

Technical Datasheet



Double C-Bourdon Tube Differential Pressure Gauges DB Range

Key Features

- Nominal Diameter of 100 mm
- Degree of Protection IP55/65/67
- Stainless steel enclosure as standard
- Ranges available between 1 and 60 bar
- Accuracy class 1.6%

Series Overview

The DB Double Bourdon tube Differential Pressure Gauge (code 3700***) , is manufactured with reference to EN 837, offers customers a high quality and versatile solution for the measurement of High dP ranges for any industrial application.

The selection of quality material and the wide range of options available, make this instrument suitable for liquid and gaseous media, also for aggressive environments and for any industrial application, when pressure measurements are needed.

Other products

Other products we can offer :

- All Stainless Steel Bourdon type pressure gauges
- Diaphragm Type Differential Pressure gauges



Product applications

The DB range is suitable for a wide range of applications in:

- Oil & Gas
- Chemical
- Petrochemical
- Refining
- Power
- Marine

The choice of models available ensures suitability for use in:

- Corrosive atmospheres
- Resistant to chemical attack

How can we help you?

Delta Mobrey offers fast, efficient and knowledgeable support when and where you need it. Please visit our website at www.delta-mobrey.com to find your local support centre or call us on:

+44 (0) 1252 729140

Double C-Bourdon Tube
Models: DB range

Technical Specification

Enclosure casing:	IP67 Protection as standard.
Pressure connection material:	Standard: AISI 316L stainless steel (other, see below)
Dials:	White aluminium with black graduation
Pointer	Aluminium
Pressure ranges:	Ranges according to EN 837-3, max pressure value 25 bar
Over pressure:	Standard 2 x fsv ; Optional 3 x fsv (see below)
Process connection:	Threaded 1/2 Gas (BSP), BSPT or NPT
Finishing of Flanged Connection	Raised face RF as standard (other on request according to the ranges)
Accuracy:	1.6 per EN 837
Ambient temperature:	-20 to +60 °C
Process temperature:	max +120 °C
Enclosure material:	Standard AISI304; Optional AISI316
Wetted parts material :	Standard AISI316L, Exotic material on request
Windows material:	Tempered glass Laminated safety glass
Movements material:	Stainless steel
Scale angle	Standard: 270°C

Model

A dedicated 3700*** code is assigned to each pressure gauge with technical characteristics selected based on the options listed in the tables below

CONSTRUCTION TYPES

Double Bourdon Tube type Differential Pressure Gauge

Standard DB for industrial application

ATEX certified Double Bourdon Tube type Differential Pressure Gauge

ATEX service SG  II 2 G D

Gauge Diameter

CASE DIAMETERS

100mm (nominal 4")

This instrument is available only with case DN100.

Range

Different units or special scales are available. Please contact our sales department for any clarification

	Range	Bar	Kg/cm ²
Gauge Pressure Ranges	0 to 1	√	√
	0 to 1.6	√	√
	0 to 2.5	√	√
	0 to 4	√	√
	0 to 6	√	√
	0 to 10	√	√
	0 to 16	√	√
	0 to 25	√	√
	0 to 40	√	√
	0 to 60	√	√

Over Pressure

Note 1: Overrange protection 10 times fsv is applicable also for range 0 to 400 mbar, but Pmax will be limited to 2.5 bar.

OVERPRESSURE
Standard construction with 2 x fsv overpressure protection
Standard construction with 3 x fsv overpressure protection

Mounting

Bottom Connection, Direct
Bottom Connection, Surface, Case Mounting Plate
Bottom Connections Flush Mounting with pegs

Fill

Filled construction is available only for ranges from range 0 to 250 mbar (no vacuum or compound)

FILLING FLUID
No Fill
Unfilled
Silicone

Process connection

1/4-18 NPT Female

Material of Wetted Parts

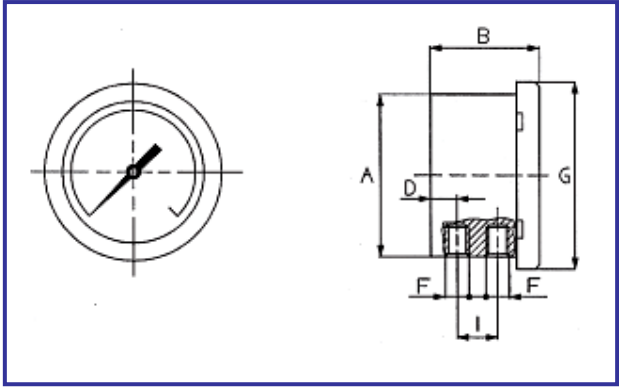
FORESEEN MATERIALS
Stainless steel AISI 316L Bourdon tube and 316L process connection
Monel 400 wetted parts

