37° JIC female thread (DKJ)
series M16x2**



G	h	SW1	SW2	fig.	part number (NBR)	part number (FKM)
7/16 UNF	54	17	17	1	1-Z20-39-20-600-CF	1-Z20-39-22-600-CF
1/2 UNF	51	17	-	2	1-Z20-61-00-600-CF	1-Z20-61-02-600-CF
9/16 UNF	57	17	19	1	1-Z20-40-20-600-CF	1-Z20-40-22-600-CF
3/4 UNF	56	22	-	2	1-Z20-41-00-600-CF	1-Z20-41-02-600-CF
7/8 UNF	61	27	-	2	1-Z20-42-00-600-CF	1-Z20-42-02-600-CF
For metal cap type A (universal) with vibration security replace 600 by					590	590
For metal cap type B (round) without vibration security replace 600 by					020	020
For metal cap type A (universal) without vibration security replace 600 by					010	010
For plastic cap type A (universal) with vibration security replace 600 by					100	100

**90° swivel adaptor
series M16x2**



G	h	L	SW	part number (NBR)	part number (FKM)
G1/4	34	64	17	1-Z26-29-05-600-CF	upon request

For metal cap type A (universal) with vibration security replace 600 by					590	590
For metal cap type B (round) without vibration security replace 600 by					020	020
For metal cap type A (universal) without vibration security replace 600 by					010	010
For plastic cap type A (universal) with vibration security replace 600 by					100	100

***Media:**

These spradow test couplings are designed for nitrogen and other inert gases.

Application:

Spradow nitrogen test couplings are applied for the monitoring and control pressure as well as the ventilation. The advantages of this system are – among other – connection at system pressure level, the easy connection to measurement control and switching devices, the leakproof connection and the integrated vibration security of the metal cap.

Usage as filling valve:

Initial pressure 3 bar; increase slowly up to the maximum filling pressure of 320 bar.

Materials:

Metal parts: Steel, Stainless steel upon request
Seals: material 1 (-25 °C to +110 °C) - standard
material 2 (-47 °C to +100 °C)
Hose: Polyamide (-35 °C to +100 °C)

Surface:

CrVI-free.

Pressure:

Maximum working pressure (PN) of the test couplings - 630 bar at 4-fold security. Connection under pressure up to 400 bar. For the union pieces please observe the instructions given by the corresponding producer.



design types of caps

type B (round)	type A (universal)	type A (universal) plastic
standard: incl. vibration security		(temperature range -20°C to +100°C)

port connection and seals

type 1	type 2	type 3	type 4	type 5	type 6
Design types of port connection and seals please see annex.					

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

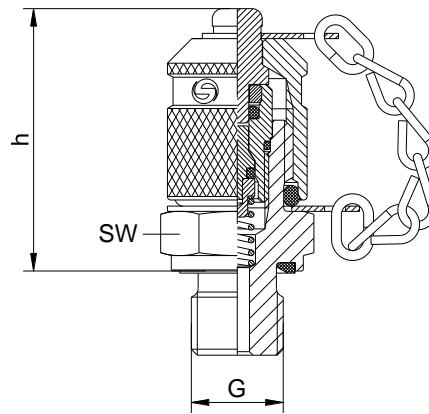


fig. 1

G	PN	SW	h	fig.	sealing	part number (NBR)
M8x1	250	17	38	1	o-ring type 1	1-G06-20-21-600-CF
M10x1	630	17	38	1	o-ring type 1	1-G06-22-21-600-CF
M10x1	400	17	39	1	soft sealing type 3	1-G06-22-11-600-CF
M10x1,25		17	38	1	o-ring type 1	1-G06-49-21-600-CF
M10x1,25		17	38	1	soft sealing type 3	1-G06-49-11-600-CF
M12x1,5	630	17	39	1	soft sealing type 3	1-G06-23-11-600-CF
M14x1,5	630	19	37	1	soft sealing type 3	1-G06-24-11-600-CF
M14x1,5	630	19	38	1	o-ring type 5	1-G06-24-61-600-CF
M16x1,5	630	22	37	1	soft sealing type 3	1-G06-25-11-600-CF
M18x1,5		24	39	1	soft sealing type 3	1-G06-26-11-600-CF
M20x1,5		27	39	1	soft sealing type 3	1-G06-51-11-600-CF
M22x1,5		27	39	1	soft sealing type 3	1-G06-27-11-600-CF
G 1/8	400	17	39	1	soft sealing type 3	1-G06-28-11-600-CF
G 1/4	630	19	37	1	soft sealing type 3	1-G06-29-11-600-CF
G 3/8	630	22	37	1	soft sealing type 3	1-G06-30-11-600-CF
G 1/2	630	27	39	1	soft sealing type 3	1-G06-31-11-600-CF
5/16-24 UNF	400	17	38	1	o-ring type 5	1-G06-38-30-600-CF
7/16-20 UNF	630	17	38	1	o-ring type 5	1-G06-39-30-600-CF
1/2-20 UNF	630	17	38	1	o-ring type 5	1-G06-61-30-600-CF
9/16-18 UNF	630	19	38	1	o-ring type 5	1-G06-40-30-600-CF
3/4-16 UNF	630	27	40	1	o-ring type 5	1-G06-41-30-600-CF
For metal cap type A (universal) with vibration security replace 600 by						590
For metal cap type B (round) without vibration security replace 600 by						020
For metal cap type A (universal) without vibration security replace 600 by						010
For plastic cap type A (universal) with vibration security replace 600 by						100

test coupling
series M16x2 – GAS for arctic temperature

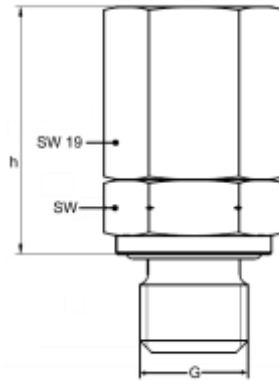


fig. 1

G	PN	SW	h	fig.	sealing	part number
for arctic temperature use (sealings material 2; metal parts stainless steel 1.4305)						
M8x1	250	17	38	1	o-ring type 1	upon request
M10x1	630	17	38	1	o-ring type 1	upon request
M10x1	400	17	39	1	soft sealing type 3	upon request
M10x1,25		17	38	1	o-ring type 1	upon request
M10x1,25		17	38	1	soft sealing type 3	upon request
M12x1,5	630	17	39	1	soft sealing type 3	upon request
M14x1,5	630	19	37	1	soft sealing type 3	upon request
M14x1,5	630	19	38	1	o-ring type 5	upon request
M16x1,5	630	22	37	1	soft sealing type 3	upon request
M18x1,5		24	39	1	soft sealing type 3	upon request
M20x1,5		27	39	1	soft sealing type 3	upon request
M22x1,5		27	39	1	soft sealing type 3	upon request
G 1/8	400	17	39	1	soft sealing type 3	upon request
G 1/4	630	19	37	1	soft sealing type 3	1-T12-29-23-880-05 ¹
G 3/8	630	22	37	1	soft sealing type 3	upon request
G 1/2	630	27	39	1	soft sealing type 3	upon request
5/16-24 UNF	400	17	38	1	o-ring type 5	upon request
7/16-20 UNF	630	17	38	1	o-ring type 5	upon request
1/2-20 UNF	630	17	38	1	o-ring type 5	upon request
9/16-18 UNF	630	19	38	1	o-ring type 5	upon request
3/4-16 UNF	630	27	40	1	o-ring type 5	upon request

¹Sealing element is an o-ring

fitting with test coupling series M16x2 - GAS

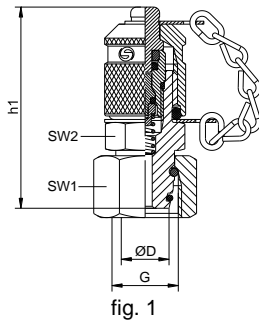


fig. 1

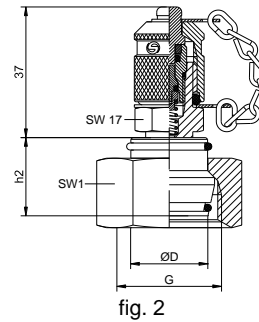


fig. 2

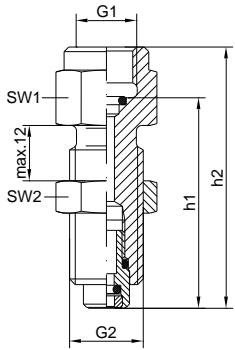
type DKO

test coupling with 24° taper adapter (DIN3865 / ISO8434-1)

type	PN	tube ØD	h1	h2	SW1	SW2	G	type DKO part number	fig.	
L	315	6	53	-	14	17	M12x1,5	upon request	1	
		8	53	-	17	17	M14x1,5	upon request	1	
		10	50	-	19	17	M16x1,5	upon request	1	
		12	50	-	22	17	M18x1,5	upon request	1	
		15	51	-	27	19	M22x1,5	upon request	1	
		18	-	22	32	-	M26x1,5	upon request	2	
		22	-	22	36	-	M30x2	upon request	2	
		28	-	24	41	-	M36x2	upon request	2	
		35	-	27	50	-	M45x2	upon request	2	
S	400	42	-	28	60	-	M52x2	upon request	2	
		630	6	54	-	17	17	M14x1,5	upon request	1
			8	51	-	19	17	M16x1,5	upon request	1
			10	51	-	22	17	M18x1,5	upon request	1
			12	51	-	24	17	M20x1,5	upon request	1
			14	53	-	27	19	M22x1,5	upon request	1
			16	-	20	30	-	M24x1,5	upon request	2
			20	-	25	36	-	M30x2	upon request	2
			25	-	27	46	-	M36x2	upon request	2
30	-		29	50	-	M42x2	upon request	2		
315	38	-	32	60	-	M52x2	upon request	2		
For metal cap type A (universal) with vibration security								upon request		
For metal cap type B (round) without vibration security								upon request		
For metal cap type A (universal) without vibration security								upon request		
For plastic cap type A (universal) with vibration security								upon request		

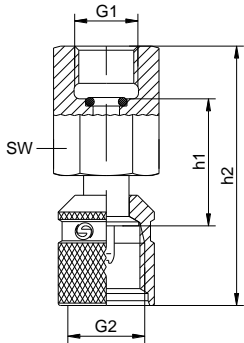
Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

bulkhead pressure gauge connector series M16x2 – GAS – without valve function



G1	SW1	SW2	h1	h2	G2	sealing	part number
G 1/4	19	19	46	57	M16x2	o-ring	1-918-29-01-240-CF
G 1/2	27	24	49	66	M16x2	o-ring	1-918-31-01-240-CF

direct pressure gauge connector Series M16x2 - GAS – without valve function

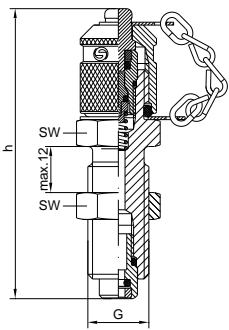


G1	SW	h1	h2	G2	sealing	part number
G 1/4	19	27	54	M16x2	o-ring	1-927-29-01-020-CF
G 1/2	27	25	58	M16x2	o-ring	1-927-31-01-020-CF

For metal cap type A (universal) replace 020 by

010

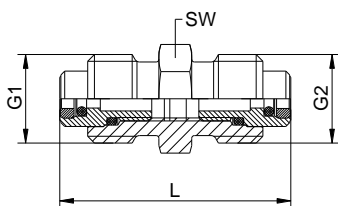
bulkhead coupling series M16x2 - GAS



G	SW	h	part number
M16x2	19	72	upon request

For metal cap type A (universal) with vibration security	upon request
For metal cap type B (round) without vibration security	upon request
For metal cap type A (universal) without vibration security	upon request
For plastic cap type A (universal) with vibration security	upon request

hose connector series M16x2 – GAS – without valve function

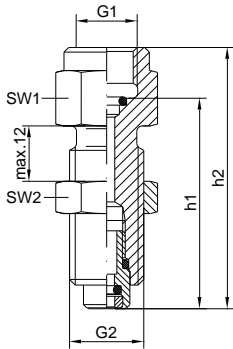


G1	SW	L	G2	arctic temperature	
				part number	part number
M16x2	17	42	M16x2	1-T80-48-00-020-CF	1-980-48-00-020-CF
M16x2	17	42	M16x1,5	1-T80-48-00-030	1-980-48-00-030

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

M16x2 – connectors and adaptors

bulkhead pressure gauge connector series M16x2 – without valve function



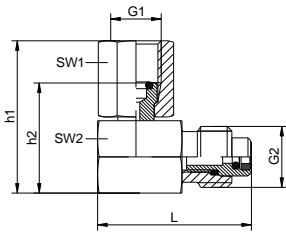
G1	SW1	SW2	h1	h2	G2	sealing	part number (NBR)	part number (FKM)
G 1/4	19	19	46	57	M16x2	o-ring	1-918-29-01-240-CF	1-918-29-21-240-CF
G 1/2	27	24	49	66	M16x2	o-ring	1-918-31-01-240-CF	1-918-31-21-240-CF
1/4 NPT	19	19	-	58	M16x2	thread	1-918-44-00-240-CF	1-918-44-20-240-CF
1/2 NPT	27	24	-	66	M16x2	thread	1-918-46-00-240-CF	1-918-46-20-240-CF
7/16 UNF	22	19	-	39	M16x2	o-ring	1-918-39-00-240-CF	1-918-39-20-240-CF

For design with damping element replace 918 by

930

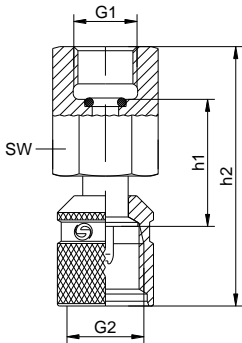
930

pressure gauge connector 90° series M16x2 – without valve function



G1	SW1	SW2	L	h1	h2	G2	part number (NBR)	part number (FKM)
G 1/4	17	19	40	40	29	M16x2	1-928-29-01-240-CF	1-928-29-21-240-CF
G 1/2			upon request			M16x2	1-928-31-01-240-CF	1-928-31-21-240-CF

direct pressure gauge connector series M16x2 – without valve function



G1	SW	h1	h2	G2	sealing	part number (NBR)	part number (FKM)
G 1/4	19	27	54	M16x2	o-ring	1-927-29-01-020-CF	1-927-29-21-020-CF
G 1/2	27	25	58	M16x2	o-ring	1-927-31-01-020-CF	1-927-31-21-020-CF
1/4 NPT	19	-	53	M16x2	thread	1-927-44-00-020-CF	1-927-44-20-020-CF
1/2 NPT	27	-	59	M16x2	thread	1-927-46-00-020-CF	1-927-46-20-020-CF
7/16 UNF	22	-	53	M16x2	o-ring	1-927-39-00-020-CF	1-927-39-20-020-CF
9/16 UNF	27	-	55	M16x2	o-ring	1-927-40-00-020-CF	1-927-40-20-020-CF

For metal cap type A (universal) replace 020 by

010

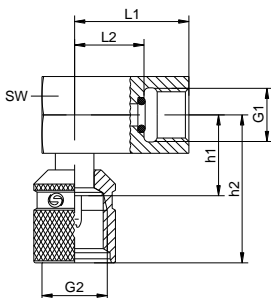
010

For design with damping element replace 927 by

929

929

direct pressure gauge connector 90° series M16x2 – without valve function



G1	SW	L1	L2	h1	h2	G2	part number (NBR)	part number (FKM)
G 1/4	19	28	17	20	37	M16x2	1-928-29-01-020-CF	1-928-29-21-020-CF
G 1/2	27	28	11	24	41	M16x2	1-928-31-01-020-CF	1-928-31-21-020-CF
1/4 NPT	19	22	-	20	37	M16x2	1-928-44-00-020-CF	1-928-44-20-020-CF
1/2 NPT	27	28	-	24	41	M16x2	1-928-46-00-020-CF	1-928-46-20-020-CF

For metal cap type A (universal) replace 020 by

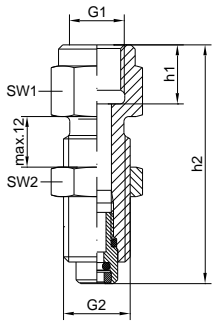
010

010

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

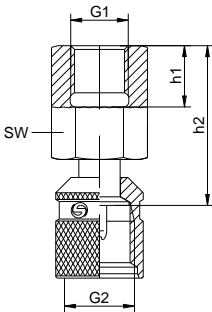
M16x2 – connectors and adaptors

bulkhead sensor connector series M16x2 – without valve function



G1	SW1	SW2	h1	h2	G2	part number (NBR)	part number (FKM)
G 1/4	19	19	14	57	M16x2	1-718-29-00-240-CF	upon request

direct sensor connector series M16x2 – without valve function

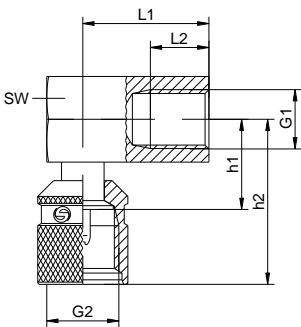


G1	SW	h1	h2	G2	part number (NBR)	part number (FKM)
G 1/4	19	14	37	M16x2	1-727-29-00-021-CF	upon request
G 1/2	27	15	38	M16x2	1-727-31-00-020-CF	upon request

For metal cap type A (universal)

replace 020 by 010
respectively
replace 021 by 011

direct sensor connector 90° series M16x2 – without valve function



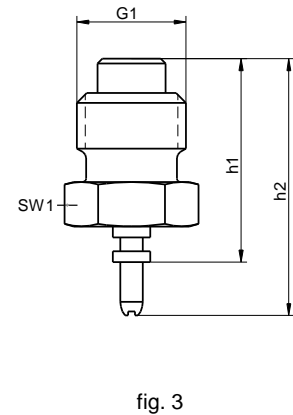
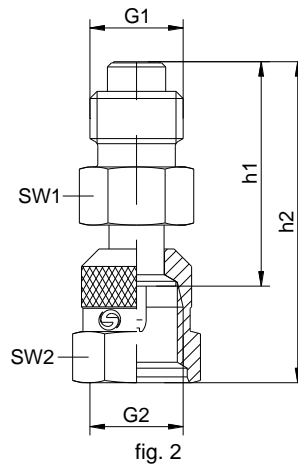
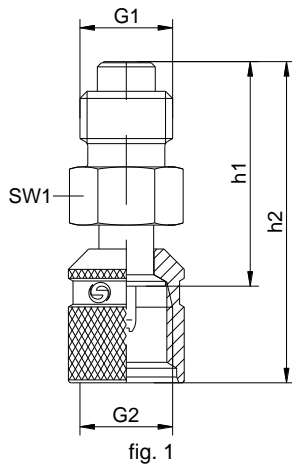
G1	SW	L1	L2	h1	h2	G2	part number (NBR)	part number (FKM)
G 1/4	19	28	13	20	37	M16x2	1-728-29-00-021-CF	upon request

