

SHDP/GP Differential Pressure/Pressure Transmitter with Remote Diaphragm seals



SHDP/GP Differential Pressure/Pressure Transmitter with Remote Diaphragm seals provides a kind of reliable measuring way to avoid the measured medium from directly contacting with seal diaphragm of the transmitter.

Transmitters with Remote Diaphragm seals are suitable for the following operation conditions:

- Mediums with high temperature should be isolated with transmitter.
- Measured mediums have corrosion to transmitters.
- Suspending liquid or mediums with high viscosity
- Measured mediums solidize or crystalize due to change of environment or technological process temperature.
- Strict purification of measuring head is needed for replacing measured mediums
- Measuring head must be kept clean and sanitary.
- Pressure measurement of sealed container

Model Selection

Table 1

Code	Mark		
SH	SH Series Pressure transmitter/DP transmitters		
Code	Types	DP	GP
DP	Differential Pressure	*	
GP	Gauge Pressure		*
Code	Measuring Range		
4E	(0-6~40)Kpa		
5E	(0-40~200)Kpa		
6E	(0-0.16~1)Mpa		
7E	(0-0.4~2.5)Mpa		
8E	(0-1.6~8)Mpa		

9E	(0-4~20)Mpa			
Code	Accuracy			
1	0.1 %			
2	0.2 %			
3	0.5 %			
Code	Explosion Proof			
P	Normal Type without Explosion proof			
d	Explosion proof Exd II BT4			
i	Intrinsically safe explosion-proof Exia IIC T6			
Code	Display			
M5	Digital Display			
Code	Output			
E	(4-20mA)			
S	(4-20mA) & Hart			
Code	Pressure/DP Transmitter Material			
	Flange/Connector	Drain/vent valve	Isolation Diaphragm	Filled Liquid
22	316 sst	316 sst	316L	Silicon oil
23	316 sst	316 sst	Hastelloy C	Silicon oil
24	316 sst	316 sst	Monel	Silicon oil
25	316 sst	316 sst	Tantalum	Silicon oil
Code	Mounting Bracket			
B1	Bent Bracket for pipe mounting (2" pipe)			
B2	Bent Bracket for plate mounting			
B3	Flat bracket for pipe mounting (2" pipe)			
Code	Remote Diaphragm Seal (choose type 1 + type 2, such as "1+FFW")			
	Type 1	Code	Type 2	
1	Single Remote Diaphragm Seal	FFW	Flush Flange seal	
2	Double Remote Diaphragm Seals	EFW	Extended Flange seal	
		PFW	Pancake Remote seal	
		RFW	Remote Flange seal	
		RTW	Threaded Remote seal	
		SCW	Sanitary tri-clamp seal	
Code	Remote Diaphragm seal Filling oil *1			
N	Normal silicon oil (-20~120℃)			
F	High Temp. silicon oil (15~315℃)			
S	fluorocarbon oil (-45~205℃)			
Code	Capillary (304 SST material)			
15	1.5 m length			
30	3 m length			
45	4.5 m length			
60	6 m length			
T	Special			
Code	Continued with Diaphragm seals detailed information (refer to below content)			

***1 Remote Diaphragm seal Filling oil Characteristic**

Table 2

Code	Filling oil	Temperature	Density (g/cm ³)	Temp. expansion coefficient	25°C Viscosity (mPa.s)
N	Normal silicon oil	(-20~120°C)	0.934	0.00108	<20
F	High Temp .silicon oil	(15~315°C)	1.07	0.00053	44~50
S	fluorocarbon oil	(-45~205°C)	1.85	0.000864	65

Note:

1. Temperature limited decrease in vacuum environment
2. When pressure is over 590Kpa, we can choose F type High Temp. silicon oil. When F type High Temp. silicon oil is selected, flange connector, capillary, pressure/DP transmitter operation environment temperature need to be over 10°C. Heating sheath for capillary is considered when transmitter is working in extreme low working temperature.

