Bourdon tube pressure gauge, Hastelloy For the process industry, high corrosion resistance Model PG28, NS 100 [4"] and 160 [6"]

WIKA data sheet PM 02.32





for further approvals see page 3

Applications

- With case filling for applications with high dynamic pressure loads and vibrations
- For gaseous and liquid aggressive media that are not highly viscous or crystallising, also in aggressive environments
- Oil and gas industry, chemical and petrochemical industries

Special features

- Wetted parts from Hastelloy C276
- Excellent resistance against corrosive media such as sulphuric acid, nitric acid, chlorine gas etc.
- Also available as safety version "S3" per EN 837-1
- Scale ranges from 0 ... 0.6 to 0 ... 700 bar [0 ... 10 to 0 ... 10,000 psi]



Bourdon tube pressure gauge, model PG28

Description

The model PG28 Bourdon tube pressure gauge with wetted parts from Hastelloy C276 is particularly suitable for applications with aggressive media.

Hastelloy C276 belongs to the group of highly corrosion-resistant nickel-chromium-molybdenum-tungsten alloys and is notable for its high resistance to crevice corrosion, pitting corrosion and stress corrosion cracking in corrosive, oxidising and reducing media.

WIKA manufactures the model PG28 per EN 837-1 both in the "S1" version and in the "S3" safety version. The safety version is made up of a non-splintering window, a solid baffle wall between measuring system and dial and a blow-out back. In the event of a failure, the operator is protected at the front side, as media or components can only be ejected via the back of the case.

For harsh operating conditions (e.g. vibrations), all instruments are also available with an optional liquid filling.

As an alternative, WIKA offers diaphragm seals of models 990.34 and 990.10 as well as model 4 diaphragm pressure gauges in a Hastelloy version. Diaphragm seals are always the first choice for safety-relevant applications.

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Model PG28							
Design	Per EN 837-1 and ASME B40.100						
Nominal size (NS) in mm [in]	■ 100 [4"]						
	■ 160 [6"]						
Accuracy	Class 1.0 per EN 837-1, ±1.0 % of measuring span per ASME B40.100 (grade 1A)						
Scale ranges	0 0.6 to 0 700 bar [0 10 to 0 10,000 psi]						
	or all other equivalent vacuum or combined pressure and vacuum ranges						
Pressure limitation							
Steady	Full scale value						
Fluctuating	0.9 x full scale value						
Short time	1.3 x full scale value						
Permissible temperature							
Ambient	 -40 +60 °C [-40 +140 °F] for unfilled instruments -20 +60 °C [-4 +140 °F] for instruments with glycerine filling -40 +60 °C [-40 +140 °F] for instruments with silicone oil filling 						
Medium	 ≤ 200 °C [≤ 392 °F] for unfilled instruments ≤ 100 °C [≤ 212 °F] for filled instruments 						
Temperature effect	When the temperature at the measuring system deviates from the reference temperature +20 °C [68 °F]: \leq ±0.4 %/10 K [\leq ±0.4 %/18 °F] of full scale value						
Ingress protection per IEC/EN 60529	IP65 1)						
Process connection							
Material	Hastelloy C276						
Connection location	 Lower mount (radial) Lower back mount ²⁾ 						
Thread	■ G ½ B male (SW 22) ■ ½ NPT male (SW 22) ■ M20 x 1.5 male (SW 22) Others on request						
Pressure element	Hastelloy C276 C-type or helical type						
Movement							
Material	Stainless steel						
Dial							
Material	Aluminium						
Colour	White						
Scale colour	Black						
Pointer							
Material	Aluminium						
Colour	Black						
Case							
Material	Stainless steel 1.4301Stainless steel 1.4571						
Design	 Version "S1" with blow-out device in case back (per EN 837) Safety version "S3" with solid baffle wall (Solidfront) and blow-out back (per EN 837) Scale ranges ≤ 0 16 bar [0 232 psi] with compensating valve to vent case 						
Window	Laminated safety glass						
Ring	Bayonet ring, stainless steel						

¹⁾ IP54 for back mount (safety version "S3")
2) For NS 160 [6"], lower back mount, only version "S1" is available

Model PG28										
Case filling Without Glycerine Glycerine-water mixture, for scale ranges ≤ 0 2.5 bar [≤ 0 40 psi] Silicone oil										
Weight	Version "S1"	Safety version "S3"								
NS 100 [4"]	0.90 kg [1.98 lbs]									
NS 160 [6"] 1.10 kg [2.43 lbs] 2.00 kg [4.41 lbs]										

Approvals

Logo	Description	Country
CE	EU declaration of conformity	European Union
€x>	■ Pressure equipment directive PS > 200 bar, module A, pressure accessory	
	■ ATEX directive (option) Ignition protection type "c", constructive safety	

