

## Pressure Gauges (analogue/digital) and Accessories

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Measuring pressure on equipment is indispensable for monitoring and ensuring the smooth functioning and operating safety of these systems.

STAUFF offers a variety of simple pressure measuring devices for liquid and gaseous media. These pressure gauges can be used as both stationary or portable devices. STAUFF addresses the very extensive width of possible system pressures and the strict requirements for precision with a variety of pressure gauge types with different measuring ranges.

The glycerine filled gauge range is available with various connection ports to fit many different installation needs. The pressure gauges can be purchased alone or in a test kit. The kits can be supplied with gauges with different pressure ranges and adaptors to satisfy any requirement.

The analog pressure gauges are primarily designed for permanent installations. STAUFF also offers a digital line for analytical troubleshooting.

These digital pressure gauges are also available as a pressure test kit and also make it possible to perform the many different measurement tasks with the help of adaptors and the measuring hose. An important advantage is the possibility to measure pressure peaks with the device, to save them short term and to display them in the display as MIN and MAX values.

In addition to the individual products, the STAUFF measuring devices are also available as kit.



## Information on the Pressure Equipment Directive (PED) 97/23/EC Pressure Equipment Directive (PED)

Our pressure gauges (SPG) conform to the European Standard EN 837-1 and are manufactured and tested according to appropriate requirements. Pressure gauges with a full scale value between 0,5 bar / 7.25 PSI and 2900 PSI come under „Good Engineering Practice“ and must not carry a CE mark (section 3, paragraph 3).

Pressure gauges (SPG) with a full scale value of less than 0,5 bar / 7.25 PSI and loose diaphragm sealings do not come under the PED and must not carry a CE mark. Our pressure gauges (SPG) with a full scale value of > 200 bar / 2900 PSI receive a CE mark according to the conformity procedure.

The CE mark is attached to the outside of the housing (type designation plate).

We are not authorised to CE mark pressure gauges without a company name or a company logo.



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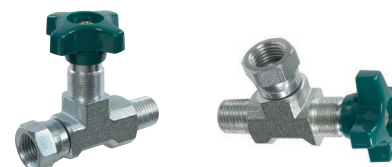
## Pressure Gauges ▪ Accessories



**Single Station Gauge Isolator Valve**  
(see Catalogue 6 - STAUFF Valves)



**Multi Station Gauge Isolator Valve**  
(see Catalogue 6 - STAUFF Valves)



**Gauge Isolator Needle Valves**  
(see Catalogue 6 - STAUFF Valves)



**Test Hoses - Gauge Adaptor**  
(see Catalogue 7 - STAUFF Test)



**Gauge Adaptor**  
(see Catalogue 7 - STAUFF Test)



**Direct Gauge Adaptor**  
(see Catalogue 7 - STAUFF Test)



**Adjustable Gauge Fitting**  
(see Catalogue 7 - STAUFF Test)



## Pressure Gauge (analogue) ▪ Type SPG



Pressure Gauge (Analogue) Type SPG (Stem Mounting)



Pressure Gauge (Analogue) Type SPG (Panel Mounting)

### Product Description

#### Area of Application

- Mechanical pressure measurement

#### Features

- Suitable for hydraulic oil and gaseous media compatible with copper based alloys
- Available in nominal sizes 63 and 100 mm / 2.5 and 4 in
- Thread form: for BSP (G1/4 and G1/2), NPT (1/4 NPT and 1/2 NPT), SAE (7/16–20 UNF)
- Stainless Steel (1.4301) housing
- Acrylic sight glass
- Glycerine filled
- Standard dual scales with pressure indication in bar and PSI
- U-bolt or flange mounting kit on request

Note: Please contact STAUFF before you use SPG with other media.

#### Options

- Protective rubber cap
- Additional scale readings including personalisation
- U-bolt and flange mounting kits are available separately as spare parts

#### Technical Data

- Pressure gauge according to EN 837-1
- Subject to technical modifications

#### Accuracies

SPG-063:	1.6 (± 1.6 % FS* as per EN 837-1)
SPG-100:	1.0 (± 1.0 % FS* as per EN 837-1)

#### Permissible Temperatures

Ambient:	-20 °C ... +60 °C / -4 °F ... +140 °F
Media:	max. +60 °C / max. +140 °F

#### Protection Ratings

- IP 65: for all manometer SPG-100 and SPG-063 > 16 bar / 232 PSI  
IP 65 protection rating: Dust tight and protected against water jets for all manometer SPG-063 ≤ 16 bar / 232 PSI due to pressure compensation opening
- IP 54: IP 54 protection rating: Dust protected and protected against splashing water

