

Digital Precision Pressure Gauge LILLY_{press} 21

DPG 1030

Pressure ranges from 0 – 2.5 bar to 0 – 700 bar, accuracy ± 0.1 % FS

Pressure ranges from 0 – 1000 bar to 0 – 3000 bar, accuracy ± 0.25 % FS

Application

The battery-operated digital pressure gauge models DPG 1030 are suitable for the mobile measurement of positive and negative overpressures of gaseous and liquid media with measuring spans from 2.5 bar up to 3000 bar.

Its dimensional data and degree of protection IP65 make it easy to replace mechanical pressure gauges with the DPG 1030. The electronic processing of the measuring signal opens up various possibilities for the device, which go far beyond those of the mechanical pressure gauges. Due to its wide pressure range combined with its various features, the device is suitable for various applications in pneumatics and hydraulics. The high accuracy ensures its use as a robust reference device for calibrating pressure equipment. The new option "data logger" is able to record fast pressure surges with a measuring rate of up to 100 measurements per second. The included USB interface enables the transmission of the recorded measurement data for analysing and archiving via software "LILLY-LOG".

Standard Versions

Process Connection

Material:	stainless steel 1.4404 (1.4542)
Connection thread:	G ½ B (DIN EN 837) ≤ 2500 bar
	¼" HPF ⅝" – 18 UNF 0 – 3000 bar

Measuring Cell/Sensor

< 1000 bar: stainless steel 316L hermetically sealed¹⁾
≥ 1000 bar: stainless steel 1.4548 (AISI 630 / 17-4PH)

Case

With bayonet ring polished, stainless steel 304 (1.4301),
NCS 100 (4"), degree of protection IP65, rotatable

Pressure Ranges, Overload Capability and Burst Pressure

See page 2

Display

Large 2.7" sunlight readable LC graphic display 400 x 240 dot
5-digit pressure indication with digit height 14 mm (0.55")
Bargraph with MIN/MAX indication (drag indicator)
Indication device temperature (°C, °F, off)
Battery status

Functions

Intuitive menu navigation
Number of decimal places adjustable
32 pressure units and 2 temperature units
1 freely configurable user unit (factor and name)
Measuring rate adjustable up to 125 ms
Damping adjustable for pulsation suppression
Standby function adjustable
Zeroing function
Password protection

Supply Voltage

Battery Li-SOCI₂ 3.6 V/2600 mAh

Battery Life

> 3400 h (with 3 measurements/s)

Measurement Accuracy

< 1000 bar: ± 0.1 % FS ± 1 digit
≥ 1000 bar: ± 0.25 % FS ± 1 digit

¹⁾ except measuring ranges > 160 bar to < 1000 bar: O-ring FKM

²⁾ at +23 °C (73.4 °F), limited temperature range 0 – 50 °C (32 – 122 °F)



Temperature

Operating temperature: –20 °C to +70 °C (–4 °F to +158 °F)
Medium temperature: –20 °C to +85 °C (–4 °F to +185 °F)
Storage temperature: –20 °C to +70 °C (–4 °F to +158 °F)

Temperature Influence

≤ 0.05 % FS/10 K

Reference Temperature

+25 °C (+77 °F)

Long-term Stability (at reference conditions)

< 1000 bar: ≤ 0.05 % FS / a
≥ 1000 bar: ≤ 0.08 % FS / a

Sample Rate

Adjustable: 8 / 5 / 4 / 3 / 2 / 1 measurements/s

Electromagnetic Compatibility

Interference emission EN 61326 group 1 class B
Stability EN 61326 industrial sector