For metal cap type A (universal)

replace 021 by 011

M16x2 - connectors and adaptors

adaptor for test coupling series M16x2 – without valve function

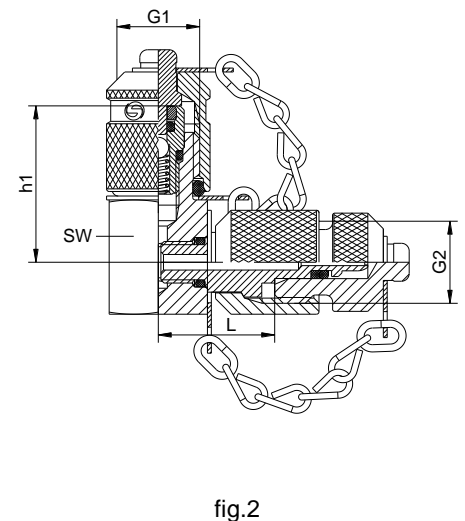
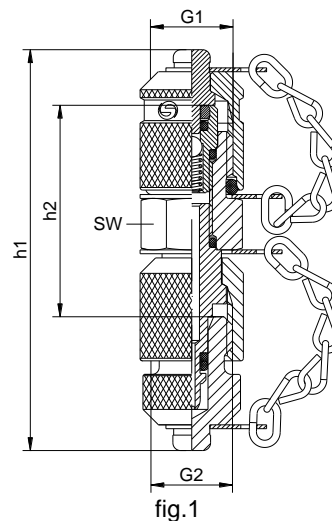


G1	G2	h1	h2	SW1	SW2	fig.	part number (NBR)	part number (FKM)
M16x2	M16x1,5	39	56	17	-	1	1-980-25-00-050	upon request
M16x2	S12x1,5	39	50	17	-	1	1-980-49-00-100-CF	upon request
M16x1,5	M16x2	39	56	17	19	2	1-980-48-00-120	upon request
S12x1,5	M16x2	36	47	17	19	2	1-980-48-00-110-CF	upon request
M16x2	Steck	30	38	17	-	3	1-980-01-00-050-CF	upon request

adaptor for series 5/8"-14 BSF (HSP) series M16x2 – with valve function

This adapter has been constructed to enable an adaptation between the 5/8"-14 BSF system (HSP) to the world wide used M16x2 system. Just screw our adapter onto the HSP - test coupling. The result is a regular M16x2 system connection. Now you can use your hoses and fittings from the M16x2 system.

with valve function



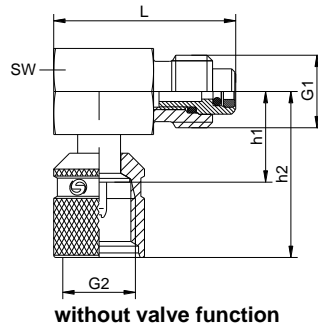
G1	G2	h1	h2	L	SW	fig.	part number (NBR)	part number (FKM)
M16x2	5/8"-14 BSF	78	41	-	17	1	1-880-67-60-001-CF	upon request
M16x2	5/8"-14 BSF	30	-	23	19	2	1-880-67-60-002-CF	upon request

For metal cap type A (universal) with vibration security replace 60 by	59	upon request
For metal cap type B (round) without vibration security replace 60 by	02	upon request
For metal cap type A (universal) without vibration security replace 60 by	01	upon request
For plastic cap type A (universal) with vibration security replace 60 by	10	upon request

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

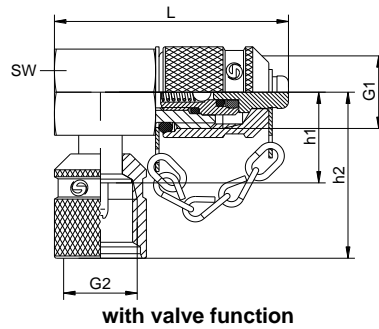
M16x2 - connectors and adaptors

adaptor for test coupling 90° series M16x2 – without valve function



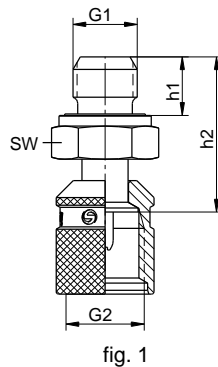
G1	G2	L	h1	h2	SW	part number (NBR)	part number (FKM)
M16x2	M16x2	40	20	37	19	1-924-02-00-241-CF	1-924-02-02-241-CF
metal cap type A (universal)						1-924-01-00-241-CF	1-924-01-02-241-CF

adaptor for test coupling 90° series M16x2



G1	G2	L	h1	h2	SW	part number (NBR)	part number (FKM)
M16x2	M16x2	51	20	37	19	1-924-02-00-600-CF	1-924-02-02-600-CF
metal cap type A (universal) with vibration security						1-924-01-00-590-CF	1-924-01-02-590-CF
metal cap type B (round) without vibration security						1-924-02-00-020-CF	1-924-02-02-020-CF
metal cap type A (universal) without vibration security						1-924-01-00-010-CF	1-924-01-02-010-CF
plastic cap type A (universal) with vibration security						1-924-01-00-100-CF	1-924-01-02-100-CF

adaptor series M16x2 – without valve function



G1	G2	h1	h2	SW	part number (NBR)	part number (FKM)
G1/4"	M16x2	12	31	19	1-980-29-02-010-CF	-
metal cap type A (universal)					1-980-29-01-010-CF	-

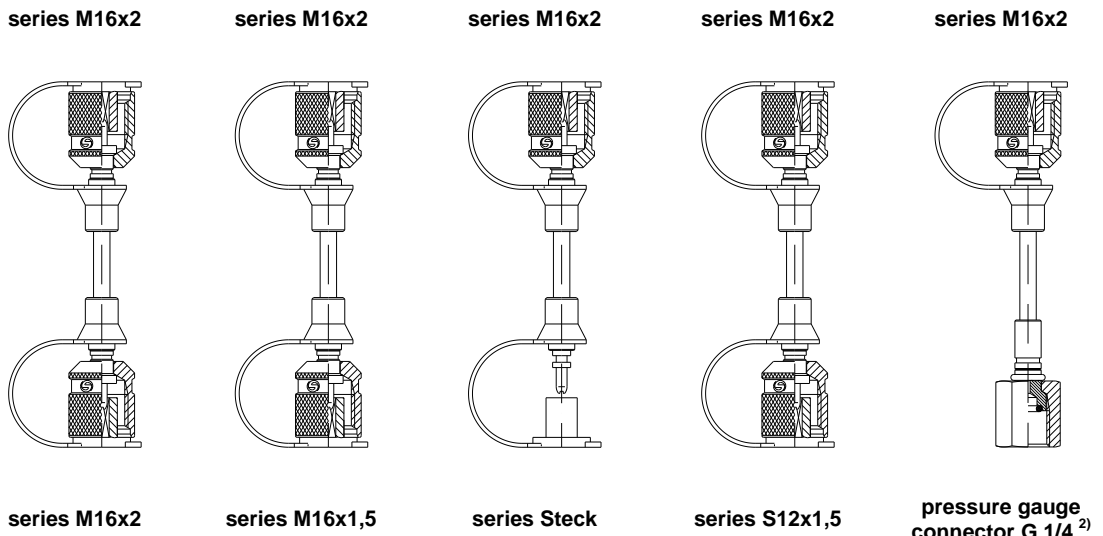
Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

high pressure hose series M16x2

Max. working pressure:
up to 630 bar

Pressure / t° factor:
at 20°C 100%
at 40°C 95%
at 60°C 90%
at 80°C 80%
at 100°C 70%

Further details please
see section hoses and
connectors



length L ¹⁾ acc. DIN 20066	series M16x2	series M16x1,5	series Steck	series S12x1,5	pressure gauge connector G 1/4 ²⁾
	part number				
200	1-971-04-04-010-CF	1-971-04-10-010-CF	1-971-01-04-010-CF	1-971-04-12-010-CF	1-971-02-04-010-CF
400	1-971-04-04-040-CF	1-971-04-10-040-CF	1-971-01-04-040-CF	1-971-04-12-040-CF	1-971-02-04-040-CF
630	1-971-04-04-060-CF	1-971-04-10-060-CF	1-971-01-04-060-CF	1-971-04-12-060-CF	1-971-02-04-060-CF
800	1-971-04-04-080-CF	1-971-04-10-080-CF	1-971-01-04-080-CF	1-971-04-12-080-CF	1-971-02-04-080-CF
1000	1-971-04-04-090-CF	1-971-04-10-090-CF	1-971-01-04-090-CF	1-971-04-12-090-CF	1-971-02-04-090-CF
1500	1-971-04-04-100-CF	1-971-04-10-100-CF	1-971-01-04-100-CF	1-971-04-12-100-CF	1-971-02-04-100-CF
2000	1-971-04-04-110-CF	1-971-04-10-110-CF	1-971-01-04-110-CF	1-971-04-12-110-CF	1-971-02-04-110-CF
2500	1-971-04-04-120-CF	1-971-04-10-120-CF	1-971-01-04-120-CF	1-971-04-12-120-CF	1-971-02-04-120-CF
3200	1-971-04-04-130-CF	1-971-04-10-130-CF	1-971-01-04-130-CF	1-971-04-12-130-CF	1-971-02-04-130-CF
4000	1-971-04-04-140-CF	1-971-04-10-140-CF	1-971-01-04-140-CF	1-971-04-12-140-CF	1-971-02-04-140-CF

¹⁾ Other lengths upon request

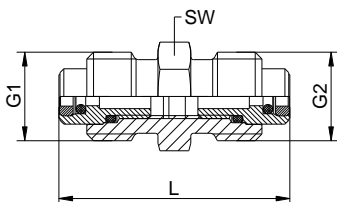
Further connectors please see chapter
hoses and connectors

²⁾ Connection thread G¹/₂,
¹/₄ NPT and ¹/₂ NPT upon request.

For pricked hose (use with gases) replace 971 by 975
For metal cap M16x2 type A (universal) replace 04 by 03
For metal cap M16x1,5 type A (universal) replace 10 by 09

The information on the definition of the hose assembly lengths, please see the annex.

hose connector series M16x2 – without valve function



G1	SW	L	G2	part number (NBR)	part number (FKM)
M16x2	17	42	M16x2	1-980-48-00-020-CF	upon request
M16x2	17	42	M16x1,5	1-980-48-00-030-CF	upon request

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

Application:

Spradow test couplings are applied for the monitoring and control pressure as well as the ventilation. The advantages of this system are – among other – connection at system pressure level, the easy connection to measurement control and switching devices, the leakproof connection and the integrated vibration security of the metal cap.

Media:

Hydraulic oils and mineral based fluids.
(Please check compatibility of seal material.)
For nitrogen and other inert gases upon request.

Materials:

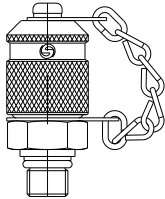
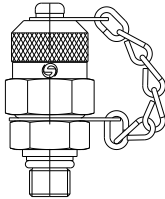
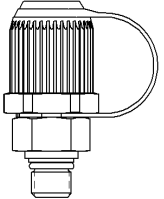
Metal parts: stainless steel
Seals: NBR (-25 °C bis +110 °C)
FKM (-20 °C bis +200 °C)(standard)
EPDM (-40°C bis +150 °C)
Hose: polyamide (-35 °C bis +100 °C);

Pressure:

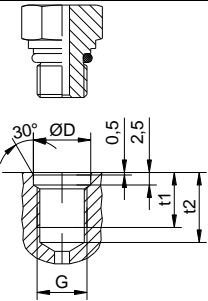
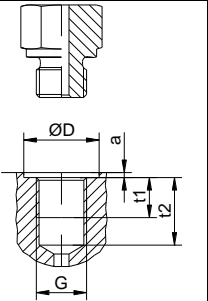
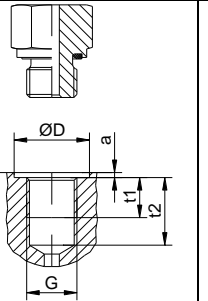
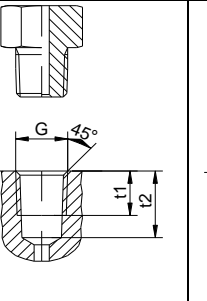
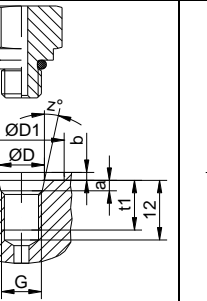
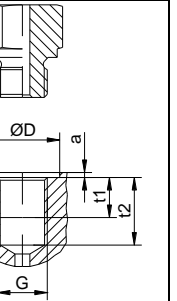
Maximum working pressure (PN) of the test couplings - 630 bar at 4-fold security. Connection under pressure up to 400 bar. For the union pieces please observe the instructions given by the corresponding producer.



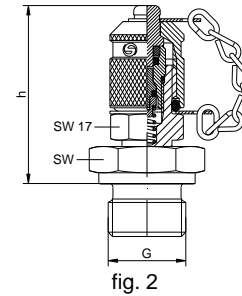
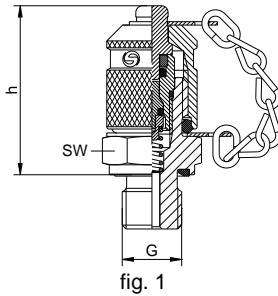
design types of caps

type B (round)	type A (universal)	type A (universal) plastic
		
standard: incl. vibration security		(temperature range -20°C to +100°C)

port connection and seals

type 1	type 2	type 3	type 4	type 5	type 6
					
Design types of port connection and seals please see annex.					

test coupling – stainless steel
series M16x2
seals made from FKM



G	PN	SW	h	fig.	sealing	main parts	part number
M10x1	630	17	38	1	o-ring type 1	1.4571	1-912-22-22-660
M12x1,5	630	17	39	1	soft sealing type 3	1.4571	1-912-23-12-660
M14x1,5	630	19	37	1	soft sealing type 3	1.4571	1-912-24-12-660
G 1/8	400	17	39	1	soft sealing type 3	1.4571	1-912-28-12-660
G 1/4	630	19	37	1	metallic sealing type 2	1.4571	1-912-29-32-660
G 1/4	630	19	37	1	soft sealing type 3	1.4571	1-912-29-12-660 ¹⁾
G 3/8	630	22	37	1	metallic sealing type 2	1.4571	1-912-30-32-660
G 3/8	630	22	37	1	soft sealing type 3	1.4571	1-912-30-12-660
G 1/2		27	39	1	metallic sealing type 2	1.4571	1-912-31-32-660
G 1/2	630	27	39	1	soft sealing type 3	1.4571	1-912-31-12-660
Rk 1/8*	400	17	36	1	thread type 4	1.4571	1-912-33-02-660
Rk 1/4*	630	19	35	1	thread type 4	1.4571	1-912-34-02-660
7/16-20 UNF	630	17	38	1	o-ring type 5	1.4571	1-912-39-32-660
9/16-18 UNF	630	19	38	1	o-ring type 5	1.4571	1-912-40-32-660
1/8 NPT	400	17	36	1	thread type 4	1.4571	1-912-43-02-660
1/4 NPT	630	17	35	1	thread type 4	1.4571	1-912-44-02-660

For metal cap type A (universal) with vibration security replace 660 by 650
 For metal cap type B (round) **without vibration security** replace 660 by 080
 For metal cap type A (universal) **without vibration security** replace 660 by 070
 For plastic cap type A (universal) **with vibration security** replace 660 by 100
¹⁾ For body made from stainless steel 1.4305 add -05 at the end

*acc. DIN 3858

fitting with test coupling – stainless steel series M16x2 seals made from FKM

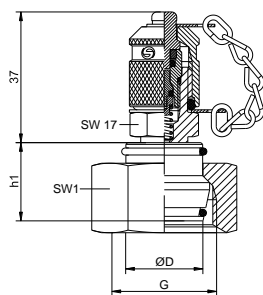


fig. 1

type DKO

test coupling with 24° taper adapter (DIN3865 / ISO8434-1)

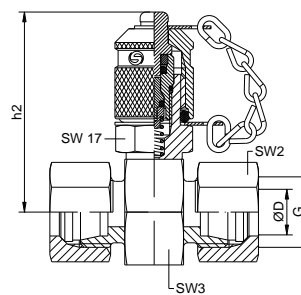


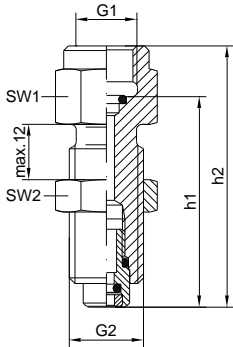
fig. 2

type GE

test coupling with straight fitting (DIN2353 / ISO8434-1 and -4)

