

Fast coupling for:

- Monitoring and control of pressure
- Venting
- Sampling in high, low and vacuum systems

Advantages:

- Coupling at system pressure level
- Leakproof connection before **ball valve** is open
- Simple connection to measuring, control and switching devices
- Self locking metal guard cap

Working pressure:

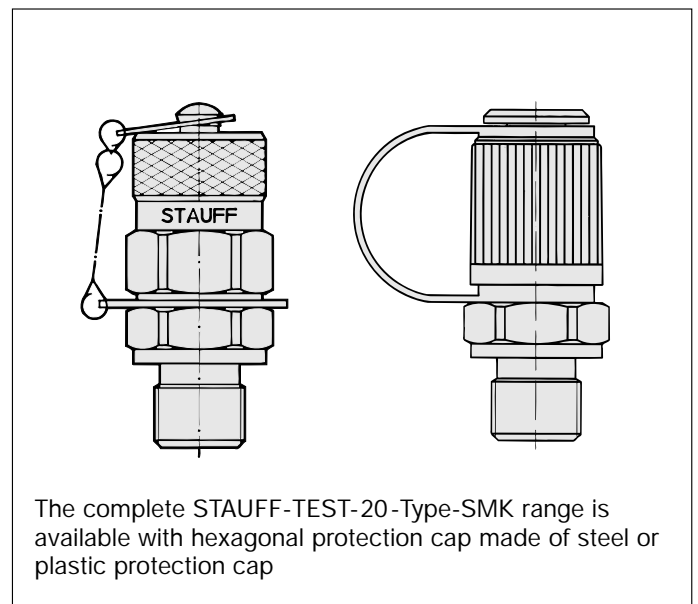
- Max. working pressure 630 bar
For SMK style G, K and S the recommended working pressure of fitting manufacturer has to be applied
- Joining under pressure up to 400 bar max.

Materials:

- Metal parts: Steel, Stainless Steel on request
- Ball: Stainless Steel
- Seals:
 - P = NBR (Temperature range - 20° C to + 90° C)
 - V = FPM (Temperature range - 20° C to + 200° C)
 - E = EPDM Ethylene Propylene (for Break Fluid)
 - Temperature range - 40° C to + 150° C
- Hose: Polyamide (Temperature range -35° C... 100° C max.)

Media:

- Suitable for hydraulic oils and other mineral oil based fluids (Please pay attention to the sealing materials used!)
- For use in conjunction with other liquid media please consult STAUFF



The complete STAUFF-TEST-20-Type-SMK range is available with hexagonal protection cap made of steel or plastic protection cap

Test coupling with protective cap SMK

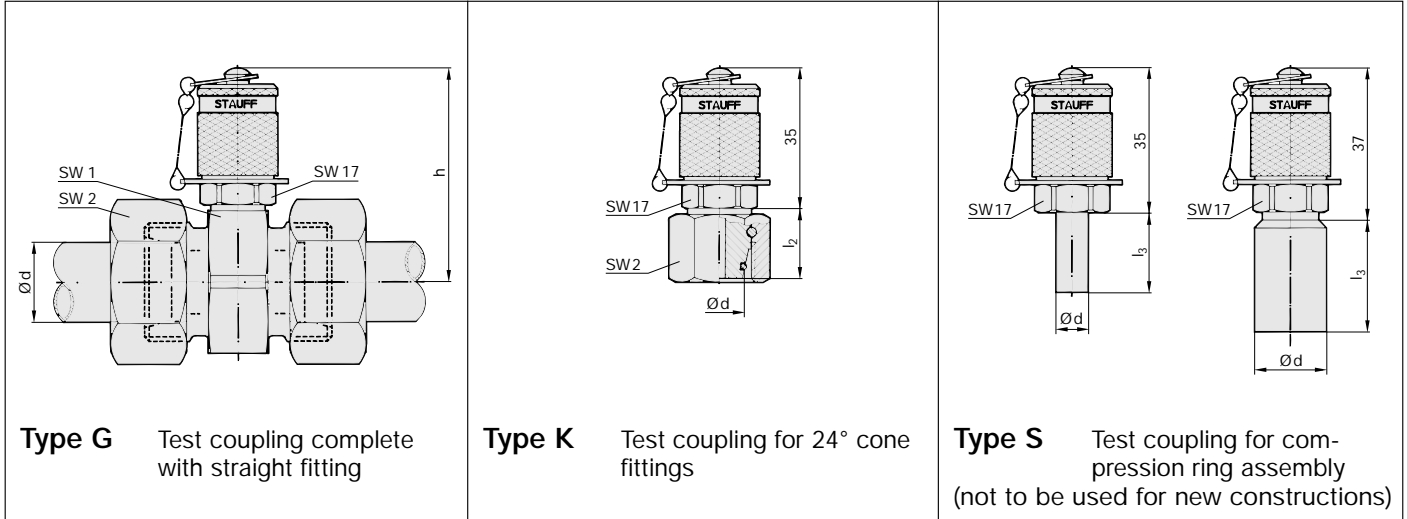
	Thread G	h	SW	Order No.		Seal
				NBR	FPM	
	M8 x 1	37	17	SMK 20 – M8 x 1 – PA	SMK 20 – M8 x 1 – VA	O-Ring Type A
	M10 x 1	37	17	SMK 20 – M10 x 1 – PA	SMK 20 – M10 x 1 – VA	O-Ring Type A
	M12 x 1,5	37	17	SMK 20 – M12 x 1,5 – PC	SMK 20 – M12 x 1,5 – VC	O-Ring Type C
	M14 x 1,5	37	19	SMK 20 – M14 x 1,5 – PB	SMK 20 – M14 x 1,5 – VB	Metal joint Type B
	M16 x 1,5	37	22	SMK 20 – M16 x 1,5 – PB	SMK 20 – M16 x 1,5 – VB	Metal joint Type B
	G 1/8	39	17	SMK 20 – G 1/8 – PC	SMK 20 – G 1/8 – VC	O-Ring Type C
	G 1/4	37	19	SMK 20 – G 1/4 – PB	SMK 20 – G 1/4 – VB	Metal joint Type B
	G 1/4	37	19	SMK 20 – G 1/4 – PC	SMK 20 – G 1/4 – VC	O-Ring Type C
	G 3/8	37	22	SMK 20 – G 3/8 – PB	SMK 20 – G 3/8 – VB	Metal joint Type B
	R 1/8 taper	37	17	SMK 20 – R 1/8 K-PD	SMK 20 – R 1/8 K-VD	Taper Type D
	R 1/4 taper	36	17	SMK 20 – R 1/4 K-PD	SMK 20 – R 1/4 K-VD	Taper Type D
	1/8 NPT	36	17	SMK 20 – 1/8 NPT-PD	SMK 20 – 1/8 NPT-VD	Taper Type D
	1/4 NPT	35	17	SMK 20 – 1/4 NPT-PD	SMK 20 – 1/4 NPT-VD	Taper Type D
	5/16 – 24 UNF	38	17	SMK 20 – 5/16 UNF-PE	SMK 20 – 5/16 UNF-VE	O-Ring Type E
	7/16 – 20 UNF	38	17	SMK 20 – 7/16 UNF-PE	SMK 20 – 7/16 UNF-VE	O-Ring Type E
	1/2 – 20 UNF	38	17	SMK 20 – 1/2 UNF-PE	SMK 20 – 1/2 UNF-VE	O-Ring Type E
9/16 – 18 UNF	37	19	SMK 20 – 9/16 UNF-PE	SMK 20 – 9/16 UNF-VE	O-Ring Type E	

Other port connections and seals on request.

Port connections and seals

Type A				Type B					Type C					Type D			Type E					
G	d ₁	t ₁	t ₂	G	d ₁	t ₁	t ₂	a	G	d ₁	t ₁	t ₂	a	G	t ₁	t ₂	G	d ₁	d ₂	t ₁	t ₂	a
M8 x 1	9,5 + 0,1	11	15,5	M14 x 1,5	20	12	18,5	1,5	M12 x 1,5	18	12	18,5	1,5	R 1/8 taper	5,5	9,5	5/16 – 24 UNF	9,1	17	10	12	1,9
M10 x 1	11,5 + 0,1	12	16,5	M16 x 1,5	22	12	18,5	1,5	G 1/8	15	8	13	1,0	R 1/4 taper	8,5	13,5	7/16 – 20 UNF	12,4	21	11,5	14	2,4
				G 1/4	19	12	18,5	1,5	G 1/4	19	12	18,5	1,5	1/8 NPT	6,9	11,6	1/2 – 20 UNF	14	23	11,5	14	2,4
				G 3/8	23	12	18,5	2						1/4 NPT	10	16,4	9/16 – 18 UNF	15,6	25	12,7	15,5	2,5

Test coupling SMK (compression ring fittings acc. to DIN 2353)

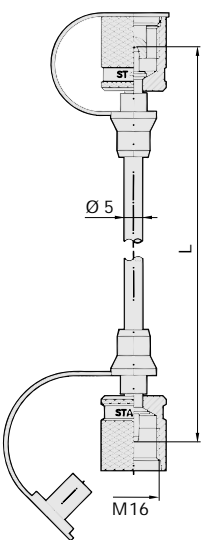
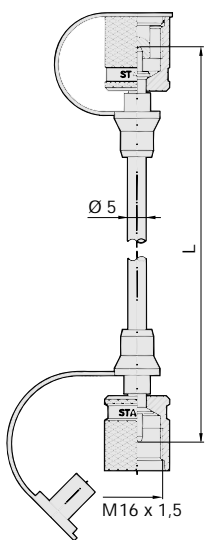
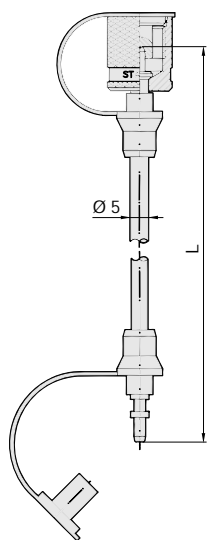
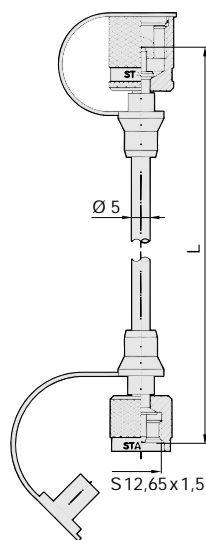
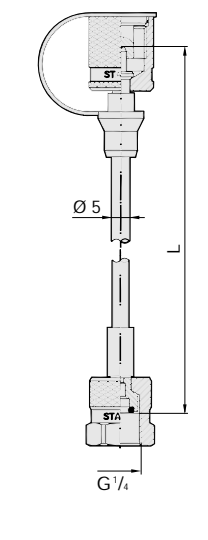


Series	PN	Pipe Ød	l ₂	l ₃	h	SW 1	SW 2	Order No.*		
								Type G	Type K	Type S
L	315	6	15,5	20	49	24	14	SMK 20 - 6L-PG	SMK 20 - 6L-PK	SMK 20 - 6-PS
		8	15,5	20	49	24	17	SMK 20 - 8L-PG	SMK 20 - 8L-PK	SMK 20 - 8-PS
		10	16,5	22	49	24	19	SMK 20 - 10L-PG	SMK 20 - 10L-PK	SMK 20 - 10-PS
		12	17,5	22	50,5	27	22	SMK 20 - 12L-PG	SMK 20 - 12L-PK	SMK 20 - 12-PS
		15	21	25	52	30	27	SMK 20 - 15L-PG	SMK 20 - 15L-PK	SMK 20 - 15-PS
		18	19,5	28	53	32	32	SMK 20 - 18L-PG	SMK 20 - 18L-PK	SMK 20 - 18-PS
	160	22	20,5	30	55	36	36	SMK 20 - 22L-PG	SMK 20 - 22L-PK	SMK 20 - 22-PS
		28	25	32	57,5	41	41	SMK 20 - 28L-PG	SMK 20 - 28L-PK	SMK 20 - 28-PS
		35	30	42	60	46	50	SMK 20 - 35L-PG	SMK 20 - 35L-PK	SMK 20 - 35-PS
		42	31	45	64,5	55	60	SMK 20 - 42L-PG	SMK 20 - 42L-PK	SMK 20 - 42-PS
S	630	6	14,5	20	49	24	17	SMK 20 - 6S-PG	SMK 20 - 6S-PK	SMK 20 - 6-PS
		8	16,5	20	49	24	19	SMK 20 - 8S-PG	SMK 20 - 8S-PK	SMK 20 - 8-PS
		10	16,5	22	49	24	22	SMK 20 - 10S-PG	SMK 20 - 10S-PK	SMK 20 - 10-PS
		12	17,5	22	49	24	24	SMK 20 - 12S-PG	SMK 20 - 12S-PK	SMK 20 - 12-PS
		14	19,5	22	50,5	27	27	SMK 20 - 14S-PG	SMK 20 - 14S-PK	SMK 20 - 14-PS
	400	16	18	28	52	30	30	SMK 20 - 16S-PG	SMK 20 - 16S-PK	SMK 20 - 16-PS
		20	24	30	55	36	36	SMK 20 - 20S-PG	SMK 20 - 20S-PK	SMK 20 - 20-PS
		25	26	36	57,5	41	46	SMK 20 - 25S-PG	SMK 20 - 25S-PK	SMK 20 - 25-PS
		30	30	41	60	46	50	SMK 20 - 30S-PG	SMK 20 - 30S-PK	SMK 20 - 30-PS
		315	38	34	48	64,5	55	60	SMK 20 - 38S-PG	SMK 20 - 38S-PK

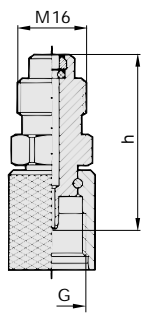
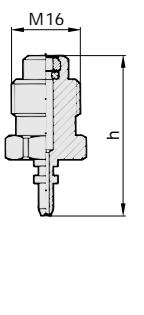
* For ordering FPM seals please replace "P" by "V"

* For EPDM seals replace "P" by "E"

Test hose SMS (for gaseous medium Type SGS)