### Order Codes

<b>SPG</b>	-	<b>063</b>	-	<b>00160</b>	-	<b>01</b>	-	<b>P</b>	-	<b>B04</b>	-	<b>U</b>
①		②		③		④		⑤		⑥		⑦

#### ① Series and Type

Stainless Steel Pressure Gauge	<b>SPG</b>
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#### ② Size

Ø 63 mm, with G1/4 or 1/4 NPT connection	<b>063</b>
Ø 100 mm, with G1/2 or 1/2 NPT connection	<b>100</b>

#### ③ Pressure Ranges (only for type 01 - bar/PSI)

-1 ... 1,5 bar / -14.5 ... 21 PSI	<b>(-00001)-(00001.5)</b>
-1 ... 3 bar / -14.5 ... 43 PSI	<b>(-00001)-00003</b>
0 ... 10 bar / 0 ... 145 PSI	<b>00010</b>
0 ... 16 bar / 0 ... 232 PSI	<b>00016</b>
0 ... 25 bar / 0 ... 362 PSI	<b>00025</b>
0 ... 40 bar / 0 ... 580 PSI	<b>00040</b>
0 ... 60 bar / 0 ... 870 PSI	<b>00060</b>
0 ... 100 bar / 0 ... 1450 PSI	<b>00100</b>
0 ... 160 bar / 0 ... 2320 PSI	<b>00160</b>
0 ... 250 bar / 0 ... 3625 PSI	<b>00250</b>
0 ... 400 bar / 0 ... 5801 PSI	<b>00400</b>
0 ... 600 bar / 0 ... 8702 PSI	<b>00600</b>
0 ... 680 bar / 0 ... 9862 PSI	<b>00680</b>
0 ... 700 bar / 0 ... 10152 PSI	<b>00700</b>
0 ... 1000 bar / 0 ... 14503 PSI	<b>01000</b>

Note: Others on request. Information always refer to the pressure setting of the outside scale.

#### ④ Styles of Scales

bar / PSI (bar outside/PSI inside - standard option)	<b>01</b>
bar	<b>02</b>
PSI	<b>03</b>
PSI / bar (PSI outside/ bar inside)	<b>05</b>
kPa / PSI (kPa outside/ PSI inside)	<b>10</b>

Note: Others on request.

#### ⑤ Adaption

Stem mounting	<b>S</b>
Panel mounting	<b>P</b>

#### ⑥ Process Connection

G1/4 (only SPG-063)	<b>B04</b>
G1/2 (only SPG-100)	<b>B08</b>
1/4 NPT (only SPG-063)	<b>N04</b>
1/2 NPT (only SPG-100)	<b>N08</b>
7/16–20 UNF (only SPG-063)	<b>U04</b>

Note: Others on request.

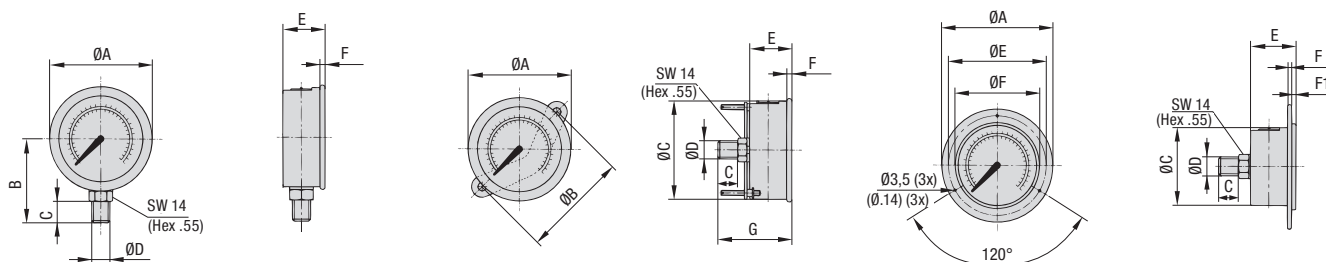
#### ⑦ Accessories

No accessory	<b>(none)</b>
U-bolt assembly	<b>U</b>
Front flange assembly (for panel mount only)	<b>F</b>
Rear flange assembly	<b>R</b>
U-bolt and front flange assembly (for panel mount only)	<b>UF</b>
Protective rubber cap (for stem mount only)	<b>G</b>



