

Low and high pressure Diaphragm Gauge (Schaffer)



Features:

- All SS case & measuring system
- Selectable ranges from -6000 to 0 & 0 to 6000 mmWC, -1 to 0 and 0 to 10 kg/cm²
- Flanged or screwed connection

Applications:

- Suitable for clean air
- Corrosive environments & gaseous or non-crystallised liquid media that will not obstruct the pressure system

Standard:

- EN 837-3

Standard Parameters

Diaphragm type	: HP: - -1 to 0 and 0 to 10 kg/cm² : LP: - -6000 to 0 & 0 to 6000 mmWC
Accuracy	: ±1.6% F.S.
Ambient temperature	: -25° C to 65° C
Process temperature	: Max. 100° C
Operating pressure range	: 75% of Scale Value
Over pressure limit	: 125% of Scale value

Materials of Construction

Case & bezel	: AISI 304 SS (Bayonet type)
Top chamber	: AISI 304 SS
Bottom chamber	: AISI 316 SS
Movement	: AISI 304 SS
Diaphragm	: AISI 316L SS
Gauge Connection	: 1/2" BSP[M]
Protection	: IP 65
Dial background	: Aluminium, black graduation on white
Pointer adjustable	: Aluminium, black coloured, slotted zero
Window	: Sheet glass
Blow of disk	: Neoprene
Gasket	: Neoprene

Temperature Effect

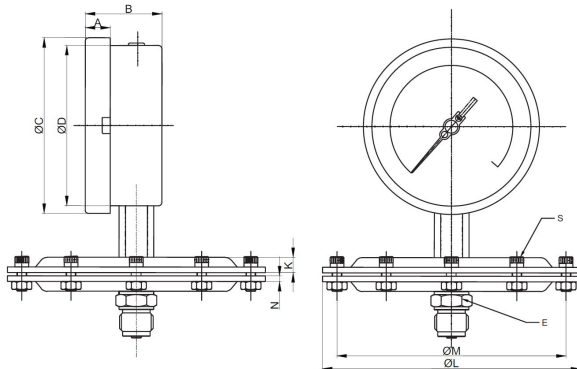
The variation of indication caused by effects of temperature is to be calculated by below formula which is to be added in the specific accuracy while measurement:

Formula $\pm 0.08 \times (t_2 - t_1) \% \text{ of F.S.}$

where t1: reference temperature (+20°C) and t2: ambient temperature in °C.

Dimensional drawing

TYPE 1- LP



NS	A	B	øC	øD	E	K	øL	N	S
100	15.5	47	109	98.5	22	9.5	160	3.5	1/4
150	15.5	49	160	149	22	9.5	160	3.5	1/4

Note: ● Drawings are not to scale ● All dimensions are in mm

Range table

Note: We offer Pressure, Vacuum and Compound ranges in Scales like kPa, MPa, bar, psi, kg/cm² & dual Scale like kPa with psi, kPa with bar, bar with psi or scales as per the requirement can be provided on request. Following are the example tables for kg/cm² & psi scales

Pressure, Vacuum & Compound Ranges (HP)

Single Scale (kg/cm ²)				Dual Scale psi with kg/cm ²			
0/0.6	0/1.6	0/4	0/10	psi	Kg/cm ²	psi	Kg/cm ²
0/1	0/2.5	0/6		0/15	0/1	0/100	0/7
				0/30	0/2	0/150	0/10
				0/60	0/4		

Vacuum & Compound range

Single Scale (kg/cm ²)			Dual Scale PSI with kg/cm ²			
-1/0.6	-1/3	-1/9	inHg with psi	mmHg with kg/cm ²	inHg with psi	mmHg with kg/cm ²
-1/1.5	-1/5		-30/0	-760/0	-30/60	-760/4
			-30/15	-760/1	-30/100	-760/7
			-30/30	-760/2	-30/150	-760/9

Pressure Vacuum and Compound Range LP

Pressure Range – single scale -mmWC			Vacuum range -Single scale mmWC		
0/250	0/1000	0/2500	-250/0	-1000/0	-2500/0
0/400	0/1600	0/4000	-400/0	-1600/0	-4000/0
0/600	0/2000	0/6000	-600/0	-2000/0	-6000/0

Compound Range – single scale -mmWC			Accessories	
-100/150	-400/600	-1000/1500	Gauge cock	Syphon
-150/250	-600/1000	-1500/2500	Needle Valve	Cooling tower
-200/400	-800/1200	-2000/4000	Snubber	Overload protector

Range Table

DN	PN	CODE
10	6	A01
	10	A02
	16	A03
	25	A04
	40	A05
	64	A06
	100	A07
	160	A08
	250	A09
	400	A10
15	6	A11
	10	A12
	16	A13
	25	A14
	40	A15
	64	A16
	100	A17
	160	A18
	250	A19
	400	A20
20	6	A21
	10	A22
	16	A23
	25	A24
	40	A25
25	6	A26
	10	A27
	16	A28
	25	A29
	40	A30
	64	A31
	100	A32
	160	A33
	250	A34
	400	A35

DN	PN	CODE
32	6	A36
	10	A37
	16	A38
	25	A39
	40	A40
40	6	A41
	10	A42
	16	A43
	25	A44
	40	A45
	64	A46
	100	A47
	160	A48
	250	A49
	400	A50
50	6	A51
	10	A52
	16	A53
	25	A54
	40	A55
	64	A56
	100	A57
	160	A58
	250	A59
	400	A60

