

# DS SMS

All SS Diaphragm Sealed Pressure Gauge  
Sanitary Process Connection ( SMS THREADED )



## Special Features

- Stainless steel case & measuring system
- Laser welded diaphragm
- Dry or liquid filled
- Diaphragm seal integrally built with gauge.
- Reduces the effect of vibration / pulsation
- Polished diaphragm provides best hygiene factor
- Standard followed en 837-3

## Application

- Especially designed for sanitary application
- Pharmaceutical
- Paint industry
- Bacterial & fungal accumulates which contaminate the process are eliminated
- The mirror finishing of the components assures the best hygiene.

## Specifications

### Standard Version : 50 mm, 63 mm & 100mm

Accuracy	: ±1.6% of F.S.
Ambient temperature	: 10 to 60°C
Process temperature	: 10 to 150°C
Operating pressure range	: 75% of Scale Value
Over pressure limit	: 130% of Scale Value

Case & Bezel	: AISI 304 SS (Polished Bayonet Type)
Socket	: AISI 316 SS
Bourdon	: AISI 316L SS
Movement	: AISI 304 SS
Body	: AISI 316 SS
Joints	: Tig Argon Arc Welding
Diaphragm	: AISI 316L SS (Polished) Laser Welded
Sanitary Seal	: SMS Thread ( Type SDF & SDM ) Types Shown on Page No 2.

Protection	: IP 65
Dial	: Aluminum, black graduation on white background
Pointer	: Aluminum, black coloured, fixed
Window	: Plexi Glass
Gasket	: Silicon rubber
Filling Plug	: Neoprene
Sealing Fluid	: Glycerin

### Dry but fillable version (option FG)

Fillable Dampening Liquid	: Glycerine 99.7%
Ambient Temperature	: Maximum 65°C
Process Temperature	: Maximum 65°C
Other Features	: Refer Specification of Standard Version

### Glycerine filled version (option PY)

Accuracy	: ±1.6% of F. S.
Process Temperature	: Maximum 65°C
Ambient Temperature	: Maximum 65°C
Window	: Plexi Glass
Dampening Liquids	: Glycerine 99.7%
Other Features	: Refer Specification of Standard Version

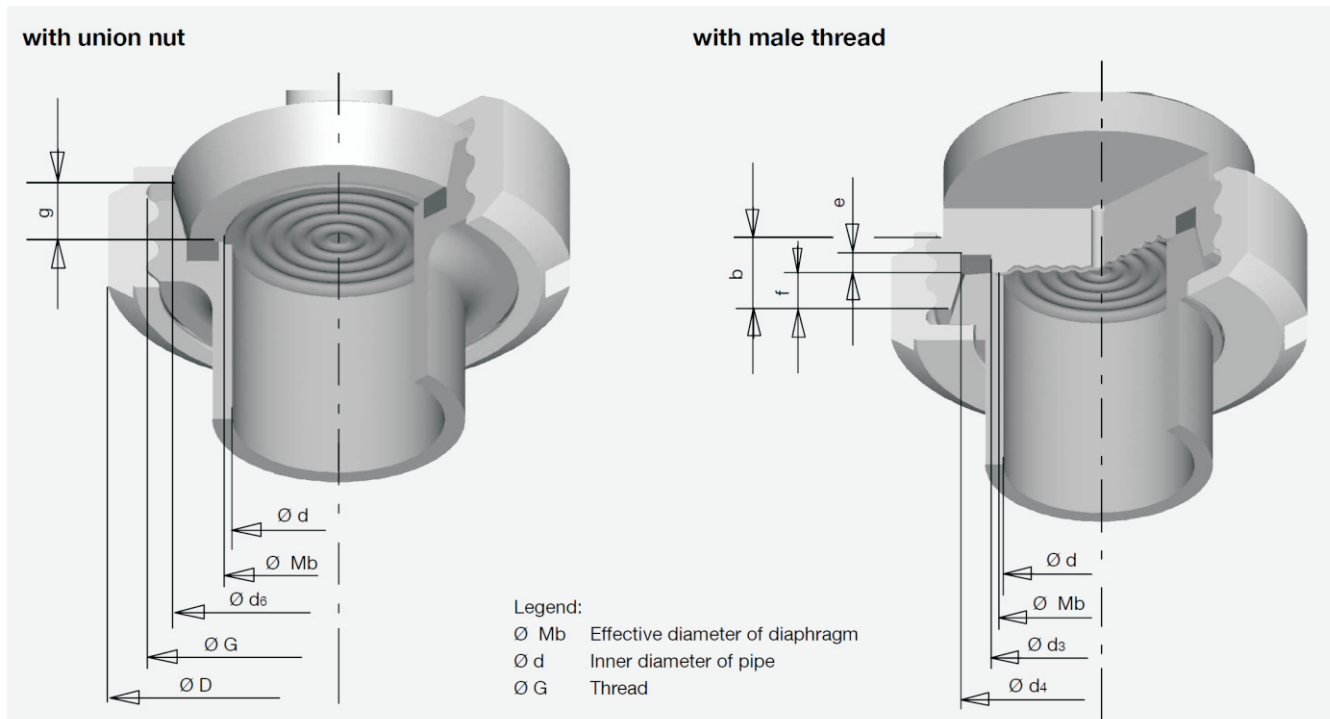
### Temperature effect :

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 :  $\pm 0.08 \times (t_2 - t_1) \% \text{ of F. S.}$  where  $t_1$  = reference temperature (+20°C) and  $t_2$  = ambient temperature in °C.

