

Type DG-10 Digital Pressure Gauge

Standard Features

- Case: 3.15" diameter stainless steel
- Process connection: 1/4" NPT male
- Power requirements: 2 AA batteries
- Stocked enhanced version includes protective rubber boot

Description				
Range	DG-10-S Standard Part #		DG-10-E Enhanced Part #	
-30 inHg...29 psi	50365444		50365657	
-30 inHg...72 psi	50365452		50365673	
-30 inHg...145 psi	50365461		50365690	
0 psi ... 30 psi	50365479		50365720	
0 psi ...60 psi	50365487		50365771	
0 psi ...145 psi	50365495		50365789	
0 psi ...300 psi	50365509		50365797	
0 psi ...600 psi	50365517		50365819	
0 psi ...1,450 psi	50365525		50365827	
0 psi ...2,000 psi	50365584		50365835	
0 psi ...3,000 psi	50365592		50365843	
0 psi ...5,000 psi	50365614		50365851	
0 psi ...7,500 psi	50365622		50365860	
0 psi ...10,000 psi	50365631		50365878	



Type DG-10-S



Type DG-10-E

Digital Pressure Gauge Type DG-10

WIKA Datasheet DG-10

Applications

- Mechanical engineering
- Hydraulics and Pneumatics
- Pumps and Compressors
- Service

Special Features

- Pressure ranges: from 0 ... 30 psi up to 0 ... 10,000 psi
- Display accuracy: $\leq \pm 0.25\%$ B.F.S.L.
- Pressure connections: G1/4 DIN 3852-E, 1/4 NPT male, 1/2 NPT male, G1/4B, G1/2B and others
- Case: stainless steel, 3.15" (80 mm) diameter
- Power supply: 2x 1.5 V Type AA cell

Description

Durable, precise local display

A digital display is ideal for precise and fast pressure readings. The DG-10 features a durable stainless steel housing and integral battery power supply making it suitable for a wide range of applications and industries.

The multi-function display features a bar graph with a drag pointer function and a MIN/MAX memory. The MIN/MAX memory feature permits later recall of the minimum and maximum pressure readings.



DG-10-S
Standard Version



DG-10-E
Enhanced Version

Standard and enhanced versions

The DG-10 is available in two versions: standard (DG-10-S) and enhanced (DG-10-E). Both versions allow the user to easily switch between the most widely-accepted international measurement units including bar, psi and MPa.

Additional features of the enhanced version include a back-lit display for use in low light conditions and a housing that can be rotated for optimal viewing. Additional user-programmable functions of the DG-10-E include auto power-off, tare function, and password protection.

Proven pressure measurement technology

Sensors manufactured by WIKA provide high accuracy, long-term stability and excellent repeatability. For optimal performance, pressure ranges up to 600 psi (50 bar) use the WIKA ceramic sensor. Pressure ranges of 1450 psi (100 bar) and higher utilize WIKA thin film sensor technology.

Specifications		Type DG-10				
Pressure ranges	-30 InHg ... 29 psi		-30 InHg ... 72 psi		-30 InHg ... 145 psi	
Over pressure safety	70 psi		145		290	
Burst pressure	85 psi		170		360	
Pressure ranges	30 psi	60 psi	145 psi	300 psi	600 psi	1,450psi
Over pressure safety	70 psi	145 psi	290 psi	580 psi	1,450 psi	2,900 psi
Burst pressure	85 psi	170 psi	360 psi	725 psi	1,740 psi	11,600 psi
Pressure ranges	2,000 psi	3,000 psi	5,000 psi	7,500 psi	10,000 psi	
Over pressure safety	4,640 psi	7,250 psi	11,600 psi	17,400 psi	21,750 psi	
Burst pressure	14500 psi	17,400 psi	24,650 psi	34,800 psi	43,500 psi	
Materials						
■ Wetted parts						
» Pressure connection		1.4571, 316Ti SS				
» Pressure sensor		Ceramic Al ₂ O ₃ 96%, NBR {EPDM } (up to 0 ... 600 psi)				
		XM-13 (1.4534) (≥ 1,450 psi)				
■ Case		1.4301, 304 SS				
Power supply		2x 1.5 V Type AA batteries				
Operating time	h	4,000 (AA 2,000 mAh)				
Internal sampling rate	ms	200				
Insulation voltage	VDC	500				
Display accuracy	% of span	≤ ± 0.25% B.F.S.L.				
Zero offset	% of span	≤ 0.1 (Power-up reset)				
Zero adjustability	% of span	≤ 20 (via Tare-Function with model DG-10-E)				
Hysteresis	% of span	≤ 0.1				
Non-repeatability	% of span	≤ 0.1				
Long-term stability per year	% of span	≤ 0.2				
Long-term drift	% of span	≤ 0.1				
Permissible temperature of						
■ Medium		-4°F ... +185°F (-20°C ... +85°C) (up to 0 ... 600 psi)				
		-22°F ... +212°F (-30°C ... +100°C) (≥ 1450 psi)				
■ Ambient		+14°F ... +140°F (-10°C ... +60°C)				
■ Storage		-4°F ... +158°F (-20°C ... +70°C)				
Operating temperature range		+32°F ... +140°F (0°C ... +60°C)				
Temperature coefficients within compensated temp range						
■ Mean TC of zero	% of span	≤ 0.15 / 10k				
■ Mean TC of span	% of span	≤ 0.15 / 10k				
CE-conformity						
■ Pressure equipment directive		97/23/EC				
■ EMC directive		89/336/EEC emission (class B) and immunity according to EN 61 326				
Case rotation	°	300 ° (only with model DG-10-E)				
		DG-10-S		DG-10-E		
Principle		7 segment LCD 4 digit		7 segment LCD 4½ digit		
				14 segment LCD 4½ digit (2nd display)		
Digit size		.43" (11 mm)		.43 (11 mm) and .28" (7 mm)		
Display		-999 ... 9999		-1999 ... 19999		
Background illumination		No		Included		
Bar graph with trailing pointer function		Included		Included		
Min/Max memory		Included		Included		
Auto On/Off		Optional (ex works)		15/30/60/120 min		
Tare adjustment		No		Included		
Units bar, psi, MPa		Included		Included		
Password protection		No		Included		
Reset factory setting		No		Included		
Weight		Approx. 14oz. (400 g)				

