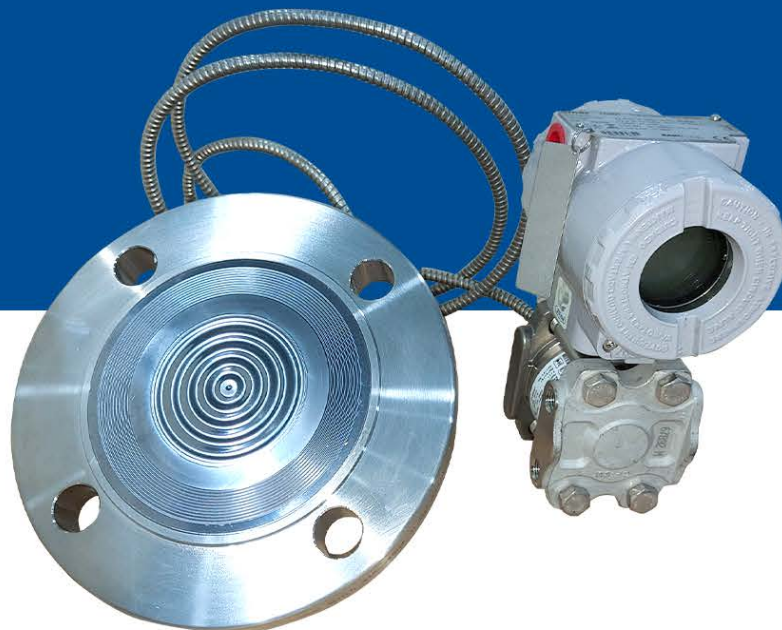


REMOTE SEAL SR301

- **Remote Seals:** Flanged (SR301T), Threaded (SR301R), Pancake (SR301P), Sanitary (SR301S), and Flanged with Extension (SR301E).
- **Standards:**
 - ASME Dimensions 1" to 4", pressure class 150# to 2500#.
 - DIN Dimensions DN25 to DN100, pressure class PN10 to PN250.
 - JIS Dimensions 40A to 100A, pressure class 10K to 40K.
 - Threaded Dimensions ¼" to 1½" NPT with 5800 psi pressure limit.



Flanged and Sanitary Remote Seals for Pressure Transmitters

SR301

Is a complete line of Remote Seals, which allows the pressure transmitter to do measurements in situations where a direct contact of the transmitter's diaphragm with process fluid is not allowed.

What is SR301?

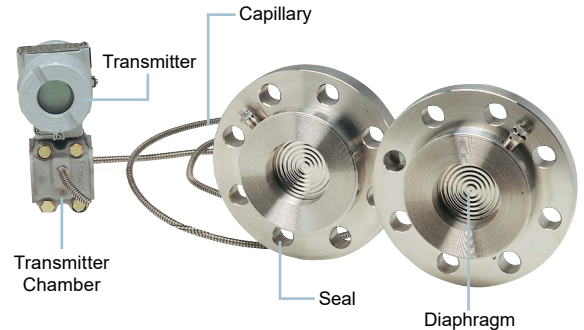
- The SR301 series is a complete line of Remote Seals, which allows the pressure transmitter to do measurements in situations where a direct contact of the transmitter's diaphragm with process fluid is not allowed.

Basic Features

Remote seal transmitters are used when it is necessary to isolate the transmitter from the process.

The seal system comprises a process connection with a flexible diaphragm seal between the process fluid and a liquid filled capillary tube, connected to the transmitter.

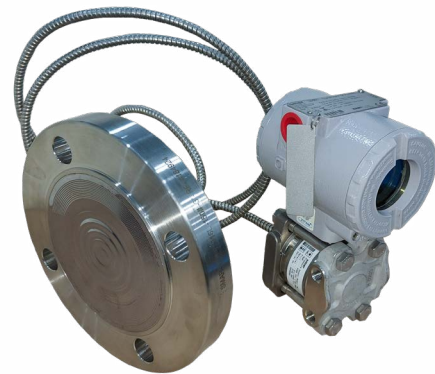
The diaphragm isolates the process fluid while the filled capillary tube transmits the process pressure to the transmitter sensor.



Available Models

The remote seals available in SR301 series are:

- Flanged (SR301T), Threaded (SR301R), Pancake (SR301P), where those three models has an optional flush connection, Sanitary (SR301S) and Flanged with Extension (SR301E), with several materials for most of the industrial processes.
- The flanged remote seals are available in the standards ASME, DIN and JIS. The dimensions are 1" to 4"; DN25 to DN100 and 40A to 100A; and the pressure classes are 150# to 2500#, PN10 to PN250 and 10K to 40K, respectively.
- The threaded seals have connections of 1/4" NPT to 1 1/2" NPT with pressure limit of 5800 psi to 25°C.



Integral Flange

Considerations for Remote Seal Specification

In the remote seal specification the following items should be considered:

- Process Pressure (minimum and maximum);
- Process Temperature (minimum and maximum);
- Process Fluid;
- Connection to Process;
- Seal Installation Type;
- Distance between Pressure Tap and the Transmitter.

Application

The SR301 is assembled with both gage and differential pressure transmitters. When used in food applications the connections are sanitary. The level models are also available.

The typical applications of the remote seal with transmitter are:

- Process with corrosion;
- Process with viscosity or with suspended solids;
- Process with possibility of solidifying, crystallizing or freezes;
- Process that demand ease of cleaning;

Main Functions

The use of the remote seal guarantees a correct measurement and without damage to the pressure transmitter.

Therefore the main functions are:

- To prevent the process fluid from entering the pressure transmitter thereby protecting the instrument if the process fluid is corrosive and would otherwise attack and destroy the transmitter;
- To prevent process fluids with very high temperature from coming in contact with and damaging the pressure sensor;
- To prevent abrasive process fluids from scratching the isolating diaphragm. This may happen if the process fluid is carrying suspended solids;
- To prevent the process fluid from building up or solidifying inside the transmitter and blocking the transmission of pressure to the sensor. This may happen if the process fluid freezes, polymerizes or if carrying suspended solids, that are viscous or crystallizing;
- Sanitary seals are used to prevent bacteria etc. to build up in cavities in the transmitter. These seals are designed to be easily cleaned. These are required in the pharmaceutical and food & beverage industries.