## Dimensions - Standard Version

TYPE : SDF ( SMS Thread DIN 11851 )

TYPE : SDM ( SMS Thread DIN 11851 )



DN	For pipe Outside Ø x thickness	PN	Dimensions in mm											Weight in kg
			G	b	d	Mb	D	d <sub>3</sub>	d <sub>4</sub>	d <sub>6</sub>	e	f	g	
20	23 x 1.5	40	Rd 44 x 1/8	14	20	22	54	23	32.8	36.5	3	6	8	0.4
25	29 x 1.5	40	Rd 52 x 1/8	14	26	25	63	30	39.8	44	3.5	7	10	0.4
32	35 x 1.5	40	Rd 58 x 1/8	14	32	32	70	36	45.8	50	3.5	7	10	0.5
40	41 x 1.5	40	Rd 65 x 1/8	14	38	40	78	42	51.8	56	3.5	7	10	0.75
50	53 x 1.5	25	Rd 78 x 1/8	14	50	52	92	54	63.8	68.5	3.5	7	11	0.8
80	85 x 2	25	Rd 110 x 1/4	20	81	71	127	85	94.8	100	3.5	8	12	1.25

Notes : • Drawings are not to scale. • All Dimensions are in mm. • NS = Nominal Size. • For Gauge Dimensions, Please Refer Catalogue of WP4

### Range Table

Note : We offer National / International Scales like kPa, MPa, bar, psi, kg/cm<sup>2</sup> & 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/cm<sup>2</sup> with psi scales.

#### Pressure range

Range (psi with kg/cm <sup>2</sup> )					
psi	kg/cm <sup>2</sup>	psi	kg/cm <sup>2</sup>	psi	kg/cm <sup>2</sup>
0/30	0/2	0/150	0/10	0/400	0/28
0/60	0/4	0/220	0/16	0/500	0/35
0/100	0/7	0/300	0/20	0/600	0/40

#### Compound range

Range (mmHg with kg/cm <sup>2</sup> & inHg with psi)			
mmHg with kg/cm <sup>2</sup>	inHg with psi	mmHg with kg/cm <sup>2</sup>	inHg with psi
-760/2	-30/ 30	-760/10	-30/ 150
-760/4	-30/60	-760/14	-30/200
-760/7	-30/100	-760/20	-30/300

How To Order					Example	
<b>Basic Model</b>					DSSMS	
<b>Code</b>						
<b>Nominal Size</b>		<b>20</b>	<b>25</b>	<b>40</b>	XX	
<b>Type of Mounting</b>		50 mm	63 mm	100 mm		
<b>2</b> Direct bottom entry		<b>4</b> Direct center back entry			X	
<b>Connection Type &amp; Size</b>						
<b>SDF20</b> DN 20 SMS Thread With Union Nut		<b>SDM20</b> DN 20 SMS Male Thread			XXXXX	
<b>SDF25</b> DN 25 SMS Thread With Union Nut		<b>SDM25</b> DN 25 SMS Male Thread				
<b>SDF32</b> DN 32 SMS Thread With Union Nut		<b>SDM32</b> DN 32 SMS Male Thread				
<b>SDF40</b> DN 40 SMS Thread With Union Nut		<b>SDM40</b> DN 40 SMS Male Thread				
<b>SDF50</b> DN 50 SMS Thread With Union Nut		<b>SDM50</b> DN 50 SMS Male Thread				
<b>SDF80</b> DN 80 SMS Thread With Union Nut		<b>SDM80</b> DN 80 SMS Male Thread				
<b>Body</b>						
<b>S6</b> AISI 316 SS (Standard)		<b>SL</b> AISI 316L SS				XX
<b>Diaphragm</b>						
<b>SL</b> AISI 316L (Standard)					XX	
<b>Filling fluids</b>						
<b>GF</b> Glycerin [10 to 150 °C / 50 to 302 °F] (Standard)		<b>FG</b> Food grade oil [-20 to 140 °C / -4 to 284 °F]			XX	
<b>LP</b> Liquid paraffin [10 to 200 °C / 50 to 392 °F]						
<b>Range</b>						
Refer range table					0/10 kg/cm <sup>2</sup>	
<b>Optional extras</b>						
<b>CDD</b> Custom designed dial		<b>STG</b> Shatterproof / safety glass			XX	
<b>OXC</b> Oxygen service (for dry version)		<b>TOG</b> Toughened glass				
<b>Cb6</b> AISI 316 SS case & bezel		<b>STP</b> SS tag plate				
		<b>FGF</b> Fillable liquid glycerine				
<b>LGF</b> Dampening liquid glycerine filled		<b>HLT</b> Helium leak test				
<b>MTC</b> Material test certificates*		<b>EPC</b> Electro polished case & bezel				
<b>CRB</b> Case with rolling type bezel#						

# For mounting type 4 only

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

**Ordering Example: DSSMS - XX - X - XXXXX - XX - XX - XX - 0/10kg/cm<sup>2</sup> - 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.