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## Pressure Gauges (analogue/digital) and Accessories



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  $\ensuremath{\mathsf{MAX}}$ 

In addtion 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 and 200 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.

## **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)

# **E**STAUFF ®

## 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 personilisation
- 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 ( $\pm$  1.6 % FS\* as per EN 837-1) SPG-100: 1.0 ( $\pm$  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 54

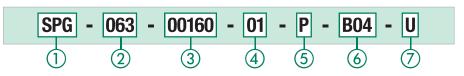
■ IP 65: for all manometer SPG-100 and

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 protection rating: Dust protected and protected against

splashing water

## **Order Codes**



# ① Series and Type Stainless Steel Pressure Gauge SPG ② Size Ø 63 mm, with G1/4 or 1/4 NPT connection 063 Ø 100 mm, with G1/2 or 1/2 NPT connection 100

# 3 Pressure Ranges (only for type 01 - bar/PSI) -1 ... 1,5 bar / -14.5 ... 21 PSI (-00001)-(00001.5)

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

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)	01
bar	02
PSI	03
PSI / bar (PSI outside/ bar inside)	05
kPa / PSI (kPa outside/ PSI inside)	10

Note: Others on request.

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(5)	Δn	lan	tin	n
9	,,,	up	uo	•••

$\sim$		
	Stem mounting	S
	Panel mounting	P

## **6** Process Connection

G1/4 (only	SPG-063)	B04
G1/2 (only	SPG-100)	B08
1/4 NPT (d	only SPG-063)	N04
1/2 NPT (d	only SPG-100)	N08
7/16-20 L	JNF (only SPG-063)	U04

Note: Others on request.

## 7 Accessories

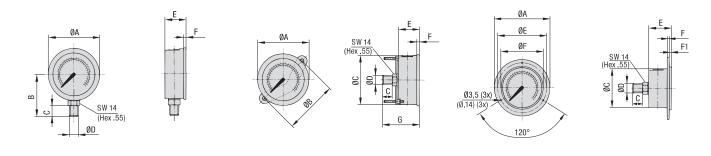
No accessory	(none)
U-bolt assembly	U
Front flange assembly (for panel mount only)	F
Rear flange assembly	R
U-bolt and front flange assembly (for panel mount only)	UF
Protective rubber cap (for stem mount only)	G

For further information see Catalogue 7 - STAUFF Test.





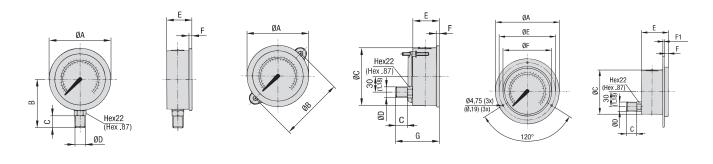
# Pressure Gauge (analogue) - Type SPG



 $\mathsf{SPG\text{-}063} \dots \mathsf{S} \dots \qquad \qquad \mathsf{SPG\text{-}063} \dots \mathsf{P} \dots \mathsf{V} \qquad \qquad \mathsf{SPG\text{-}063} \dots \mathsf{P} \dots \mathsf{F}$ 

## **Dimensions SPG-063**

Version	Dimension (mm/ <sub>in</sub> )												
Pressure Gauge	ØA	ØB	ØC	ØD	ØE	ØF	В	С	Е	F	F1	G	
000 000	69			G1/4				54	15	32	6,5		
SPG-063	2.72	-	-	1/4 NPT 7/16–20 UNF		-	2,13	.59	1,26	.26	-	-	
000 000 11	69	72	62					15	32	6,5		56	
SPG-063 U	2.72	2.83	2.44	1/4 NPT 7/16–20 UNF	-	-  -	-	.59	1.26	.26	-	2.20	
CDC 0C0 F	85		62	G1/4	75	68		15	32	1	6,5		
SPG-063 F	3.35	-	2.44	1/4 NPT 7/16–20 UNF	2.95	2.68	_	.59	1.26	.04	.26	-	



