

# Polypropylene Case Process Pressure Gauge (PP)

## Introduction

The Polypropylene Case (PP) process pressure gauge is offered with an as-welded bourdon tube to ensure safety and a longer life than other comparable gauges. Meeting ASME B40.1 standard, the type PP process gauge has been engineered to meet market requirements.

## This gauge is Available in

Nominal sizes:	115 mm
Ranges:	-760 mmHg to 0 and 0 to 0.6 upto 700 kg/sq.cm

## Features

Compliance to ASME - B 40.1 , Grade 2A

Polypropylene case with SS316L measuring system

Standard ranges :-760 mmHg to 0 and 0 to 0.6 upto 700 kg/sq.cm

Overload capacity 125 % of FSD

Protection to IP67

Dry or liquid filled version

CE marking as per PED 97/23/EC

Solid front design features baffle wall interposed between the window and a pressure relieving back for increased safety.



## Applications

Chemical and fertilizer industries

Water treatment plants

Aluminium and steel industries

Petrochemical industry

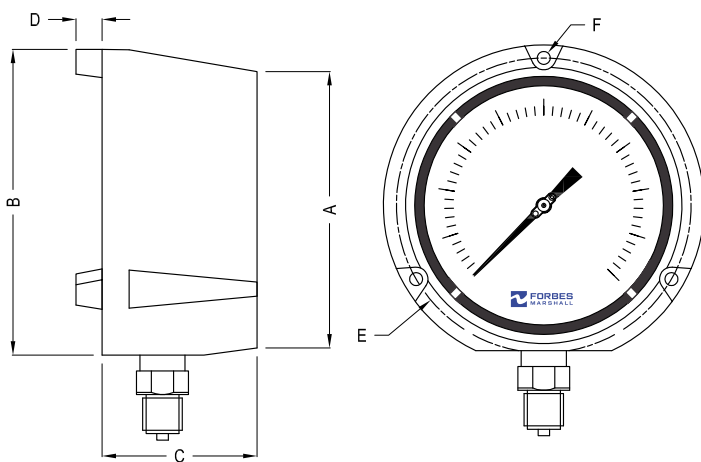
Refineries

## Standard Product Specifications

Standards	Description
Reference standard	ASME - B 40.1 , Grade 2A
Mounting	Direct bottom
Connection	1/4" NPT (M)
Case and bezel	Polypropylene
Bourdon	SS316 L
Socket	SS316 L
Movement	SS304
Dial	Aluminum, white background with black marking
Pointer	Aluminum, black color micrometer with zero adjustable
Accuracy	±1% of FS (as standard)
	±0.5% of FS for dry gauges (optional)
Dampening liquid	Glycerin up to 65°C
	Silicon oil -25 to 120°C
Over pressure limit	As per EN standard
	Upto 100 bar 125% of maximum scale value
	100 bar to 600 bar 115% of maximum scale value
	600 bar to 1600 bar 110% of maximum scale value
Window	Safety laminated shatterproof glass
Protection	IP65
Blow off disc	Reinforced polypropylene
Gasket and filling plug	Neoprene
Ambient temperature	-25°C to +65°C
Process temperature	Max. 150°C (for dry gauge)
	Max. 65°C (for Glycerin illed gauges)

\*For customer requests, please consult Forbes Marshall

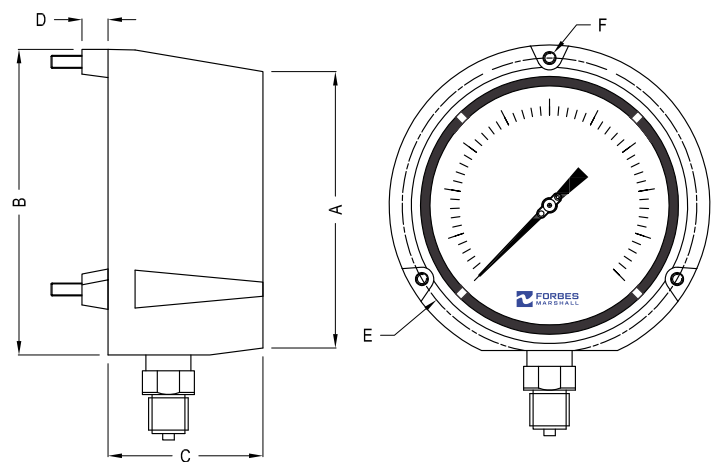
Mounting - 1



→ Parameters

Dial Size	A	B	C	D	E	F
115	Ø128	141.5	68	13	Ø140	Ø8

Mounting - 4



→ Parameters

Dial Size	A	B	C	D	E	F
115	Ø128	141.5	68	13	Ø140	Ø8

\*Mounting: 1-Direct bottom, 4-Surface bottom,

### Pressure Range Details

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	mmHg / Kg/sq.cm (Code F)	mmHg/Bar (Code G)	Code	Kg/sq.cm (Code A)	Bar (Code B)	Code	Dual scale in Hg+Psi / mmHg+Kg/Sq.cm (Code H)	Dual Scale inHg + Psi / mmHg+ Bar (Code I)	Code	Duel scale inHg+Psi/ Kg/Sq.cm (Code J)	Duel scale inHg + 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

## Configuration Generation Code

<b>Model</b>	PP	**	*	*	*	*	**	*
<b>Dial Size</b>								
115 mm	J							
<b>Mountings</b>								
Direct bottom	1							
Surface bottom	4							
<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							
BSPT (M)	C							
Metric thread (M)	M							
<b>Range</b>	**							
<b>Engineering Unit*</b>								
Kg/sq.cm	A							
Bar	B							
Kpa	C							
Dual scale Kg/sq.cm-Psi	D							
Dual scale Bar-Psi	E							

<b>Case and Bezel</b>		*****			
Polypropylene (standard)					
<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 (standard)					
Safety laminated Shatterproof glass					

\*We offer other scales like MPA/mmWc or equivalent scales, on request

\*\*For ranges, please refer to pressure range tables

Tests and Certificates
Three point calibration certificate (Standard)
Five point calibration certificate
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
Special requirement – please specify*

Optional Features
Accuracy 0.5% of FS
Over range protection of 150% of FS***
Integral dampening screw (For ranges 2.5 Bar and above)
Internal over pressure stop
Internal vacuum stop
Tag marking on dial
SS tag plate
Case filling
Custom designed dial
Special requirement – please specify*

Note :

\*For special requirements, please consult Forbes Marshall

\*\*\*For 4 – 160 Bar

**Ordering example : PPJ1CAAHB-0000 (Standard)**



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

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