Main Advantages

- Better Cost/Benefit
- Easy Maintenance
- Easy Installation
- High Durability

Avoid the Common Errors

Using the SR301 avoids possible errors as:

- Wetted materials not compatible with the process fluid. Consider normal operation as well as cleaning;
- Fill fluid not compatible with the process fluid may cause hazardous situations in case of diaphragm ruptures and the fluids come in contact with the process;
- Vacuum below 600 mmHg requires special considerations. Operation at these high vacuums is possible if done right. Consult Smar for advice;
- Process data such as pressure, temperature, required seal type and process fluid must be provided to evaluate the application;
- Only one seal or capillary with different lengths on a differential pressure transmitter causes zero shift as the temperature changes. Keep capillaries with same length, if possible;
- Long capillaries cause increased response time and increased error due to the temperature effect;
- The temperature is beyond the upper or lower operating temperature range of the fill fluid;
- The process pressure exceeds the seal pressure rating at maximum process temperature.

Fill Fluid Considerations

Before a fill fluid is chosen, it must be determined that it is suitable for operation at the extremes of vacuum and temperature at which it will operate. Another important consideration is that the diaphragm may be damaged.

It is therefore important that the fill fluid does not start a hazardous chemical reaction with the process fluid.

As a rule of thumb, do not use hydrocarbon based fill fluids, such as silicone, with strong oxidizers like: chlorine, hydrogen, hydrazine, oxygen, peroxide or nitric acid. Also do not use Fluorolube oil if there is a chance for it to come in contact with aluminum or magnesium or vacuum.



The user must insure that the right type of seal with the proper fill fluid and wetted materials is used, and if a remote seal should be used at all. See in the SR301 manual the software dedicated to the calculation of the pressure transmitters with the possible process connections assembly error (TPE), and the calculations for temperature errors and response time. Or request an equipment performance report through TPE to the Applications Engineering department and Commercial Areas of Smar.

TPE Software

Smar offers equipment performance report generated by the TPE software (Total Probable Error), which accomplishes a probable total estimate for the transmitter error with the connections to the process sealed.

The screenshot displays the TPENet 4.00 (Alpha 1.01) software interface within a Microsoft Internet Explorer browser window. The address bar shows the URL: <http://www.smar.net.com.br/etp/calcula/calculo.php>. The main content area is titled "Equipment specification" and includes the following data:

Equipment specification
LD300 (after oct/2005)
 Type: D - Differential
 Range: Range 2 (50 kPa)
 Diaphragm material: 316 SST
 Sensor oil: Silicone
 Measurement limit: 0 to 50 kPa
 Minimum temperature: 10 °C
 Maximum temperature: 40 °C
 Zero adjust temperature: (Zero adjust 25 °C)
 Requested TPE: 5 %
 Stability: 12 months
 Special stability: no
 Supply variation: 1 V
 Static pressure variation: 10 bar
 Vacuum: no

Connections:
 Diaphragm material: 316 SST
 Filling oil: Silicone 200/20
 Seal project: Model Jun/2008
 Diaphragm thickness: Standard
 Thermal symmetry: Symmetric
 Capillary internal diameter: 1.10 mm [Standard]

High connection: SR301T (Type T)
 Connection Ø: 3 in
 Capillary: 500 cm
 Process temp. minimum: 10 °C
 Process temp. maximum: 100 °C
 Capillary temp. minimum: 10 °C
 Capillary temp. maximum: 40 °C

Low connection: SR301T (Type T)
 Connection Ø: 3 in
 Capillary: 500 cm
 Process temp. minimum: 10 °C
 Process temp. maximum: 100 °C
 Capillary temp. minimum: 10 °C
 Capillary temp. maximum: 40 °C

Total probable error

Accuracy:	0.08%	Minimum temperature:	-0.06%
Stability:	0.15% by 60.0 months	Maximum temperature:	0.06%
Static pressure - zero error:	0.00%	Power supply error:	0.01%
Static pressure - span error:	0.03%	Transmitter time:	0.1 s
Transmitter TPE to minimum temp.:	0.10%	Transmitter TPE to maximum temp.:	0.10%
High side minimum temperature:	-0.30%	Low side minimum temperature:	-0.30%
High side maximum temperature:	0.49%	Low side maximum temperature:	0.49%

TPE

	Minimum temp.	Maximum temp.
Seal/level error to:	0.17%	0.28%

The pressure transmitter accuracy is not significantly altered by the addition of seals / level. However, the error of resulting measurement of the combination suffers significant increase due to geometric and physical parameters, because of the temperature variation.

Vacuum Considerations

The fill fluid vapor pressure point is dependent on temperature. At a combination of high temperature and pressure near vacuum the fill fluid may vaporize and the pressure measurement becomes inaccurate. The seal may also become permanently destroyed. Careful selection of fill fluid is therefore of utmost importance.

The SR301 series provides features of the fill fluids. This data is given in table 7.

“T” Type Flanged Remote Seal - SR301T

The SR301T is a flanged seal with welded diaphragm. It can be supplied with an optional flush connection and lower housing. The flush connection removes deposits on the diaphragm without disconnecting the seal. If installed correctly, the seal flange is a non-wetted part and does not get wet in contact with the process fluid during normal operation. However, the diaphragm and housing are wetted.

Bolts and nuts are not supplied with the seal.

For Dimensions see the pages 18, 19 (for integral flange) and 20 (for slip-on flange). For Pressure Limits see the Tables 1, 2 and 3 in the page 16.