Options

- Connection thread: ISO 1179-2-G ¼"A-S max. 0 – 600 bar
½" NPT max. 0 – 1600 bar
¼" NPT max. 0 – 1600 bar
M20x1.5 max. 0 – 1600 bar
- High-pressure connection: ¼" HPF ⅝" – 18 UNF 0 – 1000 bar
(for ¼" high pressure tube) to 0 – 2500 bar
- Front foil neutral or according to customer request
- Absolute pressure
- Increased measurement accuracy 0.1 % FS²⁾ at ≥ 1000 bar
- Data logger (model DPG 1030-L) memory: 86 400 measuring values
 - qualitative indication of the recorded pressure curves in the graphic display of the device
 - interface in the device for data transfer to PC via USB
 - PC software "LILLY-LOG" for data transfer (download)
 - high-speed logging up to a measuring rate of 10 ms (100 measurements/s)

Accessory

- 2 m data cable for data transfer from the device to the PC

Ordering Information

Please specify in your order:

Basic model	DPG 1030
Process connection	e.g. G ½ B
Pressure range	e.g. 0 – 1600 bar
Option	e.g. increased accuracy 0.1 % FS

Example: DPG 1030, G ½ B, 0 – 1600 bar

www.armano-messtechnik.com

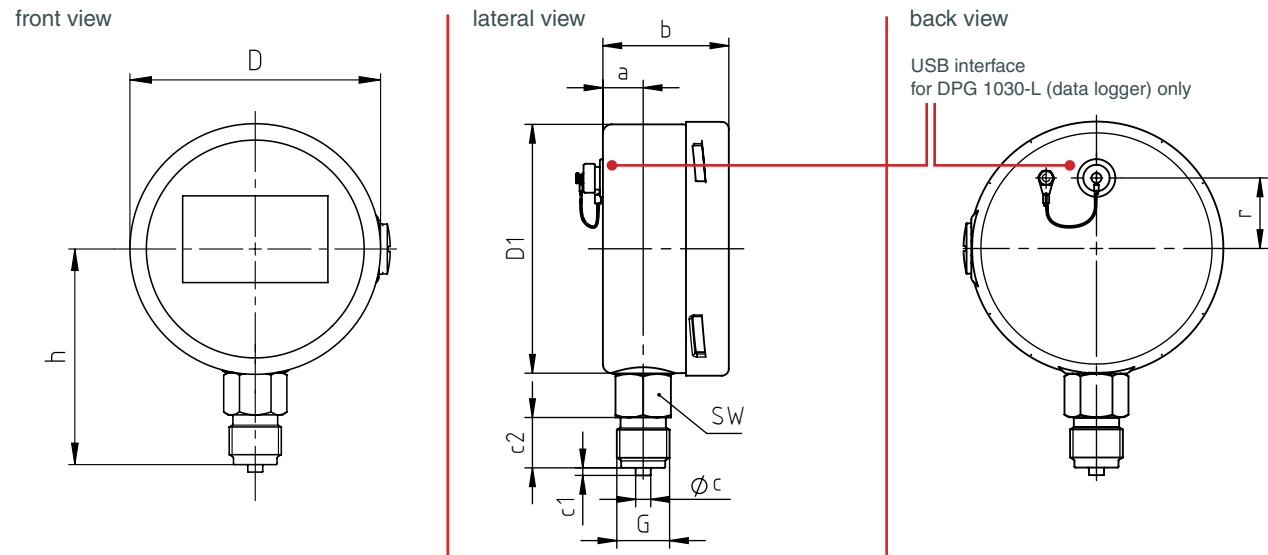
Measuring Ranges, Overload Capability, Case Configuration, Dimensional Data and Weight

Measuring Ranges/Overload Capability in bar/psi			
Measuring range		Overload	
bar	psi	bar	psi
-1 / +1.5	-14.5 / +30	3.5	50
-1 / +3	-14.5 / +60	5.5	80
-1 / +5	-14.5 / +100	9	130
-1 / +9	-14.5 / +160	14	200
-1 / +15	-14.5 / +200	22	320
0 - 2.5 ¹⁾	0 - 30 ¹⁾	3.5	50
0 - 4 ¹⁾	0 - 60 ¹⁾	5.5	80
0 - 6 ¹⁾	0 - 100 ¹⁾	9	130
0 - 10 ¹⁾	0 - 160 ¹⁾	14	200
0 - 16 ¹⁾	0 - 200 ¹⁾	20	300
0 - 25 ¹⁾	0 - 400 ¹⁾	38	550
0 - 40 ¹⁾	0 - 600 ¹⁾	55	800
0 - 60 ¹⁾	0 - 1000 ¹⁾	90	1300
0 - 100 ¹⁾	0 - 1500 ¹⁾	150	2200
0 - 160	0 - 2500	220	3500
0 - 250	0 - 4000	400	6000
0 - 400	0 - 6000	600	9000
0 - 600	-	900	-
0 - 700	0 - 10000	1100	13000

