

Digital High-pressure Gauge LILLYpress PLUS

DPG 1500

With analogue output 4...20 mA and large graphic display

Pressure ranges 0 – 1600 bar to 0 – 3000 bar: accuracy up to ± 0.1 % FS¹⁾

Application

The digital pressure gauge DPG 1500 is suitable for measuring positive overpressures of gaseous and liquid media for pressure ranges from 0 – 1600 bar to 0 – 3000 bar. It also offers a 4...20 mA output for electronic processing of the measured data.

The device has an easy-to-read, 5-digit indication for the operating pressure as well as a bargraph indication for quick changes. Furthermore, the temperature of the measuring cell and the set pressure unit are displayed.

The robust pressure measuring instruments are built into standard stainless steel instrument cases and are suitable both for use as accurate operating pressure gauge and as reference standard for calibrations.

Construction

- Bayonet ring case stainless steel, NCS 100 (4"), rotatable approx. 280°
- Large LC graphic display, digit height 14 mm (0.55")
- Temperature indication
- 4...20 mA current output
- High burst pressures and high overload

Standard Versions

Process Connection

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

Measuring Cell / Sensor

Thin film measuring cell stainless steel 1.4548 (AISI 630 / 17-4PH)
Hermetically sealed, electron beam welding

Case

With bayonet ring polished, stainless steel 304 (1.4301), NCS 100 (4"), rotatable
Degree of protection IP65 according to DIN EN 60529
Window aluminum with PE membrane keypad

Pressure Ranges, Overload Capability and Burst Pressure

See page 2

Display

LC graphic display	400 x 240 dot
Visible area	58.8 x 35.3 mm (2.31 x 1.39")
Main indication pressure	5 digits, digit height 14 mm (0.55")
Additional indication temperature	-20 / +70 °C (-4 / +158 °F), digit height 3 mm (0.12")
Indicating range	±99999
Pressure units	bar, psi, kPa / MPa, kp/cm ²
Temperature units	°C, °F

Features

TARE / ZERO function
MIN / MAX memory
Measuring rate adjustable
Damping adjustable
Number of decimal places adjustable
Bargraph indication (pressure)

Supply Voltage U_v

12...30 V DC / 100 mA

¹⁾ at +23 °C (73.4 °F), limited temperature range 0 – 50 °C (32 – 122 °F), no turn-down



Electrical Connection

M12 circular plug connector, 5-pin, A-coded radial at 9 o'clock (1: +Vcc; 3: GND; 4: signal)

Output Signal

4...20 mA, 3-wire connection
Load impedance $R_{max} = (U_V - 11.5) / 0.0215$ A Ω

Measurement Accuracy

± 0.25 % FS optional ± 0.1 % FS¹⁾ ± 1 digit

Temperature

Ambient temperature	-20 °C to +70 °C (-4 °F to +158 °F)
Medium temperature	-40 °C to +85 °C (-40 °F to +185 °F)
Compensated range	-20 °C to +70 °C (-4 °F to +158 °F)

Temperature Influence

≤ 0.02 % FS / 10 K

Reference Temperature

+25 °C (+77 °F)

Recommended Calibration Interval

1 year (DAkKS-DKD R-6-1 appendix F)

Sample Rate

Analogue output	< 50 ms (16 bit DAC)
Refresh rate display	3 Hz

Electromagnetic Compatibility

Interference emission and stability according to DIN EN 61326

Options

- Connection threads ½" NPT max. 0 – 1600 bar
¼" NPT max. 0 – 1600 bar
M 20x1.5 max. 0 – 1600 bar
- High-pressure connection ¼" HPF ⅝" – 18 UNF 0 – 1600 bar to
(for ¼" high pressure tube) 0 – 2500 bar
- Front foil neutral or according to customer request
- Increased measurement accuracy 0.1 % FS¹⁾

Ordering Information

Please specify in your order:

Basic model	DPG 1500
Process connection	e.g. G ½ B
Pressure range	e.g. 0 – 1600 bar
Option	e.g. increased measurement accuracy 0.1 % FS

Example DPG 1500, G ½ B, 0 – 1600 bar

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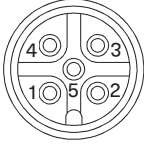
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Measuring Ranges / Overload Capability in bar / psi					
Measuring range		Overload		Burst pressure	
bar	psi	bar	psi	bar	psi
0 - 1 600	0 - 20 000	2 400	30 000	6 000	85 000
0 - 2 000	0 - 30 000	3 000	40 000	4 000	55 000
0 - 2 500	-	3 700	-	5 000	-
0 - 3 000	0 - 40 000	4 000	55 000	6 000	85 000