Material of Gauge Case

100mm case & ring iAISI 304 stainless steel with glass window
100mm case & ring AISI 316 stainless steel with glass window
100mm case & ring AISI 304 stainless steel with laminated safety glass
100mm case & ring AISI 316 stainless steel with laminated safety glass

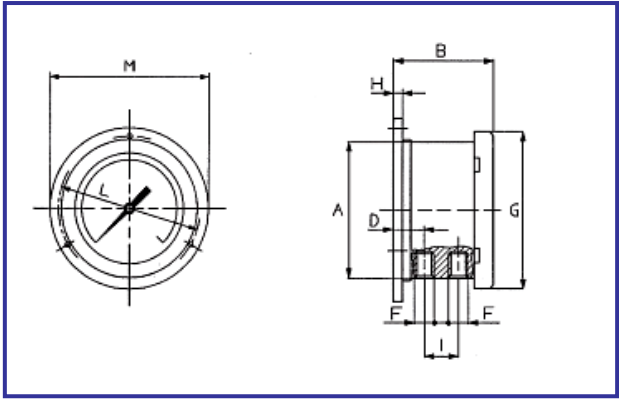
Dimensions

All dimensions mm (inches)



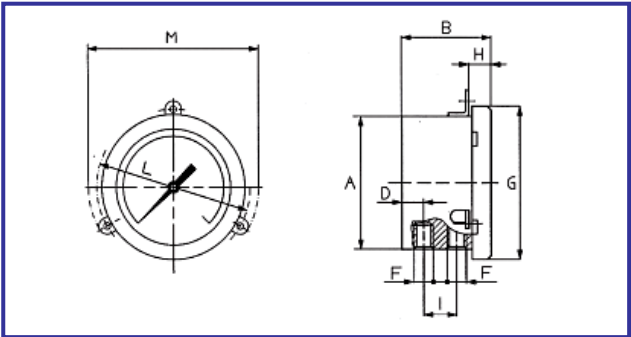
DP gauge for direct mounting

DN	A	B	C	D	E	F	G	H	I	L	M	N	Weight (kg)	
													Dry	Filled
100	103	64		14		(1/4)	118		23				0.55	1.05



DP gauge for surface mounting with 3 fixing holes (120° apart)

DN	A	B	C	D	E	F	G	H	I	L	M	N	Hole Dia.	Weight (kg)	
														Dry	Filled
100	103	70		20		(1/4)	118	7	23	126	140		5	0.64	1.14



DP gauge for back panel flush mounting with pegs (120° apart)

DN	A	B	C	D	E	F	G	H	I	L	M	N	Hole Dia.	Weight (kg)	
														Dry	Filled
100	103	64		14		(1/4)	118	16	23	130	142.5		M5	0.57	1.07

Approvals

EUROPEAN DIRECTIVE



Pressure Equipment Directive (PED) 2014/68/EU

Compliant to PED, Module A for static Pressure > 200 Bar, SEP for Static Pressure ≤200bar

ATEX Directive 2014/34/EU



CONSTRUCTION SAFETY— Technical file storage reference SGS21ATEX0095DR

Notified body for technical storage file : SGS Fimko Oy, Helsinki, Finland, Notified Body No 0598

- Ex h IIC T6 Gb X
- Ex h IIIC T85°C Db X

UK REGULATION



Pressure Equipment (Safety) Regulation 2016

S.I. 2016 no. 1105, as amended, Module A for static Pressure > 200 Bar, SEP for Static Pressure ≤200bar

Equipment and Protective Systems Intended for use in Potentially

Explosive Atmospheres Regulation 2016



(S.I. 2016 No. 1107 as amended)

CONSTRUCTION SAFETY— Technical file storage reference BAS21UKEx0356TDR

Approved body for Technical storage file : SGS Baseefa Ltd, Buxton, United Kingdom, Approval Body No 1180

- Ex h IIC T6 Gb X
- Ex h IIIC T85°C Db X