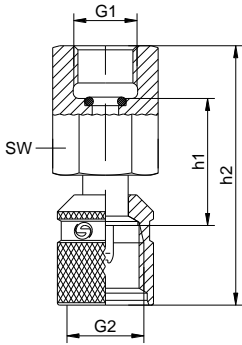
type	PN	tube ØD	G	h1	h2	SW1	SW2	SW3	material main parts	type DKO part number	fig.	type GE part number	fig.	
L	315	6	M12x1,5			14			1.4571	1-914-00-00-660	1	1-916-00-00-660	2	
		8	M14x1,5			17			1.4571	1-914-02-00-660	1	1-916-02-00-660	2	
		10	M16x1,5			19			1.4571	1-914-04-00-660	1	1-916-04-00-660	2	
		12	M18x1,5			22			1.4571	1-914-06-00-660	1	1-916-06-00-660	2	
		15	M22x1,5			27			1.4571	1-914-09-00-660	1	1-916-09-00-660	2	
	160	18	M26x1,5			32			1.4571	1-914-11-00-660	1	1-916-11-00-660	2	
		22	M30x2			36			1.4571	1-914-13-00-660	1	1-916-13-00-660	2	
		28	M36x2			41			1.4571	1-914-15-00-660	1	1-916-15-00-660	2	
		35	M45x2			50			1.4571	1-914-17-00-660	1	1-916-17-00-660	2	
S	630	42	M52x2			60			1.4571	1-914-19-00-660	1	1-916-19-00-660	2	
		400	6	M14x1,5			17			1.4571	1-914-01-00-660	1	1-916-01-00-660	2
			8	M16x1,5			19			1.4571	1-914-03-00-660	1	1-916-03-00-660	2
			10	M18x1,5			22			1.4571	1-914-05-00-660	1	1-916-05-00-660	2
			12	M20x1,5			24			1.4571	1-914-07-00-660	1	1-916-07-00-660	2
	315	14	M22x1,5			27			1.4571	1-914-08-00-660	1	1-916-08-00-660	2	
		16	M24x1,5			30			1.4571	1-914-10-00-660	1	1-916-10-00-660	2	
		20	M30x2			36			1.4571	1-914-12-00-660	1	1-916-12-00-660	2	
		25	M36x2			46			1.4571	1-914-14-00-660	1	1-916-14-00-660	2	
		30	M42x2			50			1.4571	1-914-16-00-660	1	1-916-16-00-660	2	
		38	M52x2			60		1.4571	1-914-18-00-660	1	1-916-18-00-660	2		
For metal cap type A (universal) with vibration security replace 660 by										650		650		
For metal cap type B (round) without vibration security replace 660 by										080		080		
For metal cap type A (universal) without vibration security replace 660 by										070		070		
For plastic cap type A (universal) with vibration security replace 660 by										100		100		

bulkhead pressure gauge connector – stainless steel series M16x2 – without valve function



G1	SW1	SW2	h1	h2	G2	sealing	main parts	part number
G 1/4	19	19	46	57	M16x2	o-ring	1.4571	1-939-29-22-240
G 1/2	27	24	49	66	M16x2	o-ring	1.4571	1-939-31-22-240
1/4 NPT	19	19	-	58	M16x2	thread	1.4571	1-939-44-02-240
1/2 NPT	19	24	-	66	M16x2	thread	1.4571	1-939-46-02-240

direct pressure gauge connector – stainless steel series M16x2 – without valve function



G1	SW	h1	h2	G2	sealing	main parts	part number
G 1/4	19	27	54	M16x2	o-ring	1.4305	1-940-29-22-080
G 1/2	27	25	58	M16x2	o-ring	1.4305	1-940-31-22-080
1/4 NPT	19	-	53	M16x2	thread	1.4305	1-940-44-02-080
1/2 NPT	27	-	59	M16x2	thread	1.4305	1-940-46-02-080

For design with cap type A (universal) replace 080 by

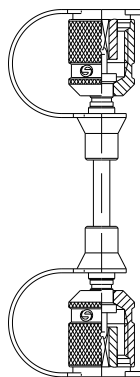
070

high pressure hose – stainless steel series M16x2 seals made from FKM

Max. working pressure:
630 bar

Pressure / t° factor:
at 20°C 100%
at 40°C 95%
at 60°C 90%
at 80°C 80%
at 100°C 70%

Further details please
see section hoses and
connectors



series M16x2

series M16x2	length L ¹⁾ acc. DIN 20066	with cap type B	with cap type A	material connector
	200 mm	1-971-07-07-010	1-971-06-06-010	1.4305
	400 mm	1-971-07-07-040	1-971-06-06-040	1.4305
	630 mm	1-971-07-07-060	1-971-06-06-060	1.4305
	800 mm	1-971-07-07-080	1-971-06-06-080	1.4305
	1000 mm	1-971-07-07-090	1-971-06-06-090	1.4305
	1500 mm	1-971-07-07-100	1-971-06-06-100	1.4305
	2000 mm	1-971-07-07-110	1-971-06-06-110	1.4305
	2500 mm	1-971-07-07-120	1-971-06-06-120	1.4305
	3200 mm	1-971-07-07-130	1-971-06-06-130	1.4305
	4000 mm	1-971-07-07-140	1-971-06-06-140	1.4305

¹⁾ other length upon
request

For hose end connectors made from 1.4571 07-07 change to 0H-0H 06-06 change to 87-87

single parts for test hoses

view	no.	G	SW	DN	part number	material	description
	06	M16x2	19	2	2-970-06-02-001	1.4305	connector for test coupling metal cap type A (universal)
	87	M16x2	19	2	2-970-87-02-001	1.4571	inclusive ferrule*
	07	M16x2	-	2	2-970-07-02-001	1.4305	connector for test coupling metal cap type B (round)
	0H	M16x2	-	2	2-970-0H-02-001	1.4571	inclusive ferrule*
	52	G 1/4	17	2	2-970-52-02-004	1.4305	pressure gauge connector with Whitworth - thread
	88	G 1/4	17	2	2-970-88-02-001	1.4571	sealing to pressure gauge by o-ring inclusive ferrule

For connector without ferrule replace 970 by 971

* incl. strap

For hose material please see chapter hoses and connectors.
The information on the definition of the hose assembly lengths, please see the annex.

**test coupling DN04
series S16x1,5 made from steel**

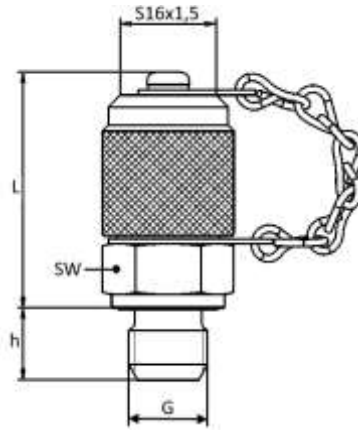


Abb. 1

G	L	h	SW	sealing	part number (NBR)	part number (FKM)
M14x1,5	39,7	12	19	soft sealing type 3	1-406-24-11-720-CF	1-406-24-12-720-CF
G1/4	39,3	12	19	soft sealing type 3	1-406-29-11-720-CF	1-406-29-12-720-CF

length L ¹⁾ acc. DIN 20066	part number	
	1604-1604	1620-1604
200	1-974-3J-3J-010-CF	1-974-04-3J-010-CF
400	1-974-3J-3J-040-CF	1-974-04-3J-040-CF
630	1-974-3J-3J-060-CF	1-974-04-3J-060-CF
800	1-974-3J-3J-080-CF	1-974-04-3J-080-CF
1000	1-974-3J-3J-090-CF	1-974-04-3J-090-CF
1500	1-974-3J-3J-100-CF	1-974-04-3J-100-CF
2000	1-974-3J-3J-110-CF	1-974-04-3J-110-CF
2500	1-974-3J-3J-120-CF	1-974-04-3J-120-CF
3200	1-974-3J-3J-130-CF	1-974-04-3J-130-CF
4000	1-974-3J-3J-140-CF	1-974-04-3J-140-CF

¹⁾ Other lengths upon request

Further connectors please see chapter hoses and connectors

**test coupling DN04
series S16x1,5 made from stainless steel**

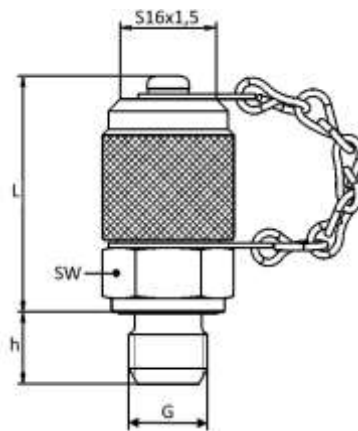


Abb. 1

G	L	h	SW	Sealing	main parts	part number (NBR)	part number (FKM)
M14x1,5	39,7	12	19	soft sealing type 3	1.4571	1-412-24-11-730	1-412-24-12-720
G1/4	39,3	12	19	soft sealing type 3	1.4571	1-412-29-11-730	1-412-29-12-730

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

Application:

Spradow test couplings are applied for the nonitoring and control pressure as well as the ventilation. The advantages of this system are – among other –connection at system pressure level, the easy connection to measurement control and switching devices, the leakproof connection and the integrated vibration security of the metal cap.

Media:

Hydraulic oils and mineral based fluids.
(Please check compatibility of seal material.)
For nitrogen and other inert gases upon request.

Materials:

Metal parts: Steel, Stainless steel upon request
Seals: NBR (-25 °C to +110 °C)
FKM (-20 °C to +200 °C)
EPDM (-40 °C to +150 °C)
Hose: polyamide (-35 °C to +100 °C)

Surface:

Zinc nickel, black, CrVI-free

Pressure:

Maximal working pressure (PN) of the test couplings – 630 bar, at 4-fold security. Connection under pressure upt to 630 bar. For the union pieces please observe the instructions given by the corresponding producer.



design types of caps

type B (round)	type A (universal)	type A (universal) plastic
standard: incl. vibration security		(temperature range -20°C to +100°C)

port connection and seals

type 1	type 2	type 3	type 4	type 5	type 6
Design types of port connection and seals please see annex.					

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

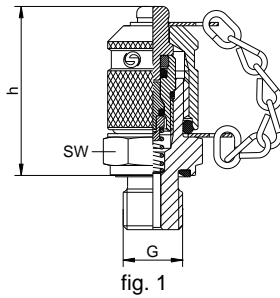


fig. 1

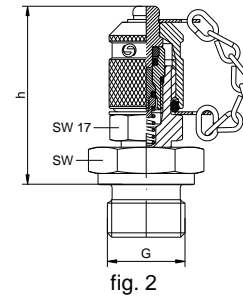


fig. 2

G	PN	SW	h	fig.	sealing	part number (NBR)	part number (FKM)
M8x1	250	17	38	1	o-ring type 1	1-Z06-20-21-630	1-Z06-20-22-630
M8x1		17	38	1	metallic sealing type 2	1-Z06-20-30-630	1-Z06-20-32-630
M10x1	630	17	38	1	o-ring type 1	1-Z06-22-21-630	1-Z06-22-22-630
M10x1	400	17	38	1	metallic sealing type 2	1-Z06-22-30-630	1-Z06-22-32-630
M10x1	400	17	39	1	soft sealing type 3	1-Z06-22-11-630	1-Z06-22-12-630
M10x1		17	38	1	metallic sealing type 6	1-Z06-22-40-630	1-Z06-22-42-630
M10x1,25		17	38	1	o-ring type 1	1-Z06-49-21-630	1-Z06-49-22-630
M10x1,25		17	38	1	soft sealing type 3	1-Z06-49-11-630	1-Z06-49-12-630
M12x1,5	630	17	38	1	metallic sealing type 2	1-Z06-23-30-630	1-Z06-23-32-630
M12x1,5	630	17	39	1	soft sealing type 3	1-Z06-23-11-630	1-Z06-23-12-630
M14x1,5	630	19	37	1	metallic sealing type 2	1-Z06-24-30-630	1-Z06-24-32-630
M14x1,5	630	19	37	1	soft sealing type 3	1-Z06-24-11-630	1-Z06-24-12-630
M14x1,5	630	19	38	1	o-ring type 5	1-Z06-24-61-630	1-Z06-24-62-630
M16x1,5	630	22	37	1	metallic sealing type 2	1-Z06-25-30-630	1-Z06-25-32-630
M16x1,5	630	22	37	1	soft sealing type 3	1-Z06-25-11-630	1-Z06-25-12-630
M18x1,5		24	39	1	metallic sealing type 2	1-Z06-26-30-630	1-Z06-26-32-630
M18x1,5		24	39	1	soft sealing type 3	1-Z06-26-11-630	1-Z06-26-12-630
M20x1,5		27	39	1	metallic sealing type 2	1-Z06-51-30-630	1-Z06-51-32-630
M20x1,5		27	39	1	soft sealing type 3	1-Z06-51-11-630	1-Z06-51-12-630
M22x1,5		27	39	1	metallic sealing type 2	1-Z06-27-30-630	1-Z06-27-32-630
M22x1,5		27	39	1	soft sealing type 3	1-Z06-27-11-630	1-Z06-27-12-630
M26x1,5		32	49	2	metallic sealing type 2	1-Z11-52-30-630	1-Z11-52-32-630
M27x2		36	49	2	metallic sealing type 2	1-Z11-53-30-630	1-Z11-53-32-630
M33x2		41	49	2	metallic sealing type 2	1-Z11-54-30-630	1-Z11-54-32-630
M42x2		50	50	2	metallic sealing type 2	1-Z11-55-30-630	1-Z11-55-32-630
M48x2		60	50	2	metallic sealing type 2	1-Z11-56-30-630	1-Z11-56-32-630
G 1/8	400	17	38	1	metallic sealing type 2	1-Z06-28-30-630	1-Z06-28-32-630
G 1/8	400	17	39	1	soft sealing type 3	1-Z06-28-11-630	1-Z06-28-12-630
G 1/4	630	19	37	1	metallic sealing type 2	1-Z06-29-30-630	1-Z06-29-32-630
G 1/4	630	19	37	1	soft sealing type 3	1-Z06-29-11-630	1-Z06-29-12-630
G 1/4		19	37	1	metallic sealing type 6	1-Z06-29-40-630	1-Z06-29-42-630
G 3/8	630	22	37	1	metallic sealing type 2	1-Z06-30-30-630	1-Z06-30-32-630
G 3/8	630	22	37	1	soft sealing type 3	1-Z06-30-11-630	1-Z06-30-12-630
G 1/2		27	39	1	metallic sealing type 2	1-Z06-31-30-630	1-Z06-31-32-630
G 1/2	630	27	39	1	soft sealing type 3	1-Z06-31-11-630	1-Z06-31-12-630
G 3/4		32	40	1	metallic sealing type 2	1-Z06-32-30-630	1-Z06-32-32-630
G 1		41	48	2	metallic sealing type 2	1-Z11-57-30-630	1-Z11-57-32-630
G 1 1/4		50	50	2	metallic sealing type 2	1-Z11-58-30-630	1-Z11-58-32-630
G 1 1/2		60	50	2	metallic sealing type 2	1-Z11-59-30-630	1-Z11-59-32-630
Rk 1/8*	400	17	36	1	thread type 4	1-Z06-33-00-630	1-Z06-33-02-630
Rk 1/4*	630	17	35	1	thread type 4	1-Z06-34-00-630	1-Z06-34-02-630
Rk 3/8*		19	35	1	thread type 4	1-Z06-35-00-630	1-Z06-35-02-630
5/16-24 UNF	400	17	38	1	o-ring type 5	1-Z06-38-30-630	1-Z06-38-32-630
7/16-20 UNF	630	17	38	1	o-ring type 5	1-Z06-39-30-630	1-Z06-39-32-630
1/2-20 UNF	630	17	38	1	o-ring type 5	1-Z06-61-30-630	1-Z06-61-32-630
9/16-18 UNF	630	19	38	1	o-ring type 5	1-Z06-40-30-630	1-Z06-40-32-630
3/4-16 UNF	630	27	40	1	o-ring type 5	1-Z06-41-30-630	1-Z06-41-32-630
1/8 NPT	400	17	36	1	thread type 4	1-Z06-43-00-630	1-Z06-43-02-630
1/4 NPT	630	17	35	1	thread type 4	1-Z06-44-00-630	1-Z06-44-02-630
3/8 NPT		19	36	1	thread type 4	1-Z06-45-00-630	1-Z06-45-02-630
1/2 NPT		22	37	1	thread type 4	1-Z06-46-00-630	1-Z06-46-02-630
For metal cap type A (universal) with vibration security, replace 630 by						620	620
For metal cap type B (round) without vibration security , replace 630 by						050	050
For metal cap type A (universal) without vibration security , replace 630 by						040	040
For yellow plastic cap type A (universal) without vibration security , replace 630 by						110	110

*acc. DIN 3858

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

fittings with test coupling series M16x1,5

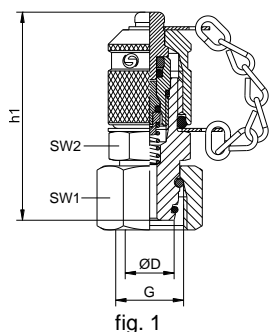


fig. 1

type DKO

test coupling with 24° taper adapter (DIN3865 / ISO8434-1)

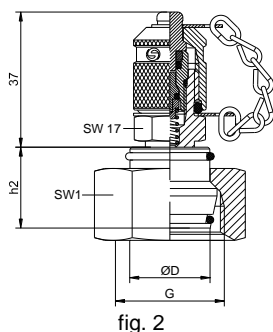


fig. 2

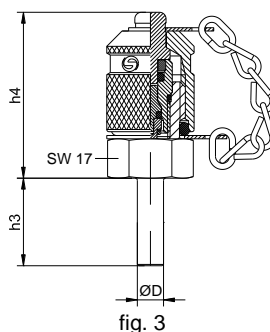


fig. 3

type BE

test coupling for compression ring fittings

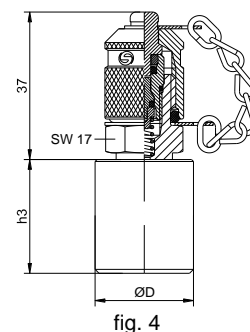


fig. 4

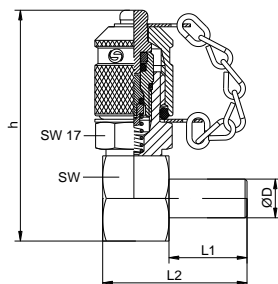
type	PN	tube ØD	h1	h2	h3	h4	SW1	SW2	G	type DKO part number	fig.	type BE part number	fig.
L	315	6	53	-	20	39	14	17	M12x1,5	1-Z08-00-10-630	1	1-Z09-00-00-631	3
		8	53	-	20	39	17	17	M14x1,5	1-Z08-02-10-630	1	1-Z09-02-00-631	3
		10	50	-	22	37	19	17	M16x1,5	1-Z08-04-10-630	1	1-Z09-04-00-631	3
		12	50	-	22	37	22	17	M18x1,5	1-Z08-06-10-630	1	1-Z09-06-00-631	3
		15	51	-	22	37	27	19	M22x1,5	1-Z08-09-00-630	1	1-Z09-09-00-631	3
	160	18	-	22	28	-	32	-	M26x1,5	1-Z08-11-00-630	2	1-Z09-11-00-631	4
		22	-	22	30	-	36	-	M30x2	1-Z08-13-00-630	2	1-Z09-13-00-631	4
		28	-	24	32	-	41	-	M36x2	1-Z08-15-00-630	2	1-Z09-15-00-631	4
		35	-	27	42	-	50	-	M45x2	1-Z08-17-00-630	2	1-Z09-17-00-631	4
		42	-	28	45	-	60	-	M52x2	1-Z08-19-00-630	2	1-Z09-19-00-631	4
S	630	6	54	-	20	39	17	17	M14x1,5	1-Z08-01-10-630	1	1-Z09-00-00-631	3
		8	51	-	20	39	19	17	M16x1,5	1-Z08-03-10-630	1	1-Z09-02-00-631	3
		10	51	-	22	37	22	17	M18x1,5	1-Z08-05-10-630	1	1-Z09-04-00-631	3
		12	51	-	22	37	24	17	M20x1,5	1-Z08-07-10-630	1	1-Z09-06-00-631	3
		14	-	20	22	37	27	-	M22x1,5	1-Z08-08-00-630	2	1-Z09-08-00-631	3
	400	16	-	20	28	37	30	-	M24x1,5	1-Z08-10-00-630	2	1-Z09-10-00-631	3
		20	-	25	30	-	36	-	M30x2	1-Z08-12-00-630	2	1-Z09-12-00-631	4
		25	-	27	36	-	46	-	M36x2	1-Z08-14-00-630	2	1-Z09-14-00-631	4
		30	-	29	41	-	50	-	M42x2	1-Z08-16-00-630	2	1-Z09-16-00-631	4
		315	38	-	32	48	-	60	-	M52x2	1-Z08-18-00-630	2	1-Z09-18-00-631