MODEL	REMOTE SEAL
SR301T	“T” TYPE FLANGED REMOTE SEAL
COD.	Process Connection, Range and Standard
1	1" ASME B-16.5
2	1 1/2" ASME B-16.5
3	2" ASME B-16.5
4	3" ASME B-16.5
5	4" ASME B-16.5
6	DN 25 DIN EN1092-1
7	DN 40 DIN EN1092-1
8	DN 50 DIN EN1092-1
9	DN 80 DIN EN1092-1
A	DN 100 DIN EN1092-1
C	40 A JIS B2220
D	50 A JIS B2220
E	80 A JIS B2220
F	100 A JIS B2220
Z	Especial – Ver notas
COD.	Pressure Class
1	150 # ASME B-16.5
2	300 # ASME B-16.5
3	600 # ASME B-16.5
4	1500 # ASME B-16.5 (4)
5	2500 # ASME B-16.5
6	PN63 DIN EN1092-1
7	PN100 DIN EN1092-1
8	PN160 DIN EN1092-1
9	PN250 DIN EN1092-1
A	PN10/16 DIN EN1092-1
B	PN10/40 DIN EN1092-1 (3)
C	PN25/40 DIN EN1092-1
D	PN63/100 DIN EN1092-1
E	PN63/160 DIN EN1092-1
F	10K JIS B2220
G	20K JIS B2220
H	40K JIS B2220
Z	Especial – Ver notas
COD.	Capillary Length
1	500 mm
2	1000 mm
3	1500 mm
4	2000 mm
5	3000 mm
6	4000 mm
7	5000 mm
8	6000 mm
9	8000 mm
B	9000 mm
A	10000 mm
C	11000 mm
D	12000 mm
E	7000 mm
COD.	Diaphragm Material
I	316L SST
H	Hastelloy C276
M	Monel 400 (10)
T	Tantalum (10)
U	Titanium (10)
A	316L SST with Teflon Lining
G	316L SST Gold Plated
L	316L SST with Halar Lining (9)
C	Hastelloy with Teflon Lining
D	304L SST
COD.	Fill Fluid
S	DC 200 – silicone oil
D	DC 704 – silicone oil
F	Fluorolube MO-10 (1)
T	Syltherm 800
N	Neobee M20
G	Glycerin + Water (7)
B	Fomblin 06/06
K	Krytox 1506
H	Halocarbon 4.2
COD.	Lower Housing Material
0	Without Lower Housing (2)
1	316 SST
2	Hastelloy C276 (7)
3	Super Duplex (UNS 32750) (7)
4	Duplex (UNS 31803) (7)
5	304L SST (7)
M	Monel
COD.	Gasket Material
0	Without Gasket
T	Teflon (Ptfе)
G	Grafoil (Flexible Grafoil)
I	316L SST (6)
COD.	Optional Items *
ZZ	Special Options – Specify

SR301T - 4 - 2 - 3 - H - S - 1 - T - / - *

* Leave it blank if there are not optional items.

Shield Material	A1 - 316 Stainless Steel A3 - 316 Stainless Steel With PVC Lining
Material / Flange Type	F0 - 316L Stainless Steel (Integral Flange) F1 - C276 Hastelloy (Integral Flange) (7) F2 - 304L Stainless Steel (Integral Flange) (7) F3 - Super Duplex (UNS 32750) (Integral Flange) (7) F4 - Duplex (UNS 31803) (Integral Flange) (7)
Lower Housing Connection	G0 - With Flush Connection of 1/4" NPT (if supplied with housing) G1 - With Two Flush Connections of 1/4" NPT at 180° G3 - With Two Connections of 1/2" NPT - 14 NPT at 180° (With Lid) G4 - Without Flush Connection G5 - With Flush Connection of 1/2" NPT
Face (8)	H0 - Raised Face (ASME, DIN, JIS) H1 - Flat Face (ASME, DIN) H2 - Flat Face With Sealing Channel – RTJ (ASME B 16.20) (5)
Special Procedure	P1 - Degrease Cleaning (Oxygen or Chlorine Service) P5 - Mounting according NACE standard

Note - SR301T:

- (1) Fluorolube Filling Fluid is not available with Monel Diaphragm.
- (2) Supplied Without Gasket.
- (3) Standard DIN EN 1092-1 subdivides DN80 into PN16 (c=20) and PN40 (c=24), Smar provides only PN40 (c=24), external diameter and holes coincide.
- (4) Also fits the #900 class for diameters of 1", 1 1/2", and 2".
- (5) Only the gasket code available I (Stainless 316).
- (6) Only RTJ.
- (7) Item by inquiry.
- (8) Finishing of the flange faces according to specific standards.
- (9) Applicable only for:
 - Diameters/Capillary Length:
 - 2" ASME B 16.5, DN 50 DIN, JIS 50 A, for seals up to 3 meters of capillary and level models (by inquiry).
 - 3" ASME B 16.5, DN 80 DIN, JIS 80 A, for seals up to 5 meters of capillary and level models.
 - 4" ASME B 16.5, DN 100 DIN, JIS 100 A, for seals up to 8 meters of capillary and level models.
 - Faces: RF and FF.
 - Temperature Limits:
 - +10 to 100°C;
 - +101 to 150°C (by inquiry).
 - Not applicable for use with housing.
- (10) Diaphragms of Titanium, Tantalum, and Monel available only in 0.1 mm.

Flanged Remote Seal with Extension - SR301E

The SR301E is a flanged seal with welded diaphragm. The diaphragm is extended from the seal flange and welded to the extension. Different from Model SR301T, it is not supplied with lower a housing, because the diaphragm coincides with the internal wall of the tank. Bolts and nuts are not supplied with the seal.



For Dimensions see the pages 18, 19 (for integral flange) and 20 (for slip-on flange). For Pressure Limits see the Tables 1 and 2 in the page 16.

