

# Solid Front Pressure Gauge (SF)

The Solid Front (SF) pressure gauge designed for measuring pressure in tough conditions, is built with special consideration to personnel safety, high corrosive resistance and has a long product life. These gauges are suitable for applications in various industries.

These gauges are constructed with a metal barricade interposed between the bourdon tube and window. This ensures that the bourdon tube which is subjected to high process pressures is isolated from the viewing area of the gauge. Coupled with a laminated safety glass and blowout back, these gauges are specially designed to protect operating personnel from any adverse effects of extreme pressure impulses.

The use of corrosion resistant high grade stainless steel, for both the casing and the measurement system, makes these pressure gauge best suitable to operate in an adverse environment and with corrosive media.

The welded design coupled with a modular construction system allows for best-in-class ingress protection (upto IP 65 standard), and also offers a long and stable service life with tried and tested safety features such as vent plug and blowout back adhering to EN 837-1 standard.



## Available In

Nominal sizes	4"(100 mm) & 6"(150 mm)
Ranges	-760 mmHg to 0 & 0 to 0.6 upto 700 kg/sq.cm

## Special Features

- Compliance to latest EN837-1
- Overpressure limit 125 % of FSD
- Ingress protection to IP65
- Accuracy class  $\pm 1.0\%$  of FS
- Stainless steel casing
- External zero adjustment (optional)
- Socket to case - TIG argon welded
- CE marking as per PED 97/23/EC

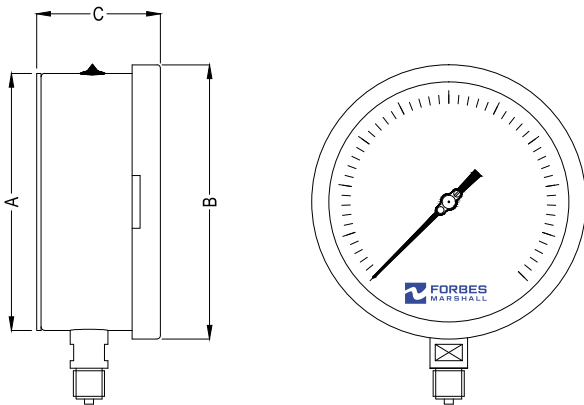
## Industrial Applications

- Chemical and fertiliser
- Petrochemical
- Thermal, nuclear and hydroelectric power stations
- Pharmaceutical
- Food processing
- Water treatment plants
- Iron and steel
- Rubber moulding / processing plants
- Hydraulics and pneumatics
- Sugar
- Refineries
- Hydraulic power packs
- Cryogenics

Standard Product Specifications	
Specifications	Description
Reference standard	EN 837 - 1
Mounting	Direct bottom
Connection	½" NPT (M)
Case & Bezel	SS 304
Bourdon	SS 316L
Socket	SS 316L
Movement	SS 304
Dial	Aluminum, white background with black marking
Pointer	Aluminum, black color micrometer with zero adjustable
Accuracy	±1% of FS (standard)
Overpressure limit	As per EN standard
	From 0 to 100 Kg/sq.cm, 125% of maximum scale value
	From 100 to 600 Kg/sq.cm, 115% of maximum scale value
	From 600 to 1600 Kg/sq.cm, 110% of maximum scale value
Window	Safety laminated shatterproof glass
Protection	IP65
Blow off disc	SS 304 – for SS 304 case
	SS 316 – for SS 316 case
Filling plug	Neoprene
Gasket	Silicon
Ambient temperature	-25°C to +65°C
Process temperature	Max. 200°C (for dry gauge)
Technical specifications, MOC subject to change without prior notice	

### Mounting Options

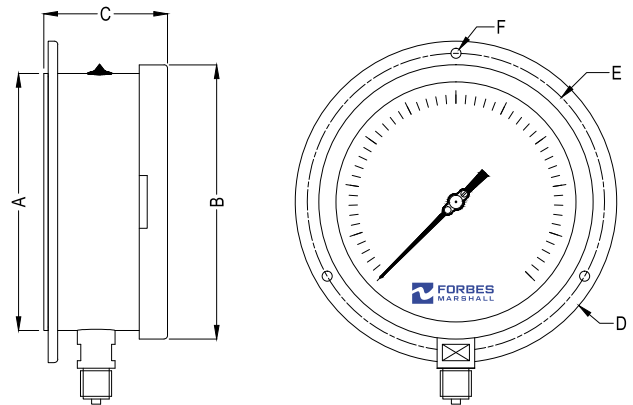
#### Direct Bottom



→ Parameters

Dial Size	A	B	C
100	Ø100	Ø110	60.0 ± 1.5
150	Ø149	Ø160	63.0 ± 1.5

#### Surface Bottom



→ Parameters

Dial Size	A	B	C	D	E	F
100	Ø100	Ø110	60.0 ± 1.5	Ø134	Ø118	Ø6
150	Ø149	Ø160	63.0 ± 1.5	Ø186	Ø168	Ø6