For metal cap type A (universal) with vibration security
 For metal cap type B (round) **without vibration security**
 For metal cap type A (universal) **without vibration security**
 For yellow plastic cap type A (universal) **without vibration security**
 Design with sealings made of FKM

replace 630 by 620
 replace 630 by 050
 replace 630 by 040
 replace 630 by 110
 replace 10-630 by 12-630 or 00-630 by 02-630

replace 631 by 621
 replace 631 by 051
 replace 631 by 041
 replace 631 by 111
 replace 00-631 by 02-631

90° fitting type BE with test coupling series M16x1,5

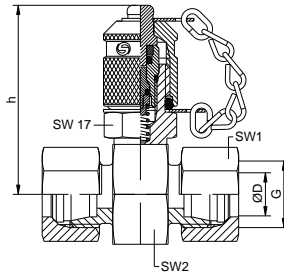


tube ØD	L1	L2	SW	h	part number (NBR)	part number (FKM)
8	20	37	22	59	1-Z80-03-63-080	1-Z80-03-63-081
10	20	37	22	59	1-Z80-05-63-120	1-Z80-05-63-121

For metal cap type A (universal) with vibration security replace 63 by 62
 For metal cap type B (round) **without vibration security** replace 63 by 05
 For metal cap type A (universal) **without vibration security** replace 63 by 04
 For yellow plastic cap type A (universal) **without vibration security** replace 63 by 11

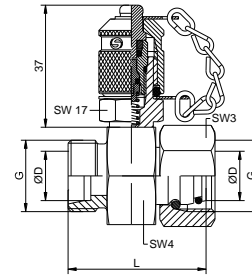
62
 05
 04
 11

**fitting with test coupling
series M16x1,5**



type GE

(DIN2353 / ISO8434-1 and -4)



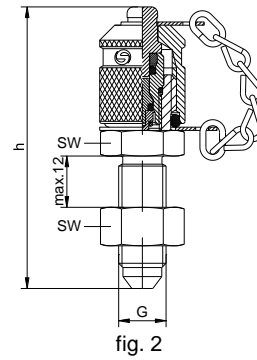
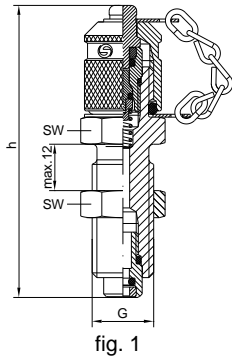
type DKOGE

(DIN2353 / ISO8434-1 and -4)

type	PN	tube ØD	G	SW1	SW2	h	L	SW3	SW4	type GE part number	type DKOGE part number
L	315	6	M12x1,5	14	22	48	43	14	24	1-Z10-00-00-630	1-Z10-20-00-631
		8	M14x1,5	17	24	49	43	17	24	1-Z10-02-00-630	1-Z10-22-00-631
		10	M16x1,5	19	24	49	45	19	24	1-Z10-04-00-630	1-Z10-24-00-631
		12	M18x1,5	22	27	51	41	22	27	1-Z10-06-00-630	1-Z10-26-00-631
		15	M22x1,5	27	30	53	43	27	30	1-Z10-09-00-630	1-Z10-29-00-631
		18	M26x1,5	32	32	53	54	32	32	1-Z10-11-00-630	1-Z10-31-00-631
	160	22	M30x2	36	36	55	57	36	36	1-Z10-13-00-630	1-Z10-33-00-631
		28	M36x2	41	41	58		upon request		1-Z10-15-00-630	1-Z10-35-00-631
		35	M45x2	50	46	60		upon request		1-Z10-17-00-630	1-Z10-37-00-631
		42	M52x2	60	55	65		upon request		1-Z10-19-00-630	1-Z10-39-00-631
S	630	6	M14x1,5	17	24	49	46	17	24	1-Z10-01-00-630	1-Z10-21-00-631
		8	M16x1,5	19	24	49	47	19	24	1-Z10-03-00-630	1-Z10-23-00-631
		10	M18x1,5	22	24	49	48	22	24	1-Z10-05-00-630	1-Z10-25-00-631
		12	M20x1,5	24	24	49	47	24	24	1-Z10-07-00-630	1-Z10-27-00-631
		14	M22x1,5	27	27	51	50	27	27	1-Z10-08-00-630	1-Z10-28-00-631
	400	16	M24x1,5	30	30	52	55	30	30	1-Z10-10-00-630	1-Z10-30-00-631
		20	M30x2	36	32	53	62	36	36	1-Z10-12-00-630	1-Z10-32-00-631
		25	M36x2	46	41	58	62	46	41	1-Z10-14-00-630	1-Z10-34-00-631
		30	M42x2	50	46	60		upon request		1-Z10-16-00-630	1-Z10-36-00-631
		38	M52x2	60	55	65		upon request		1-Z10-18-00-630	1-Z10-38-00-631
For metal cap type A (universal) with vibration security										replace 630 by 620	replace 631 by 621
For metal cap type B (round) without vibration security										replace 630 by 050	replace 631 by 051
For metal cap type A (universal) without vibration security										replace 630 by 040	replace 631 by 041
For yellow plastic cap type A (universal) without vibration security										replace 630 by 110	replace 631 by 111
Design with sealings made of FKM										replace 00-630 by 02-630	replace 00-631 by 02-631

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

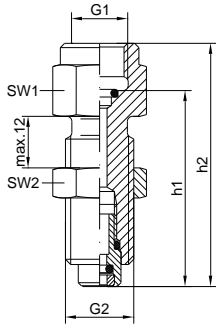
bulkhead coupling series M16x1,5



G	SW	h	fig.	part number (NBR)	part number (FKM)
M16x2	19	72	1	1-Z80-48-63-040	upon request
7/16-20 UNF	17	67	2	upon request	upon request
For metal cap type A (universal) with vibration security replace 63 by				62	62
For metal cap type B (round) without vibration security replace 63 by				05	05
For metal cap type A (universal) without vibration security replace 63 by				04	04
For yellow plastic cap type A (universal) without vibration security replace 63 by				11	11

M16x1,5 – connector and adaptors

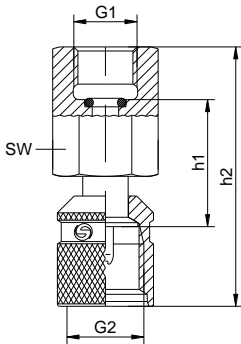
bulkhead pressure gauge connector series M16x1,5 – without valve function



G1	SW1	SW2	h1	h2	G2	sealing	part number (NBR)	part number (FKM)
G 1/4	19	19	46	57	M16x1,5	o-ring	1-918-29-01-250	1-918-29-21-250
G 1/2	27	24	49	66	M16x1,5	o-ring	1-918-31-01-250	1-918-31-21-250

For design with damping element replace 918 by 930 930 930

direct pressure gauge connector series M16x1,5 – without valve function



G1	SW	h1	h2	G2	sealing	part number (NBR)	part number (FKM)
G 1/4	19	27	54	M16x1,5	o-ring	1-927-29-01-050	1-927-29-21-050
G 1/2	27	25	58	M16x1,5	o-ring	1-927-31-01-050	1-927-31-21-050
1/4 NPT	19	-	53	M16x1,5	thread	1-927-44-00-050	1-927-44-20-050

For metal cap type A (universal) replace 050 by 040 040 040
For design with damping element replace 927 by 929 929 929

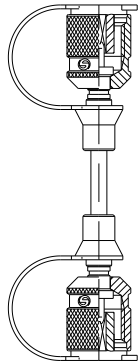
high pressure hose

Max. working pressure:
up to 630 bar

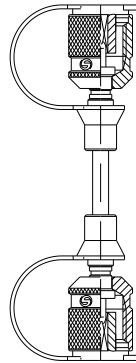
Pressure / t° factor:
at 20°C 100%
at 40°C 95%
at 60°C 90%
at 80°C 80%
at 100°C 70%

Further details please see
section hoses and con-
nectors

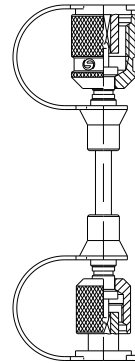
series M16x1,5



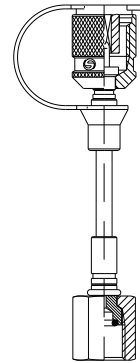
series M16x1,5



series M16x1,5



series M16x1,5



series M16x1,5

series M16x2

series S12x1,5

pressure gauge
connector G 1/4 ²⁾

length L ¹⁾ acc. DIN 20066	part number			
200	1-971-10-10-010	1-971-04-10-010	1-971-10-12-010	1-971-02-10-010
400	1-971-10-10-040	1-971-04-10-040	1-971-10-12-040	1-971-02-10-040
630	1-971-10-10-060	1-971-04-10-060	1-971-10-12-060	1-971-02-10-060
800	1-971-10-10-080	1-971-04-10-080	1-971-10-12-080	1-971-02-10-080
1000	1-971-10-10-090	1-971-04-10-090	1-971-10-12-090	1-971-02-10-090
1500	1-971-10-10-100	1-971-04-10-100	1-971-10-12-100	1-971-02-10-100
2000	1-971-10-10-110	1-971-04-10-110	1-971-10-12-110	1-971-02-10-110
2500	1-971-10-10-120	1-971-04-10-120	1-971-10-12-120	1-971-02-10-120
3200	1-971-10-10-130	1-971-04-10-130	1-971-10-12-130	1-971-02-10-130
4000	1-971-10-10-140	1-971-04-10-140	1-971-10-12-140	1-971-02-10-140

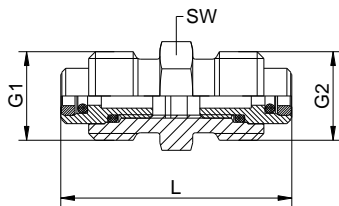
¹⁾ Other lengths upon request

Further connectors please see chapter
hoses and connectors

²⁾ Connection thread G¹/₂,
¹/₄ NPT and ¹/₂ NPT upon request.

The information on the definition of the hose assembly lengths, please see the annex.

hose connector series M16x1,5 – without valve function



G1	SW	L	G2	part number (NBR)	part number (FKM)
M16x2	17	42	M16x1,5	1-980-48-00-030	upon request
M16x1,5	17	42	M16x1,5	1-980-25-00-030	upon request

Application:

Spradow test couplings are applied for monitoring and control pressure as well as the ventilation. The advantages of this system are - among other - connection at system pressure level, the easy connection to measurement control and switching devices, the leakproof connection and the integrated vibration security of the metal cap.

Media:

Hydraulic oils and mineral based fluids.
(Please check compatibility of seal material.)
For nitrogen and other inert gases upon request.

Materials:

Metal parts: Steel, Stainless steel upon request
Seals: NBR (-25 °C to +110 °C)
FKM (-20 °C to +200 °C)
EPDM (-40 °C to +150 °C)
Hose: polyamide (-35 °C to +100 °C)

Surface:

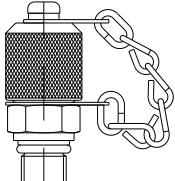
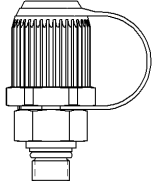
Zinc nickel, transparent, CrVI-free.

Pressure:

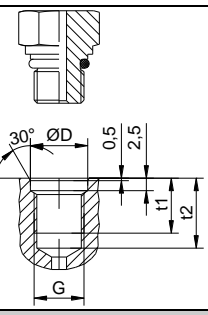
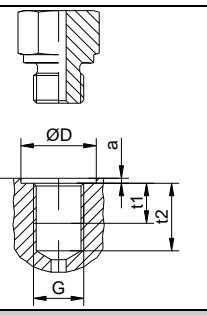
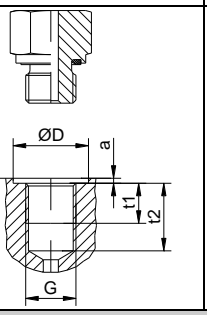
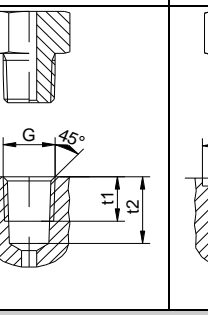
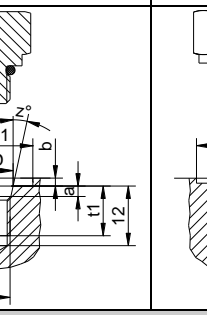
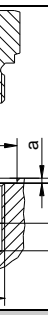
Maximum working pressure (PN) of the test couplings - 630 bar, at 3-fold security. Connection under pressure up to 400 bar. For the union pieces please observe the instructions given by the corresponding producer.



design types of caps

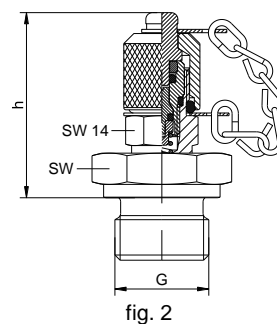
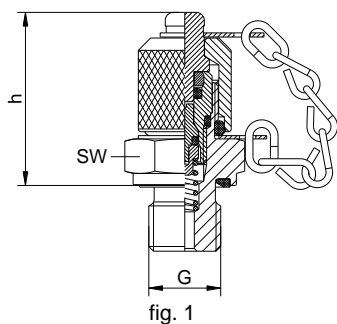
type B (round)	type B (round) plastic
	
standard: incl. vibration security	(temperature range -20°C to +100°C)

port connection and seals

type 1	type 2	type 3	type 4	type 5	type 6
					
Design types of port connection and seals please see annex.					

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

test coupling series S12x1,5



G	PN	SW	h	fig.	sealing	part number (NBR)	part number (FKM)
M8x1		14	38	1	metallic sealing type 2	1-S06-20-30-680-CF	1-S06-20-32-680-CF
M10x1	630	14	32	1	o-ring type 1	1-S06-22-21-680-CF	1-S06-22-22-680-CF
M10x1		14	38	1	metallic sealing type 2	1-S06-22-30-680-CF	1-S06-22-32-680-CF
M12x1,5		17	32	1	metallic sealing type 2	1-S06-23-30-680-CF	1-S06-23-32-680-CF
M12x1,5	630	17	34	1	soft sealing type 3	1-S06-23-11-680-CF	1-S06-23-12-680-CF
M14x1,5		19	33	1	metallic sealing type 2	1-S06-24-30-680-CF	1-S06-24-32-680-CF
M14x1,5		19	34	1	soft sealing type 3	1-S06-24-11-680-CF	1-S06-24-12-680-CF
M14x1,5		19	34	1	o-ring type 5	1-S06-24-61-680-CF	1-S06-24-62-680-CF
M16x1,5		22	32	1	metallic sealing type 2	1-S06-25-30-680-CF	1-S06-25-32-680-CF
M18x1,5		24	42	2	metallic sealing type 2	1-S11-26-30-680-CF	1-S11-26-32-680-CF
M18x1,5		24	42	2	soft sealing type 3	1-S11-26-11-680-CF	1-S11-26-12-680-CF
M20x1,5		27	42	2	metallic sealing type 2	1-S11-51-30-680-CF	1-S11-51-32-680-CF
M20x1,5		27	42	2	soft sealing type 3	1-S11-51-11-680-CF	1-S11-51-12-680-CF
M22x1,5		27	42	2	metallic sealing type 2	1-S11-27-30-680-CF	1-S11-27-32-680-CF
M22x1,5		27	42	2	soft sealing type 3	1-S11-27-11-680-CF	1-S11-27-12-680-CF
M26x1,5		32	43	2	metallic sealing type 2	1-S11-52-30-680-CF	1-S11-52-32-680-CF
M27x2		36	43	2	metallic sealing type 2	1-S11-53-30-680-CF	1-S11-53-32-680-CF
M33x2		41	43	2	metallic sealing type 2	1-S11-54-30-680-CF	1-S11-54-32-680-CF
M42x2		50	44	2	metallic sealing type 2	1-S11-55-30-680-CF	1-S11-55-32-680-CF
M48x2		60	44	2	metallic sealing type 2	1-S11-56-30-680-CF	1-S11-56-32-680-CF
G 1/8		14	38	1	metallic sealing type 2	1-S06-28-30-680-CF	1-S06-28-32-680-CF
G 1/8	400	14	39	1	soft sealing type 3	1-S06-28-11-680-CF	1-S06-28-12-680-CF
G 1/4		19	35	1	metallic sealing type 2	1-S06-29-30-680-CF	1-S06-29-32-680-CF
G 1/4	630	19	35	1	soft sealing type 3	1-S06-29-11-680-CF	1-S06-29-12-680-CF
G 1/2		27	42	2	metallic sealing type 2	1-S11-31-30-680-CF	1-S11-31-32-680-CF
G 1/2		27	42	2	soft sealing type 3	1-S11-31-11-680-CF	1-S11-31-12-680-CF
G 3/4		32	43	2	metallic sealing type 2	1-S11-32-30-680-CF	1-S11-32-32-680-CF
G 1		41	43	2	metallic sealing type 2	1-S11-57-30-680-CF	1-S11-57-32-680-CF
G 1 1/4		50	44	2	metallic sealing type 2	1-S11-58-30-680-CF	1-S11-58-32-680-CF
G 1 1/2		60	44	2	metallic sealing type 2	1-S11-59-30-680-CF	1-S11-59-32-680-CF
Rk 1/8*		14	33	1	thread type 4	1-S06-33-00-680-CF	1-S06-33-02-680-CF
Rk 1/4*		14	30	1	thread type 4	1-S06-34-00-680-CF	1-S06-34-02-680-CF
7/16-20 UNF	630	14	32	1	o-ring type 5	1-S06-39-30-680-CF	1-S06-39-32-680-CF
1/8 NPT	400	14	33	1	thread type 4	1-S06-43-00-680-CF	1-S06-43-02-680-CF
1/4 NPT	630	14	29	1	thread type 4	1-S06-44-00-680-CF	1-S06-44-02-680-CF
1/2 NPT		22	31	1	thread type 4	1-S06-46-00-680-CF	1-S06-46-02-680-CF
For plastic cap with vibration security replace 680 by						260	260
For metal cap without vibration security replace 680 by						290	290