MODEL	REMOTE SEAL									
SR301E	FLANGED REMOTE SEAL WITH EXTENSION									
	CODE		Process Connection, Range and Standard (3)							
	2	1	1.1/2" 150 # ASME B-16.5	4	1	3" 150 # ASME B-16.5	7	B	DN 40 PN10/40 DIN EN1092-1	
	2	2	1.1/2" 300 # ASME B-16.5	4	2	3" 300 # ASME B-16.5	8	B	DN 50 PN10/40 DIN EN1092-1	
	2	3	1.1/2" 600 # ASME B-16.5	4	3	3" 600 # ASME B-16.5	9	C	DN 80 PN10/40 DIN EN1092-1	
	3	1	2" 150 # ASME B-16.5	5	1	4" 150 # ASME B-16.5	A	A	DN 100 PN10/16 DIN EN1092-1	
	3	2	2" 300 # ASME B-16.5	5	2	4" 300 # ASME B-16.5	A	C	DN 100 PN25/40 DIN EN1092-1	
	3	3	2" 600 # ASME B-16.5	5	3	4" 600 # ASME B-16.5				
	CODE		Capillary Length							
	1		500 mm	3		1500 mm	5		3000 mm	
	2		1000 mm	4		2000 mm	6		4000 mm	
							7		5000 mm	
							8		6000 mm	
							9	E	7000 mm	
									8000 mm	
								A	10000 mm	
								B	9000 mm	
	CODE		Diaphragm Material							
	I		316L Stainless Steel	T		Tantalum	G		316L Gold Plated Stainless Steel	
	H		Hastelloy C276	U		Titanium	L		316L Stainless Steel with Halar Lining (6)	
	M		Monel 400 (4)	A		316L Stainless Steel with Teflon Lining	C		Hastelloy with Teflon Lining	
	CODE		Filling Fluid							
	S		DC 200 – silicone oil	T		Syltherm 800 (4)	K		Krytox 1506	
	D		DC 704 – silicone oil	N		Neobee M20 (4)	H		Halocarborn 4.2	
	F		Fluorolube MO-10 (1)	B		Fomblim 06/06				
	CODE		Extension Length (2)							
	1		50 mm (2")	2		100 mm (4")	3		150 mm (6")	
							4		200 mm (8")	
	CODE		Optional Items*							
	ZZ		Special Options – Specify							

SR301E - 4 | 2 | 3 - H | S - 1 / *

* Leave it blank when there are not optional items.

Optional Items

Shield Material	A1 - 316 Stainless Steel A3 - 316 Stainless Steel With PVC Lining
Material / Flange Type	F0 - 316L Stainless Steel (Integral Flange) F1 - C276 Hastelloy (Integral Flange) (3) F2 - 304L Stainless Steel (Integral Flange) (3) F3 - Super Duplex (UNS 32750) (Integral Flange) (3) F4 - Duplex (UNS 31803) (Integral Flange) (3)
Face (6)	H0 - Raised Face (ASME, DIN, JIS)
Extension Material	J0 - 316 Stainless Steel J1 - C276 Hastelloy
Special Procedure	P1 - Degrease Cleaning (Oxygen or Chlorine Service) P5 - Mounting according NACE standard

Note - SR301E:

- (1) Fluorolube Filling Fluid Is Not Available With Monel Diaphragm.
- (2) Standard DIN EN 1092-1 subdivides DN80 into PN16 (c=20) and PN40 (c=24), Smar provides only PN40 (c=24), external diameter and holes coincide.
- (3) Item by inquiry.
- (4) Diaphragms of Titanium, Tantalum, and Monel available only in 0.1 mm.
- (5) Finishing of the flange faces according to specific standards.
- (6) Applicable only for:
 - Diameters/Capillary Length: 2" ASME B 16.5, DN 50 DIN, JIS 50 A, for seals up to 3 meters of capillary and level models (by inquiry).
 - 3" ASME B 16.5, DN 80 DIN, JIS 80 A, for seals up to 5 meters of capillary and level models.
 - 4" ASME B 16.5, DN 100 DIN, JIS 100 A, for seals up to 8 meters of capillary and level models.
 - Faces: RF and FF.
 - Temperature Limits:
 - +10 to 100°C;
 - +101 to 150°C (by inquiry).

Threaded Remote Seal - SR301R

The SR301R is a threaded connection seal. The diaphragm is welded to the flange. This model

is always supplied with lower housing, because the process thread is located in this part. The flush connection (optional) in the housing enables the removal of deposits on the diaphragm without disconnecting the seal. The parts are bolted together and sealed with a gasket.

This model is supplied with bolts and nuts in Stainless Steel 316.

For Dimensions see the page 21. For Pressure Limits see the Table 4 in the page 16.



MODEL	REMOTE SEAL
SR301R	THREADED REMOTE SEAL
CODE	Process Connection
1	1/4 NPT
2	3/8 NPT
3	1/2 NPT
4	3/4 NPT
5	1 NPT
6	1 1/2 NPT
7	1/2" BSP
8	1" BSP
CODE	Pressure Limit
2	2000 psi (138 bar)
3	5800 psi (400 bar)
CODE	Capillary Length
1	500 mm
2	1000 mm
3	1500 mm
4	2000 mm
5	3000 mm
6	4000 mm
7	5000 mm
8	6000 mm
E	7000 mm
9	8000 mm
A	10000 mm
B	9000 mm
CODE	Diaphragm Material
I	316L Stainless Steel
H	Hastelloy C276
M	Monel 400
T	Tantalum
U	Titanium
A	316L Stainless Steel with Teflon Lining
G	316L Gold Plated Stainless Steel
C	Hastelloy with Teflon Lining
CODE	Filling Fluid
S	DC 200 – silicone oil
D	DC 704 – silicone oil
F	Fluorolube MO-10 (1)
T	Syltherm 800
N	Neobee M20
B	Fomblim 06/06
K	Krytox 1506
H	Halocarbom 4.2
CODE	Lower Housing
I	316L Stainless Steel
H	Hastelloy C276
S	Super Duplex (UNS 32750) (5)
D	Duplex (UNS 31803) (5)
A	304L Stainless Steel (5)
M	Monel
CODE	Gasket Material (4)
T	Teflon (PTFE)
G	Grafoil (Flexible Grafoil)
CODE	Flush Connection
0	Without Flush Connection
1	With Flush Connection (2)
CODE	Optional Items*
ZZ	Special Options – Specify

SR301R - 4 | 1 | 3 - H | A - I | T | 0 / *

* Leave it blank when there are not optional items.

Optional Items

Shield Material	A1 - 316 Stainless Steel A3 - 316 Stainless Steel With PVC Lining
Flange Material	F0 - 316 Stainless Steel
Lower Housing Connection	G0 - With Flush Connection of 1/4" NPT (If supplied with housing) G4 - Without Flush Connection
Special Procedure	P1 - Degrease Cleaning (Oxygen or Chlorine Service)

Note - SR301R:

- (1) Fluorolube Filling Fluid Is Not Available With Monel Diaphragm.
- (2) Flush connection not available for process connection 1 1/2" NPT.
- (3) Diaphragms of Titanium, Tantalum, and Monel available only in 0.1 mm.
- (4) See Table – Gasket Application Guide for Pressure and Temperature Limits.
- (5) Item by inquiry.

