# AF

Solid Front Process Gauge (4 ½") Bourdon type



## **Special Features**

- Solid front thermoplastic case
- Accuracy <u>+</u> 0.5% F. S.
- Excellent load cycle stability & shock resistant
- Wetted parts AISI 316L
- Standard followed ASME B 40.100

## **Application**

- Suitable for chemical / petrochemical, power stations, mining, on and offshore, mechanical engineering and plant engineering.
- Suitable for corrosive environment and gaseous or liquid media that will not obstruct the pressure system.
- With liquid filled case with high dynamic pressure pulsations or vibrations.



GOST

#### **Specifications**

## Standard Version: (4 1/2")

Accuracy :  $\pm 0.5\%$  F. S. (As per ASME B40.100)

Ambient temperature : -20°C to +65°C

Process temperature : Max 200° C

Operating pressure range : 75 % of Scale Value

Over pressure limit : ≤ 100 bar : 125% of Max. Scale Value

> 100 to  $\leq$  600 bar : 115% of Max. Scale Value > 600 to  $\leq$  1600 bar : 110% of Max. Scale Value

Case : Black Glass Reinforced Thermoplastic (PBTP)

 Bourdon
 :
 AISI 316L SS

 Socket
 :
 AISI 316L SS

 Movement
 :
 AISI 304 SS

Joints : Tig Argon Arc Welding

Protection : IP 65

Dial : Aluminum, black graduation on white background
Pointer : Aluminum, black Coloured, Micrometer Zero Adjustable

Window : Shatterproof / Safety Glass

Blow Off Disk : Black Glass Reinforced Thermoplastic (PB TP)

Gasket Neoprene

# Glycerine filled version (option PY)

Accuracy : ±1.0% of F. S.

Ambient Temperature : Maximum 65°C

Process Temperature : Maximum 65°C

Window : Plexi Glass

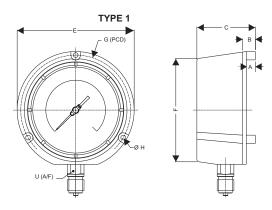
Dampening Liquids : Glycerine 99.7%

Other Features : Refer Specification of Standard Version

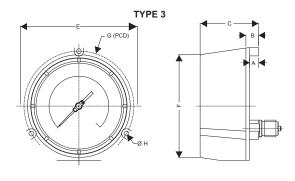
## Temperature effect :

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 : ± 0.04 x (t2 - t1) % of F. S. where t1 = reference temperature (+20°C) and t2 = ambient temperature in °C.

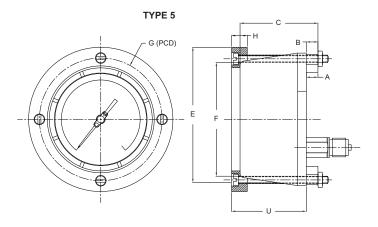




NS	Α	В	С	E	F	G	Н	U		Weight in gram (With Glycerin & Box)
4 1/2"	13	25	84	148	129	137	6	22	950.0	1250.0



NS	Α	В	С	E	F	G	Н	U	Weight in gram (With Box)
4 1/2"	13	25	84	148	129	137	6	22	925.0



NS	Α	В	С	E	F	G	Н	U	Weight in gram (With Box)
4 ½"	13	25	84	148	129	137	12.5	74	1150.0

Notes: • Drawings are not to scale.

- All Dimensions are in mm.
- NS = Nominal Size
- H Arrangement for Mounting type 1
- 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

D			
Proc	CIIID	range	

	Single scale (kg/cm² or bar)									
0/25	0/160	0/1000								
0/40	0/250	0/1600								
0/60	0/400									
0/100	0/600									
	0/40	0/40 0/250 0/60 0/400								

## Dual scale (kg/cm² with psi)

	· r · /				
psi	kg/cm²	psi	kg/cm²	psi	kg/cm²
0/15	0/1	0/400	0/28	0/4000	0/280
0/30	0/2	0/500	0/35	0/5000	0/350
0/60	0/4	0/600	0/40	0/6000	0/400
0/100	0/7	0/1000	0/70	0/10000	0/700
0/150	0/10	0/1500	0/100	0/15000	0/1000
0/220	0/16	0/2200	0/160	0/22000	0/1600
0/300	0/20	0/3000	0/200		



## Range Table

## Vacuum & compound range

Dual scale								
inHg with psi mmHg w		vith kg/cm²	inHg with psi	mmHg with kg/cm²	inHg w	ith psi	mmHg with kg/cm²	
- 30/0	- 30/0 - 76		- 30/60	- 760 / 3	- 30/	200	- 760 /15	
- 30/15	- 30/15 - 76		- 30/100	- 760 / 6 - 30/300		- 760 / 20		
- 30/30	- 30/30 - 70		- 30/150	- 760 / 9	- 30/350		- 760 / 24	
Single scale (k	g/cm²)							
- 1/	- 1/0		- 1/1.5	- 1/5		- 1/15		
- 1/0	0.6		- 1/3	- 1/9		- 1/24		
ccessories (ref	fer datasheet for	complete spe	cifications)					
<b>EB</b> Co	ooling tower		*	Needle valve				
EC Gauge cock			EG	Snubber				
ED Over load protector (gauge saver)**		EH	Siphon					
Refer catalogue	for Valves & Mar	ifolds. ** F	For Pressure Ranges.					

How T	o Order					Examp
Basic N	Model					AE
Code						
Nomina	al Size			G		.,
				4 1/2	"	X
Type of	f Mounting				<u> </u>	
1	Wall / surface / projection mounting with bottom	entry				X
3	Direct lower back entry	•				
5	Lower back entry with front flange					
Gauge	connection					
4BM	½" BSP (M) Standard <b>2NM</b> 1/4" NF	PT (M) Sta	ndard	3BM	3/8" BSP (M)	XXX
4NM	½" NPT (M) Standard			3NM	3/8" NPT (M)	
Note : 0	Connections like Metric/ PT/ PF/ Flaired/ UNF/ G/ R	etc can be	provided on r	equest.		
Range						
Refer ra	ange table					0/10
Option	al extras					kg/cm <sup>2</sup>
TI	Monel bourdon & socket (Monel version)**	TF	Conformity as	s per NACE S	tandard	
PW	Five point calibration certificate	SF	Movement wi	th dampening	jelly	
PU	Calibration certificate traceable to National/	QB	Integral damp	ening screw	(AISI 316 SS)	
	International standards	FL	Integral damp	ening screw	(Monel)**	XX
RH	Custom designed dial	RR	Enclosure pro	otection IP 66	;	
SG	Oxygen service (for dry version)	ZL	Over range p	rotection 150	% of F. S.	
sw	Dial tag marking	RW	Plexi glass			
SX	SS tag plate	GH	Material test	certificates***		
TB	Helium leak test	SD	AISI 316 SS 1	movement		

<sup>\*\*</sup>Integral dampening screw will be in monel if ordered. Refer option FL.

## Ordering Example: AE . X . X . XXX . 0/10 kg/cm . XX

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

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.

<sup>\*\*\*</sup>Material test certificates will be provided for wetted parts only with chemical composition testing. For others, please consult factory.