*acc. DIN 3858

fitting with test coupling series S12x1,5

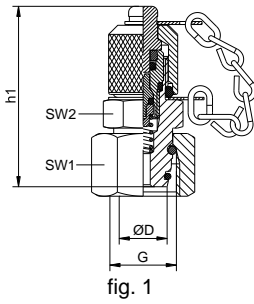


fig. 1

type DKO

test coupling with 24° taper adaptor (DIN3865 / ISO8434-1)

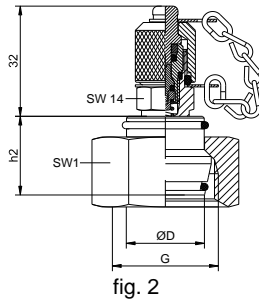


fig. 2

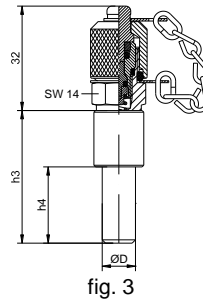


fig. 3

type BE

test coupling for compression ring fittings

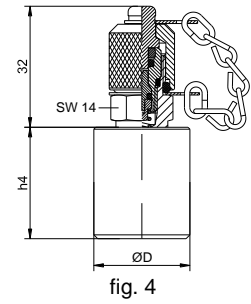


fig. 4

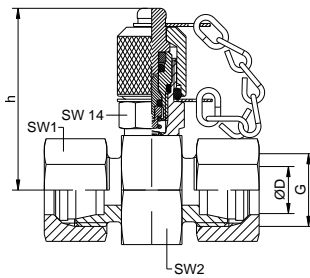
type	PN	tube ØD	h1	h2	h3	h4	SW1	SW2	G	type DKO part number	fig.	type BE part number	fig.
L	315	6	47	-	38	20	14	17	M12x1,5	1-S08-00-10-680-CF	1	1-S09-00-00-681-CF	3
		8	47	-	38	20	17	17	M14x1,5	1-S08-02-10-680-CF	1	1-S09-02-00-681-CF	3
		10	45	-	40	22	19	17	M16x1,5	1-S08-04-10-680-CF	1	1-S09-04-00-681-CF	3
		12	45	-	40	22	22	17	M18x1,5	1-S08-06-10-680-CF	1	1-S09-06-00-681-CF	3
		15	46	-	-	28	27	19	M22x1,5	1-S08-09-00-680-CF	1	1-S09-09-00-681-CF	3
	160	18	-	22	-	28	32	-	M26x1,5	1-S08-11-00-680-CF	2	1-S09-11-00-681-CF	4
		22	-	22	-	30	36	-	M30x2	1-S08-13-00-680-CF	2	1-S09-13-00-681-CF	4
		28	-	24	-	32	41	-	M36x2	1-S08-15-00-680-CF	2	1-S09-15-00-681-CF	4
		35	-	27	-	42	50	-	M45x2	1-S08-17-00-680-CF	2	1-S09-17-00-681-CF	4
		42	-	28	-	45	60	-	M52x2	1-S08-19-00-680-CF	2	1-S09-19-00-681-CF	4
S	630	6	48	-	38	20	17	17	M14x1,5	1-S08-01-10-680-CF	1	1-S09-00-00-681-CF	3
		8	46	-	38	20	19	17	M16x1,5	1-S08-03-10-680-CF	1	1-S09-02-00-681-CF	3
		10	46	-	40	22	22	17	M18x1,5	1-S08-05-10-680-CF	1	1-S09-04-00-681-CF	3
		12	46	-	40	22	24	17	M20x1,5	1-S08-07-10-680-CF	1	1-S09-06-00-681-CF	3
		14	-	20	40	22	27	-	M22x1,5	1-S08-08-00-680-CF	2	1-S09-08-00-681-CF	3
	400	16	-	20	-	28	30	-	M24x1,5	1-S08-10-00-680-CF	2	1-S09-10-00-681-CF	3
		20	-	25	-	30	36	-	M30x2	1-S08-12-00-680-CF	2	1-S09-12-00-681-CF	4
		25	-	27	-	36	46	-	M36x2	1-S08-14-00-680-CF	2	1-S09-14-00-681-CF	4
		30	-	29	-	41	50	-	M42x2	1-S08-16-00-680-CF	2	1-S09-16-00-681-CF	4
		315	38	-	32	-	48	60	-	M52x2	1-S08-18-00-680-CF	2	1-S09-18-00-681-CF

For plastic cap **with vibration security**
For metal cap **without vibration security**
Design with sealings made of FKM

replace 680 by 260
replace 680 by 290
replace 10-680 by 12-680 or
00-680 by 02-680

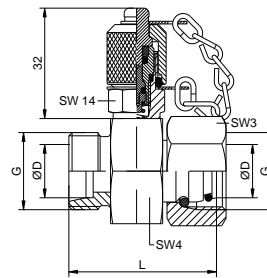
replace 681 by 261
replace 681 by 291
replace 00-681 by 02-681

fitting with test coupling series S12x1,5



type GE

(DIN2353 / ISO8434-1 and -4)



type DKOGE

(DIN2353 / ISO8434-1 and -4)

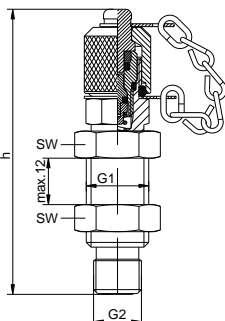
type	PN	tube ØD	G	SW1	SW2	h	L	SW3	SW4	type GE part number	type DKOGE part number
L	315	6	M12x1,5	14	22	43	43	14	24	1-S10-00-00-680-CF	1-S10-20-00-681-CF
		8	M14x1,5	17	24	44	43	17	24	1-S10-02-00-680-CF	1-S10-22-00-681-CF
		10	M16x1,5	19	24	44	45	19	24	1-S10-04-00-680-CF	1-S10-24-00-681-CF
		12	M18x1,5	22	27	45	41	22	27	1-S10-06-00-680-CF	1-S10-26-00-681-CF
		15	M22x1,5	27	30	47	43	27	30	1-S10-09-00-680-CF	1-S10-29-00-681-CF
		18	M26x1,5	32	32	48	54	32	32	1-S10-11-00-680-CF	1-S10-31-00-681-CF
	160	22	M30x2	36	36	50	57	36	36	1-S10-13-00-680-CF	1-S10-33-00-681-CF
		28	M36x2	41	41	52		upon request		1-S10-15-00-680-CF	1-S10-35-00-681-CF
		35	M45x2	50	46	55		upon request		1-S10-17-00-680-CF	1-S10-37-00-681-CF
	42	M52x2	60	55	59		upon request		1-S10-19-00-680-CF	1-S10-39-00-681-CF	
S	630	6	M14x1,5	17	24	44	46	17	24	1-S10-01-00-680-CF	1-S10-21-00-681-CF
		8	M16x1,5	19	24	44	47	19	24	1-S10-03-00-680-CF	1-S10-23-00-681-CF
		10	M18x1,5	22	24	44	48	22	24	1-S10-05-00-680-CF	1-S10-25-00-681-CF
		12	M20x1,5	24	24	44	47	24	24	1-S10-07-00-680-CF	1-S10-27-00-681-CF
		14	M22x1,5	27	27	45	50	27	27	1-S10-08-00-680-CF	1-S10-28-00-681-CF
		16	M24x1,5	30	30	47	55	30	30	1-S10-10-00-680-CF	1-S10-30-00-681-CF
	400	20	M30x2	36	32	48	62	36	36	1-S10-12-00-680-CF	1-S10-32-00-681-CF
		25	M36x2	46	41	52	62	46	41	1-S10-14-00-680-CF	1-S10-34-00-681-CF
		30	M42x2	50	46	55		upon request		1-S10-16-00-680-CF	1-S10-36-00-681-CF
		315	38	M52x2	60	55	59		upon request		1-S10-18-00-680-CF

For plastic cap **with vibration security**
For metal cap **without vibration security**
Design with sealings made of FKM

replace 680 by 260
replace 680 by 290
replace 00-680 by 02-680

replace 681 by 261
replace 681 by 291
replace 00-681 by 02-681

bulkhead coupling series S12x1,5



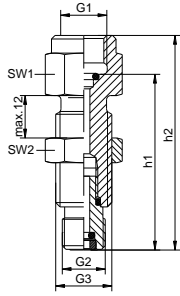
G1	G2	SW	h	part number (NBR)	part number (FKM)
S12x1,5	S12x1,5	19	74	1-S80-48-68-040-CF	upon request

For plastic cap **with vibration security** replace 68 by 26
For metal cap **without vibration security** replace 68 by 29

26
29

S12x1,5 – connectors and adaptors

bulkhead pressure gauge connector series S12x1,5 – without valve function



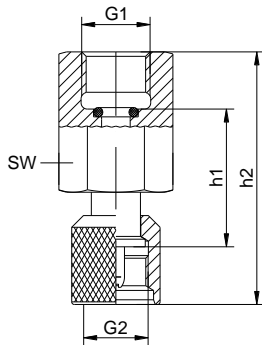
G1	SW1	SW2	h1	h2	G2	sealing	part number (NBR)	part number (FKM)
G 1/4	19	19	50	61	S12x1,5	o-ring	1-918-29-01-430-CF	1-918-29-21-430-CF
G 1/2	27	24	53	70	S12x1,5	o-ring	1-918-31-01-430-CF	1-918-31-21-430-CF
1/4 NPT	19	19	-	62	S12x1,5	thread	1-918-44-00-430-CF	1-918-44-20-430-CF
1/2 NPT	27	24	-	70	S12x1,5	thread	1-918-46-00-430-CF	1-918-46-20-430-CF

For design with damping element replace 918 by

929

929

direct pressure gauge connector series S12x1,5 – without valve function



G1	SW	h1	h2	G2	sealing	part number (NBR)	part number (FKM)
G 1/4	19	27	49	S12x1,5	o-ring	1-927-29-01-290-CF	1-927-29-21-290-CF
G 1/2	27	25	53	S12x1,5	o-ring	1-927-31-01-290-CF	1-927-31-21-290-CF
1/4 NPT	19	-	48	S12x1,5	thread	1-927-44-00-290-CF	1-927-44-20-290-CF
1/2 NPT	27	-	54	S12x1,5	thread	1-927-46-00-290-CF	1-927-46-20-290-CF

For design with damping element replace 927 by

929

929

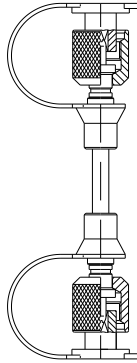
high pressure hose series S12x1,5

Max. working pressure:
up to 630 bar

Pressure / t° factor:
at 20°C 100%
at 40°C 95%
at 60°C 90%
at 80°C 80%
at 100°C 70%

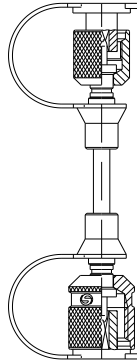
Further details please
see section hoses and
connectors

series S12x1,5



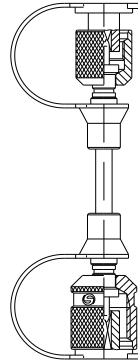
series S12x1,5

series S12x1,5



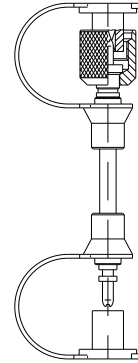
series M16x2

series S12x1,5



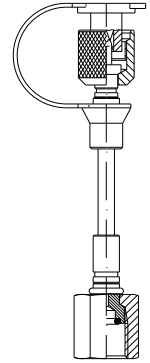
series M16x1,5

series S12x1,5



series Steck

series S12x1,5



pressure gauge
connector G 1/4 ²⁾

length L ¹⁾ acc. DIN 20066	part number				
200	1-971-12-12-010-CF	1-971-04-12-010-CF	1-971-10-12-010-CF	1-971-01-12-010-CF	1-971-02-12-010-CF
400	1-971-12-12-040-CF	1-971-04-12-040-CF	1-971-10-12-040-CF	1-971-01-12-040-CF	1-971-02-12-040-CF
630	1-971-12-12-060-CF	1-971-04-12-060-CF	1-971-10-12-060-CF	1-971-01-12-060-CF	1-971-02-12-060-CF
800	1-971-12-12-080-CF	1-971-04-12-080-CF	1-971-10-12-080-CF	1-971-01-12-080-CF	1-971-02-12-080-CF
1000	1-971-12-12-090-CF	1-971-04-12-090-CF	1-971-10-12-090-CF	1-971-01-12-090-CF	1-971-02-12-090-CF
1500	1-971-12-12-100-CF	1-971-04-12-100-CF	1-971-10-12-100-CF	1-971-01-12-100-CF	1-971-02-12-100-CF
2000	1-971-12-12-110-CF	1-971-04-12-110-CF	1-971-10-12-110-CF	1-971-01-12-110-CF	1-971-02-12-110-CF
2500	1-971-12-12-120-CF	1-971-04-12-120-CF	1-971-10-12-120-CF	1-971-01-12-120-CF	1-971-02-12-120-CF
3200	1-971-12-12-130-CF	1-971-04-12-130-CF	1-971-10-12-130-CF	1-971-01-12-130-CF	1-971-02-12-130-CF
4000	1-971-12-12-140-CF	1-971-04-12-140-CF	1-971-10-12-140-CF	1-971-01-12-140-CF	1-971-02-12-140-CF

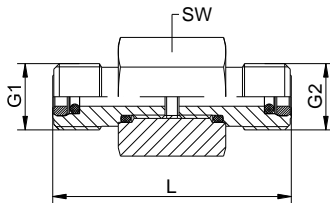
¹⁾ Other lengths upon request

Further connectors please see chapter
hoses and connectors

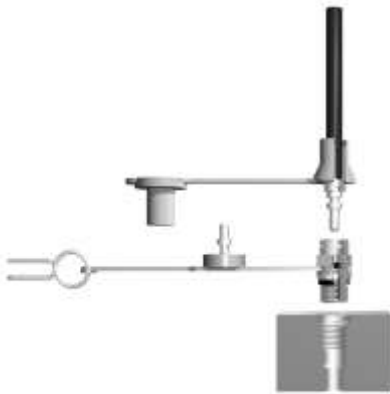
²⁾ Connection thread G¹/₂,
¹/₄ NPT and ¹/₂ NPT upon request.

The information on the definition of the hose assembly lengths, please see the annex.

hose connector series S12x1,5 – without valve function



G1	SW	L	G2	part number (NBR)	part number (FKM)
S12x1,5	19	44	S12x1,5	1-980-49-00-010-CF	upon request



Einsatz:

Spradow test couplings are applied for the monitoring and control pressure as well as the ventilation. The advantages of this system are – among other – connection at system pressure level, the easy connection to measurement control and switching devices, the leakproof connection.

Media:

Hydraulic oils and mineral based fluids.
(Please check compatibility of seal material.)

Materials:

Metal parts: Steel, Stainless steel upon request
Seals: NBR (-25 °C to +110 °C)
FKM (-20 °C to +200 °C)
EPDM (-40 °C to +150 °C)
Hose: polyamide (-35 °C to +100 °C)

Surface:

Zinc nickel, transparent, CrVI-free.