## Pressure Gauge (analogue) ▪ Type SPG

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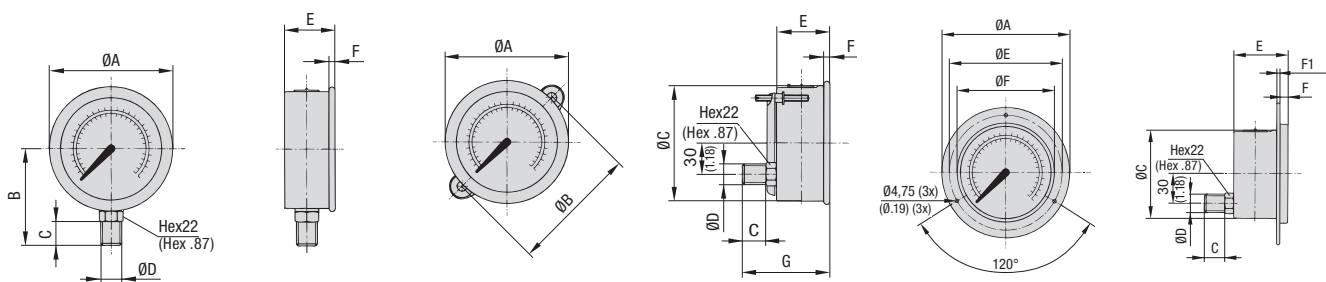
SPG-063 ... S ...

SPG-063 ... P ... U

SPG-063 ... P ... F

## Dimensions SPG-063

Version Pressure Gauge	Dimension (mm/in)											
	ØA	ØB	ØC	ØD	ØE	ØF	B	C	E	F	F1	G
SPG-063	69	-	-	G1/4	-	-	54	15	32	6,5	-	-
	2.72	-	-	1/4 NPT	-	-	2.13	.59	1.26	.26	-	-
				7/16-20 UNF								
SPG-063 ... U	69	72	62	G1/4	-	-	-	15	32	6,5	-	56
	2.72	2.83	2.44	1/4 NPT	-	-	-	.59	1.26	.26	-	2.20
				7/16-20 UNF								
SPG-063 ... F	85	-	62	G1/4	75	68	-	15	32	1	6,5	-
	3.35	-	2.44	1/4 NPT	2.95	2.68	-	.59	1.26	.04	.26	-
				7/16-20 UNF								



SPG-100 ... S ...

SPG-100 ... P ... U

SPG-100 ... P ... F

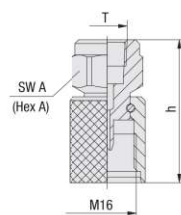
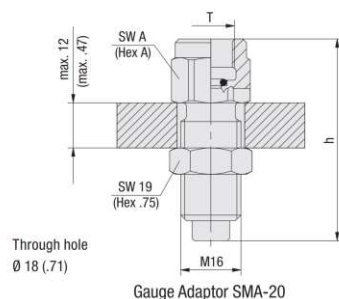
## Dimensions SPG-100

Version Pressure Gauge	Dimension (mm/in)											
	ØA	ØB	ØC	ØD	ØE	ØF	B	C	E	F	F1	G
SPG-100	107	-	-	G1/2	-	-	87	23	48	8	-	-
	4.21	-	-	1/2 NPT	-	-	3.43	.91	1.89	.31	-	-
SPG-100 ... U	107	107	100	G1/2	-	-	-	23	48	8	-	81,5
	4.21	4.21	3.94	1/2 NPT	-	-	-	.91	1.89	.31	-	3.21
SPG-100 ... F	132	-	100	G1/2	116	107	-	23	48	8	1,25	-
	5.20	-	3.94	1/2 NPT	4.57	4.21	-	.91	1.89	.31	.05	-

\* FS = Full Scale

Dimensional drawings: All dimensions in mm (in).