Max. working pressure 400 bar Test hose: Nominal bore 2 mm Minimum bending radius 20 mm Nominal bore 4 mm also available Pressure/t° factor: to 0°C 122 % at 30°C 110 % at 50°C 100 % at 80°C 86 % at 100°C 77 % Hose construction: Hose-core and -cover PA Reinforcement: Synthetic fibre Bursting pressure: 1100 bar	Stauff-Test 20/20 STAUFF-TEST 20  STAUFF-TEST 20	Stauff-Test 15/20 STAUFF-TEST 20  STAUFF-TEST 15	Stauff-Test 10/20 STAUFF-TEST 20  STAUFF-TEST 10	Stauff-Test 12/20 ²⁾ STAUFF-TEST 20  STAUFF-TEST 12	Stauff-Test 20/M ¹ / ₂ -P-OR ³⁾ STAUFF-TEST 20  GAUGE ADAPTOR
	Length L ¹⁾	Order No.			
200	SMS-20 – 200-A	SMS-15/20 – 200-A	SMS-10/20 – 200-A	SMS-12/20 – 200-A	SMS-20/M ¹ / ₂ -P-OR – 200-A
400	SMS-20 – 400-A	SMS-15/20 – 400-A	SMS-10/20 – 400-A	SMS-12/20 – 400-A	SMS-20/M ¹ / ₂ -P-OR – 400-A
630	SMS-20 – 630-A	SMS-15/20 – 630-A	SMS-10/20 – 630-A	SMS-12/20 – 630-A	SMS-20/M ¹ / ₂ -P-OR – 630-A
800	SMS-20 – 800-A	SMS-15/20 – 800-A	SMS-10/20 – 800-A	SMS-12/20 – 800-A	SMS-20/M ¹ / ₂ -P-OR – 800-A
1000	SMS-20 – 1000-A	SMS-15/20 – 1000-A	SMS-10/20 – 1000-A	SMS-12/20 – 1000-A	SMS-20/M ¹ / ₂ -P-OR – 1000-A
1500	SMS-20 – 1500-A	SMS-15/20 – 1500-A	SMS-10/20 – 1500-A	SMS-12/20 – 1500-A	SMS-20/M ¹ / ₂ -P-OR – 1500-A
2000	SMS-20 – 2000-A	SMS-15/20 – 2000-A	SMS-10/20 – 2000-A	SMS-12/20 – 2000-A	SMS-20/M ¹ / ₂ -P-OR – 2000-A
2500	SMS-20 – 2500-A	SMS-15/20 – 2500-A	SMS-10/20 – 2500-A	SMS-12/20 – 2500-A	SMS-20/M ¹ / ₂ -P-OR – 2500-A
3200	SMS-20 – 3200-A	SMS-15/20 – 3200-A	SMS-10/20 – 3200-A	SMS-12/20 – 3200-A	SMS-20/M ¹ / ₂ -P-OR – 3200-A
4000	SMS-20 – 4000-A	SMS-15/20 – 4000-A	SMS-10/20 – 4000-A	SMS-12/20 – 4000-A	SMS-20/M ¹ / ₂ -P-OR – 4000-A
¹⁾ Bending protection and other lengths on request		²⁾ Special thread: buttress thread S 12,65 x 1,5		³⁾ Gauge adaptor 1/4 NPT, G 1/2 and 1/2 NPT on request	

Adaptor SAD

 Type A	 Type B	G	h	Type	Order No.		
					NBR	FPM	
		M16 x 1,5	39	A	SAD 20/15-P	SAD 20/15-V	
		plug in	37	B	SAD 20/10-P	SAD 20/10-V	
			S 12 ¹⁾	39	A	SAD 20/12-P	SAD 20/12-V
¹⁾ Special thread: buttress thread S 12,65 x 1,5							

Bulkhead SSK (for gaseous medium Type SSKK)

	G	h	Type	Order No.	
				NBR	FPM
	M16	72	A	SSK 20-P	SSK 20-V
	M16 x 1,5 ¹⁾	72	B	SSK 20/08 S-P	SSK 20/08 S-V
	M18 x 1,5 ¹⁾	72	B	SSK 20/12 L-P	SSK 20/12 L-V
¹⁾ Compression ring assembly 8 S/12 L acc. to DIN 2353					

Gauge adaptor SMA

	G	h	SW	Order No.	
				NBR	FPM
	G 1/4	54	19	SMA 20 - G 1/4 - P-OR	SMA 20 - G 1/4 - V-OR
	G 1/2	64	27	SMA 20 - G 1/2 - P-OR	SMA 20 - G 1/2 - V-OR
	1/4 NPT	54	19	SMA 20 - 1/4 NPT-P	SMA 20 - 1/4 NPT-V
	1/2 NPT	64	27	SMA 20 - 1/2 NPT-P	SMA 20 - 1/2 NPT-V
Damping element on request					

Direct gauge adaptor SMD

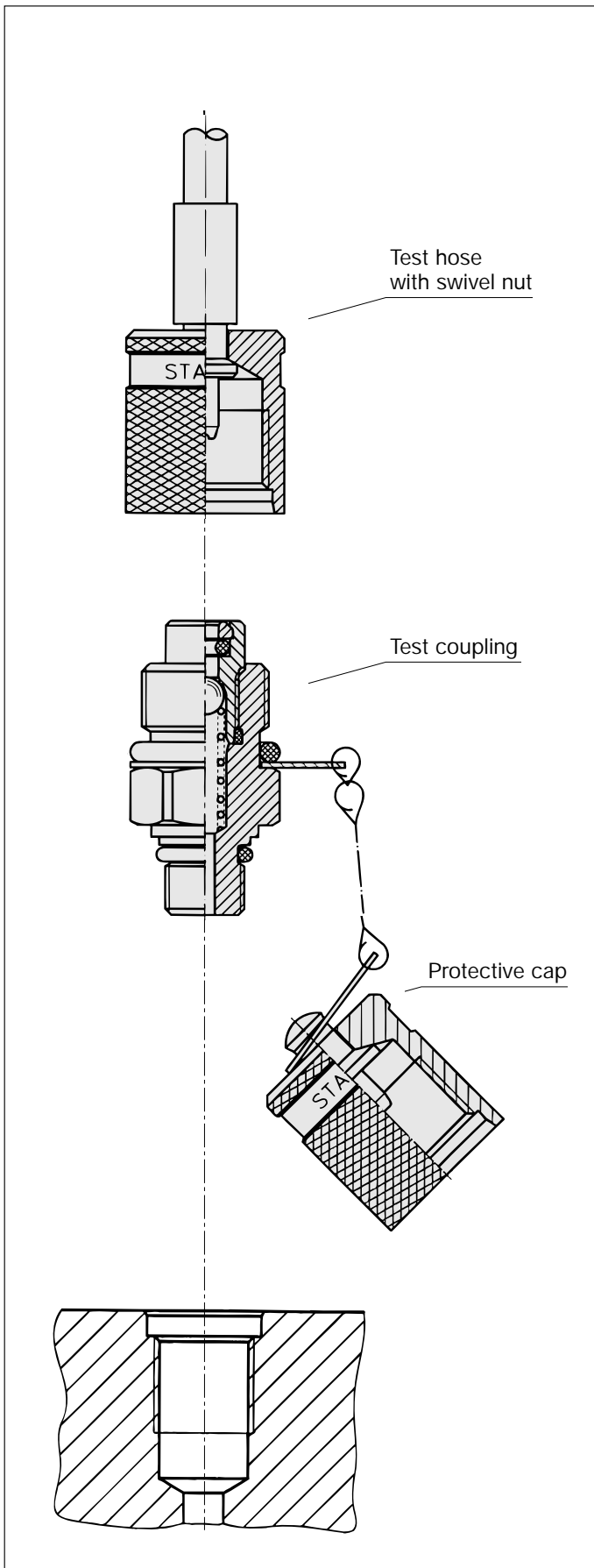
	G	h	SW	Order No.	
				NBR	FPM
	G 1/4	41	19	SMD 20 - G 1/4 - P-OR	SMD 20 - G 1/4 - V-OR
	G 1/2	51	27	SMD 20 - G 1/2 - P-OR	SMD 20 - G 1/2 - V-OR
	1/4 NPT	41	19	SMD 20 - 1/4 NPT-P	SMD 20 - 1/4 NPT-V
	1/2 NPT	51	27	SMD 20 - 1/2 NPT-P	SMD 20 - 1/2 NPT-V
Damping element on request					

Welding adaptor SAS

	Coupling thread G	h	Ød	Order No.
	M10 x 1	25	20	SAS - M10 x 1
	G 1/4	30	22	SAS - G 1/4
Material: St 37				

Thread adaptor SRS

	Thread G	h	SW	Order No.	Seal
	M16 x 1,5	8	22	SRS 20 - M16 x 1,5-B	Metal joint DIN 3852 Type B
	G 1/8	15,5	17	SRS 20 - G 1/8-B	
	G 3/8	10,5	22	SRS 20 - G 3/8-B	
	G 1/2	10,5	27	SRS 20 - G 1/2-B	Port Connection Type D
	R 1/4 taper	13	17	SRS 20 - R 1/4 K-D	



Fast coupling for:

- Monitoring and control of pressure
- Venting
- Sampling in high, low and vacuum systems

Advantages:

- Coupling at system pressure level
- Leakproof connection before **ball valve** is open
- Simple connection to measuring, control and switching devices
- Self locking metal guard cap

Working pressure:

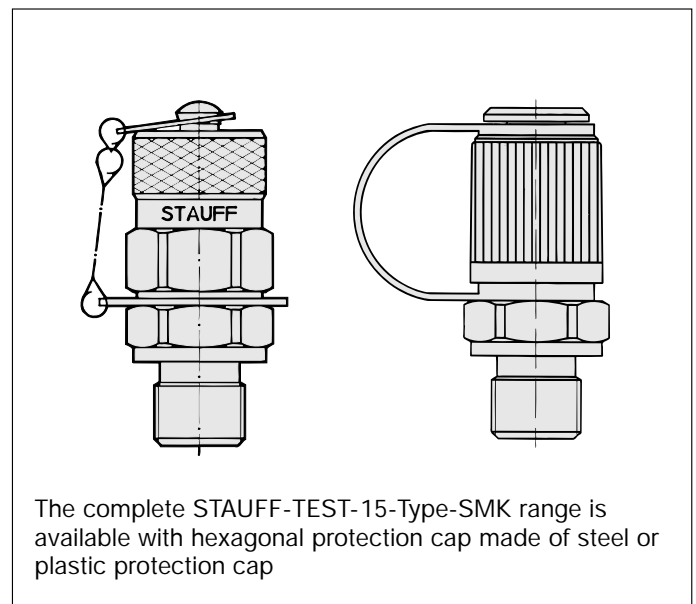
- Max. working pressure 630 bar
For SMK type G, K and S the recommended working pressure of fitting manufacturer has to be applied
- Joining under pressure up to 630 bar max.

Materials:

- Metal parts: Steel, Stainless Steel on request
- Ball: Stainless Steel
- Seals:
 - P = NBR (Temperature range - 20° C to + 90° C)
 - V = FPM (Temperature range - 20° C to + 200° C)
 - E = EPDM Ethylene Propylene (for Break Fluid)
 - Temperature range - 40° C to + 150° C
- Hose: Polyamide (Temperature range -35° C... 100° C max.)

Media:

- Suitable for hydraulic oils and other mineral oil based fluids (Please pay attention to the sealing materials used!)
- For use in conjunction with other liquid media please consult STAUFF



Test coupling with protective cap SMK

	Thread G	h	SW	Order No.		Seal
				NBR	FPM	
	M10 x 1	37	17	SMK 15 – M10 x 1 – PA	SMK 15 – M10 x 1 – VA	O-Ring Type A
	M14 x 1,5	37	19	SMK 15 – M14 x 1,5 – PB	SMK 15 – M14 x 1,5 – VB	Metal joint Type B
	M16 x 1,5	37	22	SMK 15 – M16 x 1,5 – PB	SMK 15 – M16 x 1,5 – VB	Metal joint Type B
	G 1/4	37	19	SMK 15 – G 1/4 – PB	SMK 15 – G 1/4 – VB	Metal joint Type B
	G 1/4	37	19	SMK 15 – G 1/4 – PC	SMK 15 – G 1/4 – VC	O-Ring Type C
	G 3/8	37	22	SMK 15 – G 3/8 – PB	SMK 15 – G 3/8 – VB	Metal joint Type B
	R 1/4 taper	36	17	SMK 15 – R 1/4 K-PD	SMK 15 – R 1/4 K-VD	Taper Type D
	1/4 NPT	35	17	SMK 15 – 1/4 NPT-PD	SMK 15 – 1/4 NPT-VD	Taper Type D
3/16 – 18 UNF	37	19	SMK 15 – 3/16 UNF-PE	SMK 15 – 3/16 UNF-VE	O-Ring Type E	

Other port connections and seals on request.