## Pressure Ranges

### Standard

Code	Kg/sq. cm (Code A)	BAR (Code B)	Code	KPA (Code C)	Code	Dual scale Kg/sq. cm & Psi (Code D)	Dual scale Kg/sq. cm & Bar (Code E)	Code	Dual scale Kg/sq. cm & Psi (Code D)	Dual scale Kg/sq. cm & Bar (Code E)
AA	-1 + 0	-1 + 0	AR	-100 + 0	BI	-1 + 0/-15 + 0	-1 + 0/-15 + 0	CI	0 + 210/0 + 3000	0 + 210/0 + 3000
AB	0 + 0.6	0 + 0.6	AL	0 + 60	BK	0 + 1/0 + 15	0 + 1/0 + 15	CJ	0 + 280/0 + 4000	0 + 280/0 + 4000
AC	0 + 1	0 + 1	AM	0 + 100	BL	0 + 1.6/0 + 23	0 + 1.6/0 + 23	CK	0 + 420/0 + 6000	0 + 420/0 + 6000
AD	0 + 1.6	0 + 1.6	AN	0 + 160	BZ	0 + 2.1/0 + 30	0 + 2.1/0 + 30	CL	0 + 700/0 + 10000	0 + 700/0 + 10000
AE	0 + 2.5	0 + 2.5	AO	0 + 250	CA	0 + 4.2/0 + 60	0 + 4.2/0 + 60			
AF	0 + 4	0 + 4	AP	0 + 400	BO	0 + 6.0/0 + 86	0 + 6.0/0 + 86			
AG	0 + 6	0 + 6	AQ	0 + 600	CB	0 + 7.0/0 + 100	0 + 7.0/0 + 100			
AH	0 + 10	0 + 10	AY	0 + 1000	BP	0 + 10/0 + 150	0 + 10/0 + 143			
AI	0 + 16	0 + 16	AZ	0 + 1600	CC	0 + 14.0/0 + 200	0 + 14.0/0 + 200			
AJ	0 + 25	0 + 25	BA	0 + 2500	BQ	0 + 16.0/0 + 230	0 + 16.0/0 + 230			
AK	0 + 40	0 + 40	BB	0 + 4000	CD	0 + 21.0/0 + 300	0 + 21.0/0 + 300			
AL	0 + 60	0 + 60	BC	0 + 6000	CE	0 + 28.0/0 + 400	0 + 28.0/0 + 400			
AM	0 + 100	0 + 100	BD	0 + 10000	CF	0 + 42.0/0 + 600	0 + 42.0/0 + 600			
AN	0 + 160	0 + 160	BE	0 + 16000	CG	0 + 70.0/0 + 1000	0 + 70.0/0 + 1000			
AO	0 + 250	0 + 250	BF	0 + 25000	BU	0 + 100/0 + 1500	0 + 100/0 + 1500			
AP	0 + 400	0 + 400	BG	0 + 40000	CH	0 + 140/0 + 2000	0 + 140/0 + 2000			
AQ	0 + 600	0 + 600	BH	0 + 60000	BV	0 + 160/0 + 2300	0 + 160/0 + 2300			