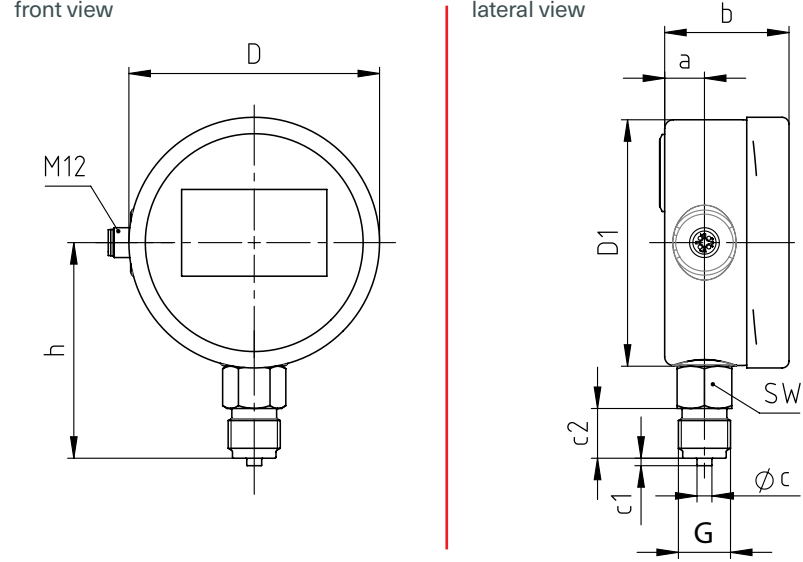
Electrical Connection



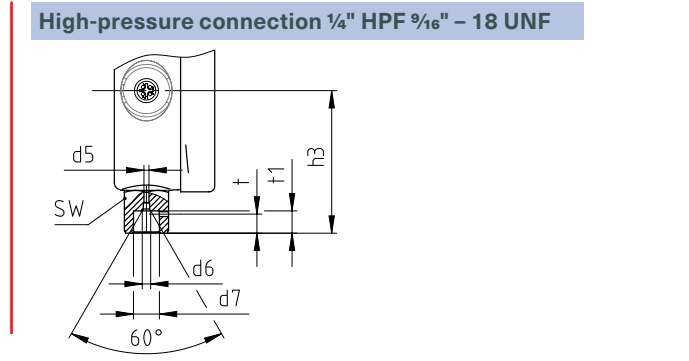
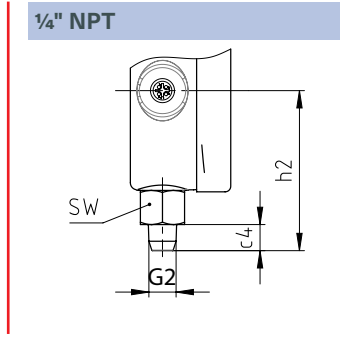
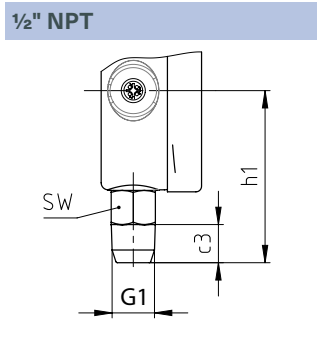
Pin assignment	Description
1	+U _v : 12...30 V DC
2	free
3	GND
4	I _{OUT} : 4...20 mA
5	free

Process Connection

Standard: G 1/2 B / optional: M 20x1.5



Optional process connections



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

NCS	a	b	c	c1	c2	c3	c4	D	D1	d5	d6	d7	G	G1	G2
100 4"	16 0.63	50 1.97	6 0.24	5 0.2	20 0.79	19 0.75	13 0.51	101 3.98	99 3.9	3 0.12	4 0.16	1/4" HPF 9/16" - 18 UNF	G 1/2 B (1/2" BSP) M20x1.5	1/2" NPT	1/4" NPT

h ^{±1}	h1 ^{±1}	h2 ^{±1}	h3 ^{±1}	t	t1	SW	approx. weight
87 3.43	84 3.31	80 3.15	71 2.8	9.5 0.37	11 0.43	22 0.87	0.46 1.01

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