SPG-100 ... S ... SPG-100 ... P ... U SPG-100 ... P ... U

## **Dimensions SPG-100**

Version	Dimension (mm/f <sub>in</sub> )											
Pressure Gauge	ØA	ØB	ØC	ØD	ØE	ØF	В	С	E	F	F1	G
CDC 400	107 G1/2			87	23	48	8					
SPG-100	4.21	-	-	1/2 NPT	Ī-	-	3.43	.91	1.89	.31	-	-
CDC 400 II	107 107 1	100	G1/2				23	48	8		81,5	
SPG-100 U	4.21	4.21	3.94	1/2 NPT	T -	-	.  -	.91	1.89	.31		3.21
CDC 400 F	132		100	G1/2	116	107		23	48	8	1,25	
SPG-100 F	5.20	-	3.94	1/2 NPT	4.57	4.21		.91	1.89	.31	.05	

Dimensional drawings: All dimensions in mm (in).

<sup>\*</sup> FS = Full Scale

## Pressure Test Kit (analogue) - Type SMB-20 / SMB-15



Pressure test kit (analogue) with SPG-063 (3x) Pressure test kit (analogue) with SPG-100 (1x)

## **Product Description**

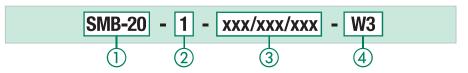
In addition to the individual SPG gauges, the STAUFF Pressure Gauges are also available as part of a pressure test kit.

The SMB Pressure Test Kits are assembled in various versions, in accordance with customer wishes. All pressure test kits are supplied in a handy case with custom-designed foam inserts.

Custom kits available upon request, Please contact STAUFF,

Please see on page 19 for standard options.

## **Order Codes**



## ① Series and Type

Pressure Test Kit, analogue (STAUFF Test 20) SMB-20 Pressure Test Kit, analogue (STAUFF Test 15) SMB-15

## ② Number of Pressure Gauges

1 pressure gauge SPG-063	1
2 pressure gauges SPG-063	2
3 pressure gauges SPG-063	3
1 pressure gauge SPG-100	/100-1

## **③ Pressure Ranges**

-1 3 bar / -14.5 43 PSI	(-1)-003
0 10 bar / 0 145 PSI	010
0 16 bar / 0 232 PSI	016
0 25 bar / 0 362 PSI	025
0 40 bar / 0 580 PSI	040
0 60 bar / 0 870 PSI	060
0 100 bar / 0 1450 PSI	100
0 160 bar / 0 2320 PSI	160
0 250 bar / 0 3625 PSI	250
0 400 bar / 0 5801 PSI	400

Note: Please indicate pressure ranges in bar. For one pressure gauge please replace xxx. For two pressure gauges please replace xxx/xxx. For three pressure gauges please replace xxx/xxx/xxx.

## **4** Material Surface

Steel, zinc/nickel plated

For further information see Catalogue 7 - STAUFF Test.



# Standard Option for Pressure Test Kits (analogue) - Type SMB-20 / SMB-15

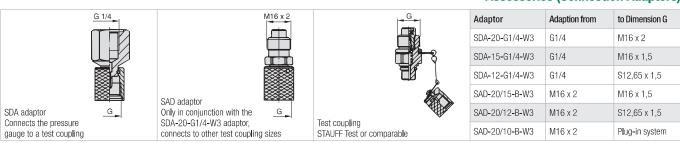
Series	Components	Order Codes	Series	Components	Order Codes					
	1x Test hose (2000 mm length)	SMS-20-2000-B-W3	SMB-15-1-xxx-W3	1x Test hose (2000 mm length)	SMS-15-2000-B-W3					
	1x Pressure gauge Ø 63 mm	SPG-063-xxx		1x Pressure gauge Ø 63 mm	SPG-063-xxx					
	1x Gauge adaptor G1/4	SMA-20-G1/4-B-0R-W3		1x Gauge adaptor G1/4	SMA-15-G1/4-B-0R-W3					
SMB-20-1-xxx-W3	1x Direct gauge adaptor G1/4	SMD-20-G1/4-B-0R-W3		1x Direct gauge adaptor G1/4	SMD-15-G1/4-B-0R-W3					
3WID-20-1-XXX-W3	1x Test coupling G1/4	SMK-20-G1/4-B-C-W3		1x Test coupling G1/4	SMK-15-G1/4-B-B-W3					
	1x Test coupling M10 x 1	SMK-20-M10x1-B-A-W3		1x Test coupling M14 x 1,5	SMK-15-M14x1.5-B-B-W3					
	1x Thread adaptor G3/8	SRS-20-G3/8-B-W3		1x Thread adaptor G3/8	SRS-15-G3/8-B-W3					
	1x Thread adaptor G1/2	SRS-20-G1/2-B-W3		1x Thread adaptor G1/2	SRS-15-G1/2-B-W3					
xxx/xxx/xxx = pressure ran	xxx/xxx/xxx = pressure ranges see on page 18 (please indicate pressure ranges in bar)									
Custom kits available upon	Custom kits available upon request, Please contact STAUFF.									