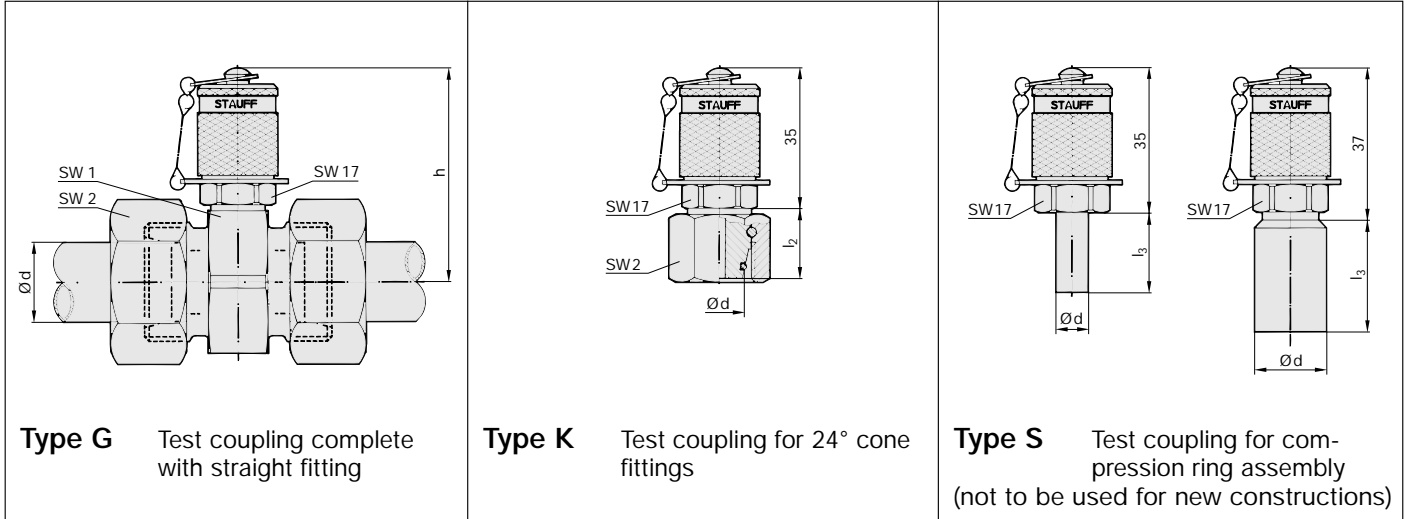
Thread adaptor SRS

	Thread G	h	SW	Order No.	Seal
	M18 x 1,5	24	24	SRS 15 – M18 x 1,5-B	Metal joint DIN 3852 Type B
	M20 x 1,5	10,5	27	SRS 15 – M20 x 1,5-B	
	G 3/8	24	22	SRS 15 – G 3/8-B	
G 1/2	10,5	27	SRS 15 – G 1/2-B		

Port connections and seals

Type A				Type B					Type C					Type D			Type E					
G	d ₁	t ₁	t ₂	G	d ₁	t ₁	t ₂	a	G	d ₁	t ₁	t ₂	a	G	t ₁	t ₂	G	d ₁	d ₂	t ₁	t ₂	a
				M14 x 1,5	20	12	18,5	1,5														
M10 x 1	11,5 + 0,1	12	16,5	M16 x 1,5	22	12	18,5	1,5														
				G 1/4	19	12	18,5	1,5	G 1/4	19	12	18,5	1,5	R 1/4 taper	8,5	13,5						
				G 3/8	23	12	18,5	2,0						1/4 NPT	10	16,4	3/16 – 18 UNF	15,6	25	12,7	15,5	2,5

Test coupling SMK (compression ring fittings acc. to DIN 2353)

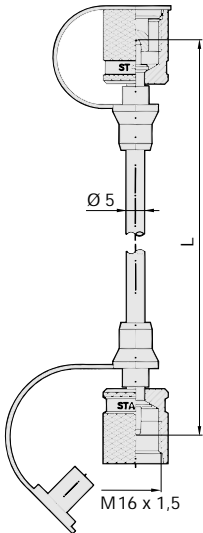
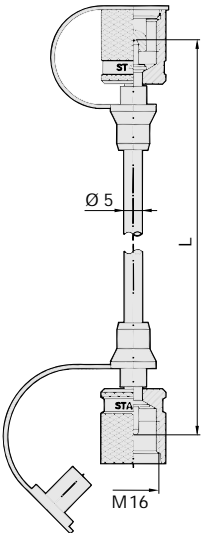
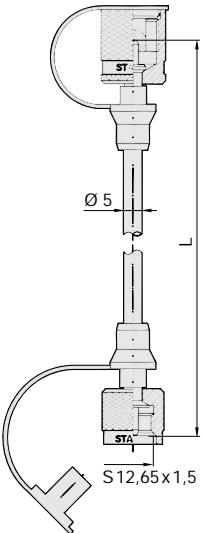
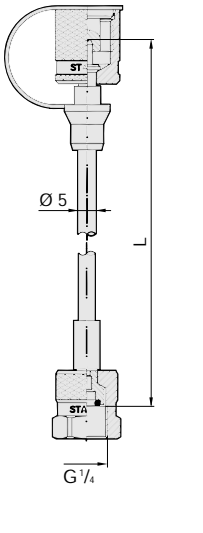


Series	PN	Pipe Ød	l ₂	l ₃	h	SW 1	SW 2	Order No.*		
								Type G	Type K	Type S
L	315	6	15,5	20	49	24	14	SMK 15 - 6L-PG	SMK 15 - 6L-PK	SMK 15 - 6-PS
		8	15,5	20	49	24	17	SMK 15 - 8L-PG	SMK 15 - 8L-PK	SMK 15 - 8-PS
		10	16,5	22	49	24	19	SMK 15 - 10L-PG	SMK 15 - 10L-PK	SMK 15 - 10-PS
		12	17,5	22	50,5	27	22	SMK 15 - 12L-PG	SMK 15 - 12L-PK	SMK 15 - 12-PS
		15	21	25	52	30	27	SMK 15 - 15L-PG	SMK 15 - 15L-PK	SMK 15 - 15-PS
		18	19,5	28	53	32	32	SMK 15 - 18L-PG	SMK 15 - 18L-PK	SMK 15 - 18-PS
	160	22	20,5	30	55	36	36	SMK 15 - 22L-PG	SMK 15 - 22L-PK	SMK 15 - 22-PS
		28	25	32	57,5	41	41	SMK 15 - 28L-PG	SMK 15 - 28L-PK	SMK 15 - 28-PS
35		30	42	60	46	50	SMK 15 - 35L-PG	SMK 15 - 35L-PK	SMK 15 - 35-PS	
42		31	45	64,5	55	60	SMK 15 - 42L-PG	SMK 15 - 42L-PK	SMK 15 - 42-PS	
S	630	6	14,5	20	49	24	17	SMK 15 - 6S-PG	SMK 15 - 6S-PK	SMK 15 - 6-PS
		8	16,5	20	49	24	19	SMK 15 - 8S-PG	SMK 15 - 8S-PK	SMK 15 - 8-PS
		10	16,5	22	49	24	22	SMK 15 - 10S-PG	SMK 15 - 10S-PK	SMK 15 - 10-PS
		12	17,5	22	49	24	24	SMK 15 - 12S-PG	SMK 15 - 12S-PK	SMK 15 - 12-PS
		14	19,5	22	50,5	27	27	SMK 15 - 14S-PG	SMK 15 - 14S-PK	SMK 15 - 14-PS
	400	16	18	28	52	30	30	SMK 15 - 16S-PG	SMK 15 - 16S-PK	SMK 15 - 16-PS
		20	24	30	55	36	36	SMK 15 - 20S-PG	SMK 15 - 20S-PK	SMK 15 - 20-PS
		25	26	36	57,5	41	46	SMK 15 - 25S-PG	SMK 15 - 25S-PK	SMK 15 - 25-PS
		30	30	41	60	46	50	SMK 15 - 30S-PG	SMK 15 - 30S-PK	SMK 15 - 30-PS
		315	38	34	48	64,5	55	60	SMK 15 - 38S-PG	SMK 15 - 38S-PK

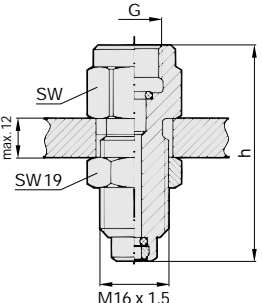
* For ordering FPM seals please replace "P" by "V"

* For EPDM seals replace "P" by "E"

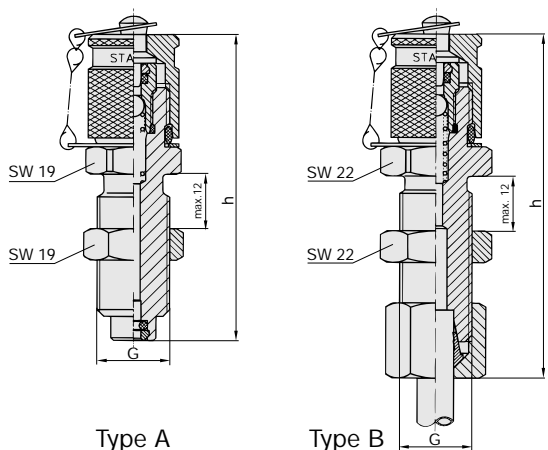
Test hose SMS (for gaseous medium Type SGS)

Max. working pressure 630 bar Test hose: Nominal bore 2 mm Minimum bending radius 20 mm Pressure/t° factor: to 0° C 122 % at 30° C 110 % at 50° C 100 % at 80° C 86 % at 100° C 77 % Hose construction: Hose-core and -cover PA Reinforcement: Synthetic fibre Bursting pressure: 1900 bar	Stauff-Test 15/15 STAUFF-TEST 15  STAUFF-TEST 15	Stauff-Test 15/20 STAUFF-TEST 15  STAUFF-TEST 20	Stauff-Test 12/15 ²⁾ STAUFF-TEST 15  STAUFF-TEST 12	Stauff-Test 15/M ¹ / ₄ -P-OR ³⁾ STAUFF-TEST 15  GAUGE ADAPTOR
	Length L ¹⁾	Order No.		
200	SMS-15 – 200-B	SMS-15/20 – 200-B	SMS-12/15 – 200-B	SMS-15/M ¹ / ₄ -P-OR – 200-B
400	SMS-15 – 400-B	SMS-15/20 – 400-B	SMS-12/15 – 400-B	SMS-15/M ¹ / ₄ -P-OR – 400-B
630	SMS-15 – 630-B	SMS-15/20 – 630-B	SMS-12/15 – 630-B	SMS-15/M ¹ / ₄ -P-OR – 630-B
800	SMS-15 – 800-B	SMS-15/20 – 800-B	SMS-12/15 – 800-B	SMS-15/M ¹ / ₄ -P-OR – 800-B
1000	SMS-15 – 1000-B	SMS-15/20 – 1000-B	SMS-12/15 – 1000-B	SMS-15/M ¹ / ₄ -P-OR – 1000-B
1500	SMS-15 – 1500-B	SMS-15/20 – 1500-B	SMS-12/15 – 1500-B	SMS-15/M ¹ / ₄ -P-OR – 1500-B
2000	SMS-15 – 2000-B	SMS-15/20 – 2000-B	SMS-12/15 – 2000-B	SMS-15/M ¹ / ₄ -P-OR – 2000-B
2500	SMS-15 – 2500-B	SMS-15/20 – 2500-B	SMS-12/15 – 2500-B	SMS-15/M ¹ / ₄ -P-OR – 2500-B
3200	SMS-15 – 3200-B	SMS-15/20 – 3200-B	SMS-12/15 – 3200-B	SMS-15/M ¹ / ₄ -P-OR – 3200-B
4000	SMS-15 – 4000-B	SMS-15/20 – 4000-B	SMS-12/15 – 4000-B	SMS-15/M ¹ / ₄ -P-OR – 4000-B
¹⁾ Bending protection and other lengths on request		²⁾ Special thread: buttress thread S 12,65 x 1,5		³⁾ Gauge adaptor 1/4 NPT, G 1/2 and 1/2 NPT on request

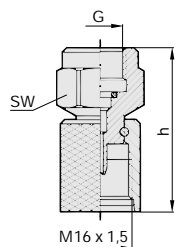
Gauge adaptor SMA

 <p>Through-hole Ø 18</p>	G	h	SW	Order No.	
				NBR	FPM
	G ¹ / ₄	54	19	SMA 15 – G ¹ / ₄ – P-OR	SMA 15 – G ¹ / ₄ – V-OR
	G ¹ / ₂	64	27	SMA 15 – G ¹ / ₂ – P-OR	SMA 15 – G ¹ / ₂ – V-OR
	1/4 NPT	54	19	SMA 15 – 1/4 NPT-P	SMA 15 – 1/4 NPT-V
	1/2 NPT	64	27	SMA 15 – 1/2 NPT-P	SMA 15 – 1/2 NPT-V
Damping element on request					

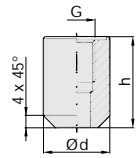
Bulkhead SSK (for gaseous medium Type SSKK)

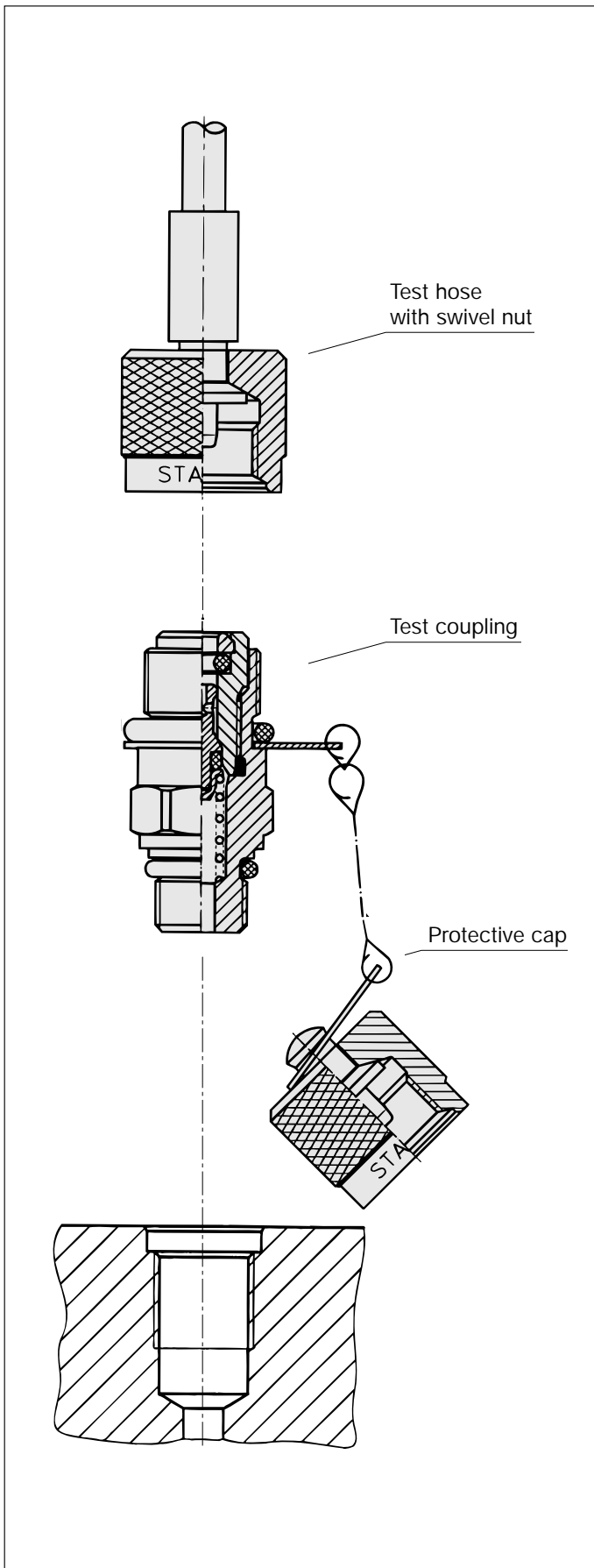
	G	h	Type	Order No.	
				NBR	FPM
	M 16 x 1,5	72	A	SSK 15-P	SSK 15-V
	M 16 x 1,5 ¹⁾	72	B	SSK 15/08 S-P	SSK 15/08 S-V
¹⁾ Compression ring assembly 8 S acc. to DIN 2353					

