

# stainless steel M16x2 - piston

## 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 (-20 °C bis +100 °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.



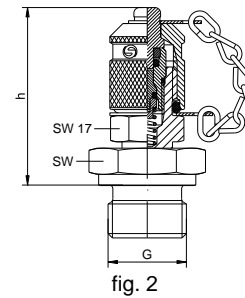
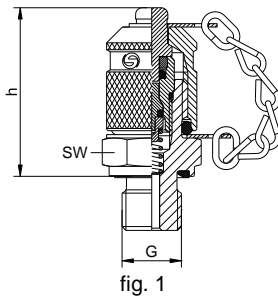
## design types of caps

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 – valve function by piston seals made of 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 <sup>1)</sup>
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 yellow plastic cap type A (universal) **without vibration security** replace 660 by 100  
<sup>1)</sup> For body made from stainless steel 1.4305 add -05 at the end

\*acc. DIN 3858

**fitting with test coupling – stainless steel  
series M16x2 – valve function by piston  
seals made from FKM**

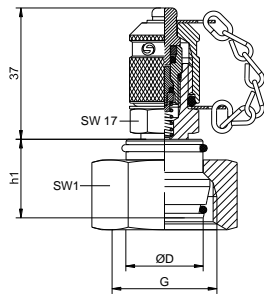


fig. 1

**type DKO**

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

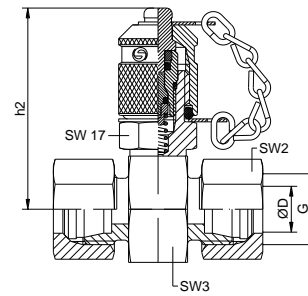


fig. 2

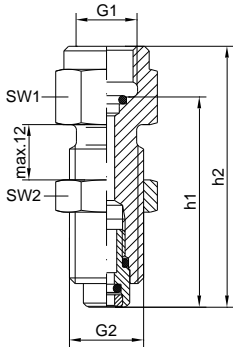
**type GE**

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
	160	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
		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
		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
	400	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
		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
315	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	

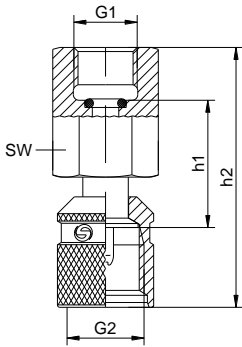
For metal cap type A (universal) with vibration security replace 660 by	650	650
For metal cap type B (round) <b>without vibration security</b> replace 660 by	080	080
For metal cap type A (universal) <b>without vibration security</b> replace 660 by	070	070
For yellow plastic cap type A (universal) <b>without vibration security</b> 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

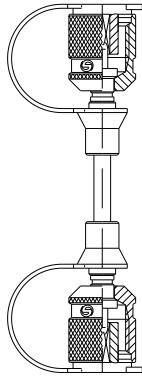
070

## 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 <sup>1)</sup> 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

<sup>1)</sup> 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) inclusive ferrule*
	87	M16x2	19	2	2-970-87-02-001	1.4571	
	07	M16x2	-	2	2-970-07-02-001	1.4305	connector for test coupling metal cap type B (round) inclusive ferrule*
	0H	M16x2	-	2	2-970-0H-02-001	1.4571	
	52	G 1/4	17	2	2-970-52-02-004	1.4305	pressure gauge connector with Whitworth - thread sealing to pressure gauge by o-ring inclusive ferrule
	88	G 1/4	17	2	2-970-88-02-001	1.4571	

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.