



BDB500 Series Differential Pressure Gauge

Features

- Accuracy Class 1,6
- Parallel connection design
- Direct, panel or surface mounting
- Pressure range 0..1 bar up to 100 bar
- Static pressure corresponds to Full Scale range
- Double bourdon differential measurement
- Copper alloy wetted parts construction



Application

BDB500 series is designed for measurement of differential pressure or duplex pressure. Applicable for various industrial gaseous and liquid media environment. With compact design and various mounting makes friendly-use in various installation. Overpressure up to 30% from Full Scale. Widely used in pumps, control and other process environment.

Technical Specification

- Nominal Size
4" or 100 mm
- Accuracy Class
Class 1,6 (P > 1 bar), Class 2.5 (1 bar)
- Ingress Protection
IP 45 -Dry execution
- Design Mounting
Direct mount
Bottom mount, back flange
Bottom mount, front flange
- Connection Size
1/2"NPT and G1/2"
- Scale Range
Pressure range 0.. 1 bar to 60 bar
- Static Pressure
Static pressure = Maximum pressure range
- Tube Element Shape
Double bourdon tube measuring
- Filling
Dry, execution
- Operating Temperature
Ambient temperature -20°.. +60°C
Medium temperature 60°C Max.

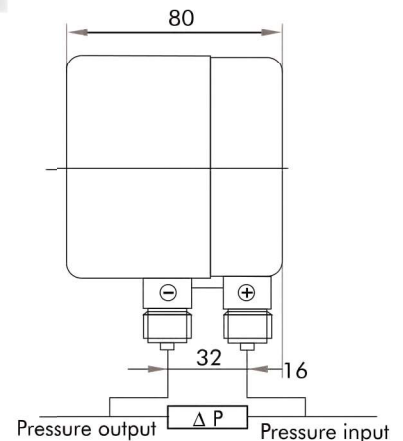
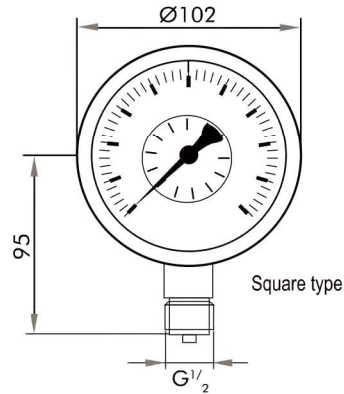
- Temperature Error
Additional error when pressure element temperature deviates from reference temperature +20°C (+68°F) be $\pm 0.6\% / 10^\circ\text{C}$ (50°F) rising or falling
- Dial Graduation
Black graduation on white for pressure range
Red graduation on white for differential range
- **Optional or Accessories**
 - Laminated safety glass
 - Oxygen clean service for O2 media
 - Special design dial
 - Stainless steel name tag

Working principle :

- The highest indicated value is the max. pressure & max. different pressure permitted
- Recommended using 1/2 to 1/3 of pressure range as ΔP , ΔP is not lower than 1/10 of Full Scale value
- Red pointer shown the P+ (Input), Black pointer shown P- (Output) and an auxiliary rotating dial shows the differential pressure. $\Delta P = P+ - P-$

Design Material

- Casing and Bezel Ring
Stainless steel 304
- Pressure Element / Bourdon tube
Copper alloy
- Movement
Copper alloy
- Connection
Copper alloy
- Window
Instrument glass standard,
* Option Dual layer glass
- Sealing and Blow-Out Vent
Standard industrial rubber
- Pointer
Black and red aluminium



Ordering Code



BDB500 <Pressure range>^① Mounting^② - Connection^③ - Filling^④ *Option^⑤

FF500	4" differential pressure gauge		
①	Pressure range		
	Bar	M H2O	Psi
	0..1	0..10	0..15
	0..1,6	0..16	0.. 20
	0..2,5	0..25	0.. 30
	0.. 4	0.. 40	0.. 60
	0.. 6	0.. 60	0..100
	0..10	0..100	0..150
	0..16	0..160	0.. 200
	0.. 25	0.. 250	0.. 300
	0.. 40	0.. 400	0.. 600
	0.. 60	0.. 600	0..1000

②	Mounting
D	Bottom / Direct connection
F	Bottom mount, front flange
W	Bottom conn., back flange (Wall)
③	Connection size
G2	G 1/2"
N2	1/2"NPT

④	Filling
D	Dry execution, not fillable
⑤	Option
SG	Laminated safety glass
SD	Special design dial / Unit ranges
O2	Oxygen clean service for O2 media
NT	Stainless steel name plate
M2	Connection size M20 x 1.5
AC	SS capillary, eg. AC2 (2 meters), etc

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* Static pressure = Maximum pressure range
Compound ranges available (Range -1000.. +1000 mbar)

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