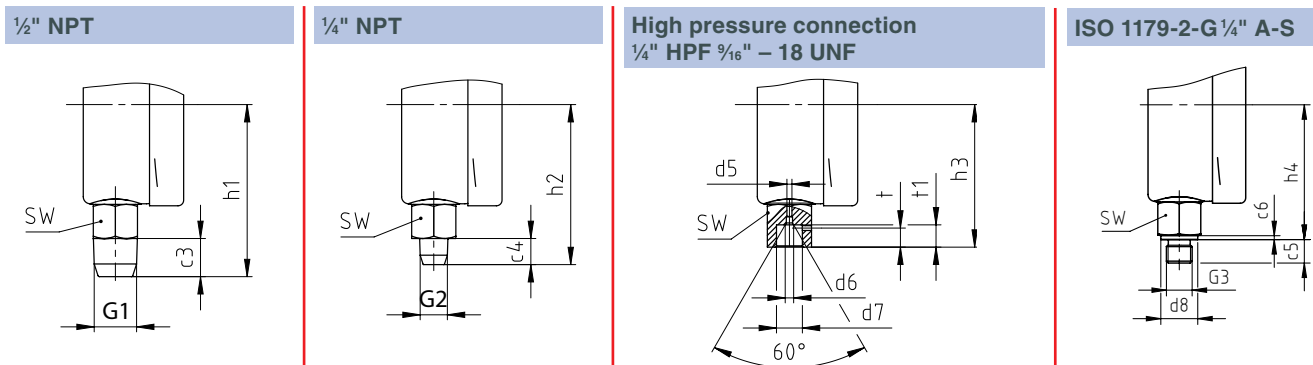
Measuring Ranges/Overload Capability in bar/psi					
Measuring range		Overload		Burst pressure	
bar	psi	bar	psi	bar	psi
0 - 1000	0 - 15000	1500	20000	5000	72000
0 - 1600	0 - 20000	2400	30000	6000	85000
0 - 2000	0 - 30000	3000	40000	4000	55000
0 - 2500	-	3700	-	5000	-
0 - 3000	0 - 40000	4000	55000	6000	85000

Process Connection

Standard: G 1/2 B / optional: M20x1.5



Optional process connections



Dimensional Data (mm/inch) and Weight (kg/lb)

NCS	a	b	c	c1	c2	c3	c4	c5	c6	D	D1	d5	d6	d7	d8	G
100	16	50	6	3 / 0.12 ²⁾	20	19	13	12	2	101	99	3	4	1/4" HPF	18.9	G 1/2 B
4"	0.63	1.97	0.24	5 / 0.2 ³⁾	0.79	0.75	0.51	0.47	0.08	3.98	3.9	0.12	0.16	3/16" - 18 UNF	0.74	M20x1.5
G1	G2	G3	h ^{±1}	h1 ^{±1}	h2 ^{±1}	h3 ^{±1}	h4 ^{±1}	r	t	t1	SW	approx. weight				
1/2" NPT	1/4" NPT	G 1/4 A	87	84	80	71	69	28	9.5	11	22	0.46				
			3.43	3.31	3.15	2.8	2.72	1.1	0.37	0.43	0.87	1.01				

¹⁾ pressure range also as absolute pressure
²⁾ < 1000 bar ³⁾ ≥ 1000 bar