Direct gauge adaptor SMD

	G	h	SW	Order No.	
				NBR	FPM
	G 1/4	41	19	SMD 15 - G 1/4 - P-OR	SMD 15 - G 1/4 - V-OR
	G 1/2	51	27	SMD 15 - G 1/2 - P-OR	SMD 15 - G 1/2 - V-OR
	1/4 NPT	41	19	SMD 15 - 1/4 NPT-P	SMD 15 - 1/4 NPT-V
	1/2 NPT	51	27	SMD 15 - 1/2 NPT-P	SMD 15 - 1/2 NPT-V
Damping element on request					

Welding adaptor SAS

	Thread	h	Ød	Order No.
	G			
	M 10 x 1	25	20	SAS - M 10 x 1
	G 1/4	30	22	SAS - G 1/4
Material: St 37				



Fast coupling for:

- Monitoring and control of pressure
- Venting
- Sampling in high, low and vacuum systems

Advantages:

- Coupling at system pressure level
- Leakproof connection before **poppet valve** is open
- Simple connection to measuring, control and switching devices
- Self locking metal guard cap

Working pressure:

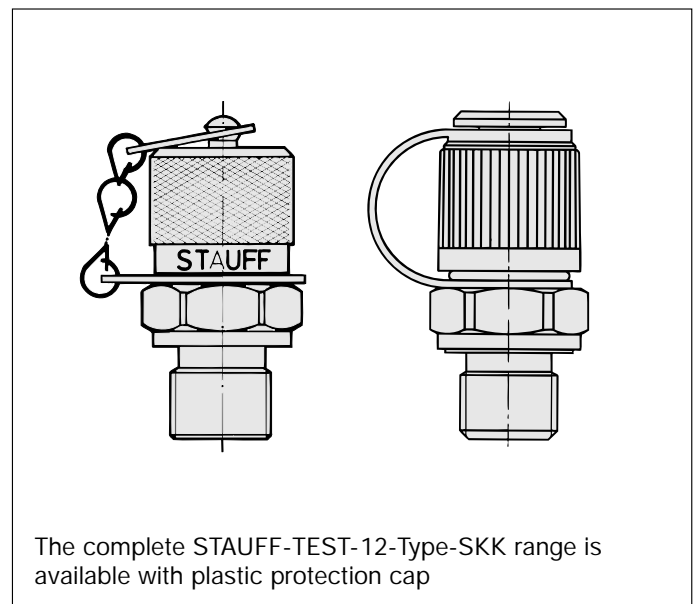
- Max. working pressure 630 bar
For SKK type G, K and S the recommended working pressure of fitting manufacturer has to be applied
- Joining under pressure up to 400 bar max.

Materials:

- Metal parts: Steel, Stainless Steel on request
- Seals:
P = NBR (Temperature range - 20° C to + 90° C)
V = FPM (Temperature range - 20° C to + 200° C)
E = EPDM Ethylene Propylene (for Break Fluid)
Temperature range - 40° C to + 150° C
- Hose: Polyamide (Temperature range -35° C... 100° C max.)

Media:

- Suitable for hydraulic oils and other mineral oil based fluids (Please pay attention to the sealing materials used!)
- For use in conjunction with other liquid media please consult STAUFF



Test coupling with protective cap SKK (former description SMK)

Thread G	h	SW	Order No.		Seal
			NBR	FPM	
M8 x 1	37	14	SKK 12 – M8 x 1 – PA	SKK 12 – M8 x 1 – VA	O-Ring Type A
M10 x 1	34	14	SKK 12 – M10 x 1 – PA	SKK 12 – M10 x 1 – VA	O-Ring Type A
M12 x 1,5	31	17	SKK 12 – M12 x 1,5 – PC	SKK 12 – M12 x 1,5 – VC	O-Ring Type C
M14 x 1,5	31	19	SKK 12 – M14 x 1,5 – PB	SKK 12 – M14 x 1,5 – VB	Metal joint Type B
M16 x 1,5	31	22	SKK 12 – M16 x 1,5 – PB	SKK 12 – M16 x 1,5 – VB	Metal joint Type B
G 1/8	40	14	SKK 12 – G 1/8 – PC	SKK 12 – G 1/8 – VC	O-Ring Type C
G 1/4	31	19	SKK 12 – G 1/4 – PB	SKK 12 – G 1/4 – VB	Metal joint Type B
G 1/4	31	19	SKK 12 – G 1/4 – PC	SKK 12 – G 1/4 – VC	O-Ring Type C
G 3/8	31	22	SKK 12 – G 3/8 – PB	SKK 12 – G 3/8 – VB	Metal joint Type B
R 1/8 taper	33	14	SKK 12 – R 1/8 K-PD	SKK 12 – R 1/8 K-VD	Taper Type D
R 1/4 taper	30	14	SKK 12 – R 1/4 K-PD	SKK 12 – R 1/4 K-VD	Taper Type D
1/8 NPT	33	14	SKK 12 – 1/8 NPT-PD	SKK 12 – 1/8 NPT-VD	Taper Type D
1/4 NPT	28	14	SKK 12 – 1/4 NPT-PD	SKK 12 – 1/4 NPT-VD	Taper Type D
5/16 – 24 UNF	34,5	17	SKK 12 – 5/16 UNF-PE	SKK 12 – 5/16 UNF-VE	O-Ring Type E
7/16 – 20 UNF	33	17	SKK 12 – 7/16 UNF-PE	SKK 12 – 7/16 UNF-VE	O-Ring Type E
1/2 – 20 UNF	32	17	SKK 12 – 1/2 UNF-PE	SKK 12 – 1/2 UNF-VE	O-Ring Type E
9/16 – 18 UNF	32	19	SKK 12 – 9/16 UNF-PE	SKK 12 – 9/16 UNF-VE	O-Ring Type E

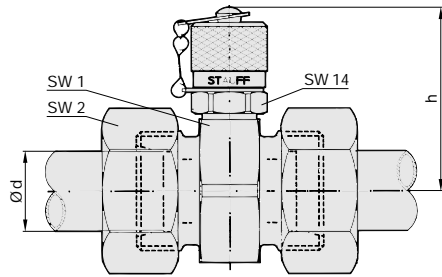
* Special thread: buttress thread S 12,65 x 1,5

Other port connections and seals on request.

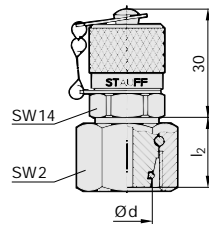
Port connections and seals

Type A					Type B					Type C					Type D			Type E					
G	d ₁	t ₁	t ₂		G	d ₁	t ₁	t ₂	a	G	d ₁	t ₁	t ₂	a	G	t ₁	t ₂	G	d ₁	d ₂	t ₁	t ₂	a
M8 x 1	9,5 + 0,1	11	15,5		M14 x 1,5	20	12	18,5	1,5	M12 x 1,5	18	12	18,5	1,5	R 1/8 taper	5,5	9,5	5/16 – 24 UNF	9,1	17	10	12	1,9
M10 x 1	11,5 + 0,1	12	16,5		M16 x 1,5	22	12	18,5	1,5	G 1/8	15	8	13	1	R 1/4 taper	8,5	13,5	7/16 – 20 UNF	12,4	21	11,5	14	2,4
					G 1/4	19	12	18,5	1,5	G 1/4	19	12	18,5	1,5	1/8 NPT	6,9	11,6	1/2 – 20 UNF	14	23	11,5	14	2,4
					G 3/8	23	12	18,5	2						1/4 NPT	10	16,4	9/16 – 18 UNF	15,6	25	12,7	15,5	2,5

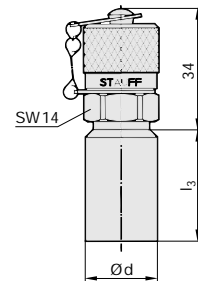
Test coupling SKK (compression ring fittings acc. to DIN 2353)



Type G Test coupling complete with straight fitting



Type K Test coupling for 24° cone fittings



Type S Test coupling for compression ring assembly (not to be used for new constructions)

Series	PN	Pipe Ød	l ₂	l ₃	h	SW 1	SW 2	Order No.*		
								Type G	Type K	Type S
L	315	6	15,5	20	46	24	14	SKK 12 – 6L-PG	SKK 12 – 6L-PK	SKK 12 – 6-PS
		8	15,5	20	46	24	17	SKK 12 – 8L-PG	SKK 12 – 8L-PK	SKK 12 – 8-PS
		10	16,5	22	46	24	19	SKK 12 – 10L-PG	SKK 12 – 10L-PK	SKK 12 – 10-PS
		12	17,5	22	47,5	27	22	SKK 12 – 12L-PG	SKK 12 – 12L-PK	SKK 12 – 12-PS
		15	21	25	49	30	27	SKK 12 – 15L-PG	SKK 12 – 15L-PK	SKK 12 – 15-PS
		18	19,5	28	50	32	32	SKK 12 – 18L-PG	SKK 12 – 18L-PK	SKK 12 – 18-PS
	160	22	20,5	30	52	36	36	SKK 12 – 22L-PG	SKK 12 – 22L-PK	SKK 12 – 22-PS
		28	25	32	54,5	41	41	SKK 12 – 28L-PG	SKK 12 – 28L-PK	SKK 12 – 28-PS
		35	30	42	57	46	50	SKK 12 – 35L-PG	SKK 12 – 35L-PK	SKK 12 – 35-PS
		42	31	45	61,5	55	60	SKK 12 – 42L-PG	SKK 12 – 42L-PK	SKK 12 – 42-PS
S	630	6	14,5	20	46	24	17	SKK 12 – 6S-PG	SKK 12 – 6S-PK	SKK 12 – 6-PS
		8	16,5	20	46	24	19	SKK 12 – 8S-PG	SKK 12 – 8S-PK	SKK 12 – 8-PS
		10	16,5	22	46	24	22	SKK 12 – 10S-PG	SKK 12 – 10S-PK	SKK 12 – 10-PS
		12	17,5	22	46	24	24	SKK 12 – 12S-PG	SKK 12 – 12S-PK	SKK 12 – 12-PS
		14	19,5	22	47,5	27	27	SKK 12 – 14S-PG	SKK 12 – 14S-PK	SKK 12 – 14-PS
	400	16	18	28	49	30	30	SKK 12 – 16S-PG	SKK 12 – 16S-PK	SKK 12 – 16-PS
		20	24	30	52	36	36	SKK 12 – 20S-PG	SKK 12 – 20S-PK	SKK 12 – 20-PS
		25	26	36	54,5	41	46	SKK 12 – 25S-PG	SKK 12 – 25S-PK	SKK 12 – 25-PS
		30	30	41	57	46	50	SKK 12 – 30S-PG	SKK 12 – 30S-PK	SKK 12 – 30-PS
		315	38	34	48	61,5	55	60	SKK 12 – 38S-PG	SKK 12 – 38S-PK

* For ordering FPM seals please replace "P" by "V"

* For EPDM seals replace "P" by "E"

Test hose SMS (for gaseous medium Type SGS)

Max. working pressure 400 bar Test hose: Nominal bore 2 mm Minimum bending radius 20 mm Nominal bore 4 mm also available Pressure/t° factor: to 0°C 122 % at 30°C 110 % at 50°C 100 % at 80°C 86 % at 100°C 77 % Hose construction: Hose-core and -cover PA 11/12 Reinforcement: Synthetic fibre Bursting pressure: 1100 bar	Stauff-Test 12/12 ²⁾ STAUFF-TEST 12 	Stauff-Test 12/20 STAUFF-TEST 12 	Stauff-Test 12/15 STAUFF-TEST 12 	Stauff-Test 10/12 STAUFF-TEST 12 	Stauff-Test 12/M ¹⁾ /i-P-OR ³⁾ STAUFF-TEST 12
	STAUFF-TEST 12	STAUFF-TEST 20	STAUFF-TEST 15	STAUFF-TEST 10	GAUGE ADAPTOR
Length L ¹⁾	Order No.				
200	SMS-12 - 200-A	SMS-12/20 - 200-A	SMS-12/15 - 200-A	SMS-10/12 - 200-A	SMS-12/M ¹⁾ /i-P-OR - 200-A
400	SMS-12 - 400-A	SMS-12/20 - 400-A	SMS-12/15 - 400-A	SMS-10/12 - 400-A	SMS-12/M ¹⁾ /i-P-OR - 400-A
630	SMS-12 - 630-A	SMS-12/20 - 630-A	SMS-12/15 - 630-A	SMS-10/12 - 630-A	SMS-12/M ¹⁾ /i-P-OR - 630-A
800	SMS-12 - 800-A	SMS-12/20 - 800-A	SMS-12/15 - 800-A	SMS-10/12 - 800-A	SMS-12/M ¹⁾ /i-P-OR - 800-A
1000	SMS-12 - 1000-A	SMS-12/20 - 1000-A	SMS-12/15 - 1000-A	SMS-10/12 - 1000-A	SMS-12/M ¹⁾ /i-P-OR - 1000-A
1500	SMS-12 - 1500-A	SMS-12/20 - 1500-A	SMS-12/15 - 1500-A	SMS-10/12 - 1500-A	SMS-12/M ¹⁾ /i-P-OR - 1500-A
2000	SMS-12 - 2000-A	SMS-12/20 - 2000-A	SMS-12/15 - 2000-A	SMS-10/12 - 2000-A	SMS-12/M ¹⁾ /i-P-OR - 2000-A
2500	SMS-12 - 2500-A	SMS-12/20 - 2500-A	SMS-12/15 - 2500-A	SMS-10/12 - 2500-A	SMS-12/M ¹⁾ /i-P-OR - 2500-A
3200	SMS-12 - 3200-A	SMS-12/20 - 3200-A	SMS-12/15 - 3200-A	SMS-10/12 - 3200-A	SMS-12/M ¹⁾ /i-P-OR - 3200-A
4000	SMS-12 - 4000-A	SMS-12/20 - 4000-A	SMS-12/15 - 4000-A	SMS-10/12 - 4000-A	SMS-12/M ¹⁾ /i-P-OR - 4000-A
¹⁾ Bending protection and other lengths on request		²⁾ Special thread: buttress thread S 12,65 x 1,5		³⁾ Gauge adaptor 1/4 NPT, G 1/2 and 1/2 NPT on request	

Adaptor SAD

 Type A	 Type B	G	h	Type	Order No.	
					NBR	FPM
		M16 x 1,5	33	A	SAD 12/15-P	SAD 12/15-V
		plug in	31	B	SAD 12/10-P	SAD 12/10-V
		M16 x 2	33	A	SAD 12/20-P	SAD 12/20-V
¹⁾ Special thread: buttress thread S 12,65 x 1,5						

