

Double diaphragm differential pressure gauge

Model D105

Max. Static pressure 400 bar

Nominal size: 100 mm (4"), 150 mm (6")

ASME B40.100 / EN 837-1 / IS-3624

Accuracy: Class 1,6 (1.6%)

Features

- Stainless steel case and wetted parts
- Max static pressure 400 kg/cm², one side load permitted
- Chamber purge and bleed connection available
- High corrosive resistance
- Dry or liquid filled
- Dual diaphragm, solid front not required
- IP65

Ranges

0 ... 10 in H ₂ O	up to 0 ... 350 psi
0 ... 250 mmWC	up to 0 ... 25 bar & kg/cm ²
0 ... 2.5 kPa	up to 0 ... 2500 kPa



Applications

Chemical and petrochemical industry

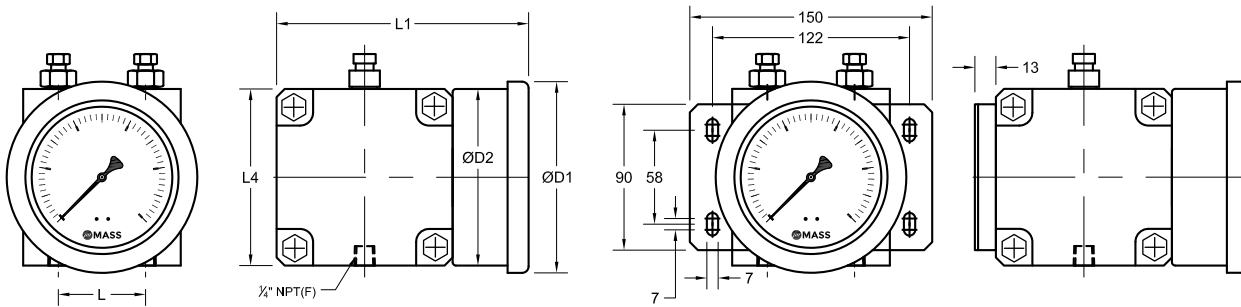
Machine and apparatus construction

Food and beverage industry

Pulp and paper industry

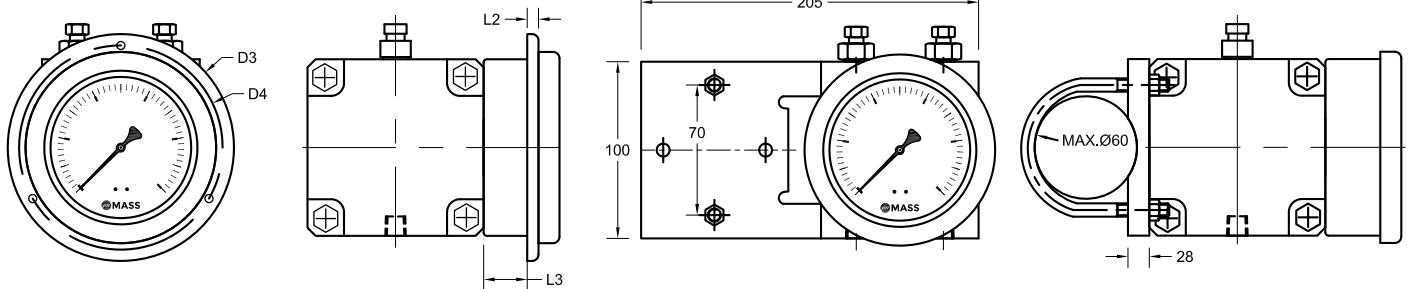
Technical specification	D105	
Dial size in mm	100	150
Construction	Cylindrical case	
Zero adjustment	Optional, Externally at the top of the case.	
Measuring principle	Dual diaphragm safety design, solid front not required	
Static Pressure	25 bar standard for ranges 250 to 1000 mmWC 100 bar standard for ranges 1600 mmWC to 25 bar Optional 100, 250 & 400 bar (refer limits below)	
Pressure range	250 to 1000 mmWC	1600 mmWC to 25 bar
Max static pressure	100 bar	250 bar & 400 bar
Overload capability	Static pressure is also maximum pressure allowed on one side	
Pressure type	Differential	
Process connection	1/4" NPT (F), 1/4" NPT (M), 1/2" NPT (M), 1/4" BSP (M), 1/2" BSP (M), others on request	
Connection location	Lower	
Material		
Pressure connection	Stainless steel 316L	
Pressure chamber	Stainless steel 316L	
Measuring diaphragm	Stainless steel 316L / Stainless steel 316Ti	
Case/bayonet ring	Stainless steel 304, optional 316	
Window	Laminated safety glass	
Dial	Aluminum, black markings on white background	
Pointer	Micro Pointer Aluminum, black,	
Accuracy	Class 1,6 (1,6 % F.S.)	
Permissible		
Zero shift	±2% at maximum static pressure	
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)	
Medium temperature	Max. 100 °C (212 °F)	
Storage temperature	-40 ... 65 °C (-40 ... 150 °F)	
Effect	Max. 0,6 % / 10 K	
Protection according EN 60 529/IEC 529	IP65	
Filling liquids	Glycerin, silicone, others on request	
Mounting	Direct, optional 2" pipe mounting	
Weight small / large chamber in kg	5.1 / 11.0	5.7 / 11.6
Accessories, options	3 or 5 way remote or direct mounted manifolds, valves, NACE	

General dimensions in mm



Direct Mounting

Surface Mounting With Clamp



Front Panel Mounting

2" Pipe Mounting

RANGE	<1600mmWC		≥1600mmWC	
	100	150	100	150
ØD1	118	166	118	166
ØD2	103	150	103	150
ØD3	140	192	140	192
ØD4	126	178	126	178
L	54	54	54	54
L1	200	200	150	150
L2	7	7	7	7
L3	27	27	27	27
L4	150	150	100	100

Order information

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/case/contacts	Options	
(100) 100 mm	D105	(S) Pressure chamber 316L Diaphragm 316L / 316 Ti	(L) IP65	(02) 1/4" NPT (M)	(L) Lower	0/250 ¹⁾	(mmWC)	(=) Standard no filling	(NH) Tagging wired	
(150) 150 mm				(04) 1/2" NPT (M)		0/400		(6B) Oxygen service		
				(13) 1/4" BSP (M)		0/600		(GV) Silicone	(CS) Dual scale	
				(15) 1/2" BSP (M)		0/1000		(GR) Glycerin	(DA) Dial marking	
				(02T) 1/4" NPT (F)		0/1600 ¹⁾		(YW) Case material 316	(EZ) External zero adjustment	
				others on request		0/2500			(TM) 2" pipe mounting bracket	
						0/4000			(PN100) Static pressure 100 bar	
						0/ 0,6	kg/cm ² (or bar)		(PN250) Static pressure 250 bar ²⁾	
						0/ 1		Equivalent ranges in kPa, MPa, psi, bar and others units available		(PN400) Static pressure 400 bar ²⁾
						0/ 1,6				
						0/ 2,5				
						0/ 4				
						0/ 6				
						0/ 10				
						0/ 16				
						0/ 25				
						compound ranges on request				

1) Dial arc shall be 180° 2) only with ranges ≥1600 mmWC

Order example

Size	Type	System material	Execution	Process connection	Connection orientation	Range	Engineering unit	Filling/case/contacts	Option
150	D105	S	L	04	L	0/1	KG/CM2	=	NH

Powertech Industries

hemal@powertechin.com - massgauges@gmail.com
www.powertechin.com