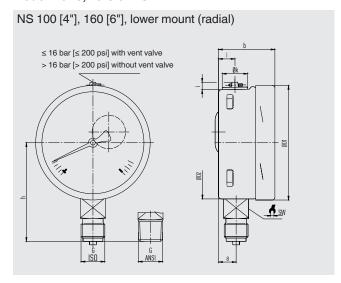
Certificates (option)

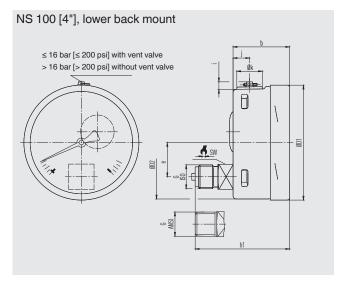
- 2.2 test report per EN 10204 (e.g. state-of-the-art manufacturing, material proof)
- 3.1 inspection certificate per EN 10204 (e.g. material proof for wetted metal parts)

Approvals and certificates, see website

Dimensions in mm [in]

Model PG28, version "S1"





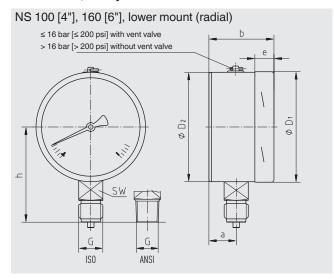
Process connection with thread per ISO 1179-2

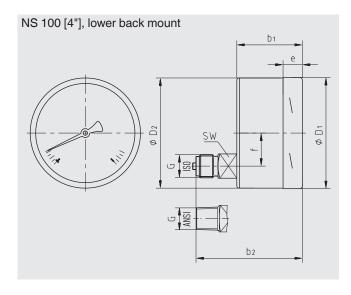
NS	G	Dimens	Dimensions in mm [in]										
		h ±1	h1 ±1	а	b	D1	D2	е	i	j	k	SW	
100 [4"]	G ½ B	87	83	15.5	49.5	101	99	30	6.5	14.5	22.5	22	
	M20 x 1.5 [3.43] [3.27	[3.27]	[0.61]	[0.61] [1.95]	[3.98]	[3.90]	[1.18]	[0.26]	[0.57]	[0.89]	[0.87]		
160 [6"]	G ½ B	118	-	15.5	49.5	161	159	-	6.5	14.5	22.5	22	
	M20 x 1.5	[4.65]		[0.61]	[1.95]	[6.34]	[6.26]		[0.26]	[0.57]	[0.89]	[0.87]	

Process connection with thread per ANSI/B1.20.1

NS	G	Dimensions in mm [in]												
		h ±1	h1 ±1	а	b	D1	D2	е	i	j	k	sw		
100 [4"]	½ NPT	86 [3.39]	82 [3.23]	15.5 [0.61]	49.5 [1.95]	101 [3.98]	99 [3.90]	30 [1.18]	6.5 [0.26]	14.5 [0.57]	22.5 [0.89]	22 [0.87]		
160 [6"]	½ NPT	117 [4.61]	-	15.5 [0.61]	49.5 [1.95]	161 [6.34]	159 [6.26]	-	6.5 [0.26]	14.5 [0.57]	22.5 [0.89]	22 [0.87]		

Model PG28, safety version "S3"





Process connection with thread per ISO 1179-2

NS	G	Dimensions in mm [in]										
		h ±1	а	b	b ₁	b ₂	D ₁	D_2	е	f	sw	
100 [4"]	G ½ B	87 [3.43]	25	59.5	59.5	93	101	100	17	30	22 [0.87]	
M20 x 1	M20 x 1.5		[0.98]	[2.36]	[2.36]	[3.66]	[3.98]	[3.94]	[0.67]	[1.18]		
160 [6"]	G 1/2 B	118 [4.65]	27 1)	65 ²⁾	-	-	161	159	17.5	-	22 [0.87]	
	M20 x 1.5		[1.06]	[2.56]			[6.34]	[6.26]	[0.69]			

Process connection with thread per ANSI/B1.20.1

NS	G	Dimensions in mm [in]									
		h ±1	а	b	b ₁	b ₂	D_1	D_2	е	f	SW
100 [4"]	½ NPT	86 [3.39]	25 [0.98]	59.5 [2.36]	59.5 [2.36]	92 [3.62]	101 [3.98]	100 [3.94]	17 [0.67]	30 [1.18]	22 [0.87]
160 [6"]	½ NPT	118 [4.65]	27 [1.06]	65 [2.56]	-	-	161 [6.34]	159 [6.26]	17.5 [0.69]	-	22 [0.87]

Ordering information

Model / Nominal size / Scale range / Process connection / Connection location / Options

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