Bulkhead SSKK (former description SSK)

	G	h	SW	Order No.	
				NBR	FPM
	S 12	63	19	SSKK 12-P	SSKK 12-V

Gauge adaptor SMA

	G	h	SW	Order No.	
				NBR	FPM
	G 1/4	51	19	SMA 12 - G 1/4 - P-OR	SMA 12 - G 1/4 - V-OR
	G 1/2	61	27	SMA 12 - G 1/2 - P-OR	SMA 12 - G 1/2 - V-OR
	1/4 NPT	51	19	SMA 12 - 1/4 NPT-P	SMA 12 - 1/4 NPT-V
	1/2 NPT	61	27	SMA 12 - 1/2 NPT-P	SMA 12 - 1/2 NPT-V
Damping element on request					

Direct gauge adaptor SMD

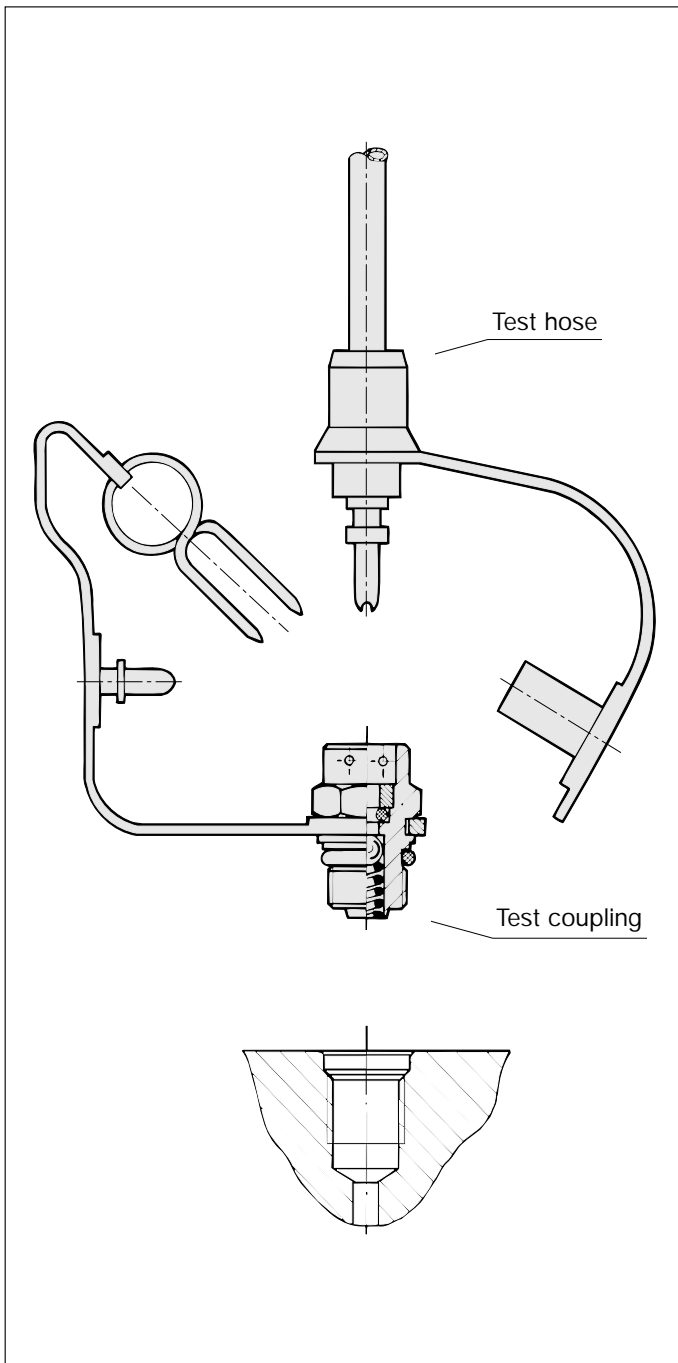
	G	h	SW	Order No.	
				NBR	FPM
	G 1/4	35	19	SMD 12 - G 1/4 - P-OR	SMD 12 - G 1/4 - V-OR
	G 1/2	45	27	SMD 12 - G 1/2 - P-OR	SMD 12 - G 1/2 - V-OR
	1/4 NPT	35	19	SMD 12 - 1/4 NPT-P	SMD 12 - 1/4 NPT-V
	1/2 NPT	45	27	SMD 12 - 1/2 NPT-P	SMD 12 - 1/2 NPT-V
Damping element on request					

Welding adaptor SAS

	Coupling thread G	h	Ød	Order No.
	M10 x 1	25	20	SAS - M10 x 1
	G 1/4	30	22	SAS - G 1/4

Thread adaptor SRS

	Thread G	h	SW	Order No.	Seal
	M16 x 1,5	8	22	SRS 20 - M16 x 1,5-B	Metal joint DIN 3852 Type B
	G 1/8	15,5	17	SRS 20 - G 1/8-B	
	G 3/8	10,5	22	SRS 20 - G 3/8-B	
	G 1/2	10,5	27	SRS 20 - G 1/2-B	Port Connection Type D
	R 1/4 taper	13	19	SRS 20 - R 1/4 K-D	



Fast coupling for:

- Monitoring and control of pressure
- Venting
- Sampling in high, low and vacuum systems

Advantages:

- Coupling at system pressure level
- Leakproof connection before **ball valve** is open
- Simple connection to measuring, control and switching devices

Working pressure:

- Max. working pressure 400 bar
For SMK Type G, K and S the recommended working pressure of fitting manufacturer has to be applied

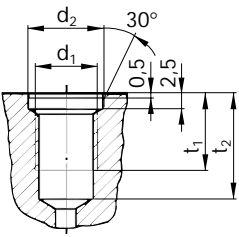
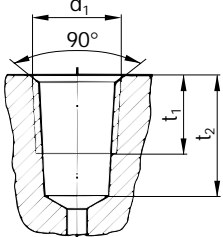
Materials:

- Metal parts: Steel, Stainless Steel on request
- Ball: Stainless Steel
- Seals:
P = NBR (Temperature range - 20° C to + 90° C)
V = FPM (Temperature range - 20° C to + 200° C)
E = EPDM Ethylene Propylene (for Break Fluid)
Temperature range - 40° C to + 150° C
- Hose: Polyamide (Temperature range -35° C... 100° C max.)

Media:

- Suitable for hydraulic oils and other mineral oil based fluids (Please pay attention to the sealing materials used!)
- For use in conjunction with other liquid media please consult STAUFF

Port connections

Type A					Type D			
	d_1 (G)	d_2	t_1	t_2		d_1 (G)	t_1	t_2
	M 8 x 1	9,5 + 0,1	11	15,5		R 1/8" taper	5,5	9,5
	M10 x 1	11,5 + 0,1	12	16,5				

Test coupling with protective cap SMK

	Thread G	H	Order No.		Seal
			NBR	FPM	
	M8 x 1	17,5	SMK 10 – M8 x 1 – PA	SMK 10 – M8 x 1 – VA	O-Ring Type A
	M10 x 1	17,5	SMK 10 – M10 x 1 – PA	SMK 10 – M10 x 1 – VA	O-Ring Type A
R 1/8" taper	17,5	SMK 10 – R 1/8" K-PD	SMK 10 – R 1/8" K-VD	Taper Type D	

Test coupling SMK (compression ring fittings acc. to DIN 2353)

Type G Test coupling complete with straight fitting

Type K Test coupling for 24° cone fittings

Type S Test coupling for compression ring assembly (not to be used for new constructions)

Series	PN	Pipe Ød	l ₂	l ₃	l ₄	h	SW 1	SW 2	SW 3	Order No.*			
										Type G	Type K	Type S	
L	315	6	30,5	20	36	29,5	24		14	SMK 10 – 6L-PG	SMK 10 – 6L-PK	SMK 10 – 6-PS	
		8	30,5	20	36	29,5	24		17	SMK 10 – 8L-PG	SMK 10 – 8L-PK	SMK 10 – 8-PS	
		10	31,5	22	38	29,5	24		19	SMK 10 – 10L-PG	SMK 10 – 10L-PK	SMK 10 – 10-PS	
		12	32,5	22	38	31	27		22	SMK 10 – 12L-PG	SMK 10 – 12L-PK	SMK 10 – 12-PS	
		15	21		28	32,5	30	27			SMK 10 – 15L-PG	SMK 10 – 15L-PK	SMK 10 – 15-PS
		18	19,5		28	33,5	32	32			SMK 10 – 18L-PG	SMK 10 – 18L-PK	SMK 10 – 18-PS
	160	22	20,5		30	35,5	36	36			SMK 10 – 22L-PG	SMK 10 – 22L-PK	SMK 10 – 22-PS
		28	25		32	38	41	41			SMK 10 – 28L-PG	SMK 10 – 28L-PK	SMK 10 – 28-PS
		35	30		42	40,5	46	50			SMK 10 – 35L-PG	SMK 10 – 35L-PK	SMK 10 – 35-PS
		42	31		45	45	55	60			SMK 10 – 42L-PG	SMK 10 – 42L-PK	SMK 10 – 42-PS
S	630	6	29,5	20	36	29,5	24		17	SMK 10 – 6S-PG	SMK 10 – 6S-PK	SMK 10 – 6-PS	
		8	31,5	20	36	29,5	24		19	SMK 10 – 8S-PG	SMK 10 – 8S-PK	SMK 10 – 8-PS	
		10	31,5	22	38	29,5	24		22	SMK 10 – 10S-PG	SMK 10 – 10S-PK	SMK 10 – 10-PS	
		12	32,5	22	38	29,5	24		24	SMK 10 – 12S-PG	SMK 10 – 12S-PK	SMK 10 – 12-PS	
		14	19,5	22	38	31	27	27			SMK 10 – 14S-PG	SMK 10 – 14S-PK	SMK 10 – 14-PS
	400	16	18		28	32,5	30	30			SMK 10 – 16S-PG	SMK 10 – 16S-PK	SMK 10 – 16-PS
		20	24		30	35,5	36	36			SMK 10 – 20S-PG	SMK 10 – 20S-PK	SMK 10 – 20-PS
		25	26		36	38	41	46			SMK 10 – 25S-PG	SMK 10 – 25S-PK	SMK 10 – 25-PS
		30	30		41	40,5	46	50			SMK 10 – 30S-PG	SMK 10 – 30S-PK	SMK 10 – 30-PS
		315	38	34		48	45	55	60			SMK 10 – 38S-PG	SMK 10 – 38S-PK

* For ordering FPM seals please replace "P" by "V"

* For EPDM seals replace "P" by "E"

Test hose SMS

	Length L	Order No.	Notice
	200	SMS-10 – 200-A	Nominal bore 2 mm Minimum bending radius 20 mm Pressure/t° factor to 0° C 122% at 30° C 110% at 50° C 100% at 80° C 86% at 100° C 77% Bending protection and other lengths on request.
	400	SMS-10 – 400-A	
	630	SMS-10 – 630-A	
	800	SMS-10 – 800-A	
	1000	SMS-10 – 1000-A	
	1500	SMS-10 – 1500-A	
	2000	SMS-10 – 2000-A	
	2500	SMS-10 – 2500-A	
	3200	SMS-10 – 3200-A	
4000	SMS-10 – 4000-A		

Test hose SMS for direct gauge adaptor

	Length L	Order No.	Notice
	200	SMS-10/M'¼-P-OR – 200-A	Nominal bore 2 mm Minimum bending radius 20 mm Pressure/t° factor to 0° C 122% at 30° C 110% at 50° C 100% at 80° C 86% at 100° C 77% Bending protection and other lengths on request.
	400	SMS-10/M'¼-P-OR – 400-A	
	630	SMS-10/M'¼-P-OR – 630-A	
	800	SMS-10/M'¼-P-OR – 800-A	
	1000	SMS-10/M'¼-P-OR – 1000-A	
	1500	SMS-10/M'¼-P-OR – 1500-A	
	2000	SMS-10/M'¼-P-OR – 2000-A	
	2500	SMS-10/M'¼-P-OR – 2500-A	
	3200	SMS-10/M'¼-P-OR – 3200-A	
4000	SMS-10/M'¼-P-OR – 4000-A		

Gauge adaptor SMA

	G	H	SW	Order No.	
				NBR	FPM
	G ¼	57	19	SMA 10 – G ¼ – P-OR	SMA 10 – G ¼ – V-OR
	G ½	67	27	SMA 10 – G ½ – P-OR	SMA 10 – G ½ – V-OR
	¼ NPT	57	19	SMA 10 – ¼ NPT-P	SMA 10 – ¼ NPT-V
	½ NPT	67	27	SMA 10 – ½ NPT-P	SMA 10 – ½ NPT-V
Damping element on request					



SMB-20-1-xxx

(Pressure range)

1 Test hose (2000 mm length)	SMS-20-2000-A	{ 3 10 16 25 40 60 100 160 250 400
1 Pressure gauge Ø 63 mm	SMM-G 1/4-xxx	
1 Gauge adaptor G 1/4	SMA 20-G 1/4	
1 Direct gauge adaptor G 1/4	SMD 20-G 1/4	
1 Test coupling G 1/4	SMK 20-G 1/4	
1 Test coupling M 10 x 1	SMK 20-M 10 x 1	
1 Thread adaptor G 3/8	SRS 20-G 3/8	
1 Thread adaptor G 1/2	SRS 20-G 1/2	

SMB-15-1-xxx

(Pressure range)

1 Test hose (2000 mm length)	SMS-15-2000-A	{ 3 10 16 25 40 60 100 160 250 400 600
1 Pressure gauge Ø 63 mm	SMM-G 1/4-xxx	
1 Gauge adaptor G 1/4	SMA 15-G 1/4	
1 Direct gauge adaptor G 1/4	SMD 15-G 1/4	
1 Test coupling G 1/4	SMK 15-G 1/4	
1 Test coupling M 14 x 1,5	SMK 15-M 14 x 1,5	
1 Thread adaptor G 3/8	SRS 15-G 3/8	
1 Thread adaptor G 1/2	SRS 15-G 1/2	



SMB-20-2-xxx/xxx

(Pressure range)

1 Test hose (2000 mm length)	SMS 20-2000-A	{ 3 10 16 25 40 60 100 160 250 400
2 Pressure gauges Ø 63 mm	SMM-G 1/4-xxx/xxx...	
1 Gauge adaptor G 1/4	SMA 20-G 1/4	
1 Direct gauge adaptor G 1/4	SMD 20-G 1/4	
1 Test coupling G 1/4	SMK 20-G 1/4	
1 Test coupling M 10 x 1	SMK 20-M 10 x 1	
1 Thread adaptor G 3/8	SRS 20-G 3/8	
1 Thread adaptor G 1/2	SRS 20-G 1/2	

