

DS4

All SS Pressure Gauge
With Heavy Duty Mini Threaded Diaphragm Seals



CE

Special Features

- Stainless steel case & measuring system
- Socket directly welded to case
- Dry and liquid filled version
- Standard followed EN 837-3 (for NS 100, 150)
- All AISI 316 SS construction
- Economical & Light weight
- Ideal choice for high pressure
- The diaphragm is welded to the body to ensure separation of the filling fluid from the process medium

Application

- Diaphragm seals are designed to isolate the sensing element of pressure gauges and pressure switches from process fluids that they may be corrosive, viscous, sedimentous and / or with a high temperature.
- For aggressive, hot, corrosive, environmentally hazardous or toxic media
- Chemical & Pharmaceuticals Industry
- Process industry

Gauge Specifications

Standard Version : 100 mm, 125 mm & 150 mm

Accuracy	:	±1.0% of F. S.
Ambient temperature	:	-25°C to +65°C
Process temperature	:	-40°C to 200°C or as per fill fluid
Operating pressure range	:	75% of Scale Value
Over pressure limit	:	< 100 bar : 125% of Max. Scale Value
	:	> 100 to < 600 bar : 115% of Max. Scale Value

Case & Bezel	:	AISI 304 SS (Bayonet Type)
Bourdon	:	AISI 316L SS
Socket	:	AISI 316 SS (Directly Welded to Case)
Movement	:	AISI 304 SS
Joints	:	Tig Argon Arc Welding

Protection	:	IP 68 as per IS/IEC 60529:2001
Dial	:	Aluminium, black graduation on white background
Pointer	:	Aluminium, black coloured Micrometer zero adjustable
Window	:	Toughened Glass
Blow off Disc	:	Neoprene
Gasket & Filling Plug	:	Neoprene

Sealed Unit Specifications Standard Version

Seal type & Range	:	D63 = -1 kg/cm ² to 0 & 0 to 4 kg/cm ² (Standard)
	:	D53 = 6 kg/cm ² to 70 kg/cm ²
	:	D38 = 100 kg/cm ² to 400 kg/cm ²
	:	D30 = 250 kg/cm ² to 600 kg/cm ²
Process temperature	:	-40°C to 200°C or as per fill fluid
Process connection	:	½" BSP (M)
	:	¼" BSP (F) for type D30
Fill fluid	:	Silicon Oil - DC 200
Mounting	:	Direct (without capillary)
Diaphragm	:	AISI 316L SS
Body	:	AISI 316 SS

Dry But Fillable Version (Option DFG)

Fillable Dampening Liquid	:	Glycerine 99.7% (Option - DFG)
Ambient Temperature	:	Maximum 65°C
Process Temperature	:	Maximum 150°C
Window	:	Toughened Glass
Other Features	:	Refer Specification of Standard Version

Glycerine Filled Version (Option LFG)

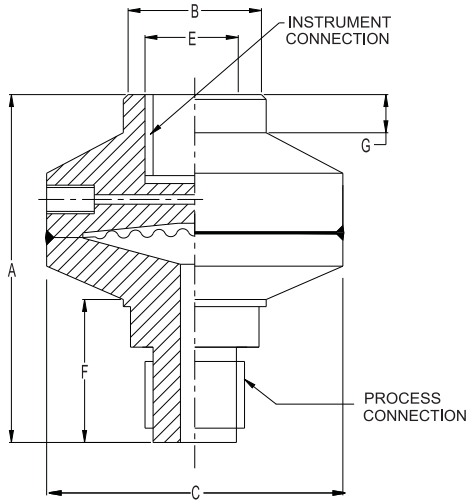
Accuracy	:	±1.0% of F.S.
Ambient Temperature	:	Maximum 65°C
Process Temperature	:	Maximum 150°C
Window	:	Toughened Glass
Dampening Liquids	:	Glycerine 99.7% (others available as option)
Other Features	:	Refer Specification of Standard Version

Temperature effect:

The variation of indication caused by effects of temperature is to be calculated by below formula; which is to be added in the specified accuracy while measurement :- Formula : $\pm 0.04 \times (t_2 - t_1) \% \text{ of F. S.}$ where t_1 = reference temperature (+20°C) and t_2 = ambient temperature in °C.

