

### INDUSTRIAL AND PROCESS APPLICATIONS

#### MODEL : CSA03 SERIES

Sealed diaphragm pressure gauges are designed for use in process applications where

- Process element materials capable of withstanding corrosive effects of certain fluids are not available.
- The process fluid being measured would normally clog the pressure measuring device or
- The process fluid in the measuring element might freeze due to changes in ambient temperatures.

#### SPECIAL FEATURES

- High pressure bolted construction, standard model
- Threaded process connection for direct mounting
- Weather proof to IP68 per IS/IEC 60529:2001
- Diaphragm material, SS316 with Teflon protection
- Scale ranges upto 10.6...100 kg/cm<sup>2</sup>
- Also available with flexible stainless steel armored capillary assembly.

#### DESIGN

EN837-1

#### NOMINAL DIAL SIZE

NS 100, 150 & 250mm

#### ACCURACY

As per EN837-1

#### SCALE RANGES

0...16 kg/cm<sup>2</sup> to 0...100 kg/cm<sup>2</sup> (Single range)  
 0...10.6 kg/cm<sup>2</sup> / 150 psi to 0...70 kg/cm<sup>2</sup> / 1000 psi (Dual range)  
 or other equivalent units of pressure

#### WORKING PRESSURE

Steady : 75% of FSD  
 Fluctuating : 66% of FSD  
 Short Time : FSD

#### OPERATING TEMPERATURE

Ambient : -40 to 60°C without liquid filling  
 -20 to 60°C gauge with glycerine filling  
 Medium : 80°C max.

#### TEMPERATURE EFFECT

When temperature of the pressure element deviates from reference temperature (+30°C) : Max.  $\pm 0.4\%$  / 10K of true scale value

#### PRIMARY SENSING ELEMENT

Diaphragm, SS316, Teflon protected



#### UPPER DIAPHRAGM HOUSING

SS304

#### LOWER DIAPHRAGM HOUSING

SS304 / SS316

#### TENSION FLANGE

SS304

#### GASKET

Acid proof / Teflon

#### SEAL FLUID

Silicon oil

#### SECONDARY SENSING ELEMENT

Bourdon tube, SS316L

#### MOVEMENT

SS304

#### DIAL

Off-white aluminum with black lettering

#### POINTER

Black aluminum, Zero-adjustment pointer

#### CASE & BEZEL

Case : SS304, natural finish  
 Bezel : SS304 bayonet type, glossy finish

### INGRESS PROTECTION

IP68 per IS/IEC 60529:2001

### PROCESS CONNECTION

Material : SS316 / SS304

Standard Threads : 3/8" or 1/2" BSP (M) / NPT (M)

### WINDOW

Toughened glass

### BOD (VENT PLUG)

Neoprene

### MOUNTING

**NS 100 & 150mm**

Direct Bottom

Back Eccentric Mount

**NS 250mm**

Direct Bottom

### DAMPING LIQUID

Glycerine 99.7%

### EXTENSION CAPILLARY

Flexible stainless steel armored capillary assembly with flush mounting bracket / surface mounting flange



Standard lengths of capillary : 1.5mtr, 3mtr and 5mtr

### OPTIONAL EXTRA

- Other process connection
- Other lengths of capillary
- PTFE lined wetted parts
- Teflon gasket
- Silicon oil filling
- Alarm contacts see model EOC.XXX

### ACCESSORIES



ADAPTORS



PULSATION DAMPENER



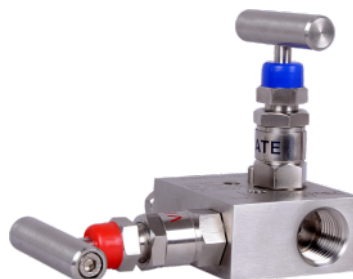
ISOLATION VALVE



GAUGE COCK



GAUGE SAVER



MANIFOLD VALVE



SYPHON

### A. DIRECT MOUNTING

DIRECT BOTTOM		20		BACK ECCENTRIC MOUNT		30	
DIAL SIZE	R1	R2	t	P	L	O	X
100	110	100	15	50	126	22	30
150	165	150	15	50	181	22	48
250	270	250	15	50	286	22	-