SMB-15-2-xxx/xxx

(Pressure range)

1 Test hose (2000 mm length)	SMS-15-2000-A	{ 3 10 16 25 40 60 100 160 250 400 600
2 Pressure gauges Ø 63 mm	SMM-G 1/4-xxx/xxx...	
1 Gauge adaptor G 1/4	SMA 15-G 1/4	
1 Direct gauge adaptor G 1/4	SMD 15-G 1/4	
1 Test coupling G 1/4	SMK 15-G 1/4	
1 Test coupling M 14 x 1,5	SMK 15-M 14 x 1,5	
1 Thread adaptor G 3/8	SRS 15-G 3/8	
1 Thread adaptor G 1/2	SRS 15-G 1/2	



SMB-20-3-xxx

(Pressure range)

1 Test hose (2000 mm length)	SMS-20-2000 A	{ 3 10 16 25 40 60 100 160 250 400
1 Pressure gauge Ø 100 mm	SMM-G 1/2-xxx	
1 Gauge adaptor G 1/2	SMA 20-G 1/2	
1 Direct gauge adaptor G 1/2	SMD 20-G 1/2	
1 Test coupling G 1/4	SMK 20-G 1/4	
1 Test coupling M 10 x 1	SMK 20-M 10 x 1	
1 Thread adaptor G 3/8	SRS 20-G 3/8	
1 Thread adaptor G 1/2	SRS 20-G 1/2	

SMB-15-3-xxx

(Pressure range)

1 Test hose (2000 mm length)	SMS-15-2000-A	{ 3 10 16 25 40 60 100 160 250 400 600
1 Pressure gauge Ø 100 mm	SMM-G 1/2-xxx	
1 Gauge adaptor G 1/4	SMA 15-G 1/2	
1 Direct gauge adaptor G 1/4	SMD 15-G 1/2	
1 Test coupling G 1/4	SMK 15-G 1/4	
1 Test coupling M 14 x 1,5	SMK 15-M 14 x 1,5	
1 Thread adaptor G 3/8	SRS 15-G 3/8	
1 Thread adaptor G 1/2	SRS 15-G 1/2	

Other composition of test kits on request.

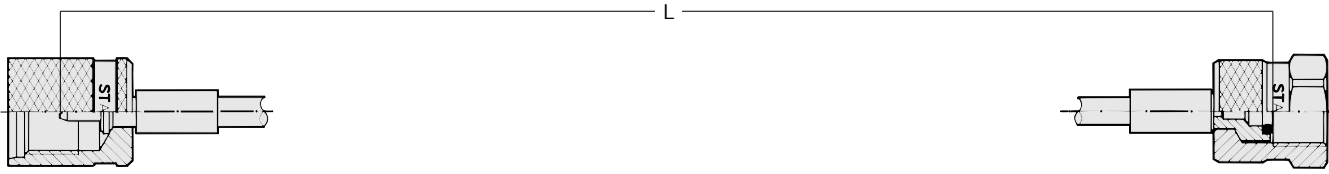
Technical data for Test-hoses

Ordering code		A	B	C	
Nominal bore (DN)	(mm)	DN 2	DN 2	DN 4	
max. working pressure (PN)	(bar)	400	630	340	
min. bursting pressure	(bar)	1100	1900	850	
Testing pressure	(bar)	600	950	570	
Pressure rating in bar at indicated temperature	at 0° C	(bar)	488	768	463
	at 30° C	(bar)	440	693	418
	at 50° C	(bar)	400	630	380
	at 80° C	(bar)	344	542	327
	at 100° C	(bar)	308	485	293
Working temperature	(° C)	- 35 ... 100 (120)			
Inside diameter	(mm)	2	2	4	
Outside diameter	(mm)	5	5	8,6	
Bending radius	at working pressure	(mm)	20	20	40
	at - 20° C	(mm)	30	30	60
max. coil length	(m)	100	100	100	
Weight/m	(g)	16	16	42	
Inner/outer tube		PA	PA	PA	
Reinforcement		Syntheticfibre	Syntheticfibre	Syntheticfibre	

Hose ends made of 9 S Mn Pb 28 (1.0718), zinc plated and chromated

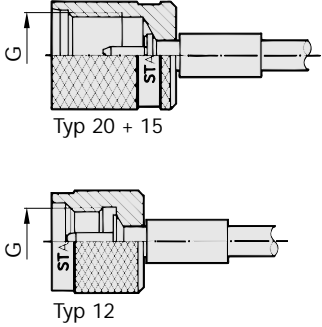
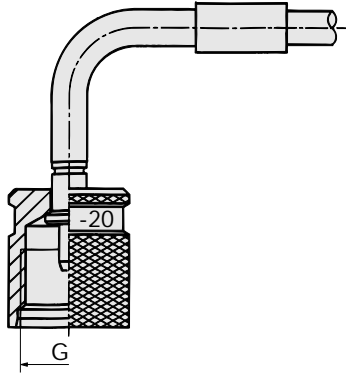

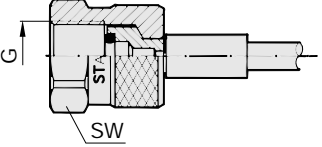
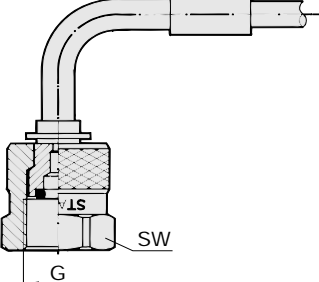
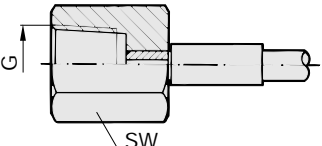
Stainless steel on request

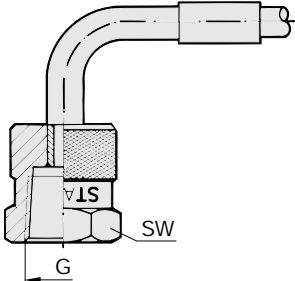
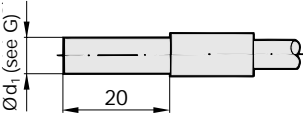
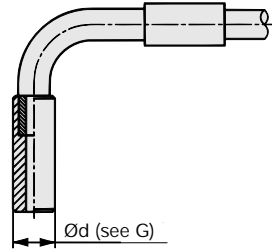
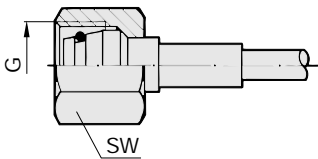
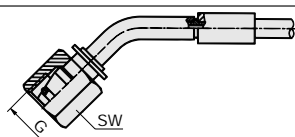
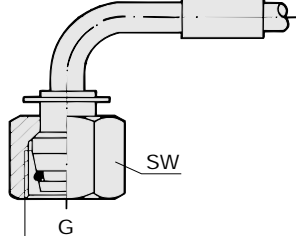
Ordering code

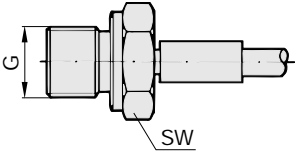
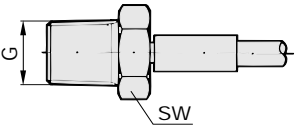
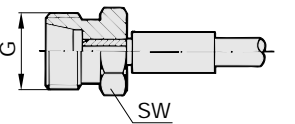
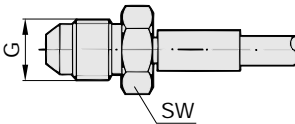
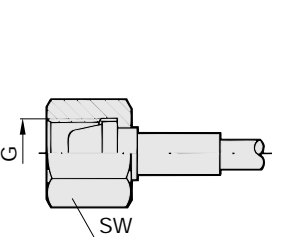
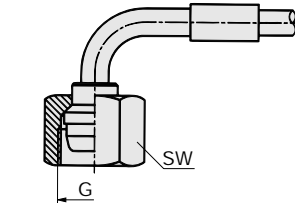
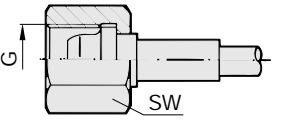
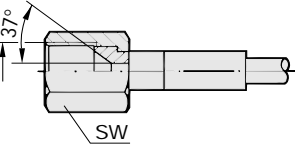
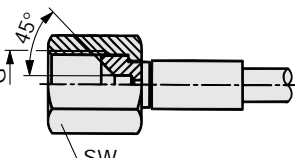


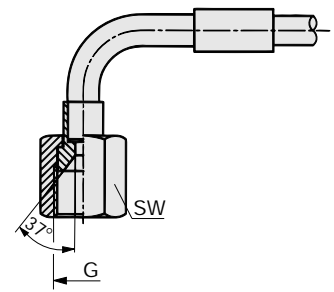
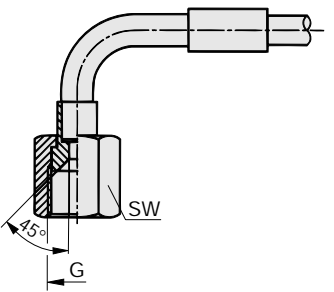
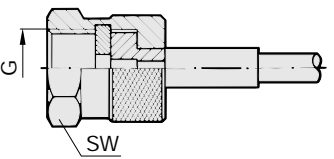
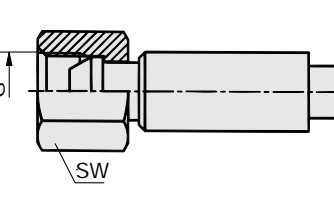
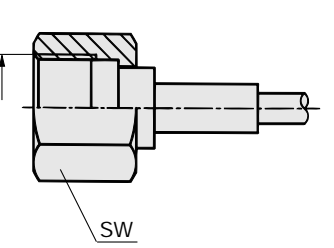
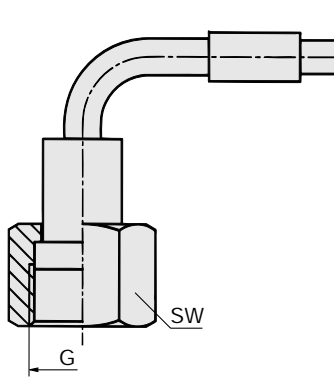
SMS — 20 — / M . . . — 3000 — A

Hose End 1 (see Type page 28 - 31)			Hose End 2 (see Type page 28 - 31)	Length	Nominal bore			
20	A	J			only specify when 2 different hose ends are required	Length in mm (see L above)	A	= DN 2 400 bar
15	S	D					B	= DN 2 630 bar
12	K	B					C	= DN 4 340 bar
10	L	U						
M	G	P						
N	F							
W	C							

Description	Hose end	Type	G	SW	DN	
STAUFF-TEST Screw-type Suitable for test points			20	M16 x 2	2 and 4	
15	M16 x 1,5	12	S 12,65 x 1,5			
STAUFF-TEST Screw-type 90° elbow Suitable for test points		O	20	M16 x 2	2	
15	M16 x 1,5	12	S 12,65 x 1,5			
STAUFF-TEST Plug in-type			10	Plug in system	2	
Gauge adapter BSP-thread for G ³ / ₈ and G ¹ / ₂ BSP swivel nut like type N		M	1/4	G 1/4	19	2 and 4
		3/8	G 3/8		22	2
90° elbow gauge adapter BSP-thread for G ³ / ₈ and G ¹ / ₂ swivel nut like type N		W	1/4	G 1/4		2 and 4
		1/2	G 1/2		27	
Gauge adapter NPT-thread for 1/4 NPT swivel nut like type M		N	1/4	1/4 NPT	19	2
		1/2	1/2 NPT		27	

Description	Hose end	Type		G	SW	DN	
90° elbow gauge adapter NPT-thread for 1/4 NPT swivel nut like type M		A	1/4	1/4 NPT	19	2 and 4	
			1/2	1/2 NPT	27		
Standpipe according to DIN 2353		S	4	4 LL		2	
			6	6 L - 6 S		2/4	
			8	8 L - 8 S		2/4	
			10	10 L - 10 S		2/4	
			12	12 L - 12 S		2	
			15	15 L		2	
			1/4	1/4"		2/4	
Standpipe according to DIN 2353 90° elbow		on request				2 and 4	
Seal with O-ring for 24° cone fitting according to DIN 2353 c/w swivel nut		K	6 LL	M10 x 1,0	12	4	
			6 L	M12 x 1,5	14	2/4	
			8 L	M14 x 1,5	17	2/4	
			10 L	M16 x 1,5	19	2/4	
			12 L	M18 x 1,5	22	2/4	
			6 S	M14 x 1,5	17	2/4	
			8 S	M16 x 1,5	19	2/4	
			10 S	M18 x 1,5	22	2/4	
			12 S	M20 x 1,5	24	2/4	
Seal with O-ring for 24° cone fitting according to DIN 2353 c/w swivel nut 45° elbow		R	6 S	M14 x 1,5	17	2 and 4	
Seal with O-ring for 24° cone fitting according to DIN 2353 c/w swivel nut 90° elbow		L	6 L	M12 x 1,5	14	2 and 4	
			8 L	M14 x 1,5	17		
			10 L	M16 x 1,5	19		
			6 S	M14 x 1,5	17		
			8 S	M16 x 1,5	19		
			10 S	M18 x 1,5	24		

Description	Hose end	Type	G	SW	DN	
Male thread according to DIN 3852		G	12	M12 x 1,5	17	2 and 4
			1/8	G 1/8	14	
			1/4	G 1/4	19	
			1/2	G 1/2	27	
Male thread NPT according to ANSI-Norm		F	1/8	1/8 NPT	13	
			1/4	1/4 NPT	17	
Male thread for 24° cone fitting according to DIN 3852		C	6 L	M12 x 1,5	14	
			8 L	M14 x 1,5	17	
			6 S	M14 x 1,5	17	
			8 S	M16 x 1,5	17	
Male thread according to SAE J 514		J	1/4	7/16 - UNF	14	
			5/16	1/2 - UNF	14	
			3/8	9/16 - UNF	17	
Universal sealing head with swivel nut for 24° cone fitting according to DIN 2353		D	6 L	M12 x 1,5	14	
			8 L	M14 x 1,5	17	
			10 L	M16 x 1,5	19	
			12 L	M18 x 1,5	22	
			6 S	M14 x 1,5	17	
			8 S	M16 x 1,5	19	
			10 S	M18 x 1,5	22	
			12 S	M20 x 1,5	24	
Universal sealing head with swivel nut for 24° cone fitting according to DIN 2353 90° elbow		Q	10 L	M16 x 1,5	19	
			10 S	M18 x 1,5	22	
Sealing head with swivel nut for cone fitting according to DIN 8542		B	1/4	G 1/4	17	
Sealing head with swivel nut according to SAE J 514 37° cone		U	1/4	7/16 - 20 UNF	14	
			5/16	1/2 - 20 UNF	17	
			3/8	9/16 - 18 UNF	19	
Sealing head with swivel nut according to SAE J 514 f 45° cone		UR	1/4	7/16 - 20 UNF	14	

Description	Hose end	Type		G	SW	DN						
Sealing head with swivel nut according to SAE J 514 37° cone 90° elbow		E	1/4	7/16 - 20 UNF	14							
Sealing head with swivel nut according to SAE J 514 f 45° cone 90° elbow			ER	1/4	7/16 - 20 UNF		14	2				
Test hose for air brake systems				P	2		M 16 x 1,5		19			
Sealing head with swivel nut 60° cone					H		1/4		G 1/4		17	4
Screw-type ORS according to SAE J 1453							T		1 1/16		1 1/16 - 16 UN	
Screw-type ORS according to SAE J 1453 90° elbow		V				1 1/16			1 1/16 - 16 UN		21	

Hand-held measuring unit ideal for maintenance, service and putting hydraulic fluid systems into operation

Today's hydraulic systems require a precise, quick and uncomplicated way of measuring important hydraulic parameters. For this purpose STAUFF offers the ideal solution: The PPC 04.