Pressure:

Maximum working pressure (PN) of the test couplings - 400 bar at 3-fold security. For the union pieces please observe the instructions given by the corresponding producer.

port connection and seals

type 1	type 2	type 3	type 4	type 5	type 6
Design types of port connection and seals please see annex.					

test coupling series Steck

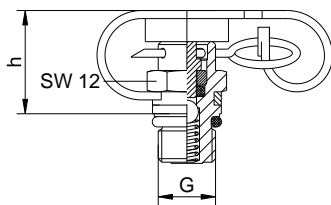


fig. 1

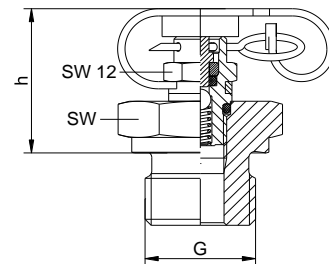


fig. 2

G	PN	SW	h	fig.	sealing	part number (NBR)	part number (FKM)
M8x1	400	-	18	1	o-ring type 1	1-900-20-21-180-CF	1-900-20-22-180-CF
M10x1	400	-	18	1	o-ring type 1	1-900-22-21-180-CF	1-900-22-22-180-CF
Rk 1/8*	400	-	18	1	thread type 4	1-900-33-00-180-CF	1-900-33-02-180-CF
1/8 NPT	-	-	18	1	thread type 4	1-900-43-00-180-CF	1-900-43-02-180-CF
M10x1		17	37	2	metallic sealing type 2	1-905-22-30-180-CF	1-905-22-32-180-CF
G 1/4		19	27	2	soft sealing type 3	1-905-29-11-180-CF	1-905-29-12-180-CF
G 1/4				2	metallic sealing type 2	1-905-29-30-180-CF	1-905-29-32-180-CF

*acc. DIN 3858

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

fitting with test coupling series Steck

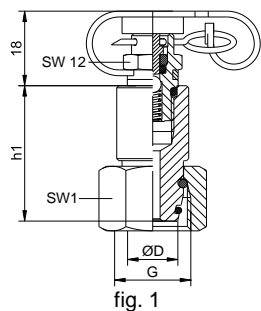


fig. 1

type DKO

test coupling with 24° taper adaptor (DIN3865 / ISO8434-1)

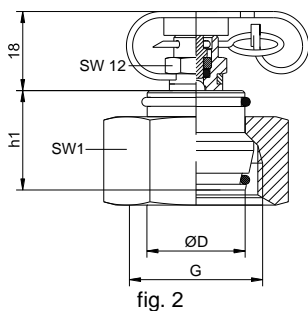


fig. 2

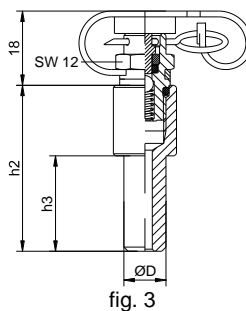


fig. 3

type BE

test coupling for compression ring fittings

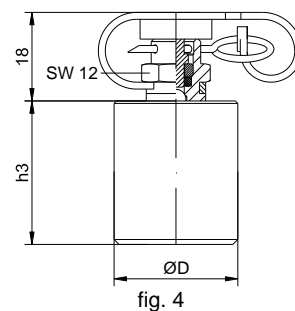


fig. 4

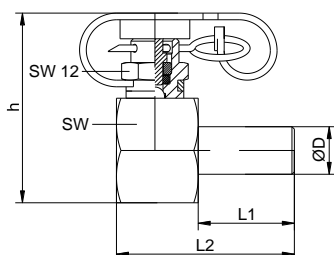
type	PN	tube ØD	h1	h2	h3	SW1	G	type DKO part number	fig.	type BE part number	fig.
L	315	6	33	38	20	14	M12x1,5	1-902-00-10-180-CF	1	1-903-00-00-181-CF	3
		8	33	38	20	17	M14x1,5	1-902-02-10-180-CF	1	1-903-02-00-181-CF	3
		10	33	40	22	19	M16x1,5	1-902-04-10-180-CF	1	1-903-04-00-181-CF	3
		12	33	40	22	22	M18x1,5	1-902-06-10-180-CF	1	1-903-06-00-181-CF	3
		15	20	-	28	27	M22x1,5	1-902-09-00-180-CF	2	1-903-09-00-181-CF	4
	160	18	22	-	28	32	M26x1,5	1-902-11-00-180-CF	2	1-903-11-00-181-CF	4
		22	22	-	30	36	M30x2	1-902-13-00-180-CF	2	1-903-13-00-181-CF	4
		28	24	-	32	41	M36x2	1-902-15-00-180-CF	2	1-903-15-00-181-CF	4
		35	27	-	42	50	M45x2	1-902-17-00-180-CF	2	1-903-17-00-181-CF	4
		42	28	-	45	60	M52x2	1-902-19-00-180-CF	2	1-903-19-00-181-CF	4
S	400	6	34	38	20	17	M14x1,5	1-902-01-10-180-CF	1	1-903-00-00-181-CF	3
		8	34	38	20	19	M16x1,5	1-902-03-10-180-CF	1	1-903-02-00-181-CF	3
		10	34	40	22	22	M18x1,5	1-902-05-10-180-CF	1	1-903-04-00-181-CF	3
		12	34	40	22	24	M20x1,5	1-902-07-10-180-CF	1	1-903-06-00-181-CF	3
		14	20	40	22	27	M22x1,5	1-902-08-00-180-CF	2	1-903-08-00-181-CF	3
	400	16	20	-	28	30	M24x1,5	1-902-10-00-180-CF	2	1-903-10-00-181-CF	4
		20	25	-	30	36	M30x2	1-902-12-00-180-CF	2	1-903-12-00-181-CF	4
		25	27	-	36	46	M36x2	1-902-14-00-180-CF	2	1-903-14-00-181-CF	4
		30	29	-	41	50	M42x2	1-902-16-00-180-CF	2	1-903-16-00-181-CF	4
		315	38	32	-	48	60	M52x2	1-902-18-00-180-CF	2	1-903-18-00-181-CF

Design with sealings made of FKM

replace 00-180 by 02-180 or
10-180 by 12-180

replace 00-181 by 02-181

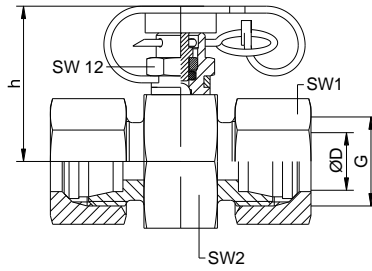
90° fitting type BE with test coupling series Steck



tube ØD	L1	L2	SW	h	part number (NBR)	part number (FKM)
8	20	37	22	40	1-980-03-20-080-CF	1-980-03-20-081-CF
10	20	37	22	40	1-980-05-20-120-CF	1-980-05-20-121-CF

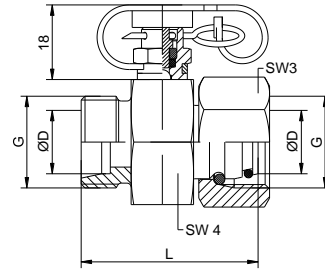
Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

fitting with test coupling series Steck



type GE

(DIN2353 / ISO8434-1 and -4)



type DKOGE

(DIN2353 / ISO8434-1 and -4)

type	PN	tube ØD	G	SW1	SW2	h	L	SW3	SW4	type GE part number	type DKOGE part number
L	315	6	M12x1,5	14	22	29	43	14	24	1-904-00-00-180-CF	1-904-20-00-181-CF
		8	M14x1,5	17	24	30	43	17	24	1-904-02-00-180-CF	1-904-22-00-181-CF
		10	M16x1,5	19	24	30	45	19	24	1-904-04-00-180-CF	1-904-24-00-181-CF
		12	M18x1,5	22	27	32	41	22	27	1-904-06-00-180-CF	1-904-26-00-181-CF
		15	M22x1,5	27	30	33	43	27	30	1-904-09-00-180-CF	1-904-29-00-181-CF
	160	18	M26x1,5	32	32	34	54	32	32	1-904-11-00-180-CF	1-904-31-00-181-CF
		22	M30x2	36	36	36	57	36	36	1-904-13-00-180-CF	1-904-33-00-181-CF
		28	M36x2	41	41	39			upon request	1-904-15-00-180-CF	1-904-35-00-181-CF
		35	M45x2	50	46	41			upon request	1-904-17-00-180-CF	1-904-37-00-181-CF
		42	M52x2	60	55	46			upon request	1-904-19-00-180-CF	1-904-39-00-181-CF
S	630	6	M14x1,5	17	24	30	46	17	24	1-904-01-00-180-CF	1-904-21-00-181-CF
		8	M16x1,5	19	24	30	47	19	24	1-904-03-00-180-CF	1-904-23-00-181-CF
		10	M18x1,5	22	24	30	48	22	24	1-904-05-00-180-CF	1-904-25-00-181-CF
		12	M20x1,5	24	24	30	47	24	24	1-904-07-00-180-CF	1-904-27-00-181-CF
		14	M22x1,5	27	27	32	50	27	27	1-904-08-00-180-CF	1-904-28-00-181-CF
	400	16	M24x1,5	30	30	33	55	30	30	1-904-10-00-180-CF	1-904-30-00-181-CF
		20	M30x2	36	32	34	62	36	36	1-904-12-00-180-CF	1-904-32-00-181-CF
		25	M36x2	46	41	39	62	46	41	1-904-14-00-180-CF	1-904-34-00-181-CF
		30	M42x2	50	46	41			upon request	1-904-16-00-180-CF	1-904-36-00-181-CF
		315	38	M52x2	60	55	46			upon request	1-904-18-00-180-CF

Design with sealings made of FKM replace 00-180 by 02-180 replace 00-181 by 02-181

bulkhead connector series Steck

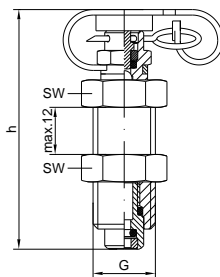


fig. 1

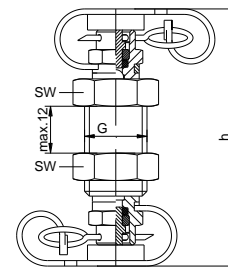
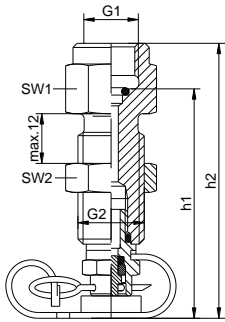


fig. 2

G	SW	h	fig.	part number (NBR)	part number (FKM)
M16x2	19	61	1	1-980-48-20-040-CF	1-980-48-20-041-CF
M16x2	19	71	2	1-980-48-20-050-CF	1-980-48-20-051-CF

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

bulkhead pressure gauge connector series Steck – without valve function



G1	SW1	SW2	h1	h2	G2	sealing	part number (NBR)	part number (FKM)
G 1/4	19	19	55	66	M16x2	o-ring	1-918-29-01-210-CF	1-918-29-21-210-CF
G 1/2	27	24	58	75	M16x2	o-ring	1-918-31-01-210-CF	1-918-31-21-210-CF
1/4 NPT	19	19	-	68	M16x2	thread	1-918-44-00-210-CF	1-918-44-20-210-CF
1/2 NPT	27	24	-	75	M16x2	thread	1-918-46-00-210-CF	1-918-46-20-210-CF

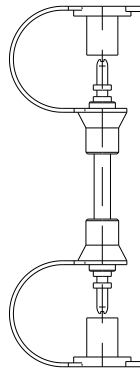
high pressure hose series Steck

Max. working pressure:
up to 630 bar

Pressure / t° factor:
at 20°C 100%
at 40°C 95%
at 60°C 90%
at 80°C 80%
at 100°C 70%

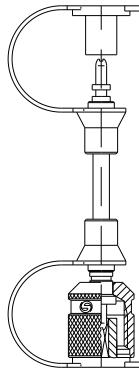
Further details please see
section hoses and con-
nectors

series Steck



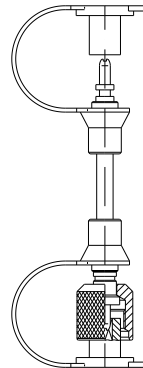
series Steck

series Steck



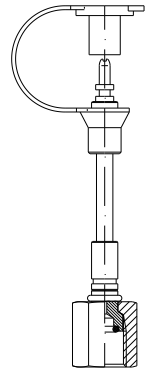
series M16x2

series Steck



series S12x1,5

series Steck



pressure gauge
connector G 1/4²⁾

length L ¹⁾ acc. DIN 20066	part number			
200	1-971-01-01-010-CF	1-971-01-04-010-CF	1-971-01-12-010-CF	1-971-01-02-010-CF
400	1-971-01-01-040-CF	1-971-01-04-040-CF	1-971-01-12-040-CF	1-971-01-02-040-CF
630	1-971-01-01-060-CF	1-971-01-04-060-CF	1-971-01-12-060-CF	1-971-01-02-060-CF
800	1-971-01-01-080-CF	1-971-01-04-080-CF	1-971-01-12-080-CF	1-971-01-02-080-CF
1000	1-971-01-01-090-CF	1-971-01-04-090-CF	1-971-01-12-090-CF	1-971-01-02-090-CF
1500	1-971-01-01-100-CF	1-971-01-04-100-CF	1-971-01-12-100-CF	1-971-01-02-100-CF
2000	1-971-01-01-110-CF	1-971-01-04-110-CF	1-971-01-12-110-CF	1-971-01-02-110-CF
2500	1-971-01-01-120-CF	1-971-01-04-120-CF	1-971-01-12-120-CF	1-971-01-02-120-CF
3200	1-971-01-01-130-CF	1-971-01-04-130-CF	1-971-01-12-130-CF	1-971-01-02-130-CF
4000	1-971-01-01-140-CF	1-971-01-04-140-CF	1-971-01-12-140-CF	1-971-01-02-140-CF

¹⁾ Other lengths upon request

Further connectors please see chapter
hoses and connectors

²⁾ Connection thread G¹/₂,
¹/₄ NPT and ¹/₂ NPT upon request.

The information on the definition of the hose assembly lengths, please see the annex.



The **SPRADOW TEST BOX** (39 x 34 x 13 cm) is a solid, oil resistant plastic box. It is available either pre-assembled with an assortment of our most popular components or equipped to your specific needs. The pressure gauges, the gauge adapters and the hose are safely nestled in a polyethylene foam cushion. The polyethylene foam is oil repellent and has been especially chosen for this range of application.

The test couplings and reducers of the instant pressure checking equipment are safely and clearly arranged in separate arrays beneath the transparent cover, which can be securely locked. Further arrays are available for your individual requirements.

standard equipment:		STB20FBV-E2-xxx/xxx-CF
pcs	description	
1	Test hose 2000 mm length, M16x2 / M16x2	1-971-04-04-110-CF
1	Pressure gauge Ø 63 mm / G 1/4	1-982-01-01- <u>xxx</u>
1	Pressure gauge Ø 63 mm / G 1/4	1-982-01-01- <u>xxx</u>
1	Pressure gauge connector G 1/4	1-918-29-01-240-CF
1	Direct pressure gauge connector G 1/4	1-927-29-01-020-CF
1	Test coupling G 1/4	1-Z06-29-11-600-CF
1	Test coupling M 10 x 1	1-Z06-22-21-600-CF
1	Reducer G 3/8	4-924-03-01-260-CF
1	Reducer G 1/2	4-924-03-01-760-CF

pressure gauge	
order no.	bar
-040	6
-050	10
-060	16
-070	25
-080	40
-090	60
-100	100
-110	160
-120	250
-130	400
-140	600

The content of the SPADOW TEST BOX are adaptable to your specifications.

ORDER EXAMPLE: SPRADOW TEST BOX with 1 pressure gauge 100 bar and 1 pressure gauge 400 bar: **STB20FBV-E2-100/130-CF**



The **SPRADOW TEST BOX** (39 x 34 x 13 cm) is a solid, oil resistant plastic box. It is available either pre-assembled with an assortment of our most popular components or equipped to your specific needs. The pressure gauges, the gauge adapters and the hose are safely nestled in a polyethylene foam cushion. The polyethylene foam is oil repellent and has been especially chosen for this range of application.

The test couplings and reducers of the instant pressure checking equipment are safely and clearly arranged in separate arrays beneath the transparent cover, which can be securely locked. Further arrays are available for your individual requirements.

standard equipment:		STB20FBV-S6-001-CF (without pressure gauges)
pcs.	description	
1	Test hose 2000 mm length, M16x2 / M16x2	
1	Pressure gauge connector G 1/4	
1	Direct pressure gauge connector G 1/4	
1	Test coupling G 1/4	
1	Test coupling M 10 x 1	
1	Reducer G 3/8	
1	Reducer G 1/2	
up to 6	Pressure gauges to your specifications	

pressure gauge	
order no.	bar
-040	6
-050	10
-060	16
-070	25
-080	40
-090	60
-100	100
-110	160
-120	250
-130	400
-140	600

The content of the SPADOW TEST BOX are adaptable to your specifications.

The SPRADOW TEST BOX is also available for the series M16x1,5 (STB15FBV-...), S12x1,5 (STB12FBV-...) and series Steck (STBSTECK-...).

with 1 Smart Logger



The **SPRADOW TEST BOX for Smart Logger** is a solid, oil resistant plastic box. It is available either pre-assembled with an assortment of our most popular components or equipped to your specific needs. The Smart Logger, the gauge adapters and the hose lines are safely nestled in a polyethylene foam cushion. Polyethylen foam is oil-repellent cross-linked foam, which has been especially chosen for this range of application.

The test couplings and reducers of the instant pressure checking equipment are safely and clearly arranged in separate arrays beneath the transparent cover, which can be securely locked. Further arrays are available for your individual requirements.

Standard equipment:		STB20FBV-SL1-bar-CF
pcs	description	
1	Test hose, 2000 mm length, M16x2 / M16x2	1-971-04-04-110-CF
1	Spradow Smart Logger G ¼	1-982-10-03- <u>xxx</u>
1	Hose connector 1620 / 1620	1-980-48-00-020-CF
1	Sensor direkt connector G ¼	1-727-29-00-021-CF
1	Test coupling G 1/4	1-Z06-29-11-600-CF
1	Test coupling M 10 x 1	1-Z06-22-21-600-CF
1	Reducer G 3/8	4-924-03-01-260-CF
1	Reducer G 1/2	4-924-03-01-760-CF

Smart Logger	
order no.	bar
-060	60
-120	250
-210	700
-150	1000

The content of the **SPRADOW TEST BOX** are adaptable to your specifications.

ORDER EXAMPLE: SPRADOW TEST BOX with 1 Smart Logger 250 bar:
STB20FBV-SL1-250-CF



The **SPRADOW TEST BOX for Smart Logger** is a solid, oil resistant plastic box. It is available either pre-assembled with an assortment of our most popular components or equipped to your specific needs. The Smart Logger, the gauge adapters and the hose lines are safely nestled in a polyethylene foam cushion. Polyethylen foam is oil-repellent cross-linked foam, which has been especially chosen for this range of application.

The test couplings and reducers of the instant pressure checking equipment are safely and clearly arranged in separate arrays beneath the transparent cover, which can be securely locked. Further arrays are available for your individual requirements.

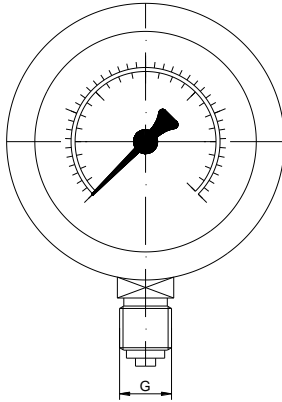
Standard Equipment: STB20FBV-SL2-bar/bar-CF			Smart Logger	
pcs	description		order no.	bar
2	Test hose, 2000 mm length, M16x2 / M16x2	1-971-04-04-110-CF	-060	60
1	Spradow Smart Logger G ¼	1-982-10-03- <u>xxx</u>	-120	250
1	Spradow Smart Logger G ¼	1-982-10-03- <u>xxx</u>	-210	700
2	Hose connector 1620 / 1620	1-980-48-00-020-CF	-150	1000
1	Sensor direkt connetor G ¼	1-727-29-00-021-CF		
1	Sensor direkt connector G ¼ / 90°	1-728-29-00-021-CF		
1	Test coupling G 1/4	1-Z06-29-11-600-CF		
1	Test coupling M 10 x 1	1-Z06-22-21-600-CF		
1	Reducer G 3/8	4-924-03-01-260-CF		
1	Reducer G 1/2	4-924-03-01-760-CF		

The content of the **SPRADOW TEST BOX** are adaptable to your specifications.