Sanitary Remote Seal - SR301S

The SR301S is a seal for food and other applications where the sanitary connections are necessary. The diaphragm is welded to the connection face, which can be Threaded type or Tri-Clamp, allowing an easy and fast connection/disconnection of the transmitter.

For Dimensions see the pages 20, 21 and 22. For Pressure Limits see the Tables 5 and 6 on pages 11 and 12.



MODEL	REMOTE SEAL
SR301S	SANITARY REMOTE SEAL 'S'
COD.	Process Connection (1)
T	Tri-Clamp DN50 – without extension
A	Tri-Clamp DN50 – with extension
F	Tri-Clamp – 1.1/2" - without extension
D	Tri-Clamp – 2" - without extension
6	Tri-Clamp – 2" - with extension
G	Tri-Clamp – 3" - without extension
I	Tri-Clamp – 3" - with extension
8	Threaded DN25 – DIN 11851 – with extension (2)
H	Threaded DN40 – DIN 11851 – without extension (2)
9	Threaded DN40 – DIN 11851 – with extension (2)
U	Threaded DN50 – DIN 11851 – without extension (2)
V	Threaded DN50 – DIN 11851 – with extension (2)
W	Threaded DN80 – DIN 11851 – without extension (2)
X	Threaded DN80 – DIN 11851 – with extension (2)
S	Threaded SMS – 1.1/2" - without extension (2)
E	Threaded SMS – 2" - without extension (2)
7	Threaded SMS – 2" - with extension (2)
M	Threaded SMS – 3" - with extension (2)
1	Threaded SMS – 3" - without extension (2)
C	Threaded RJT – 2" - without extension (2)
5	Threaded RJT – 2" - with extension (2)
L	Threaded RJT – 3" - with extension (2)
2	Threaded RJT – 3" - without extension (2)
B	Threaded IDF – 2" - without extension (2)
4	Threaded IDF – 2" - with extension (2)
K	Threaded IDF – 3" - with extension (2)
3	Threaded IDF – 3" - without extension (2)
Y	As per special option
COD.	Pressure Class
1	Normal pressure
2	High pressure
Z	Special (see notes)
COD.	Capillary Length
1	500 mm
2	1000 mm
3	1500 mm
4	2000 mm
5	3000 mm
6	4000 mm
7	5000 mm
8	6000 mm
9	8000 mm
B	9000 mm
A	10000 mm
E	7000 mm
COD.	Diaphragm Material
H	Hastelloy C276
I	316L SST
COD.	Fill Fluid
S	DC 200 – silicone oil
D	DC 704 – silicone oil
F	Fluorolube MO-10
T	Syltherm 800
N	Neobee M20
COD.	Wet O-ring
0	Sem O-ring
T	Teflon
B	Buna-N
V	Viton
COD.	Tank Adapter
0	Without Tank Adapter
3	With Tank Adapter in 316L SST (3)
COD.	Tri Clamp
0	Without Tri-Clamp
2	With Tri-Clamp in 304 SST
COD.	Optional Items**
ZZ	Special Options – Specify

SR301S - 4 | 1 | 3 | - | I | S | - | T | 0 | 0 | / | *

* Leave it blank when there are not optional items.

Optional Items

Shield Material	A1 – 316 Stainless Steel A3 - 316 Stainless Steel with PVC Lining
Special Procedures	P1 – Degrease Cleaning (Oxygen or Chlorine Service)

Note - SR301S:

- (1) Extension Material in 316 Stainless Steel and wet part with diaphragm material.
- (2) Not available for Tri-clamp in 304 stainless steel.
- (3) Not available for without O-Ring option.
- (4) HP - High Pressure

Pancake Remote Seal - SR301P

The SR301P is a seal with welded diaphragm, whose assembly requires blind flanges. This model is supplied with lower housing and flush connection (optional). The flush connection removes deposits on the diaphragm without disconnecting the seal. The seal diaphragm and the lower housing are wetted (in contact with the process fluid). However, the blind flange does not get wet.

Bolts, nuts and blind flange are not supplied with the seal.

The pressure limits are established by pressure class of the blind flange.

For Dimensions see the page 18. For Pressure Limits see the Tables on pages 11 and 12.

MODELO	PANCAKE REMOTE SEAL										
SR301P	SELO REMOTO PANQUECA										
COD.	Process Connection, Pressure Class / Standard										
1	1 1/2"	150...2500 #	ASME B-16.5	8	DN 100	PN10...100	DIN EN1092-1 (1)				
2	2"	150...2500 #	ASME B-16.5	9	40A	20K	JIS B 22 01				
3	3"	150...2500 #	ASME B-16.5	A	50A	10K	JIS B 22 01				
4	4"	150...2500 #	ASME B-16.5	B	50A	40K	JIS B 22 01				
5	DN 40	PN10...100	DIN EN1092-1 (1)	C	80A	10K	JIS B 22 01				
6	DN 50	PN10...100	DIN EN1092-1 (1)	D	80A	20K	JIS B 22 01				
7	DN 80	PN10...100	DIN EN1092-1 (1)	E	100A	10K	JIS B 22 01				
COD.	Capillary Length										
1	500 mm			5	3000 mm			9	8000 mm	D	12000 mm
2	1000 mm			6	4000 mm			B	9000 mm	E	7000 mm
3	1500 mm			7	5000 mm			A	10000 mm		
4	2000 mm			8	6000 mm						
COD.	Diaphragm Material										
I	316L Stainless Steel			A	316L Stainless Steel with Teflon Lining						
H	Hastelloy C276			B	Tantalum with Teflon Lining						
M	Monel 400 (6)			G	316L Stainless Steel Gold Plated						
T	Tantalum (6)			C	Hastelloy with Teflon Lining						
U	Titanium (6)			8	Monel Gold Plated (3)						
COD.	Fill Fluid										
S	DC 200 – silicone oil			T	Syltherm 800			B	Fomblim 06/06		
D	DC 704 – silicone oil			N	Neobee M20			K	Krytox 1506		
F	Fluorolube MO-10 (1)			G	Glycerin + Water			H	Halocarbon 4.2		
COD.	Lower Housing										
0	Without Lower Housing (2)			2	Hastelloy C276			4	Duplex (UNS 31803) (3)		
1	316 Stainless Steel			3	Super Duplex (UNS 32750) (3)						
COD.	Gasket Material										
0	Without Gasket			G	Grafoil (Flexible Grafoil)						
T	Teflon (PTFE)										
COD.	Optional Items*										
ZZ	Special Options – Specify										

SR301P - 2 | 3 - I | S - 1 | 0 / *

* Leave it blank when there are not optional items.