The mobile measuring device PPC 04 is controlled by its 8 buttons enabling the user of the device to access data on working pressure, peak pressure, differential pressure, temperature, flow and rotational speed very easily. This allows for a wide range of applications in the areas of:

- **Industrial hydraulics**
- **Mobile and Agricultural hydraulics**
- **Marine and Offshore hydraulics**
- **Chemical and Petrochemical industry**
- **Energy and Airconditioning industry**
- **Sanitary industry**

The PPC 04 provides two separate sensor inputs which automatically recognise the sensors connected to it and displays the unit and scale for the corresponding sensor. The unit and scale can be changed as the device is being put into operation.

For data output to a thermoprinter, or to a PC by an auxiliary adaptor, the PPC 04 - AP provides an optical data transmission to allow transfer of values measured.

The PPC 04 is unaffected by dirt and can be used under extreme conditions due to its heavy duty rubber cover to protect the device. The PPC is powered either by a 9 V block battery (**PPC 04 - B**) or an integrated rechargeable battery (**PPC 04 - AP**). Measuring for an extended period of time is possible by using an external power supply which also charges the rechargeable battery simultaneously.

PPC 04 - kits are supplied with a set of adaptors which allows the connection of the pressure transducers to STAUFF Test 20/15/12 and STAUFF Test 10 test points – even under pressure. Temperature- and flow sensors are supposed to be mounted in-line. Rotational speed measuring is accomplished without contact by a visual marking on rotating components.

In order to measure differential pressure two transducers of the same pressure range have to be used.

Hand-held unit PPC 04 - B and PPC 04 - AP

Measuring of:

- Pressure in bar and psi
- Temperature in °C and °F
- Flow in l/min and GPM (US)
- Rotational speed in U/min and RPM

PPC 04 - B hand-held unit with block-battery

PPC 04 - AP hand-held unit with rechargeable battery and data output

- 4-digit LCD-display, character height: 13 mm
- automatic recognition of sensors connected
- optical data transmission to transfer values measured to thermoprinter or PC (PPC 04 - AP only)
- Plastic housing made of ABS
- Protective rubber cover with integrated stand and carrying straps
- Auto power off after 15 minutes (except autoprint function)

Power supply:

9 V block battery IEC 6F 22 (PPC 04 - B)

Rechargeable battery - or by external power supply

Supply voltage 9 V (PPC 04 - AP)

12-bit-A/D-converter

Scanning rate ≤ 2 ms

Accuracy < 0,3 % ± 2 Digit

Two 4-pin round plug inputs 0,1...3,3 V, R_e = 470 kΩ

Temperature range 0...+50°C

Storage temperature -20...+60°C

Rel. Humidity < 85%

Dimensions l/w/h 145x70x40 mm

Weight approx. 340 g

Protection level DIN 40050/IP 54



EMC compatibility acc. to:

Interference emission DIN/EN 50081-1 (VDE 0839 part 81-1)

Resistance to jamming DIN/EN 50082-2 (VDE 0839 part 82-6)

Pressure Transducer PTD

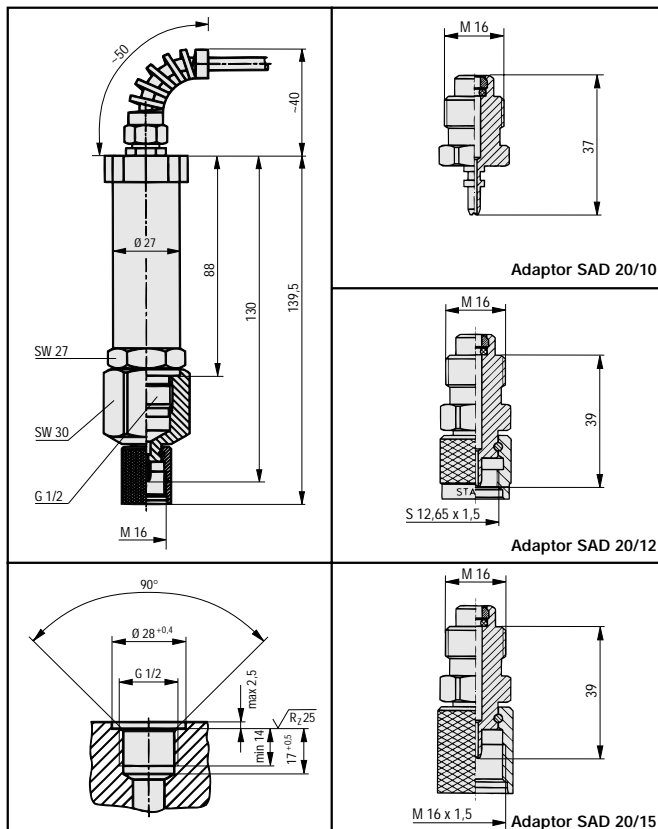
Type	PTD 015	PTD 063	PTD 630
Pressure range	-1...15 bar	0...63 bar	0...630 bar
Overload capacity	20 bar	150 bar	1000 bar
Burst pressure	45 bar	500 bar	1800 bar
Output signal	+0,1...+3,3 V	+0,3...+3,3 V	+0,3...+3,3 V
Reproducibility	<±0,15% FS*	<±0,18% FS*	<±0,15% FS*

Test system piezoresistive
 Temperature deviation <± 0,03 % FS*
 Characteristic curve deviation <± 0,5 % FS*
 Long-term stability < 0,5 % FS/year
 Response time < 1 ms
 Vibration resistance IEC 68-2-6 at 10...500 Hz
 Max. shock-load to IEC 68-2-29
 Peak pressure increase 15.000 bar/s
 Supply voltage +7V...+15V DC
 Current consumption ≤ 5 mA
 Media-temperature range -25...+105°C
 Ambient temperature range -20...+85°C
 Compensated temperature range 0...+85°C
 Storage temperature range -40...+125°C
 Endurance 10 million cycles
 Media application gas, fluids (for use with aggressive media please consult STAUFF)

Transducer connection with adaptor
 STAUFF Test 20 (M16 x 2)
 (without adaptor G 1/2 A)
 Material of housing stainless steel 1.4301
 Sealing material FPM
 Weight approx. 200 g
 Protection level DIN 40050 – IP 65

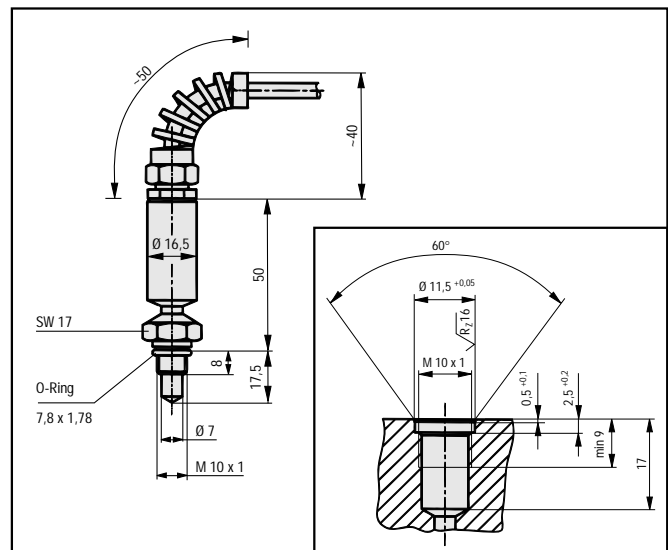
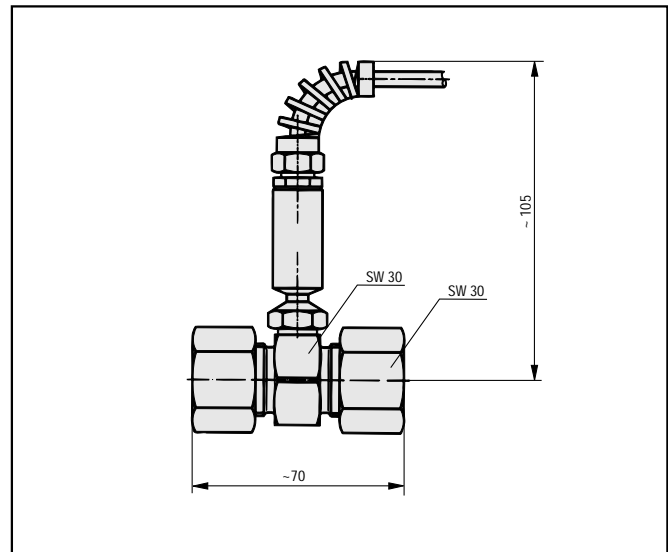
2 mtr.-cable connected with transducer; round plug series 712

*) FS = Full Scale



Temperature Sensor TS 04

Probe system Silicon chip
 Measuring range -25...+125°C
 Accuracy ± 1,5 % FS*
 Response time T_{0,9} approx. 7 s
 Supply voltage +7...+15 V DC
 Current consumption ≤ 3 mA
 Output voltage +0,25...+1,75 V
 Max. working pressure 630 bar
 Ambient temperature range 0...+70°C
 Media-temperature range -25...+125°C
 Storage temperature range -25...+80°C
 Cable length 2 m, round plug
 Sensor connection a) STAUFF-Test-straight fitting SGV-16-S-G for in-line installation
 b) Port connection M10 x 1
 Material Steel 9SMnPb28k
 Surface treatment zinc plated, yellow chromated
 Sealing FPM
 Protection level DIN 40050 – IP 65



Flow-Turbines SFM

Type	SFM-015	SFM-060	SFM-300	SFM-600
Measuring range (l/min)	1...15	7,5...60	15...300	25...600
Pressure range (bar)	400	400	400	350
Characteristic curve deviation ($\pm\%$ FS)	1	1	1	1
Pressure drop (bar)	0,14	0,28	2,0	1,7
Port connection (BSP)	G 1/4	G 3/4	G 1	G 1 1/4
Length tolerance (mm)	± 2	± 2	± 2	± 2
Weight (g) approx.	650	750	1200	1800

Media-temperature range	-20...+150°C
Response time	approx. 200 ms
Reproducibility	$\pm 0,2\%$ FS
Calibration viscosity	30 mm ² /s (= 30 cSt)
Material of housing	Aluminium
Surface treatment	black anodized
Test point	SMK 20 (M16 x 2)
Additional connection	M10x1 (standard: screw-plug)
Protective system	DIN 40050/IP40

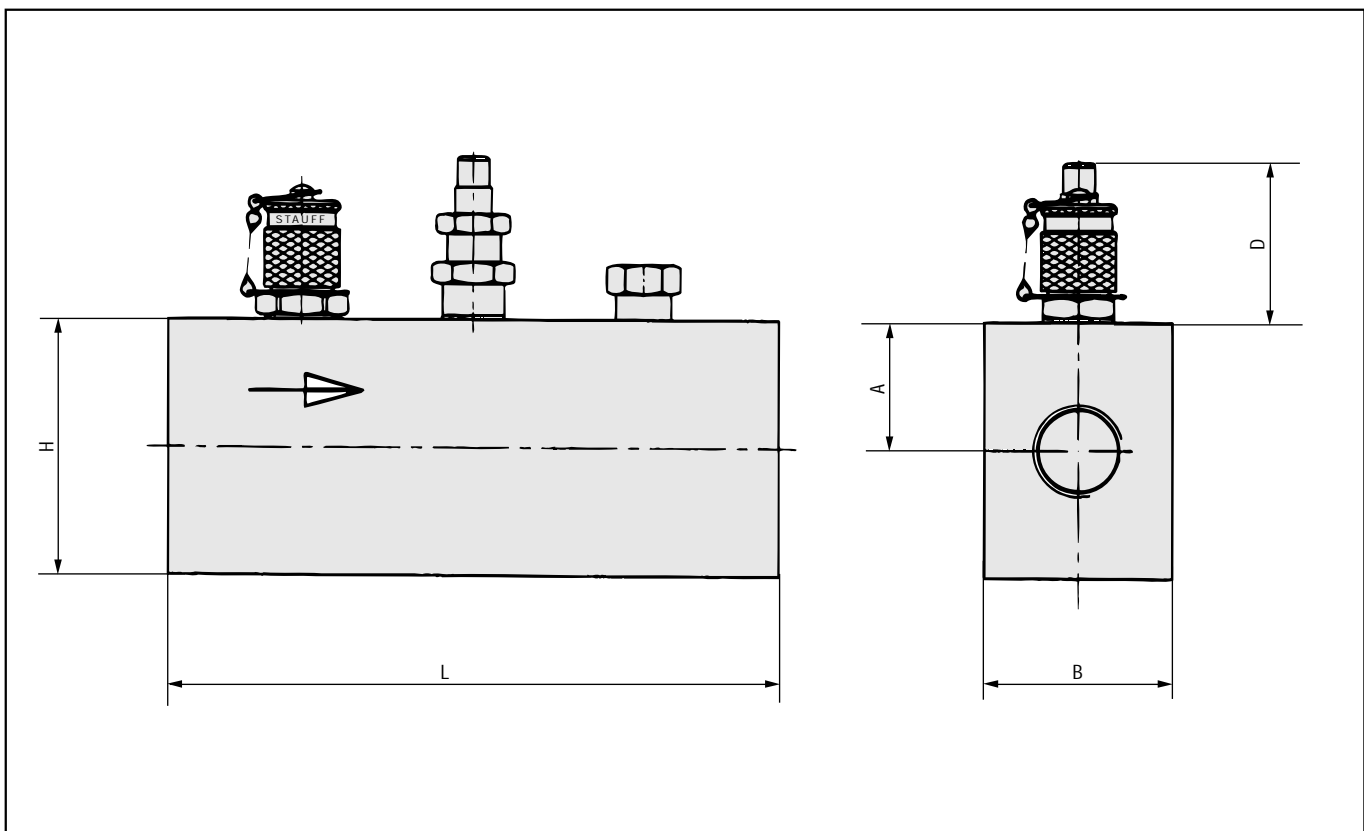
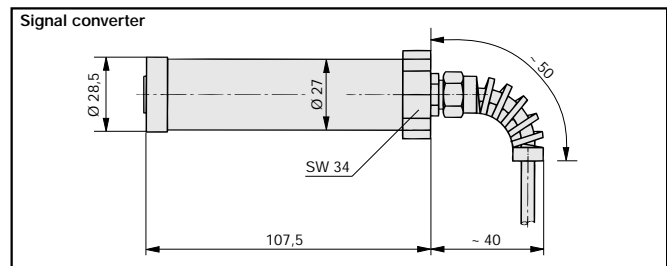
Type	SFM-015	SFM-060	SFM-300	SFM-600
A	22,5	26,5	30,5	33
B	31,5	38	50	62,5
D	58,5	57,5	57,5	57,5
L	120	129	149	173
H	37,5	46	56	63,5