ORDER EXAMPLE: SPRADOW TEST BOX with 1 Smart Logger 250 bar and 1 Smart Logger 700 bar: **STB20FBV-SL2-250/700-CF**

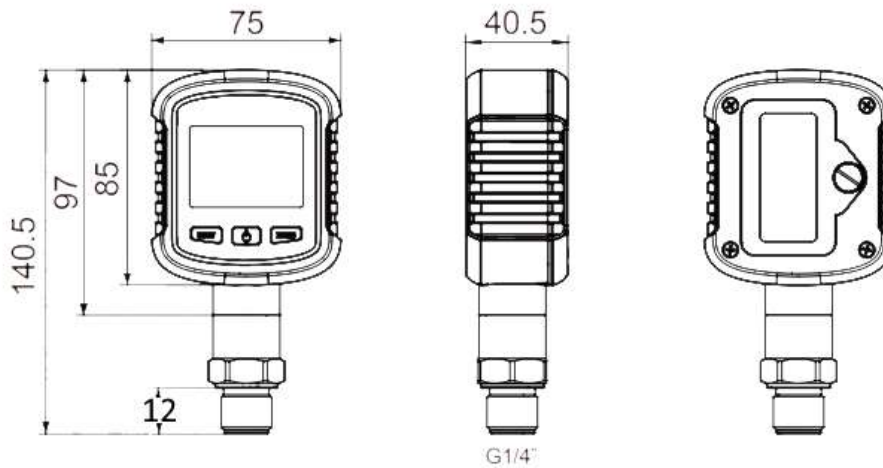
pressure gauge

pressure gauge, glycerine filled, bottom connection, chrome-nickel steel body, scale in bar



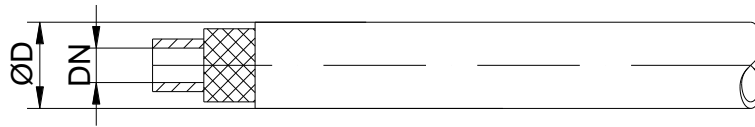
G	pressure stage	nominal size	part number
G 1/4 A	10 bar	63	1-982-01-01-050
G 1/4 A	16 bar	63	1-982-01-01-060
G 1/4 A	25 bar	63	1-982-01-01-070
G 1/4 A	40 bar	63	1-982-01-01-080
G 1/4 A	60 bar	63	1-982-01-01-090
G 1/4 A	100 bar	63	1-982-01-01-100
G 1/4 A	160 bar	63	1-982-01-01-110
G 1/4 A	250 bar	63	1-982-01-01-120
G 1/4 A	400 bar	63	1-982-01-01-130
G 1/4 A	600 bar	63	1-982-01-01-140

Spradow Smart Logger with bluetooth



G	pressure stage	description	part number
G1/4WD	60 bar	SL-60	1-982-10-03-060
G1/4WD	250 bar	SL-250	1-982-10-03-120
G1/4WD	700 bar	SL-700	1-982-10-03-210
G1/4WD	1000 bar	SL-1000	1-982-10-03-150

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.



DN	PN	pricked*	øD	part no.
2	400 bar	yes	5	9-946-02-00-012
2	630 bar	-	5	9-946-02-00-020
2	630 bar	yes	5	9-946-02-01-020
4	500 bar	yes	8	9-946-04-00-010

*for inert gases

technical data of the hose

	DN 2	DN 2	DN 2	DN 4
nominal diameter	DN 2	DN 2	DN 2	DN 4
nominal pressure	400 bar	630 bar	630 bar	500 bar
inner material	PA	PA	PA	PA
reinforcement material	polyester fibre	aramid fibre	aramid fibre	aramid fibre
cover material	PA - pricked	PA	PA - pricked	PA - pricked
max. working pressure	400 bar	630 bar	630 bar	500 bar
min. bursting pressure	1200 bar	2000 bar	2000 bar	2000 bar
min. bending radius at working pressure	20 mm	20 mm	20 mm	40 mm
inner diameter	2 mm	2 mm	2 mm	4,1 mm
outer diameter	5 mm	5 mm	5 mm	8 mm
weight / meter	19 g	19 g	19 g	50 gr
temperature strength	-35 °C to +100 °C	-35 °C to +100 °C*	-35 °C to +100 °C	-35 °C to +100 °C
number for the type of hose	970	971	975	974
crimping diameter	7	7	7	9,9

*for water and hydrous media up to +70 °C

Check the functionality of the pressed fitting via the nipple incidence

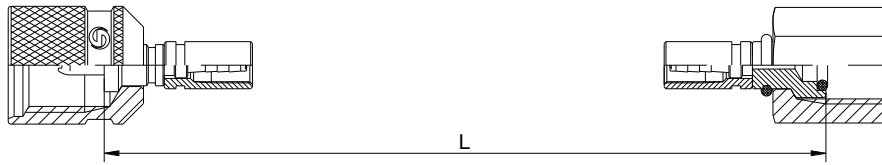
The specified values apply to components from our product range.

DN	crimping diameter (guide values) [mm]
2	7,0
4	9,9

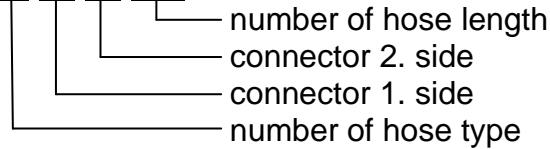
The crimping dimensions are guide values, which have to be adapted to the respective conditions by means of the mandrel test.

Note: Insert fittings dry

construction of the SPRADOW order number for hose assemblies



1-971-xx-xx-xxx-CF



Please take the number for the first and second connector on the following pages.
The lower number of both should be used first.

		number of hose length	
hose length	number for length	hose length	number for length
200 mm	010	800 mm	080
250 mm	020	1000 mm	090
300 mm	030	1500 mm	100
400 mm	040	2000 mm	110
500 mm	050	2500 mm	120
630 mm	060	3200 mm	130
750 mm	070	4000 mm	140


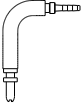
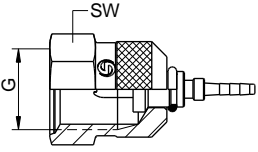
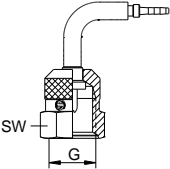
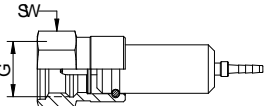
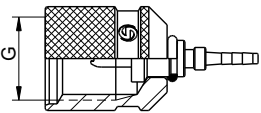
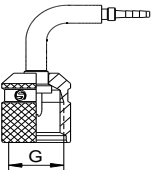
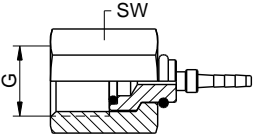
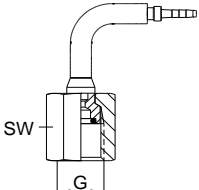
Should you need other length, please use «xxx» as a code on your purchase order or inquiry, putting the desired mm length in brackets. (Example: 1-971-02-04-xxx-CF (5000).)

The information on the definition of the hose assembly lengths and the twisting angle for elbow connectors, please see the annex.

technical data of the hose fittings

material	steel, 1.0718 (stainless steel upon request)
sealings	NBR (other material upon request)

connectors for hose

view	Nr.	G	SW / øD	DN	WP (bar)	without ferrule	description	
	01			2	400	2-971-01-00-001-CF	connector for test coupling series: Steck	
	01			4	400	2-971-01-04-001-CF	incl. Strap (DN2)	
	16			2	400	2-971-16-00-001-CF	connector for test coupling series: Steck	
	16			4	400	2-971-16-04-001-CF	90° elbow incl. Strap (DN2)	
	03	M16x2	19	2	630	2-971-03-02-001-CF	connector for test coupling metal cap type A (universal)	
	09	M16x1,5	19	2	630	2-971-09-02-001	incl. Strap (DN2)	
	03	M16x2	19	4	630	2-971-03-04-001-CF		
	09	M16x1,5	19	4	630	2-971-09-04-001		
	0J	M16x2	19	2	630	2-971-0J-02-001-CF	connector for test coupling metal cap type A (universal)	
	0Z	M16x1,5	19	2	630	2-971-0Z-02-001	90° elbow	
	0J	M16x2	19	4	630	2-971-0J-04-001-CF	incl. Strap (DN2)	
	0Z	M16x1,5	19	4	630	2-971-0Z-04-001		
	4K	M16x2	19	2	630	2-971-4K-02-001-CF	connector for test coupling with integrated non return valve metal cap type A (universal)	
	04	M16x2		2	630	2-971-04-02-001-CF	connector for test coupling metal cap type B (round)	
	10	M16x1,5		2	630	2-971-10-02-001		incl. Strap (DN2)
	12	S12x1,5		2	630	2-971-12-02-001-CF		
	04	M16x2		4	630	2-971-04-04-001-CF	series 1604	
	10	M16x1,5		4	630	2-971-10-04-001		
	12	S12x1,5		4	630	2-971-12-04-001-CF		
3J	S16x1,5		4	630	2-971-3J-04-001-CF			
	50	M16x2		2	630	2-971-50-02-001-CF	connector for test coupling metal cap type B (round)	
	61	M16x1,5		2	630	2-971-61-02-001		90° elbow
	57	S12x1,5		2	630	2-971-57-02-001-CF		incl. Strap (DN2)
	50	M16x2		4	630	2-971-50-04-001-CF		
	61	M16x1,5		4	630	2-971-61-04-001		
	57	S12x1,5		4	630	2-971-57-04-001-CF		
	02	G 1/4	17	2	630	2-971-02-02-004-CF	pressure gauge connector with whitworth- or metric thread sealing to pressure gauge by o-ring	
	25	G 1/2	27	2	630	2-971-25-02-001-CF		
	69	M14x1,5	17	2	630	2-971-69-02-001-CF		
	55	M20x1,5	27	2	630	2-971-55-02-001-CF		
	02	G 1/4	17	4	630	2-971-02-04-004-CF		
	25	G 1/2	27	4	630	2-971-25-04-001-CF		
	58	G 1/4	17	2	630	2-971-58-02-001-CF	pressure gauge connector with Whitworth - thread sealing to pressure gauge by o-ring	
	54	G 1/2	27	2	630	2-971-54-02-001-CF		90° elbow
	58	G 1/4	17	4	630	2-971-58-04-001-CF		
	54	G 1/2	27	4	630	2-971-54-04-001-CF		

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

connectors for hose

view	no.	G	SW / øD	DN	WP (bar)	without ferrule	description
	26	1/4 NPT	17	2	-	2-971-26-00-001-CF	pressure gauge connector with NPT-thread
	27	1/2 NPT	27	2	-	2-971-27-00-001-CF	
	26	1/4 NPT	17	4	-	2-971-26-04-001-CF	
	27	1/2 NPT	27	4	-	2-971-27-04-001-CF	
	75		8	2	200	2-971-75-00-001-CF	ring connection to hollow screw (RGN)
	74		10	2	200	2-971-74-00-001-CF	
	2C		14	2	200	2-971-2C-02-001-CF	
	75		8	4	200	2-971-75-04-001-CF	
	74		10	4	200	2-971-74-04-001-CF	
	2C		14	4	200	2-971-2C-04-001-CF	
	19	M12x1,5	6L	2	415	2-971-19-02-001-CF	seal cone with o-ring and swivel nut for 24° cone fitting (DKO)
	20	M14x1,5	6S	2	630	2-971-20-02-001-CF	
	21	M14x1,5	8L	2	400	2-971-21-02-001-CF	
	22	M16x1,5	8S	2	630	2-971-22-02-001-CF	
	23	M16x1,5	10L	2	350	2-971-23-02-001-CF	
	24	M18x1,5	10S	2	630	2-971-24-02-001-CF	
	19	M12x1,5	6L	4	415	2-971-19-04-001-CF	
	20	M14x1,5	6S	4	630	2-971-20-04-001-CF	
	21	M14x1,5	8L	4	400	2-971-21-04-001-CF	
	22	M16x1,5	8S	4	630	2-971-22-04-001-CF	
	23	M16x1,5	10L	4	350	2-971-23-04-001-CF	
	24	M18x1,5	10S	4	630	2-971-24-04-001-CF	
	44	M12x1,5	6L	2	415	2-971-44-02-001-CF	seal cone with o-ring and swivel nut for 24° cone fitting (DKO) 90° elbow
	45	M14x1,5	6S	2	630	2-971-45-02-001-CF	
	46	M14x1,5	8L	2	400	2-971-46-02-001-CF	
	47	M16x1,5	8S	2	630	2-971-47-02-001-CF	
	48	M16x1,5	10L	2	350	2-971-48-02-001-CF	
	49	M18x1,5	10S	2	630	2-971-49-02-001-CF	
	44	M12x1,5	6L	4	415	2-971-44-04-001-CF	
	45	M14x1,5	6S	4	630	2-971-45-04-001-CF	
	46	M14x1,5	8L	4	400	2-971-46-04-001-CF	
	47	M16x1,5	8S	4	630	2-971-47-04-001-CF	
	48	M16x1,5	10L	4	350	2-971-48-04-001-CF	
	49	M18x1,5	10S	4	630	2-971-49-04-001-CF	
	64		4	2	100	2-971-64-00-001-CF	standpipe for use with nut and ring (BE) acc. to DIN 2353
	13		6	2	630 (only with S-nut)	2-971-13-00-001-CF	
	15		8	2	630 (only with S-nut)	2-971-15-00-001-CF	
	64		4	4	100	2-971-64-04-001-CF	
	13		6	4	630 (only with S-nut)	2-971-13-04-001-CF	
	15		8	4	630 (only with S-nut)	2-971-15-04-001-CF	
	28		6	2	630 (only with S-nut)	2-971-28-00-001-CF	standpipe for use with nut and ring (BE) acc. to DIN 2353 90° elbow
	94		8	2	630 (only with S-nut)	2-971-94-00-001-CF	
	28		6	4	630 (only with S-nut)	2-971-28-04-001-CF	
	94		8	4	630 (only with S-nut)	2-971-94-04-001-CF	

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

connectors for hose

view	no.	G	SW / øD	DN	WP (bar)	without ferrule	description
	32	M12x1,5	17	2	400	2-971-32-00-001-CF	connector with male thread (AGM/AGR) acc. to DIN 3852
	33	G 1/8 A	14	2	250	2-971-33-00-001-CF	
	34	G 1/4 A	19	2	400	2-971-34-00-001-CF	
	32	M12x1,5	17	4	400	2-971-32-04-001-CF	
	33	G 1/8 A	14	4	250	2-971-33-04-001-CF	
	34	G 1/4 A	19	4	400	2-971-34-04-001-CF	

	35	1/8 NPT	12	2	-	2-971-35-00-001-CF	connector with male thread (AGN) acc. to ANSI-Norm
	36	1/4 NPT	17	2	-	2-971-36-00-001-CF	
	35	1/8 NPT	12	4	-	2-971-35-04-001-CF	
	36	1/4 NPT	17	4	-	2-971-36-04-001-CF	

	41	7/16 UNF	14	2	310	2-971-41-02-001-CF	connector to fit male connection acc. to SAE J514 (DKJ)
	42	1/2 UNF	17	2	275	2-971-42-02-001-CF	
	43	9/16 UNF	19	2	275	2-971-43-02-001-CF	
	41	7/16 UNF	14	4	310	2-971-41-04-001-CF	
	42	1/2 UNF	17	4	275	2-971-42-04-001-CF	
	43	9/16 UNF	19	4	275	2-971-43-04-001-CF	

	0K	7/16 UNF	14	2	310	2-971-0K-02-001-CF	connector to fit male connection acc. to SAE J514 (DKJ) 90° elbow
	1E	9/16 UNF	19	2	275	2-971-1E-02-001-CF	
	0K	7/16 UNF	14	4	310	2-971-0K-04-001-CF	
	1E	9/16 UNF	19	4	275	2-971-1E-04-001-CF	

	37	7/16 UNF	14	2	345	2-971-37-00-001-CF	connector with male thread acc. to SAE J514 (AGJ)
	38	1/2 UNF	17	2	345	2-971-38-00-001-CF	
	39	9/16 UNF	19	2	345	2-971-39-00-001-CF	
	37	7/16 UNF	14	4	345	2-971-37-04-001-CF	
	38	1/2 UNF	17	4	345	2-971-38-04-001-CF	
	39	9/16 UNF	19	4	345	2-971-39-04-001-CF	

	60	G1/8	14	2	350	2-971-60-02-001-CF	connector with 60° cone (DKR) acc. BS5200
	40	G1/4	17	2	630	2-971-40-02-001-CF	
	60	G1/8	14	4	350	2-971-60-04-001-CF	
	40	G1/4	17	4	630	2-971-40-04-001-CF	

L	DA	DI	BLD	PM	DN	part no.	ferrule
14	8	5,6	4,5	7	2	4-999-03-01-160-CF	(The crimping diameter PM are guide values, which have to be adapted to the respective conditions by means of mandrel testing.)
17	11,5	8,4	7	9,9	4	6-999-03-01-010-CF	

L	DI	DN	part no.	bend protection
50	7	2	4-946-00-05-020	
50	10	4	4-946-00-05-030	

DN	part no.	strap
2	4-934-00-08-170	

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

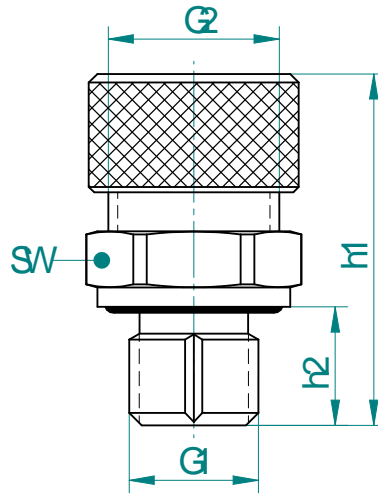


Abb. 1

G1	G2	h1	h2	SW	part number (NBR)
M12x1,5	5/8 UNF	33	11	18	1-G50-00-00-001-CF
G 1/4	5/8 UNF	34	12	18	1-G50-00-00-002-CF
½ UNF	5/8 UNF	33	9,25	19	1-G50-00-00-003-CF