### Compound Pressure Range

Code	mm Hg / Kg/sq.cm (Code F)	mm Hg/Bar (Code G)	Code	Kg/sq.cm (Code A)	Bar (Code B)	Code	Dual scale in Hg+Psi/mm Hg+Kg/Sq.cm (Code H)	Dual Scale in Hg+Psi/ mm Hg+Bar (Code I)	Code	Dual scale in Hg+Psi/Kg/ Sq.cm (Code J)	Dual scale in Hg+Psi/Bar (Code K)
CM	-760 + 1.5	-760 + 1.5	CU	-1 + 1.5	-1 + 1.5	DC	-30 + 20/ -760 + 1.5	-30 + 20/ -760 + 1.5	FA	-30 + 20/ -1 + 1.5	-30 + 20/ -1 + 1.5
CN	-760 + 3.0	-760 + 3.0	CV	-1 + 3.0	-1 + 3.0	DD	-30 + 42/ -760 + 3.0	-30 + 42/ -760 + 3.0	FB	-30 + 42/ -1 + 3.0	-30 + 42/ -1 + 3.0
CO	-760 + 5.0	-760 + 5.0	CW	-1 + 5.0	-1 + 5.0	DE	-30 + 70/ -760 + 5.0	-30 + 70/ -760 + 5.0	FC	-30 + 70/ -1 + 5.0	-30 + 70/ -1 + 5.0
CP	-760 + 6.0	-760 + 6.0	CX	-1 + 6.0	-1 + 6.0	DF	-30 + 85/ -760 + 6.0	-30 + 85/ -760 + 6.0	FD	-30 + 85/ -1 + 6.0	-30 + 85/ -1 + 6.0
CQ	-760 + 7.0	-760 + 7.0	CY	-1 + 7.0	-1 + 7.0	DG	-30 + 100/ -760 + 7.0	-30 + 100/ -760 + 7.0	FE	-30 + 100/ -1 + 7.0	-30 + 100/ -1 + 7.0
CR	-760 + 9.0	-760 + 9.0	CZ	-1 + 9.0	-1 + 9.0	DH	-30 + 125/ -760 + 9.0	-30 + 125/ -760 + 9.0	FF	-30 + 125/ -1 + 9.0	-30 + 125/ -1 + 9.0
CS	-760 + 15.0	-760 + 15.0	DA	-1 + 15.0	-1 + 15.0	DI	-30 + 210/ -760 + 15.0	-30 + 210/ -760 + 15.0	FG	-30 + 210/ -1 + 15.0	-30 + 210/ -1 + 15.0
CT	-760 + 24.0	-760 + 24.0	DB	-1 + 24.0	-1 + 24.0	DJ	-30 + 340/ -760 + 24.0	-30 + 340/ -760 + 24.0	FH	-30 + 340/ -1 + 24.0	-30 + 340/ -1 + 24.0

## Ordering Information

<b>Model</b>	SF	**	*	*	*	*	**	*
<b>Dial Size</b>								
100 mm	E							
150 mm	F							
<b>Mountings</b>								
Direct bottom	1							
<b>Connection Size</b>								
1/4"	A							
3/8"	B							
1/2"	C							
M20X1.5P	1							
<b>Connection Type</b>								
NPT (M)	A							
BSP (M)	B							
Metric Thread (M)	M							
<b>Range</b>								
Refer to Std. Pressure Range Table								
<b>Engineering Unit*</b>								
Kg/sq.cm	A							
Bar	B							
Kpa	C							
Dual scale Kg/sq.cm-Psi	D							
Dual scale Bar-Psi	E							

## Configurator Generated Code

<b>Case</b>	SS 304 (standard)	****
	SS 316	
<b>Bourdon and Socket</b>	SS316L (standard)	
	Monel	
<b>Movement</b>	SS304 (standard)	
	SS316	
	Jelly cap movement	
<b>Pointer</b>	Micrometer pointer (standard)	
	Knife edge pointer	
<b>Window</b>	Toughened glass	
	Safety laminated Shatterproof gGlass (standard)	

Tests and Certificates
Five point calibration certificate (standard)
Oxygen service (for dry version)
NABL traceability certificates
CE marking (as per PED (97/23/EC))
Material test certificates for wetted parts
Helium leak test
NACE conformity for wetted parts
Dye penetration testing
Ultrasonic testing
IBR certification
EN 10204 3.1.B certification
Special requirement – please specify

Optional Features
Accuracy 0.5% of FS
Integral dampening screw
Internal over pressure stop
Internal vacuum stop
Tag marking on dial
SS tag plate
Case filling – glycerin upto 65°C
External zero adjustment
2"pipe mounting bracket with SS 304
2"pipe mounting bracket with SS 316
Custom designed dial
Special requirement – please specify
Case filling – silicon oil - 40°C to 200°C

Ordering example : SFE1CAAHB-0000 (Standard)



Forbes Marshall  
Krohne Marshall  
Forbes Marshall Arca  
Codel International  
Forbes Solar  
Forbes Vyncke  
Forbes Marshall Steam Systems

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