Series	Components	Order Codes	Series	Components	Order Codes
	1x Test hose (2000 mm length)	SMS-20-2000-B-W3		1x Test hose (2000 mm length)	SMS-15-2000-B-W3
	2x Pressure gauges Ø 63 mm	SPG-063-xxx		2x Pressure gauges Ø 63 mm	SPG-063-xxx
	1x Gauge adaptor G1/4	SMA-20-G1/4-B-0R-W3		1x Gauge adaptor G1/4	SMA-15-G1/4-B-0R-W3
SMB-20-2-xxx/xxx-W3	1x Direct gauge adaptor G1/4	SMD-20-G1/4-B-0R-W3	SMB-15-2-xxx/xxx-W3	1x Direct gauge adaptor G1/4	SMD-15-G1/4-B-0R-W3
SIVID=2U=2=XXX/XXX=WS	1x Test coupling G1/4	SMK-20-G1/4-B-C-W3		1x Test coupling G1/4	SMK-15-G1/4-B-B-W3
	1x Test coupling M10 x 1	SMK-20-M10x1-B-A-W3		1x Test coupling M14 x 1,5	SMK-15-M14x1.5-B-B-W3
	1x Thread adaptor G3/8	SRS-20-G3/8-B-W3		1x Thread adaptor G3/8	SRS-15-G3/8-B-W3
	1x Thread adaptor G1/2	SRS-20-G1/2-B-W3		1x Thread adaptor G1/2	SRS-15-G1/2-B-W3
xxx/xxx/xxx = pressure ranges see on page 18 (please indicate pressure ranges in bar)					
Custom kits available upon request. Please contact STAUFF.					

Series	Components	Order Codes	Series	Components	Order Codes
	2x Test hoses (2000 mm length)	SMS-20-2000-B-W3	SMB-15-3-xxx/xxx/xxx-W3	2x Test hoses (2000 mm length)	SMS-15-2000-B-W3
	3x Pressure gauges Ø 63 mm	SPG-063-xxx		3x Pressure gauges Ø 63 mm	SPG-063-xxx
	1x Gauge adaptor G1/4	SMA-20-G1/4-B-0R-W3		1x Gauge adaptor G1/4	SMA-15-G1/4-B-0R-W3
SMB-20-3-xxx/xxx/xxx-W3	2x Direct gauge adaptors G1/4	SMD-20-G1/4-B-0R-W3		2x Direct gauge adaptors G1/4	SMD-15-G1/4-B-0R-W3
SWID-20-3-XXX/XXX/XXX-W3	3x Test couplings G1/4	SMK-20-G1/4-B-C-W3		3x Test couplings G1/4	SMK-15-G1/4-B-B-W3
	3x Test couplings M10 x 1	SMK-20-M10x1-B-A-W3		3x Test couplings M14 x 1,5	SMK-15-M14x1.5-B-B-W3
	1x Thread adaptor G3/8	SRS-20-G3/8-B-W3		1x Thread adaptor G3/8	SRS-15-G3/8-B-W3
	1x Thread adaptor G1/2	SRS-20-G1/2-B-W3		1x Thread adaptor G1/2	SRS-15-G1/2-B-W3
xxx/xxx/xxx = pressure ranges see on page 18 (please indicate pressure ranges in bar)					
Custom kits available upon request. Please contact STAUFF.					

