

# MARSH®

## Schaffer Diaphragms Gauges

### Description

Stainless steel Schaeffer diaphragm gauge Models ST / SCH

According to BS EN 837-3 Nominal sizes, 100 and 160 mm Accuracy: Class 1,6

### Construction

These heavy duty industrial gauges, are manufactured with either an steel case and bezel, [black-epoxy coated], or with a stainless steel case and bezel.

General construction is with a heavy duty fully adjustable rotary geared movement, in stainless steel with an upper flange and block in 304 ST.ST and a lower process chamber in 316 ST.ST. Mounting connection is either threaded or flanged.

### Operation

A convoluted diaphragm is clamped between two flanges. One side is pressurized by the process fluid, which deflects the diaphragm in proportion to the pressure. On the other side, a ball joint is fixed to the diaphragm and connected to the movement via a push rod, this transfers the diaphragm deflection to a pointer on the dial.

### Applications

For the measurement of either gas or liquid The fluids can be corrosive, polluted, or highly viscous. For the measurement of highly viscous, or crystallizing process fluids, a flange connection is used. Applications include, Liquid level measurement, fuel pumps, storage tanks, generators, concrete filling systems, paint filter presses, irrigation and sludge pumps, trucks, and sewage removal among others.

### Features

- Rugged stainless steel case construction
- Bayonet locking case and bezel
- Protection to IP54 or IP65
- Usable at full scale
- Solid front bulk head with full blow out back
- Over-range protection 130% Ranges

### Ranges

- 0 - 40 mbar. up to 0.... 25bar
- 0 - 40 IN.WG. up to 0... 350psi.



### Specifications:

### ST / SCH

	100	160
Dial Size	100	160
Construction	Flush fitting bayonet locking case and bezel, Shaeffer Diaphragm	
Measuring Element	Shaeffer Diaphragm	
Ranges {mbar} {bar}	0 - . 40. 60. 100. 160. 250 . 400. 600. 0 - 1. 2.5. 4. 6. 10. 16. 25. Pressure, vacuum or compound ranges.	
Over-range limit	100% full scale, optional, 400% (max 25 bar).	
Process Connection	1/2bsp according to EN837 1/2npt, according to ANSI/ASME B1.20.1 Optional , Flanged connections in,-BS, DIN, ANSI.	
Material Construction		
Process Connection	Stainless steel AISI 316L	
Bourdon Tube	Phosphor bronze or 316 ST ST,	
Diaphragm	Stainless steel AISI 316L.>2.5 bar. Chrome molly, 316 ST. Protected	
Case / Bezel Ring	Stainless steel AISI 304L	
Window	Instrument glass, optional, laminated safety glass, acrylic glass	
Dial	Aluminium, black figures on white, optional, other colours	
Pointer	Aluminium, black, optional, micro adjustment, steel	
Movement	Stainless steel 304	
Accuracy	Class 1.6 (1.6% F.S.D.)	
Permissible	Degree C	
Ambient Temp.	-15,+50	
Process Temperature	Min.-20, Max.+65 others available on request	
Storage Temperature	-20,+60	
Temperature Effect	Max. 0,3% / 10 Deg C	
Protection	EN 60 529 IP65	
Filling Liquid	Glycerine, silicone, others available	
Mountings	Direct bottom, direct back, DIN holder	
Weight dry / filled {kg}	1.6 / 1.9 2.1 / 2.5	1.9 / 2.4 2.4 / 3.0
Accessories	Electrical contacts, index pointers, glycerine filling, other connections	

All specifications are subject to change without notice

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