DN	PN	CODE
65	6	A61
	10	A62
	16	A63
	25	A64
	40	A65
	64	A66
	100	A67
	160	A68
	250	A69
	400	A70
80	6	A71
	10	A72
	16	A73
	25	A74
	40	A75
	64	A76
	100	A77
	160	A78
	250	A79
	400	A80

As per JIS - B 2210

NOMINAL SIZE	RATING /CLASS	CODE
10A	5K	B57
	10K	B58
	40K	B59
15A	5K	B60
	10K	B61
	40K	B62
20A	5K	B63
	10K	B64
	40K	B65

NOMINAL SIZE	RATING /CLASS	CODE
25A	5K	B66
	10K	B67
	40K	B68
32A	5K	B69
	10K	B70
	40K	B71
40A	5K	B72
	10K	B73
	40K	B74

DN	PN	CODE
10	10	A90
15		A91
20		A92
25		A93
32		A94
40		A95
50		A96
65		A97
80		A98

As per DIN 2633

DN	PN	CODE
10	16	A81
15		A82
20		A83
25		A84
32		A85
40		A86
50		A87
65		A88
80		A89

As per DIN 2635

DN	PN	CODE
10	40	A99
15		B01
20		B02
25		B03
32		B04
40		B05
50		B06
65		B07
80		B08

NOMINAL SIZE	RATING /CLASS	CODE
50A	5K	B75
	10K	B76
	40K	B77
65A	5K	B78
	10K	B79
	40K	B80
80A	5K	B81
	10K	B82
	40K	B83

Note : 1 Flanged Connections as per BS / ANSI / DIN etc standards with or without Teflon protection can be provided on request.

2 Flange Finish shall be 125 - 250 AARH as a standard. For other finish, please consult factory.

NOMINAL SIZE	RATING /CLASS	CODE
1/2"	150	B09
	300	B10
	600	B11
	900	B12
	1500	B13
	2500	B14
3/4"	150	B15
	300	B16
	600	B17
	900	B18
	1500	B19
	2500	B20

NOMINAL SIZE	RATING /CLASS	CODE
1"	150	B21
	300	B22
	600	B23
	900	B24
	1500	B25
	2500	B26
1 1/4"	150	B27
	300	B28
	600	B29
	900	B30
	1500	B31
	2500	B32

NOMINAL SIZE	RATING /CLASS	CODE
1 1/2"	150	B33
	300	B34
	600	B35
	900	B36
	1500	B37
	2500	B38
2"	150	B39
	300	B40
	600	B41
	900	B42
	1500	B43
	2500	B44

NOMINAL SIZE	RATING /CLASS	CODE
2 1/2"	150	B45
	300	B46
	600	B47
	900	B48
	1500	B49
	2500	B50
3"	150	B51
	300	B52
	600	B53
	900	B54
	1500	B55
	2500	B56

NOMINAL SIZE	TABLE	CODE
1/2"	D	B84
	E	B85
	F	B86
	H	B87
	J	B88
	K	B89
3/4"	D	B90
	E	B91
	F	B92
	H	B93
	J	B94
	K	B95

NOMINAL SIZE	TABLE	CODE
1"	D	B96
	E	B97
	F	B98
	H	B99
	J	C01
	K	C02
1 1/4"	D	C03
	E	C04
	F	C05
	H	C06
	J	C07
	K	C08

NOMINAL SIZE	TABLE	CODE
1 1/2"	D	C09
	E	C10
	F	C11
	H	C12
	J	C13
	K	C14
2"	D	C15
	E	C16
	F	C17
	H	C18
	J	C19
	K	C20

NOMINAL SIZE	TABLE	CODE
2 1/2"	D	C21
	E	C22
	F	C23
	H	C24
	J	C25
	K	C26
3"	D	C27
	E	C28
	F	C29
	H	C30
	J	C31
	K	C32

Ordering codes

1. Dial Size		E	5. Range		0/1000 mmWC
Code	Nominal size		Refer Range table		5C
E	100mm				
G	150mm				
2. Mounting		1	7. Options		
1	Direct bottom		S6	AISI 316 SS case & bezel	
7	2” pipe/yoke mounting*		SD	AISI 316 SS movement	
*Ask factory if drawing required			5C	Five-point calibration certificate	
3. Top Chamber		S4	OS	Oxygen service (for dry version)	
S4	AISI 304 SS (Standard)		ST	SS tag plate	
S6	AISI 316 SS		DT	Dial tag marking	
4. Diaphragm		S6L	CD	Custom designed dial	
HC	Hastelloy C		MT	Material test certificate**	
MO	Monel		NT	Calibration certificate with NABL traceability	
S6L	AISI 316L (Standard)		SG	Shatter Proof glass	
5. Bottom Chamber		S6	TG	Toughened glass	
S4	AISI 304 SS		PL	PTFE lining on flange or screwed connection	
S6L	AISI 316L SS		SP	Silver protection on diaphragm	
TI	Titanium		PP	PTFE protection on diaphragm	
HC	Hastelloy C		PC	PTFE coating on diaphragm	
MO	Monel		PG	PTFE gasket up to 200° C	
S6	AISI 316 SS (Standard)				
6. Process Connection		15B			
15N	1/2" NPT[M] (Standard)				
15B	1/2" BSP[M] (Standard)				
15BT	1/2" BSPT[M]				
M20	M20 x 1.5[M]				
10B	3/8" BSP[M]				

Ordering Example: SF-E-1-S4-S6L-S6-15B-0/1000mmWC-5C

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.