Optional Items

Shield Material	A1 - 316 Stainless Steel A3 - 316 Stainless Steel with PVC Lining	
Flange Material	F0 - 316L Stainless Steel	
Lower Housing Connection	G0 - With Flush Connection of 1/4" NPT (If Supplied with Housing) G1 - With Two Flush Connections of 1/4" NPT at 180°	G3 - With Two Connections of 1/2" – 14 NPT at 180° (With Lid) G5 - With Flush Connection of 1/2" NPT
Face (5)	H0 - Face (ASME, DIN, JIS) (4)	
Special Procedure	P1 - Degrease Cleaning (Oxygen or Chlorine Service)	

Notas - SR301P:

- (1) Fluorolube filling fluid is not available with Monel diaphragm.
- (2) Supplied without gasket.
- (3) Item by inquiry.
- (4) This face does not cause interference when mounted with counter-flanges with Flat Face (FF) or Raised Face (RF).
- (5) Finishing of the flange faces according to specific standards.
- (6) Diaphragms of Titanium, Tantalum, and Monel available only in 0.1 mm.



The operating range of the transmitter with remote seal must respect the operating limits of the transmitter sensor and also the connection pressure limit (Flanges - Tables on pages 11 and 12) .

PRESSURES TABLE FOR SEAL AND LEVEL FLANGES ASME B16.5 2017 STANDARD

Material Group	Pressure Class	Maximum Temperature Allowed								
		-29 a 38	50	100	150	200	250	300	325	350
		Maximum Pressure Allowed (bar)								
Hastelloy C276	150	20	19,5	17,7	15,8	13,8	12,1	10,2	9,3	8,4
	300	51,7	51,7	51,5	50,3	48,3	46,3	42,9	41,4	40,3
	600	103,4	103,4	103	100,3	96,7	92,7	85,7	82,6	80,4
	1500	258,6	258,6	257,6	250,8	241,7	231,8	214,4	206,6	201,1
	2500	430,9	430,9	429,4	418,2	402,8	386,2	357,1	344,3	335,3
S31803 Duplex S32750 Super Duplex	150	20	19,5	17,7	15,8	13,8	12,1	10,2	9,3	8,4
	300	51,7	51,7	50,7	45,9	42,7	40,5	38,9	38,2	37,6
	600	103,4	103,4	101,3	91,9	85,3	80,9	77,7	76,3	75,3
	1500	258,6	258,6	253,3	229,6	213,3	202,3	194,3	190,8	188,2
	2500	430,9	430,9	422,2	382,7	355,4	337,2	323,8	318	313,7
AISI316L	150	15,9	15,3	13,3	12	11,2	10,5	10	9,3	8,4
	300	41,4	40	34,8	31,4	29,2	27,5	26,1	25,5	25,1
	600	82,7	80	69,6	62,8	58,3	54,9	52,1	51	50,1
	1500	206,8	200,1	173,9	157	145,8	137,3	130,3	127,4	125,4
	2500	344,7	333,5	289,9	261,6	243	228,9	217,2	212,3	208,9
AISI316	150	19	18,4	16,2	14,8	13,7	12,1	10,2	9,3	8,4
	300	49,6	48,1	42,2	38,5	35,7	33,4	31,6	30,9	30,3
	600	99,3	96,2	84,4	77	71,3	66,8	63,2	61,8	60,7
	1500	248,2	240,6	211	192,5	178,3	166,9	158,1	154,4	151,6
	2500	413,7	400,9	351,6	320,8	297,2	278,1	263,5	257,4	252,7

PRESSURES TABLE FOR SEAL AND LEVEL FLANGES DIN EN 1092-1 2008 STANDARD

Material Group	Pressure Class	Maximum Temperature Allowed						
		RT*	100	150	200	250	300	350
		Maximum Pressure Allowed (bar)						
10E0 AISI 304/304L	PN 16	16	13,7	12,3	11,2	10,4	9,6	9,2
	PN 25	25	21,5	19,2	17,5	16,3	15,1	14,4
	PN 40	40	34,4	30,8	28	26	24,1	23
	PN 63	63	54,3	48,6	44,1	41,1	38,1	36,3
	PN 100	100	86,1	77,1	70	65,2	60,4	57,6
	PN 160	160	137,9	123,4	112	104,3	96,7	92,1
	PN 250	250	215,4	192,8	175	163	151,1	144

Material Group	Pressure Class	Maximum Temperature Allowed						
		RT*	100	150	200	250	300	350
		Maximum Pressure Allowed (bar)						
14E0 AISI 316/316L	PN 16	16	16	14,5	13,4	12,7	11,8	11,4
	PN 25	25	25	22,7	21	19,8	18,5	17,8
	PN 40	40	40	36,3	33,7	31,8	29,7	28,5
	PN 63	63	63	57,3	53,1	50,1	46,8	45
	PN 100	100	100	90,9	84,2	79,5	74,2	71,4
	PN 160	160	160	145,5	134,8	127,2	118,8	114,2
	PN 250	250	250	227,3	210,7	198,8	185,7	178,5

Material Group	Pressure Class	Maximum Temperature Allowed						
		RT*	100	150	200	250	300	350
		Maximum Pressure Allowed (bar)						
16E0 1.4410 Super Duplex 1.4462 Duplex	PN 16	16	16	16	16	16	-	-
	PN 25	25	25	25	25	25	-	-
	PN 40	40	40	40	40	40	-	-
	PN 63	63	63	63	63	63	-	-
	PN 100	100	100	100	100	100	-	-
	PN 160	160	160	160	160	160	-	-
	PN 250	250	250	250	250	250	-	-