## Gauge Adaptor SMA-20

## Direct Gauge Adaptor SMD-20



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Thread	Dimensions (mm/in)		Weight (kg/lbs) ca. per 100	Ordering Codes (Standard Option)
T	h	Hex A		
G1/4	54	19	7,20	SMA-20-G1/4-B-OR-W3
	2.13	.75	15.84	
G1/2	64	27	12,40	SMA-20-G1/2-B-OR-W3
	2.52	1.06	27.28	
1/4 NPT	54	19	7,20	SMA-20-1/4NPT-B-W3
	2.13	.75	15.84	
1/2 NPT	64	27	13,50	SMA-20-1/2NPT-B-W3
	2.52	1.06	29.70	
7/16-20 UNF	54	19	7,60	SMA-20-7/16UNF-B-W3
	2.16	.75	16.76	
9/16-18 UNF	57	19	7,50	SMA-20-9/16UNF-B-W3
	2.24	.75	16.53	
G1/4	41	19	5,70	SMD-20-G1/4-B-OR-W3
	1.61	.75	12.54	
G1/2	51	27	10,10	SMD-20-G1/2-B-OR-W3
	2.01	1.06	22.22	
1/4 NPT	41	19	5,80	SMD-20-1/4NPT-W3
	1.61	.75	12.76	
1/2 NPT	51	27	10,80	SMD-20-1/2NPT-W3
	2.01	1.06	23.76	
7/16-20 UNF	41	19	6,00	SMD-20-7/16UNF-W3
	1.61	.75	13.20	
9/16-18 UNF	43	19	5,25	SMD-20-9/16UNF-W3
	1.69	.75	11.55	

Standard option - SMA-20: With Hexagon Lock Nut.

Alternative materials and surface finishings are available upon request. Contact STAUFF for further information.  
Snubber on request.

## Ordering Codes

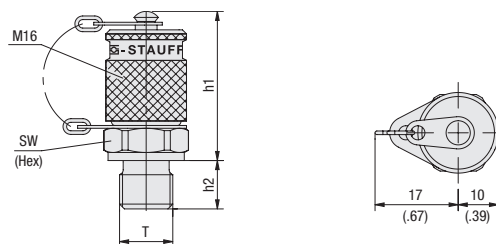
### \*SMA\*-20\*-G1/4\*-B\*-OR\*-W3

* Type	Gauge Adaptor	SMA
* Series	STAUFF Test 20 (Connection Thread M16x2)	-20
* Thread	acc. to dimension table	-G1/4
* Seal Material	NBR (Buna-N®)	-B
	FKM/FPM (Viton®)	-V
	EPDM	-E
* Seal Type	with O-ring	-OR
* Material Code	Steel, zinc/nickel-plated	-W3
	Stainless Steel V2A - 1.4305 (AISI 303)	-W4
	Stainless Steel V4A - 1.4571 (AISI 316 Ti)	-W5



## Test Coupling with Male Threaded Stud

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## Ordering Codes

**\*SMK\*-20\*-G1/4\*-B\*-C\*-SK\*-W3**

* Type	Test Coupling with Ball Check	<b>SMK</b>
* Series	STAUFF Test 20 (Connection Thread M16x2)	<b>-20</b>
* Port Connection	acc. to dimension table	<b>-G1/4</b>
* Seal Material	NBR (Buna-N®)	<b>-B</b>
	FKM/FPM (Viton®)	<b>-V</b>
	EPDM	<b>-E</b>
* Seal Type	O-ring Type A	<b>-A</b>
	Metal Joint Type B	<b>-B</b>
	Elastomeric Sealing Type C	<b>-C</b>
	Taper Type D	<b>-D</b>
	O-ring Type E	<b>-E</b>
* Protection Cap	Knurled protection cap	<b>-</b>
	Hexagonal protection cap	<b>-SK</b>
	Plastic protection cap	<b>-KK</b>
* Material Code	Steel, zinc/nickel-plated	<b>-W3</b>
	Stainless Steel V2A - 1.4305 (AISI 303)	<b>-W4</b>
	Stainless Steel V4A - 1.4571 (AISI 316 Ti)	<b>-W5</b>

## Seal Type



O-ring Type A



Metal Joint Type B



Elastomeric Sealing Type C

Taper Type D<sup>1</sup>

O-ring Type E

For further information on Seal Types,  
please see page 74-77.