{ } Items in curved brackets are optional extras for additional price.

Ingress protection IP 65 per IEC 60529.



Technical drawing of a 1/4 NPT plug. The drawing shows a side view of the plug with a wrench icon and the number 27. Dimensions are given in inches and millimeters: .85" (21.5mm) for the total height, .51" (13mm) for the height of the hexagonal part, and 1/4 NPT for the thread size.

27

.89" (22.5mm)

.55" (14mm)

G1/4A

Technical drawing of a 1/2 inch female threaded rod. The drawing shows a side view of the rod with a nut and washer assembly at the top. Dimensions are provided in inches and millimeters:

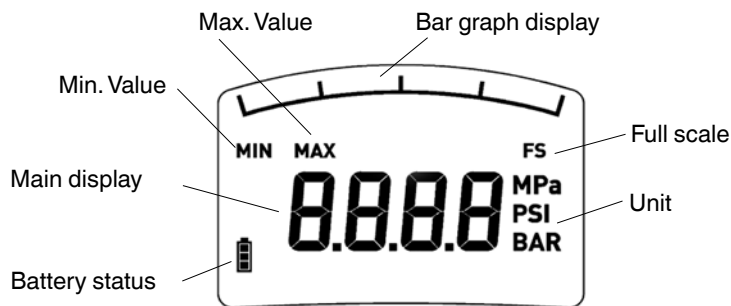
- Total length: 1.12" (28.5mm)
- Threaded length: .79" (20mm)
- Unthreaded length: .12" (3mm)
- Thread pitch: 12" (3mm)
- Thread diameter: $\phi .24"$ (6mm)
- Outer diameter: $\phi .69"$ (17.5mm)
- Thread specification: G1/2B

Technical drawing of the G1/4B fitting showing dimensions in inches and millimeters:

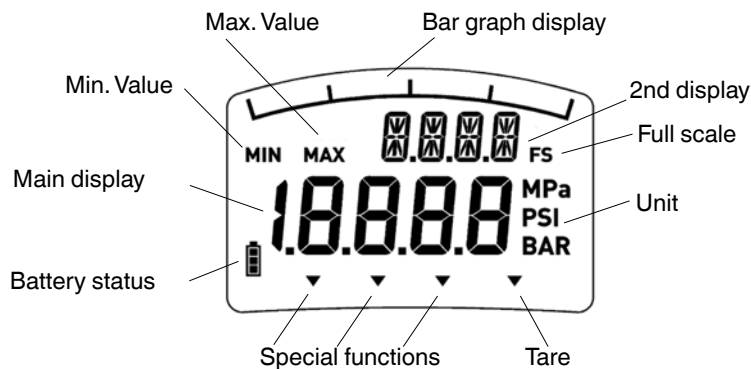
- Overall height: .85" (21.5mm)
- Top flange thickness: .27"
- Threaded section height: .51" (13mm)
- Threaded section outer diameter: Ø.20" (5mm)
- Threaded section inner diameter: Ø.37" (9.5mm)
- Bottom flange thickness: .08" (2mm)
- Bottom flange outer diameter: Ø.37" (9.5mm)
- Bottom flange inner diameter: Ø.20" (5mm)
- Bottom flange thread: G1/4B

Description of the Display

DG-10-S



DG-10-E

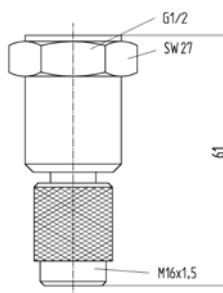


Accessories

Protective boot (black, vulcanized rubber)



Minimess gauge adapter system



Specifications and dimensions given in this data sheet represent the state of engineering at the time of printing.
Modifications may take place and materials specified may be replaced by others without prior notice.



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