*RT = Reference Temperature (-10 to 50 °C)

PRESSURES TABLE FOR SEAL AND LEVEL FLANGES JIS 2220 – 2012 STANDARD

Grupo de Material	Pressure Class	Maximum Temperature Allowed			
		Tamb a 120°	220°	300°	350°
		Maximum Pressure Allowed (bar)			
AISI316L	10k	14	12	10	--
	20k	34	31	29	26
	40k	68	62	57	52

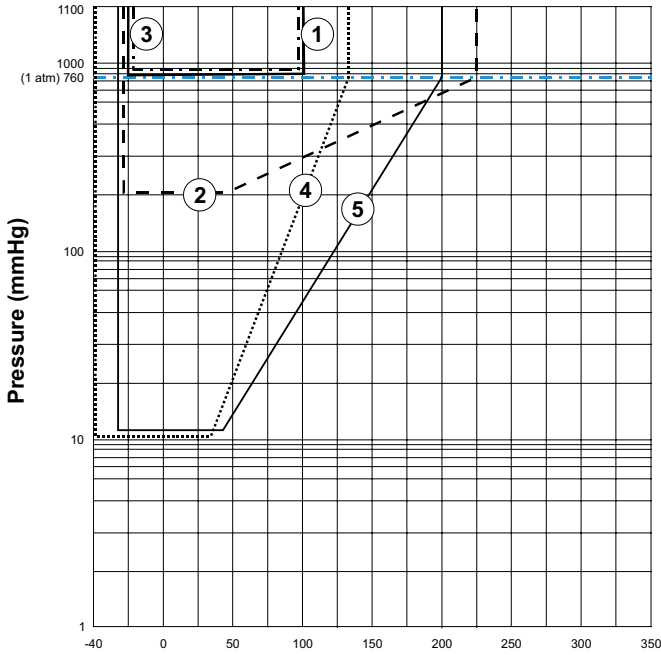
Notas

- The Tables are based on the standards and are subject to modifications. For more details consult the corresponding standards;
- It is necessary verify the application limits of the sealing gasket, because the limits can do unviable the tables above;
- The temperature limits of the fill fluid limit this tables. See Table 2.5, Section2.

Fluid	Limit of °C Temperature (°F) to Pabs < 1 atm (Vacuum) (3)	Limit of °C Temperature (°F) to Pabs > 1 atm	Viscosity (cSt) at 25°C	Density (g/cm ³) at 25°C	Volumetric Expansion Coefficient 1/°C (1/°F)	Types of Application
Silicone DC200	-40 to 100 (-40 to 212) (3)	-40 to 170 (-40 to 338)	20	0.950	0.001070 (0.000594)	General (Atoxicity, not irritating, odorless, Food Processing)
Silicone DC704	0 to 200 (+32 to 392) (3)	0 to 315 (+32 to 599)	39	1.070	0.000950 (0.000528)	General (High Temperatures and Vacuum)
Fluorolube MO-10	N.A. (2)	-20 to 100 (-4 to 212)	50	1.910	0.000874 (0.000486)	Oxygen, Chlorine, Nitric Acid
Syltherm 800	N.A. (2)	-40 to 350 (-40 to 662)	10	0.934	0.001500 (0.000833)	General (Positive and Negative External Temperature)
Neobee M20 (1)	-15 to 120 (+5 to 248) (3)	-15 to 225 (+5 to 437)	9.5	0.920	0.001008 (0.000560)	Foods, Beverage and Pharmaceuticals
Glycerin (50%) and Water (50%)	N.A. (2)	-15 to 93 (+5 to 199.4)	12.5	1.130	0.000342 (0.000190)	Foods
Fomblim	-20 to 100 (-4 to 212) (3)	-20 to 200 (-4 to 392)	48	1.87	0.000900 (0.000500)	Low toxicity, excellent compatibility with metals, plastics and elastomers, excellent performance in high vacuum
Krytox	-40 to 100 (-40 to 212) (3)	-40 to 120 (-40 to 248)	42	1.88	0.000900 (0.000500)	Inert, nontoxic, biologically inert, nonexplosive, nonreactive to all elastomers, plastics and metals, excellent performance in high vacuum
Halocarbon	-45 to 80 (-49 to 176) (3)	-45 to 130 (-49 to 266)	5.6	1.85	0.001199 (0.000667)	Inert, low odor, low toxicity, noncorrosive. Standard for manufacturers of oxygen and reactive liquids

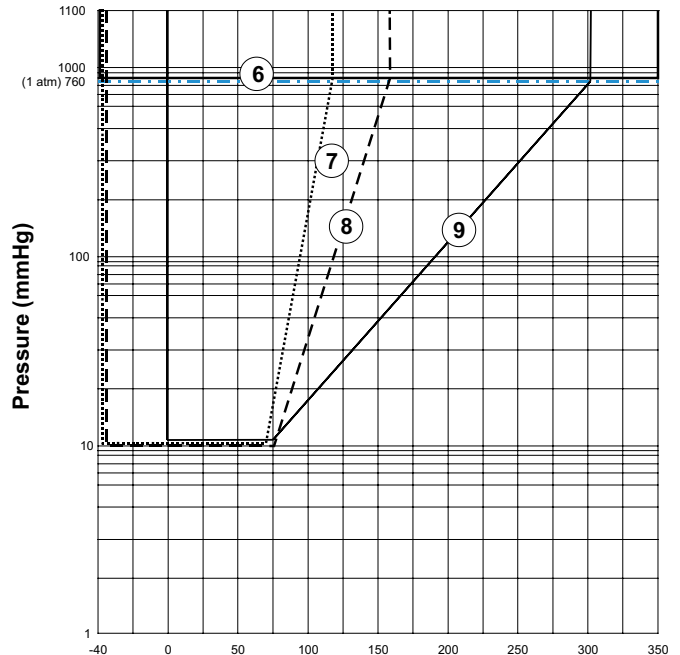
Legend: (1) Propylene Glycol Diester of Octanoato / Decanoato; (2) N.A. – Nonapplicable; (3) Consult graphs in the Figures 1 and 2 when the vacuum pressure is known