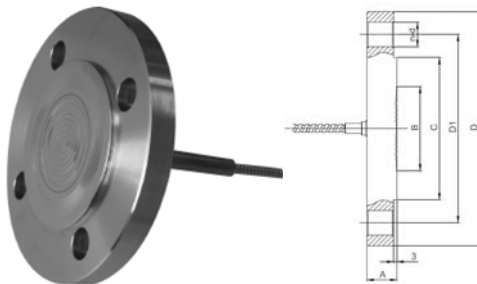
FFW Flush Flange Seal**Dimension**

Table 3

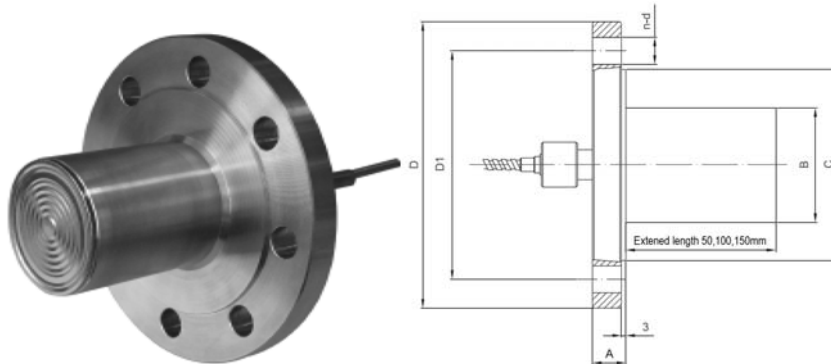
No	Flange size					Bolt Hole		
	Flange size	OD D(mm)	ID B(mm)	Seal face C(mm)	Thickness A(mm)	No.n	Diameter d(mm)	Bolt Circle D1(mm)
1	2"/DN50	165	48	95	20	4	18	120
2	3"/DN80	200	66	127	22	8	18	152
3	4"/DN100	220	89	157	22	8	18	191

FFW Flush Flange Seal Model Selection

Table 4

FFW	Flush Flange seal
Code	Flange size
A	2",150LB
B	3" ,150LB
C	4" ,150LB
T	Others, please specify
Code	Remote Seal Diaphragm Material
2	316L SST
3	Hastelloy C 276
4	Monel
5	Tantalum

EFW Extended Flange seal



Dimension

Table 5

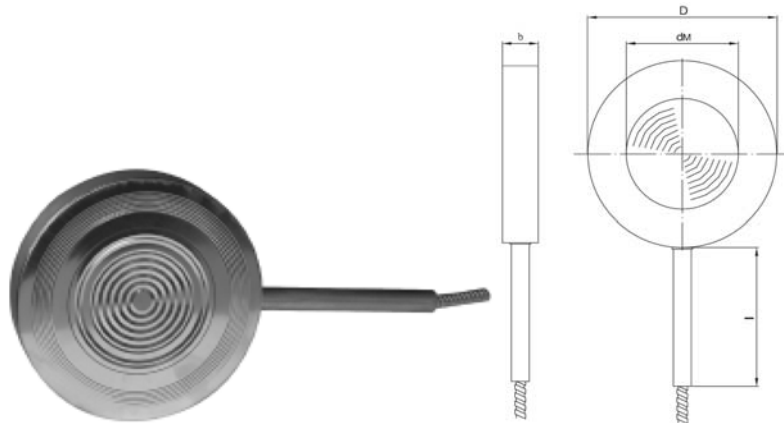
No	Flange size					Bolt Hole		
	Flange size	OD D(mm)	ID B(mm)	Seal face C(mm)	Thickness A(mm)	No.n	Diameter d(mm)	Bolt Circle D1(mm)
1	2"/DN50	165	48	95	20	4	18	120
2	3"/DN80	200	66	127	22	8	18	152
3	4"/DN100	220	89	157	22	8	18	191

EFW Extended Flange seal Model Selection

Table 6

PFW	Flush Flange seal
Code	Flange size
A	2",150LB
B	3",150LB
C	4",150LB
T	Others, please specify
Code	Remote Seal Diaphragm Material
2	316L SST
3	Hastelloy C 276
4	Monel
5	Tantalum
Code	Extended Length
A1	50 mm
A2	100 mm
A3	150mm
T	T

🔗 PFW Pancake Remote seal



Dimension

Table 7

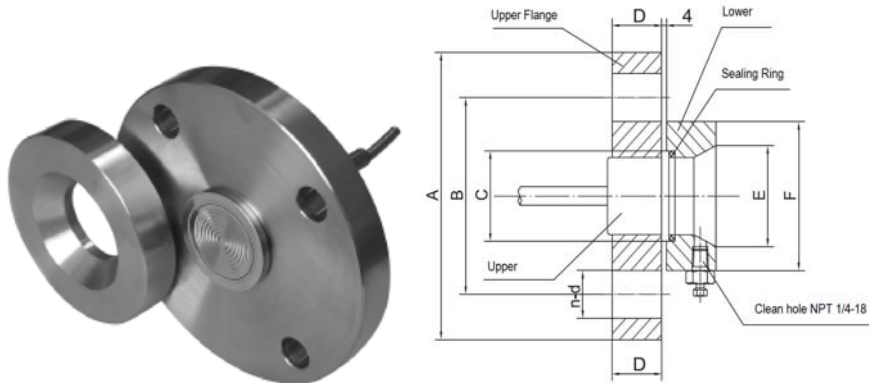
Nominal Size	Pressure rating	b(mm)	D(mm)	d _M (mm)	I (mm)
2"	Decided by users 'flange	24	92	59	100
3"		24	127	75	100
4"		24	157	89	100

PFW Pancake Remote seal Model Selection

Table 8

PFW	Pancake Remote seal
Code	Flange size
A	2",150LB
B	3" ,150LB
C	4" ,150LB
T	Others, please specify
Code	Remote Seal Diaphragm Material
2	316L SST
3	Hastelloy C 276
4	Monel
5	Tantalum
Code	Pancake Housing Material
11	316 SST