Thread	Seal Type	Working Pressure ( <sup>bar</sup> /PSI)	Dimensions ( <sup>mm</sup> /in)			Torque ( <sup>Nm</sup> /ft-lb) ca.	Weight ( <sup>kg</sup> /lbs) ca.	Ordering Codes (Standard Option)
T			h1	h2	Hex	Thread T	per 100	
M8 x 1	Type A	250	38	8,5	17	6	6,10	SMK-20-M8x1-B-A-W3
		3625	1.50	.33	.67	4.4	13.42	
M10 x 1		630	38	9,8	17	12	6,70	SMK-20-M10x1-B-A-W3
	Type B	9137	1.50	.39	.67	8.8	14.74	
M10 x 1		400	37	8	17	18	6,60	SMK-20-M10x1-B-B-W3
		5801	1.46	.31	.67	13.3	14.52	
M12 x 1,5	Type B	630	37	12	17	35	7,00	SMK-20-M12x1.5-B-B-W3
		9137	1.46	.47	.67	25.8	15.40	
M14 x 1,5		630	37	12	19	55	7,50	SMK-20-M14x1.5-B-B-W3
	Type B	9137	1.46	.47	.75	40.6	16.50	
M16 x 1,5		630	37	12	22	70	8,40	SMK-20-M16x1.5-B-B-W3
		9137	1.46	.47	.87	51.6	18.48	
G1/8	Type B	400	39	8	17	18	6,90	SMK-20-G1/8-B-B-W3
		5801	1.54	.31	.67	13.3	15.18	
G1/4		630	37	12	19	55	7,30	SMK-20-G1/4-B-B-W3
	Type B	9137	1.46	.47	.75	40.6	16.06	
G3/8		630	37	12	22	90	8,90	SMK-20-G3/8-B-B-W3
		9137	1.46	.47	.87	66.4	19.58	
M10 x 1	Type C	400	39	8	17	18	6,80	SMK-20-M10x1-B-C-W3
		5801	1.54	.31	.67	13.3	14.96	
M12 x 1,5		630	37	12	17	35	6,90	SMK-20-M12x1.5-B-C-W3
	Type C	9137	1.46	.47	.67	25.8	15.18	
M14 x 1,5		630	37	12	19	50	7,70	SMK-20-M14x1.5-B-C-W3
		9137	1.46	.47	.75	36.9	16.94	
M16 x 1,5	Type C	630	37	12	22	60	8,70	SMK-20-M16x1.5-B-C-W3
		9137	1.46	.47	.87	44.2	19.14	
G1/8		400	39	8	17	18	6,80	SMK-20-G1/8-B-C-W3
	Type C	5801	1.54	.31	.67	13.3	14.96	
G1/4		630	37	12	19	45	8,10	SMK-20-G1/4-B-C-W3
		9137	1.46	.47	.75	33.2	17.82	
G3/8	Type C	630	37	12	22	80	8,90	SMK-20-G3/8-B-C-W3
		9137	1.46	.47	.87	59	19.58	
G1/2		630	39	14	27	110	12,80	SMK-20-G1/2-B-C-W3
	Type D <sup>1</sup>	9137	1.54	.55	1.06	81.1	28.16	
R1/8 K		400	37	8	17		6,70	SMK-20-R1/8K-B-D-W3
		5801	1.46	.31	.67		14.74	
R1/4 K	Type D <sup>1</sup>	630	35	12	17		7,10	SMK-20-R1/4K-B-D-W3
		9137	1.38	.47	.67		15.62	
1/8 NPT		400	36	10	17		6,40	SMK-20-1/8NPT-B-D-W3
	Type D <sup>1</sup>	5801	1.42	.39	.67		14.08	
1/4 NPT		630	35	15	17		7,30	SMK-20-1/4NPT-B-D-W3
		9137	1.38	.59	.67		16.06	
5/16-24 UNF	Type E	400	38	7,5	17	8	6,70	SMK-20-5/16UNF-B-E-W3
		5.801	1.50	.30	.67	5.9	14.74	
7/16-20 UNF		630	38	9,1	17	20	7,00	SMK-20-7/16UNF-B-E-W3
	Type E	9137	1.50	.36	.67	14.7	15.40	
1/2-20 UNF		630	38	9,2	17	25	7,20	SMK-20-1/2UNF-B-E-W3
		9137	1.50	.36	.67	18.4	15.84	
9/16-18 UNF	Type E	630	37	10	19	35	7,60	SMK-20-9/16UNF-B-E-W3
		9137	1.46	.39	.75	25.8	16.72	
3/4-16 UNF		630	37	11.1	19	70	9,58	SMK-20-3/4UNF-B-E-W3
	Type E	9137	1.46	.44	.75	51.6	21.08	
M10 x 1		630	38	9,5	17	18	6,60	SMK-20-M10x1-B-E-W3
		9137	1.50	.37	.67	13.3	14.52	
M12 x 1,5	Type E	630	37	11	17	35	6,90	SMK-20-M12x1.5-B-E-W3
		9137	1.46	.43	.67	25.8	15.18	
M14 x 1,5		630	38	11	19	45	7,80	SMK-20-M14x1.5-B-E-W3
	Type E	9137	1.50	.43	.75	33.2	17.16	

<sup>1</sup> Suitable liquid / plastic sealant required.

Alternative materials and surface finishings are available upon request. Contact STAUFF for further information.  
Torque recommendations for Steel mating material.

Dimensional drawings: All dimensions in mm (in).