Dimensions in mm

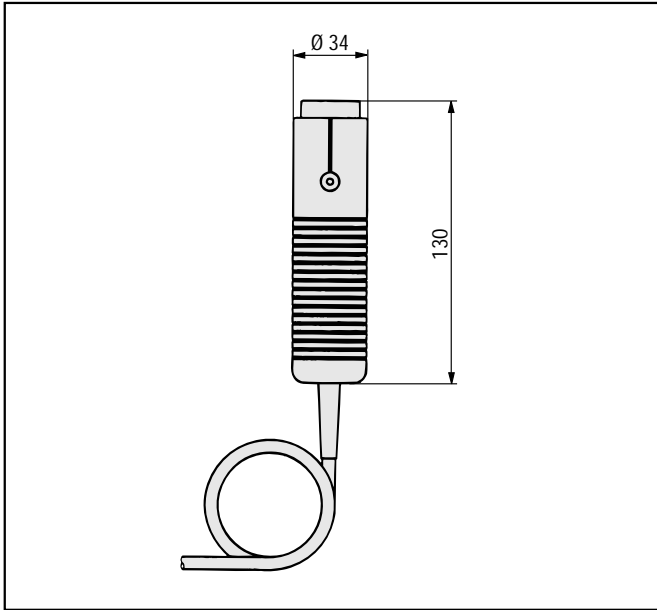
Signal Converter

The signal converter must be used for the connection of the flow turbine, and is supplied with each turbine. Flow turbine and signal converter are a coordinated unit. This unit must not be changed at all later on. In order to connect the signal converter with the PPC 04, the SFM-04 cable must be used. This cable does not belong to the supply schedule of the flow turbine.

Input	10...2000 Hz, 10...100 mVss
Output	0...3 V and sensor recognition
Accuracy	$\leq 0,3\%$ FS
Response time	approx. 200 ms
Working temperature	0...+60°C
Storage temperature	-20...+80°C
Supply voltage	+7...+15 V DC
Current consumption	approx. 8 mA
Electrical connection	Turbine end: cable (0,4 m) connected to signal converter with 5 pin plug connection to hand-held unit: cable SFM-04 (2 m)
Material of housing	stainless steel 1.4301
Weight	approx. 200 g



Rotational Speed Sensor SDS-04



Rotational speed measurement (RPM) is made possible with the use of the SDS 04 non-contact sensor. Speed measurement is achieved by using a photoelectric cell, which counts revolutions using a reflecting strip or marking on the rotating surface, thus resulting in a high level of accuracy.

Additionally a contact sensor is available. A mechanical contact adaptor is connected to the speed sensor, which is then held onto the rotating surface during measurement, also resulting in a high level of accuracy.

When used with particularly small surfaces, accurate speed measurements may be more readily obtained by using a special focussing adaptor.

Lengthening of the SVK 04 cable could result in inaccurate speed measurement and should be avoided. The standard cable length of 3 m, fixed to the sensor should not be altered for best results.

Technical Data

Input

Measuring range 20...10.000 RPM
 Measuring distance 25...600 mm
 Measuring angle $\pm 45^\circ$
 Measurement optical, red LED

Output

Output signal 0...3 V DC \triangleq 0...10.000 RPM
 Accuracy <0.5 %
 Resulotion ± 5 RPM
 Supply voltage 7...9 V DC (of the PPC 04)

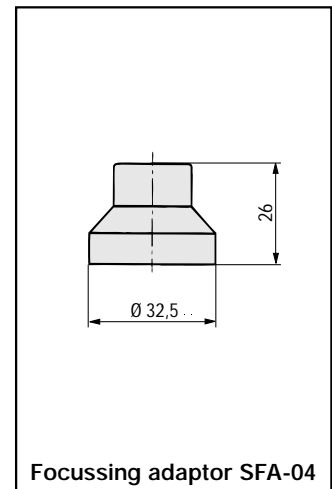
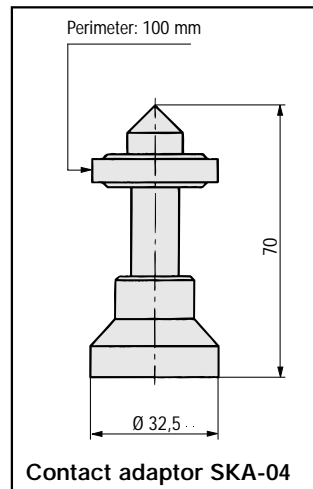
Electrical connection

Cable connected to the sensor lenght 3 m, round plug (extension cable not recommended)

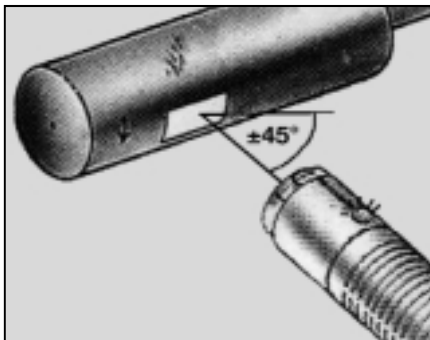
General

Material ABS
 Dimensions D= \varnothing 34, L=130 mm (without adaptor)
 Weight approx. 230 g

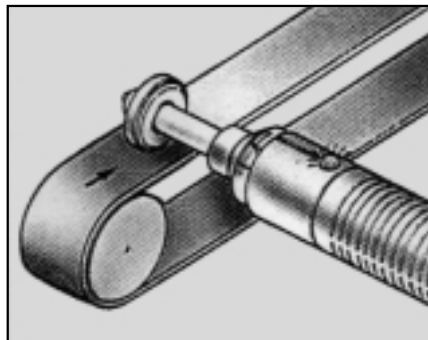
Accessories



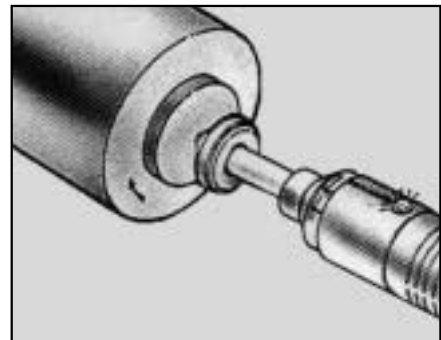
Applications



App. 1 – rotating shaft non-contact RPM



App. 2 – tangent RPM with contact adaptor



App. 3 – front-side RPM with contact adaptor

Thermoprinter PR PPC (for PPC 04 - AP only)

The thermoprinter PR PPC allows the recording of important hydraulic parameters such as maximum, minimum and current values, following a pre-set transmission interval from 1 to 100 s.

The power-off mode of the PPC 04 is switched off during long-period measuring. The thermoprinter PR PPC is powered by an external power supply KNG PR PPC to which the PPC 04 - AP can be connected as well.

All data measured by the PPC 04 - AP is transferred by a dirt-insensitive optical data transmission in conjunction with the glass fibre cable SDK-04.

PC-connection (PPC 04 - AP)

The PPC 04 - AP can also be connected to any PC by using the glass fibre cable (SDK - 04) and an auxiliary adaptor (SPA - 04). Together with the PC-adaptor, we supply a data record program for the measuring values, which is compatible to Microsoft Windows 3.1X, Windows 95 and Windows NT. All data can be displayed on a PC-screen, and it can be stored in Microsoft Excel.

Extension cable SVK-04

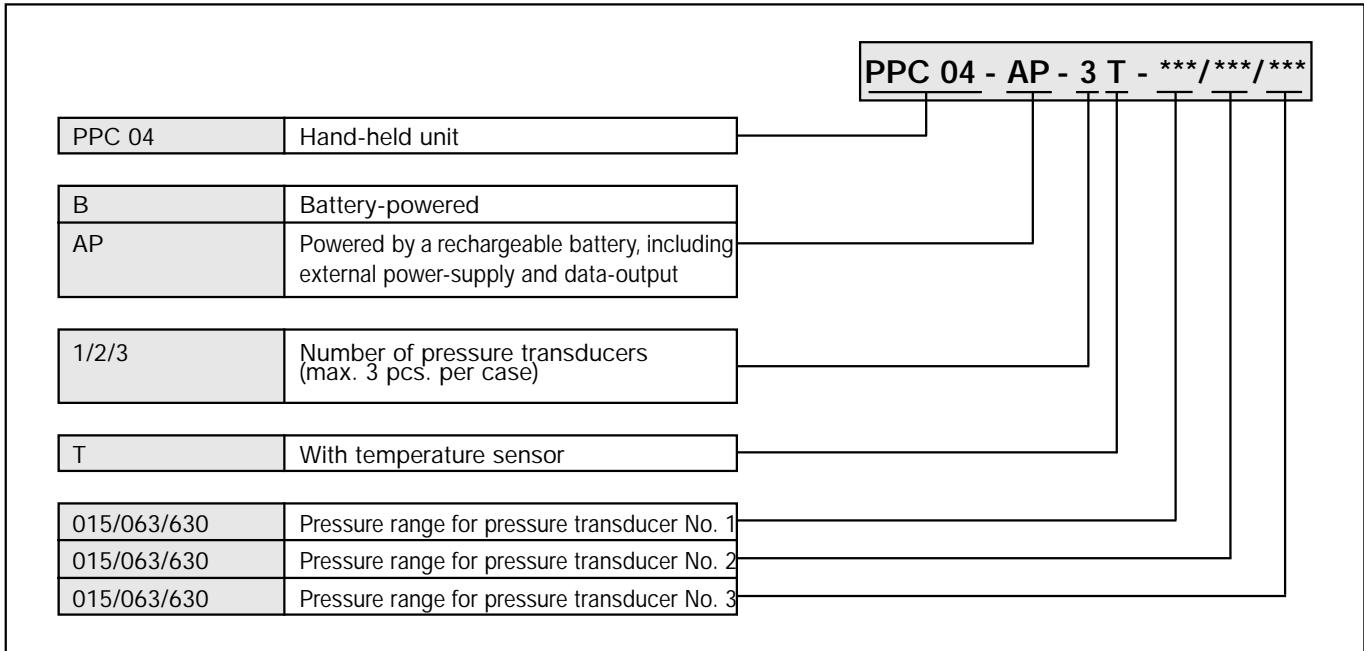
An extension cable can be supplied for all sensors, except the rotational speed sensor. Its length is 3 m. Accordingly, there is a maximum overall cable length of 5 m.



PPC 04 kits are supplied with a plastic case including foam inserts which provides room for the following components:

- 1 hand-held unit
- 1 external power supply
- 3 pressure transducers c/w STAUFF Test 20 adaptors
- 1 temperature sensor with straight fitting SGV-16 S-G
- 3 adaptors for STAUFF Test 15 / 12 / 10 (supplied with each PPC 04 kit)
- 1 operating instruction

Order Code for PPC 04 kits



In order to measure differential pressure two (2) transducers of the same pressure range have to be used.

Components

Description	Order Code
Hand-held unit with block battery Hand-held unit with rechargeable battery and data output External power supply ... input voltage 220 V or 110 V Rechargeable battery for PPC 04 - AP	HAG PPC 04 - B HAG PPC 04 - AP KNG-04 - *** V Akku - 9V
Pressure transducer; connection G ^{1/2} A *** = pressure range 015, 063 or 630 (bar) Pressure transducer c/w STAUFF Test 20 adaptor *** = pressure range 015, 063 or 630 (bar) STAUFF Test 20 adaptor for pressure transducer STAUFF Test 20 / STAUFF Test 15 adaptor STAUFF Test 20 / STAUFF Test 12 adaptor STAUFF Test 20 / STAUFF Test 10 adaptor	PTD *** PTD *** / SDA SDA 20 - G ^{1/2} SAD 20/15 - P SAD 20/12 - P SAD 20/10 - P
Temperature sensor (w/o straight fitting) Straight fitting 16 S with M 10 x 1 port connection for temp. sensor (Other dimensions on request)	TS-04 SGV - 16S - G
Plastic case c/w foam inserts	case PPC 04
Flow-turbine c/w signal converter *** = flow rate 015, 060, 300 or 600 (l/min) Connecting cable PPC 04 - signal converter	SFM - *** cable SFM - 04
Rotational speed sensor Contact adaptor Focussing adaptor	SDS - 04 SKA - 04 SFA - 04
Thermoprinter External power supply for thermoprinter PR PPC (110 V / 220 V change-over switch) Glass fibre cable PPC 04 - thermoprinter / PC-adaptor PC-adaptor to connect glass fibre cable to PC Paper for thermoprinter PR PPC	PR PPC KNG PR PPC SDK - 04 SPA - 04 SPR PR PPC
Plastic case with foam inserts (without printer) Plastic case with foam inserts (with printer)	case PPC-04 case PPC PR
Extension cable for sensors, lenght = 3 m	SVK-04