➤ **RFW Remote Flange seal**



Dimension

Upper Flange Dimensions						
Nominal Size (inch)	Pressure rating	OD A(mm)	Thickness D	Bolt Circle B(mm)	No. n	d
1"	150 LB	110	14.3	79.5	4	16
	300 LB	125	17.2	89	4	20
1 1/2"	150 LB	127	17.2	98.4	4	16
	300 LB	156	20.7	114.5	4	23
2"	150 LB	152	19.1	120.6	4	20
	300 LB	165	22.2	127	8	20
3"	150 LB	191	23.8	152.4	4	20
	300 LB	210	25.5	168.3	8	23

Table 9

Lower	
Diameter E(mm)	Diameter F(mm)
26.9	65
41.9	78.7
52.5	95.2
79	127

RFW Remote Flange seal Model Selection

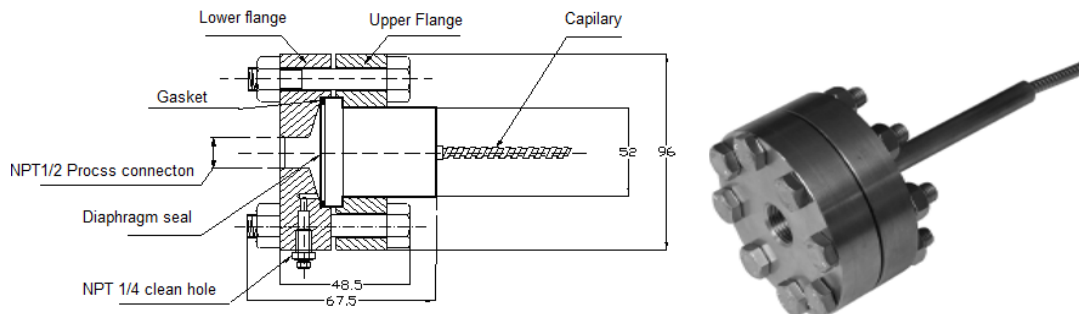
Table 10

RFW	Remote Flange seal
Code	Remote Seal Diaphragm Material
2	316L SST
3	Hastelloy C 276
4	Monel
5	Tantalum
Code	Upper Material
A1	Upper material 316,ring material Galvanised Carbon Steel, gasket fasbestine luororubber
B1	Upper material and ring material 316 SST gasket fasbestine luororubber
Code	Lower Flange Size
A	1"
B	1 1/2"
C	2"
D	3"
Code	Rated Pressure
1	Class 150

2	Class 300
Code	Lower Material
A	316 SST (standard and recommend)
B	Galvanised Carbon Steel

RTW Threaded Remote Seal

RTW Threaded remote seal can bear max 10Mpa working pressure.

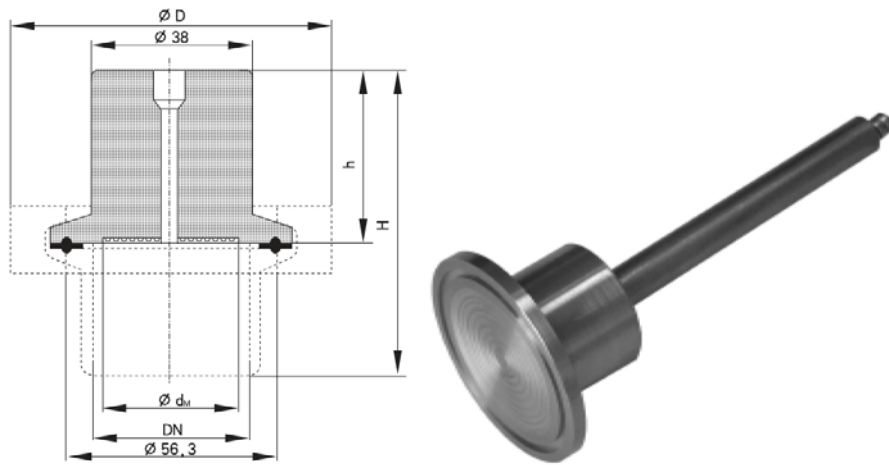


RTW Threaded Remote Seal Model Selection

Table 11

RTW	Threaded Remote Seal
Code	Remote Seal Diaphragm Material
2	316L SST
3	Hastelloy C 276
4	Monel
5	Tantalum
Code	Upper Material
A1	Upper material 316,ring material Galvanised Carbon Steel, gasket fasbestine luororubber
B1	Upper material and ring material 316 SST gasket fasbestine luororubber
Code	Lower Material
A	316 SST (standard and recommend)
B	Hastelloy C 276
Code	Impulse connection
13	1/2"NPT
3	4m
4	6m
5	Others ,please specify

SCW Sanitary tri-clamp seal



Dimension

Table 12

Dimension (mm)			
d_M	D	H	h
40	75	58	35

Material of Sanitary tri-clamp seal: 316 SST