**adapter
series: 1615**

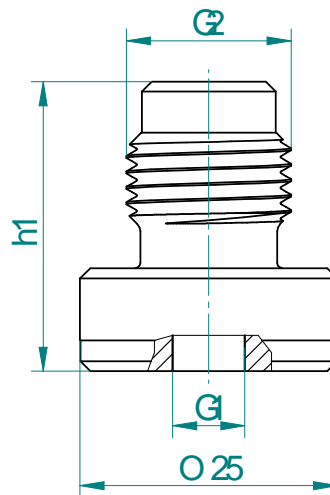


Abb. 1

G1	G2	h1	part number (NBR)
VG 8	M16x1,5	28	1-G80-VG8-CF

standpipe fitting with female thread M10x1

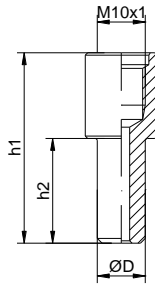


fig. 1

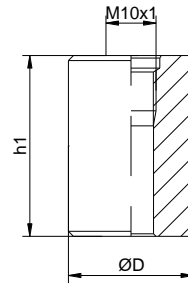
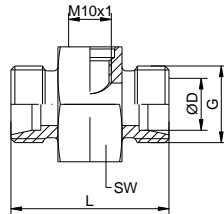


fig. 2

tube ØD	h1	h2	fig.	part number
6	38	20	1	4-922-03-01-430-CF
8	38	20	1	4-922-03-01-440-CF
10	40	22	1	4-922-03-01-450-CF
12	40	22	1	4-922-03-01-460-CF
14	40	22	1	4-922-03-01-470-CF
15	28		2	4-922-03-01-480-CF
16	28		2	4-922-03-01-490-CF
18	28		2	4-922-03-01-500-CF
20	30		2	4-922-03-01-510-CF
22	30		2	4-922-03-01-520-CF
25	36		2	4-922-03-01-530-CF
28	32		2	4-922-03-01-540-CF
30	41		2	4-922-03-01-550-CF
35	42		2	4-922-03-01-560-CF
38	48		2	4-922-03-01-570-CF
42	45		2	4-922-03-01-580-CF

straight fitting with female thread M10x1



type	PN	tube ØD	L	SW	G	type GE without nut and ring part number	type GE with mounted nut and ring part number	
L	315	6	35	22	M12x1,5	2-921-00-00-011-CF	2-921-00-00-010-CF	
		8	35	24	M14x1,5	2-921-00-00-031-CF	2-921-00-00-030-CF	
		10	37	24	M16x1,5	2-921-00-00-051-CF	2-921-00-00-050-CF	
		12	37	27	M18x1,5	2-921-00-00-071-CF	2-921-00-00-070-CF	
		15	39	30	M22x1,5	2-921-00-00-101-CF	2-921-00-00-100-CF	
	18	39	32	M26x1,5	2-921-00-00-121-CF	2-921-00-00-120-CF		
	160	22	43	36	M30x2	2-921-00-00-141-CF	2-921-00-00-140-CF	
		28	43	41	M36x2	2-921-00-00-161-CF	2-921-00-00-160-CF	
35		47	46	M45x2	2-921-00-00-181-CF	2-921-00-00-180-CF		
42		47	55	M52x2	2-921-00-00-201-CF	2-921-00-00-200-CF		
S	630	6	39	24	M14x1,5	2-921-00-00-021-CF	2-921-00-00-020-CF	
		8	39	24	M16x1,5	2-921-00-00-041-CF	2-921-00-00-040-CF	
		10	39	24	M18x1,5	2-921-00-00-061-CF	2-921-00-00-060-CF	
		12	39	24	M20x1,5	2-921-00-00-081-CF	2-921-00-00-080-CF	
		14	43	27	M22x1,5	2-921-00-00-091-CF	2-921-00-00-090-CF	
	400	16	43	30	M24x1,5	2-921-00-00-111-CF	2-921-00-00-110-CF	
		20	47	32	M30x2	2-921-00-00-131-CF	2-921-00-00-130-CF	
		25	51	41	M36x2	2-921-00-00-151-CF	2-921-00-00-150-CF	
		30	55	46	M42x2	2-921-00-00-171-CF	2-921-00-00-170-CF	
		315	38	61	55	M52x2	2-921-00-00-191-CF	2-921-00-00-190-CF

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

reducer with sealing

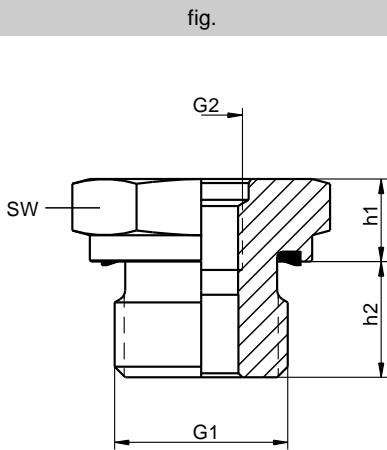
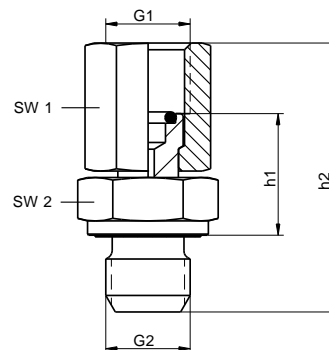


fig.	G1	SW	h1	h2	G2	sealing	part number (NBR)
	M10x1	17	19	8	M10x1	metallic sealing type 2	2-924-22-30-001-CF
	M12x1,5	17	18	10	M10x1	metallic sealing type 2	2-924-23-30-001-CF
	M12x1,5	17	18	12	M10x1	soft sealing type 3	2-924-23-11-001-CF
	M14x1,5	22	18	12	M10x1	metallic sealing type 2	2-924-24-30-001-CF
	M14x1,5	19	18	12	M10x1	soft sealing type 3	2-924-24-11-001-CF
	M16x1,5	22	18	12	M10x1	metallic sealing type 2	2-924-25-30-001-CF
	M16x1,5	22	18	12	M10x1	soft sealing type 3	2-924-25-11-001-CF
	M18x1,5	24	10	12	M10x1	metallic sealing type 2	2-924-26-30-001-CF
	M18x1,5	24	10	12	M10x1	soft sealing type 3	2-924-26-11-001-CF
	M20x1,5	27	10	14	M10x1	metallic sealing type 2	2-924-51-30-001-CF
	M20x1,5	27	10	14	M10x1	soft sealing type 3	2-924-51-11-001-CF
	M22x1,5	27	10	14	M10x1	metallic sealing type 2	2-924-27-30-001-CF
	M22x1,5	27	10	14	M10x1	soft sealing type 3	2-924-27-11-001-CF
	M26x1,5	32	11	16	M10x1	metallic sealing type 2	2-924-52-30-001-CF
	M27x2	36	11	16	M10x1	metallic sealing type 2	2-924-53-30-001-CF
	M27x2	32	11	16	M10x1	soft sealing type 3	2-924-53-11-001-CF
	M33x2	41	11	18	M10x1	metallic sealing type 2	2-924-54-30-001-CF
	M42x2	50	12	20	M10x1	metallic sealing type 2	2-924-55-30-001-CF
	M48x2	60	12	22	M10x1	metallic sealing type 2	2-924-56-30-001-CF
	G 1/8	14	19	8	M10x1	metallic sealing type 2	2-924-28-30-001-CF
	G 1/4	18	18	12	M10x1	metallic sealing type 2	2-924-29-30-001-CF
	G 1/4	19	19	12	M10x1	soft sealing type 3	2-924-29-11-001-CF
	G 3/8	22	18	12	M10x1	metallic sealing type 2	2-924-30-30-001-CF
	G 3/8	22	19	12	M10x1	soft sealing type 3	2-924-30-11-001-CF
	G 1/2	27	10	14	M10x1	metallic sealing type 2	2-924-31-30-001-CF
	G 1/2	27	10	14	M10x1	soft sealing type 3	2-924-31-11-001-CF
	G 3/4	32	11	16	M10x1	metallic sealing type 2	2-924-32-30-001-CF
	G 3/4	32	11	16	M10x1	soft sealing type 3	2-924-32-11-001-CF
	G 1	41	11	18	M10x1	metallic sealing type 2	2-924-57-30-001-CF
	G 1 1/4	50	12	20	M10x1	metallic sealing type 2	2-924-58-30-001-CF
	G 1 1/2	60	12	22	M10x1	metallic sealing type 2	2-924-59-30-001-CF
	1/2-20 UNF	17	17	11	M10x1	o-ring type 5	2-924-61-30-001-CF

adjustable pressure gauge fitting

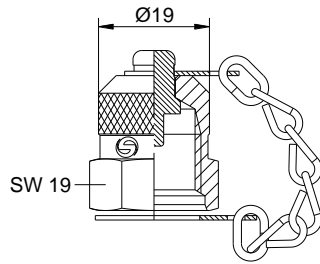


without valve function

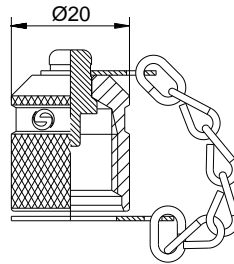
G1	G2	SW1	SW2	h1	h2	part number (NBR)	part number (FKM)
G1/4	G1/4	17	19	19	42	1-980-29-29-010-CF	-
G1/2	G1/4	27	19	32	61	1-980-29-31-010-CF	-
G1/2	G1/2	27	27	24	55	1-980-31-31-010-CF	-

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

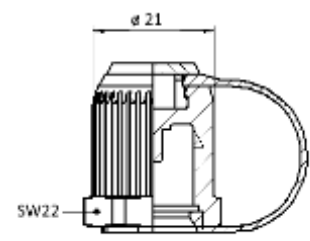
caps complete with chain / strap



metal cap type A (FA)
fig. 1



metal cap type B (FB)
fig. 2



plastic cap (FAK)
fig. 3

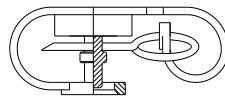
G	material	part number (FA)	part number (FB)	part number (FAK)
M16x2	steel	2-910-00-00-560-CF	2-910-00-00-550-CF	-
M16x2	stainless steel	2-910-00-00-600	2-910-00-00-570	-
M16x2	plastic	-	-	2-911-00-00-300
M16x1,5	steel	2-910-00-00-260	2-910-00-00-580	-
M16x1,5	stainless steel	2-910-00-00-590	-	-
M16x1,5	plastic	-	-	-
S12x1,5	steel	-	2-910-00-00-620-CF	-
S12x1,5	stainless steel	-	2-910-00-00-650	-
S12x1,5	plastic	-	-	2-911-00-00-310

The caps made from steel and stainless steel are also designed for the use with vibration security.
The vibration security can be ordered with the following numbers.

made from NBR - 6-936-00-06-570

made from FKM - 6-936-00-07-570

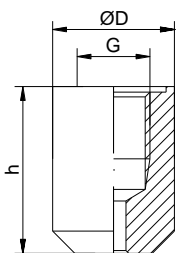
plug for series Steck complete with security pin



plug for series Steck

G	material	part number
Steck	plastic / steel	2-915-00-00-010-CF

weld-on nozzle



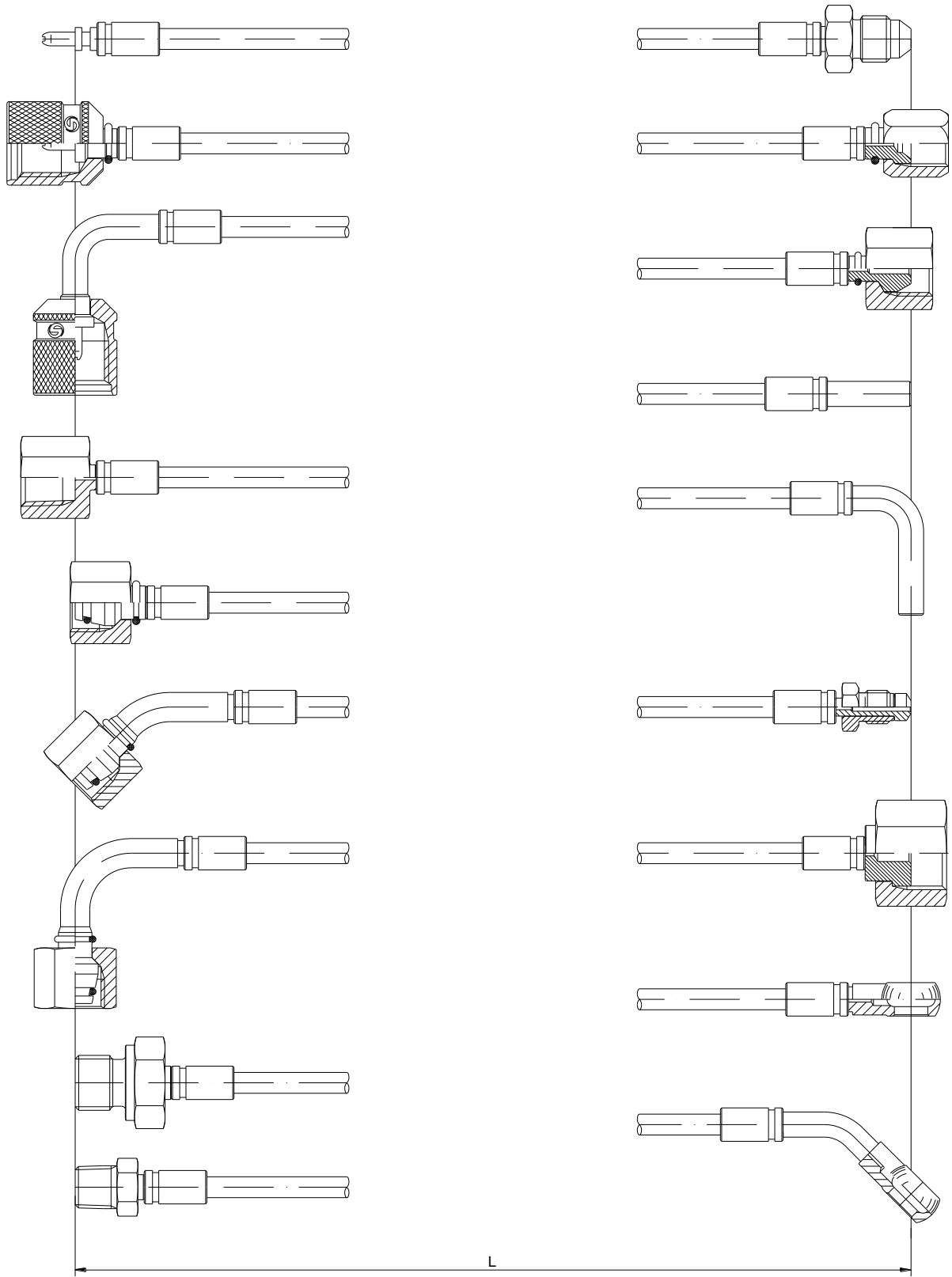
Ø D	h	G	part number	stainless steel part number
22	30	G1/4	4-921-00-01-020	4-921-00-04-020

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.

port connection and seals

typ	figure	G	øD	a	t1	t2	typ	figure	G	øD1	øD	a	t1	t2	b	Z°		
1		M 8x1	9,5		11	14	4		1/8 NPT				6,9	11,6				
		M 10x1	11,5		11	14								10	16,4			
		M 10x1,25	11		10	14								10,3	17,6			
															13,6	22,6		
									Rk 1/8			5,5	9,5					
									Rk 1/4			8,5	13,5					
									Rk 3/8			8,5	13,5					
									Suitable sealant has to be used.									
2		M 8x1	13	1	8	10	5		5/16-24 UNF	17	9,1	1,9	10	12	1,6	12°		
		M 10 x 1	15	1	8	10			7/16-20 UNF	21	12,4	2,4	11,5	14	1,6	12°		
		M 12 x 1,5	18	1,5	12	15			1/2-20 UNF	23	14	2,4	11,2	14	1,6	12°		
		M 14 x 1,5	20	1,5	12	15			9/16-18 UNF	25	15,7	2,5	12,7	15,5	1,6	12°		
		M 16 x 1,5	23	1,5	12	15			3/4-16 UNF	30	20,6	2,5	14,3	17,5	2,4	15°		
		M 18 x 1,5	25	2	12	15												
		M 20 x 1,5	27	2	14	17												
		M 22 x 1,5	28	2,5	14	17												
		M 26 x 1,5	32	2,5	16	19												
		M 27 x 2	33	2,5	16	20												
		M 33 x 2	40	2,5	18	22												
		M 42 x 2	50	2,5	20	24												
		M 48 x 2	56	2,5	22	26												
				G 1/8	15	1			8	10,5								
				G 1/4	20	1,5			12	15,5								
				G 3/8	23	2			12	15,5								
		G 1/2	28	2,5	14	18,5												
		G 3/4	33	2,5	16	20												
		G 1	40	2,5	18	23												
		G 1 1/4	50	2,5	20	25												
		G 1 1/2	56	2,5	22	27												
3		M 10 x 1	15	1	8	10	6		M10x1	15	1	8	10					
		M 10x1,25	18	1,5	10	15			G1/4	20	1,5	12	15,5					
		M 12 x 1,5	18	1,5	12	15												
		M 14 x 1,5	20	1,5	12	15												
		M 16 x 1,5	23	1,5	12	15												
		M 18 x 1,5	25	2	12	15												
		M 20 x 1,5	27	2	14	17												
		M 22 x 1,5	28	2,5	14	17												
		M 26 x 1,5	32	2,5	16	19												
		M 27 x 2	33	2,5	16	20												
		M 33 x 2	40	2,5	18	22												
		M 42 x 2	50	2,5	20	24												
		M 48 x 2	56	2,5	22	26												
				G 1/8	15	1			8	10,5								
				G 1/4	20	1,5			12	15,5								
				G 3/8	23	2			12	15,5								
		G 1/2	28	2,5	14	18,5												
		G 3/4	33	2,5	16	20												
		G 1	40	2,5	18	23												
		G 1 1/4	50	2,5	20	25												
		G 1 1/2	56	2,5	22	27												

definition of the hose assembly length



tolerances of the hose assembly length according DIN 20066

Other dimensions on request. We reserve the right to change the technical performance. All dimensions in mm.