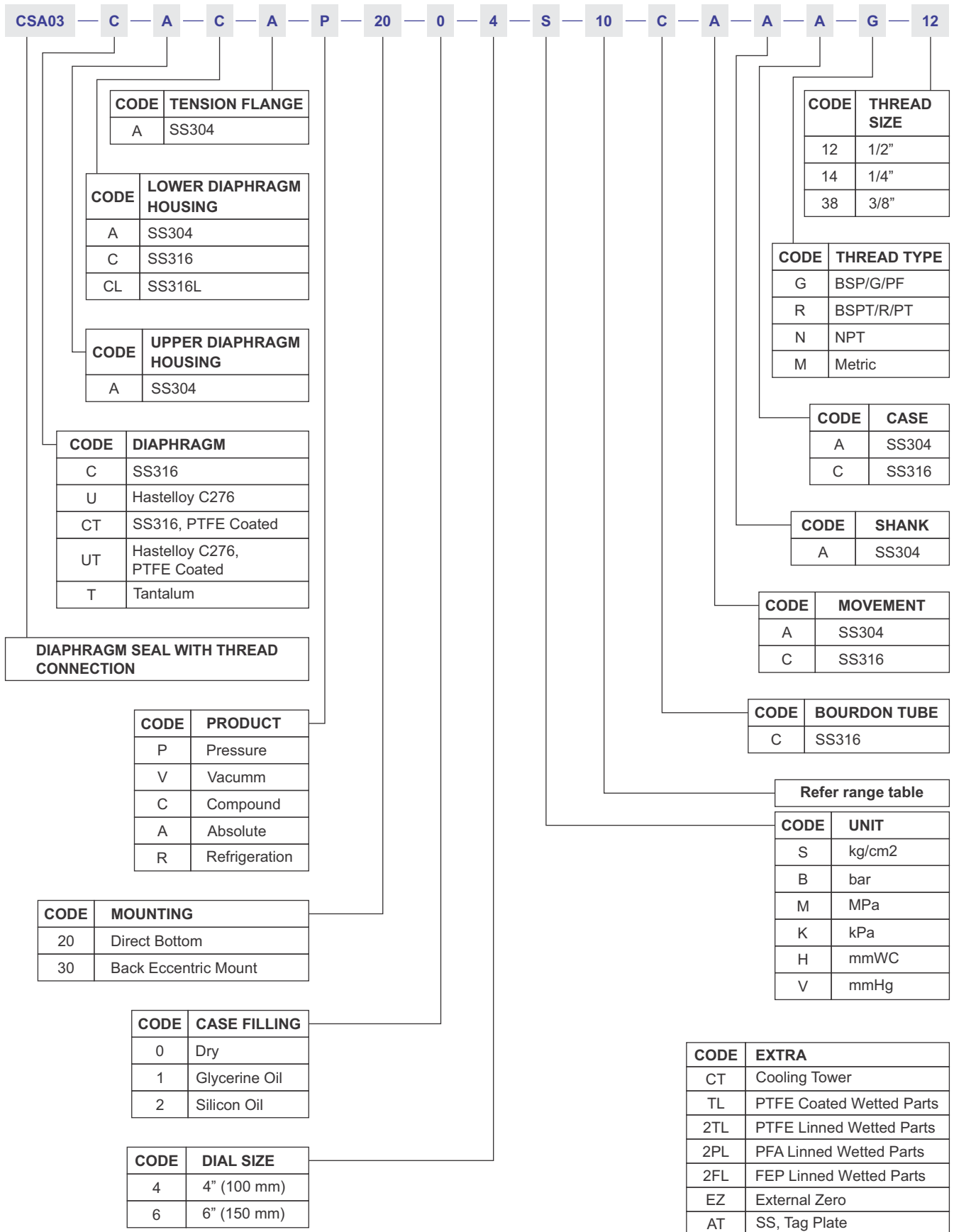
\*All dimensions are in mm

### B. REMOTE MOUNTING WITH CAPILLARY

FLUSH PANEL WITH BRACKET		40		SURFACE MOUNT		60				
DIAL SIZE	R1	R2	t	P	L	O	X	R4	D2	d2
100	110	100	15	50	126	22	30	128	116	5.4
150	165	150	15	50	181	22	48	198	171	5.4
250	270	250	15	50	286	22	-	-	-	-

\*All dimensions are in mm

### HOW TO ORDER



### HOW TO ORDER

CSA03 - C - A - A - A - P - 60 - 0 - 4 - S - 10 - C - A - A - A - AC1.5 - G - 12

CODE	TENSION FLANGE
A	SS304

CODE	LOWER DIAPHRAGM HOUSING
A	SS304
C	SS316
CL	SS316L

CODE	UPPER DIAPHRAGM HOUSING
A	SS304

CODE	DIAPHRAGM
C	SS316
U	Hastelloy C276
CT	SS316, PTFE Coated
UT	Hastelloy C276, PTFE Coated
T	Tantalum

DIAPHRAGM SEAL WITH THREAD CONNECTION

CODE	PRODUCT
P	Pressure
V	Vacumm
C	Compound
A	Absolute
R	Refrigeration

CODE	MOUNTING
40	Flush Panel with Bracket
60	Surface Mount

CODE	CASE FILLING
0	Dry
1	Glycerine Oil
2	Silicon Oil

CODE	DIAL SIZE
4	4" (100 mm)
6	6" (150 mm)

CODE	THREAD SIZE
12	1/2"
14	1/4"
38	3/8"

CODE	THREAD TYPE
G	BSP/G/PF
R	BSPT/R/PT
N	NPT
M	Metric

CODE	CAPILLARY LENGTH
AC1.5	1.5 mtr.
AC3	3 mtr.
AC5	5 mtr.

CODE	CASE
A	SS304
C	SS316

CODE	SHANK
A	SS304

CODE	MOVEMENT
A	SS304
C	SS316

CODE	BOURDON TUBE
C	SS316

Refer range table

CODE	UNIT
S	kg/cm2
B	bar
M	MPa
K	kPa
H	mmWC
V	mmHg

CODE	EXTRA
CT	Cooling Tower
TL	PTFE Coated Wetted Parts
2TL	PTFE Linned Wetted Parts
2PL	PFA Linned Wetted Parts
2FL	FEP Linned Wetted Parts
EZ	External Zero
AT	SS, Tag Plate