Series	Components	Order Codes	Series	Components	Order Codes
	1x Test hose (2000 mm length)	SMS-20-2000-B-W3		1x Test hose (2000 mm length)	SMS-15-2000-B-W3
	1x Pressure gauge Ø 100 mm	SPG-100-xxx		1x Pressure gauge Ø 100 mm	SPG-100-xxx
	1x Gauge adaptor G1/4	SMA-20-G1/4-B-0R-W3		1x Gauge adaptor G1/4	SMA-15-G1/4-B-0R-W3
SMB-20/100-1-xxx-W3	1x Direct gauge adaptor G1/4	ct gauge adaptor G1/4 SMD-20-G1/4-B-OR-W3	SMB-15/100-1-xxx-W3	1x Direct gauge adaptor G1/4	SMD-15-G1/4-B-0R-W3
SWID-20/100-1-XXX-W3	1x Test coupling G1/4	SMK-20-G1/4-B-C-W3	SINID-13/100-1-XXX-M2	1x Test coupling G1/4	SMK-15-G1/4-B-B-W3
	1x Test coupling M10 x 1 SMK-20-M10x1-B-A-W3		1x Test coupling M14 x 1,5	SMK-15-M14x1.5-B-B-W3	
	1x Thread adaptor G3/8	SRS-20-G3/8-B-W3		1x Thread adaptor G3/8	SRS-15-G3/8-B-W3
	1x Thread adaptor G1/2	SRS-20-G1/2-B-W3		1x Thread adaptor G1/2	SRS-15-G1/2-B-W3
xxx/xxx/xxx = pressure ranges see on page 18 (please indicate pressure ranges in bar)					
Custom kits available upon request. Please contact STAUFF.					

## **Accessories (Connection Adaptors)**



Other adaptors are available.



## **Digital Pressure Gauge - Type SPG-DIGI**



## **Product Description**

The SPG-DIGI Digital Pressure Gauges are intended to measure and display pressures in hydraulic systems, particularly for oils, lubricants and water. They can display the current measured values, as well as minimum and maximum values, with an accuracy of 0,5 % of

The SPG-DIGI Digital Pressure Gauges are available individually, or as part of a complete pressure test kit. They are very sturdy, reliable, easy to use and come with the CE mark (evidence of conformity compliance).

## **Features**

- Bar graph display (drag indicator)
- Background lighting
- Zero correction
- Battery charge display

## **Order Codes**



(1) Series and Type	
Digital Pressure Gauge	SPG-DIGI
© B	
② Pressure Ranges	
-1 16 bar / -14.5 232 PSI	B0016
0 100 bar / 0 1450 PSI	B0100
0 400 bar / 0 5801 PSI	B0400
0 600 bar / 0 8702 PSI	B0600

#### ③ Process Connection G1/4 В 7/16-20 UNF U

4	Calibration	
	Without calibration certificate	(none)
	With calibration certificate	CAL

## **Pressure Ranges**

Version	Pressure Range (bar/PSI)	Maximum Pressure (bar/PSI)	Burst Pressure (bar/PSI)
B0016	-1 16	40	50
60010	-14.5 232	580	725
B0100	0 100	200	800
БОТОО	0 1450	2900	11603
B0400	0 400	800	1700
DU400	0 5801	11603	24656
B0600	0 600	1200	2200
БОООО	0 8702	17404	31908

## **Technical Data**

## Materials

■ Housing made of die-cast Zinc with TPE rubber protective covering

■ Wetted parts: Stainless Steel 1.4404, NBR, ceramic

Gaskets: NBR (Buna-N®)

FKM/FPM (Viton®) or EPDM upon request

## **Dimensions and Weight**

■ Diameter: 79 mm / 3.11 in Depth: 33 mm / 1.30 in 540 g / 1.19 lbs Weight:

## Display

■ Text display 4 1/2-digit

■ Size: 50 x 34 mm / 1.97 x 1.34 in Actual value display: 15 mm / .59 in

■ MIN-/MAX or FS\* display: 8 mm / .31 in ■ Units: bar, PSI, Mpa, kPa, mbar

· Peak pressure measurement with 10 ms sampling rate

■ Lighted measured value display

■ ±0,25 % FS\* typ. / ±0,5 % FS\* max. Resolution: 4096 steps

## **Permissible Temperatures**

-10 °C ... +50 °C/+14 °F ... +122 °F Ambient: ■ Media: -20 °C ... +80 °C / -4 °F ... +176 °F -20 °C ... +60 °C / -4 °F ... +140 °F ■ Storage:

Relative humidity: < 85 % ■ Battery life: max. 1500 hours (operating without lighting, 2 x 1,5 V DC AA (LR6-AA) Alkaline Mignon)

## **Process Connections**

**Protection Rating** 

G1/4 or 7/16-20 UNF made of 1.4404 Stainless Steel

IEC 60068-2-6 / 10 ... 500 Hz / 5 g Vibration: ■ Shock: IEC 60068-2-27 / 11 ms / 25 g

## ■ Load cycles (106):

• IP 67 protection rating: Dust tight and protected against powerful water jets; even immersion (up to 1 m / 3.28 ft) in water is possible under defined conditions of pressure and time

\* FS = Full Scale



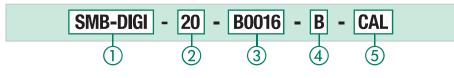


## Pressure Test Kit (digital) - Type SMB-DIGI



Pressure Test Kit (Digital) Type SMB-DIGI

## **Order Codes**



① Series and Type

Pressure Test Kit, digital pressure gauge SMB-DIGI

(2) Adaptor Version

Adapts to STAUFF Test 20 (M16 x 2)

(3) Pressure Ranges

-1 16 bar / -14.5 232 PSI	B0016
0 100 bar / 0 1450 PSI	B0100
0 400 bar / 0 5801 PSI	B0400
0 600 bar / 0 8702 PSI	B0600

## **4** Process Connection

7/16-20 UNF

(5) Calibration

Without calibration certificate	(none)
With calibration certificate	CAL

رو	Oambration	
	Without calibration certificate	(none)
	With calibration certificate	CAL

# **Product Description**

In addition to the individual SPG-DIGI devices, the STAUFF Digital Pressure Gauges are also available as part of a pressure test kit.

The SMB-DIGI pressure test kits are assembled in various versions, in accordance with customer wishes. All pressure test kits are supplied in a handy case with custom-designed foam inserts.

## **Components**

В

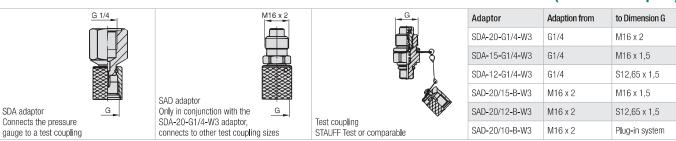
## Standard Option SMB-DIGI-20

- Digital Pressure Gauge SPG-DIGI
- Test Hose (2 m / 6.56 ft), M16 x 2, pressure-resistant 600 bar (8702 PSI) SMS-20-2000-B-W3
- Adaptor SDA (G1/4 to M16 x 2) SDA-20-G1/4-W3
- Hose Connector SSV-20-W3
- Test Coupling SMK-20-G1/4-B-C-W3
- Test Coupling SMK-20-M10x1-B-A-W3
- Thread Adaptor SRS-20-G3/8-B-W3 ■ Thread Adaptor SRS-20-G1/2-B-W3
- Operating manual (multilingual) on CD

## **Pressure Ranges**

Version	Pressure Range (bar/PSI)	Maximum Pressure (bar/PSI)	Burst Pressure (bar/PSI)
B0016	-1 16	40	50
B0010	-14.5 232	580	725
B0100	0 100	200	800
БОТОО	0 1450	2900	11603
B0400	0 400	800	1700
B0400	0 5801	11603	24656
B0600	0 600	1200	2200
БОООО	0 8702	17404	31908

## **Accessories (Connection Adaptors)**



Other adaptors are available.