Dimensions - Sealed Unit

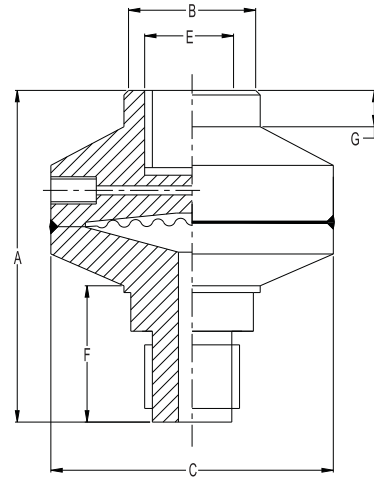
TYPE "D63"



A	B	C	E	F	G	Approx. Wt.#
67	30	62	3/8"BSP(F)	30	8	700.0

(# Weight in grams with box for Standard Model.)

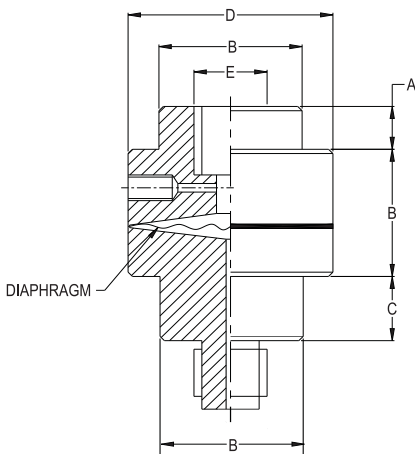
TYPE "D53"



A	B	C	E	F	G	Approx. Wt.#
68.5	30	53	1/2"BSP(F)	35	8	600.0

(# Weight in grams with box for Standard Model.)

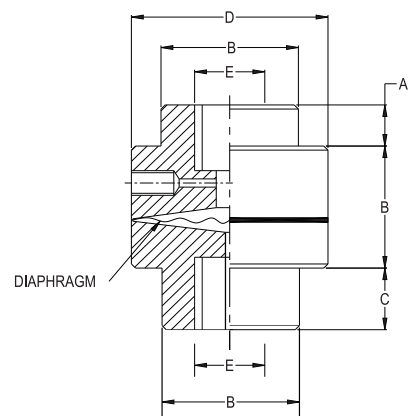
TYPE "D38"



A	B	C	D	E	Approx. Wt.#
10	22	15	38	3/8"BSP(F)	350.0

(# Weight in grams with box for Standard Model.)

TYPE "D30"

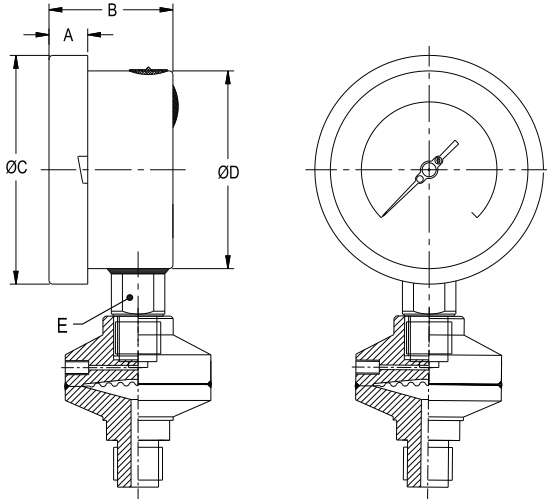


A	B	C	D	E	Approx. Wt.#
10	30	10	30	1/4" BSP(F)	300.0

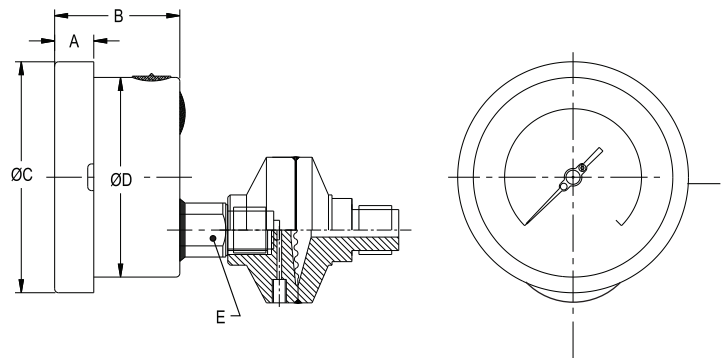
(# Weight in grams with box for Standard Model.)

Dimensions - standard version

TYPE 2



TYPE 3



NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	1950.0	2300.0
125	15	48	129	119	22	2050.0	3000.0
150	15	49	161	149	22	2350.0	3500.0
200	18	49	216	200	22	3050.0	4000.0
250	18	55	263	248	22	3500.0	4500.0

NS	A	B	ØC	ØD	E	Weight in gram (With Box)	Weight in gram (With Glycerin & Box)
100	12.5	48	111	100	22	1950.0	2300.0
125	15	48	129	119	22	2050.0	3000.0
150	15	49	161	149	22	2350.0	3500.0
200	18	49	216	200	22	3050.0	4000.0
250	18	55	263	248	22	3500.0	4500.0

Notes : • Drawings are not to scale. • All Dimensions are in mm . • NS = Nominal size

• Weights mentioned are approximate and for standard product. Weight can be different after selection of options.

Range Table

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm² & Dual Scale like kPa with psi, kPa with bar, bar with psi or Equivalent scales as per the requirement can be provided on request. Following are the example tables for kg/cm² & psi scales.

Pressure

Single Scale (kg/cm² or bar)

0/0.6	0/4	0/25	0/160
0/1	0/6	0/40	0/250
0/1.6	0/10	0/60	
0/2.5	0/16	0/100	

Dual Scale (psi with kg/cm²)

psi	kg/cm ²	psi	kg/cm ²	psi	kg/cm ²
0/15	0/1	0/400	0/28	0/3500	0/250
0/30	0/2	0/500	0/35		
0/60	0/4	0/600	0/40		
0/100	0/7	0/1000	0/70		
0/150	0/10	0/1500	0/100		
0/230	0/16	0/2300	0/160		
0/300	0/20	0/3000	0/200		

Vacuum & Compound

Dual Scale (inHg with psi & mmHg with kg/cm²)

inHg with psi	mmHg with kg/cm ²	inHg with psi	mmHg with kg/cm ²	inHg with psi	mmHg with kg/cm ²
- 30/0	- 760/0	- 30/60	- 760/4	- 30/200	- 760/14
- 30/15	- 760/1	- 30/100	- 760/7	- 30/300	- 760/21
- 30/30	- 760/2	- 30/150	- 760/10	- 30/350	- 760/25

Single Scale (kg/cm²)

- 1/0	- 1/1.5	- 1/5	- 1/15
- 1/0.6	- 1/3	- 1/9	- 1/24

Accessories (refer datasheet for complete specifications)

CT Cooling tower	GS Over load protector (gauge saver)**	SN In-Built Snubber
* Needle valve	SP Siphon	

* Refer catalogue for Valves & Manifolds.

** For Pressure Ranges.

Note : For Any Non Standard or Special Scale Marking Consult Factory

HOW TO ORDER				Example
Basic Model				DS4
Code				
Nominal Size		40	45	60
		100 mm	125 mm	150 mm
Type of Mounting				
1	Wall / surface / projection mounting with bottom entry	3	Direct lower back entry	X
2	Direct bottom entry	5	Lower back entry with front flange	
Process Connection				
2BF ¼" BSP (F)	2NF ¼" NPT (F)	2NM ¼" NPT (M)	2BM ¼" BSP (M)	XXX
3BF 3/8" BSP (F)	4NF ½" NPT (F)	4NM ½" NPT (M)	3BM 3/8" BSP (M)	
4BF ½" BSP (F)	5NF ¾" NPT (F)	5NM ¾" NPT (M)	4BM ½" BSP (M) (Standard)	
5BM ¾" BSP (M)				
Standard Option for Sealed Unit				
IF Any Other MOC Required Use Options given on Next Page & DO NOT USE THIS OPTION "STD" In Model Coding				STD
Top Chamber : SS 304, Diaphragm : SS 316L, Bottom Chamber : SS 316,				
Range : Refer range table				0/10 kg/cm ²

How To Order	OPTIONAL ONLY IF REQUIRED	Example	
Top Chamber			
SL AISI 316L SS	S6 AISI 316 SS	XX	
Diaphragm			
HC Hastelloy 'C'	TN Tantalum	TI Titanium	XX
MO MONEL	IN Inconel 600		XX
Bottom Chamber (* Refer Pressure v/s Temperature table below.)			
SL AISI 316L SS			
Filling Fluids (* Consult factory for specifications, price and delivery.)			
FG Food Grade OIL [-20 to 140°C]	SY Syltherm 800 [-40 to 315°C]		XX
S2 Silicon DC 550 [10 to 400°C]			
Optional Extras			
MTC Material test certificates***			XXX
LGF Dampening liquid glycerine filled			
LSI Dampening liquid silicon oil filled*			
PLG Plexi glass			
STG Shatterproof/safety glass			
MDJ Movement with dampening jelly			
KEP Knife edge pointer			

Ordering Example: DS1 - XX - X - XXX - STD- 0/10 kg/cm² + Options if any Required.

For other optional items, please contact factory for delivery and minimum order quantity.

Note : Specifications and dimensions given in this product catalogue represents the state of engineering at the time of printing.
Modifications may take place and materials specified may be replaced by others without prior notice.