Table - Filling Fluid Characteristics



- 1 - Fluorolube (—) 4 - Halocarbon (.....)
 2 - Neobee M20 (- -) 5 - Fomblim (—)
 3 - Glycerin + H₂O (- · -)

Pressure x Temperature Curve (1)



- 6 - Syltherm800 (—) 8 - Silicone DC200 (—)
 7 - Krytox (.....) 9 - Silicone DC704 (—)

Pressure x Temperature Curve (2)

Ring Material	Resistance to Temperature in Continuous Service		Application – Recommended Use and Specification	
	Minimum Temperature °C (°F)	Maximum Temperature °C (°F)	Recommended	Not Recommended
Teflon® (PTFE)	-23 (-10)	232 (450)	General Applications, Excellent resistance to acids, bases, water and amines	To avoid solvents and aromatic fuels.
Viton	-29 (-20)	205 (400)	Products of Petroleum, Silicone Fluids, Diester Fluids.	Amines, Cetone, Hot Water/Vapor Brake Fluids.
Buna N	-35 (-31)	135 (275)	General Applications, Products of Petroleum, Silicone Fluids, Fluids to Ethylene Glycol	Acids, Brake Fluids, Ozone, Cetones.

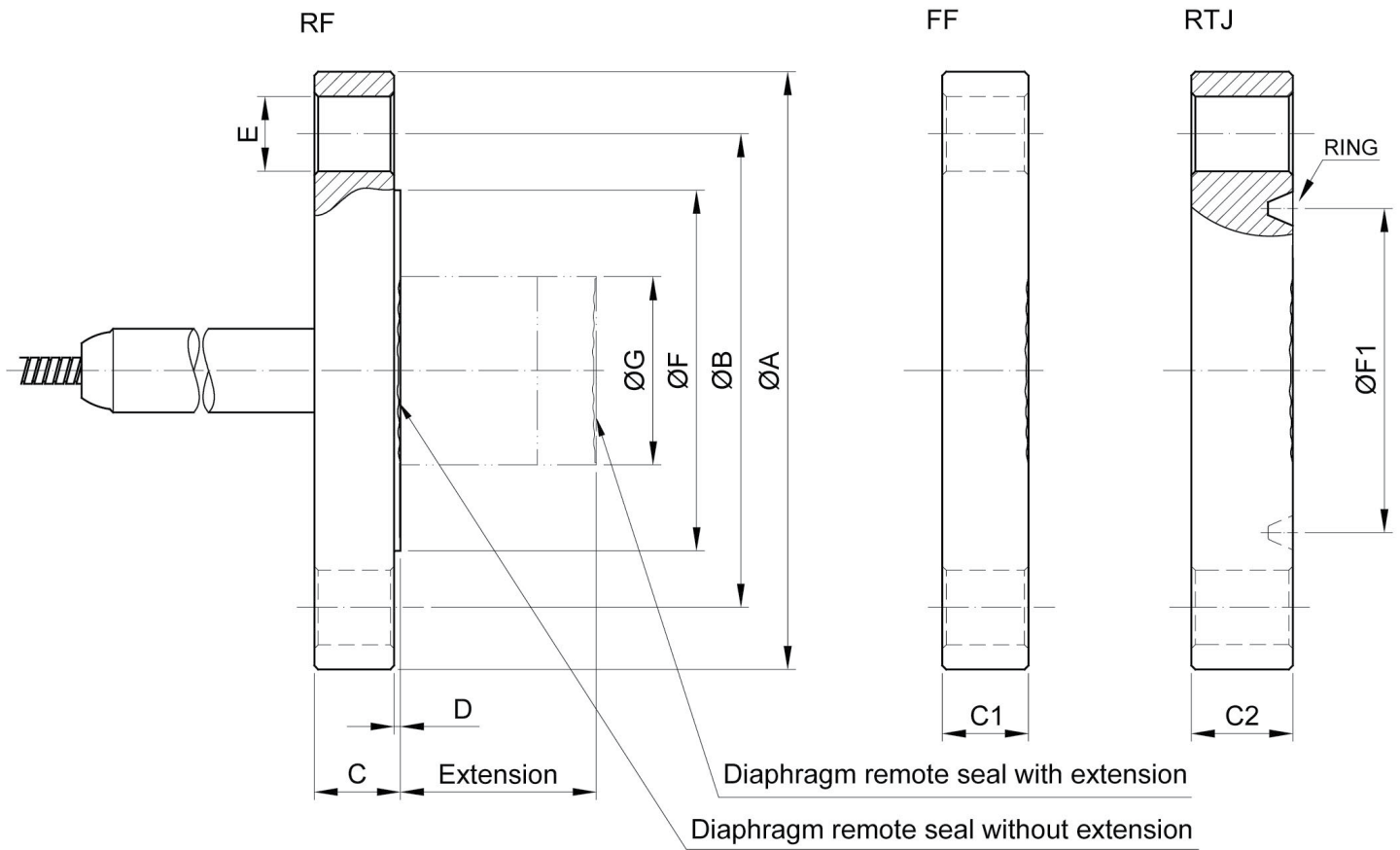
Table - O'Ring Application Guide

Ambient	Teflon® (PTFE)	Viton	Buna N
Acetic Acid, 30%	S.I.	++	+++
Acetone	-	-	-
Air, below 93 °C (200° F)	++++	++++	++++
Ammonia Gas, Cold	++++	-	++++
Ammonia Gas, Hot	+++	-	-
Ammonia, Liquid	++	-	+++
Carbon Dioxide, Dry	++++	+++	++++
Carbon Dioxide, Wet	++++	+++	++++
Carbon Monoxide	++++	++++	++++
Caustic Soda	++++	-	+++
Chloro Dioxide	++	+++	-
Citric Acid	++++	++++	++++
Corn Oil	++++	++++	++++
Cottonseed Oil	++++	++++	++++
Diesel Oil	++++	++++	++++
Ethyl Alcohol (Ethanol)	++++	++	++++
Glycol Ethylene	++++	++++	++++
Fish Oil	S.I.	++++	++++
Gasoline	+++	++++	++++
Glucose	++++	++++	++++
Hydrogen	S.I.	++++	++++
Kerosene	+++	++++	++++
Methane	+++	++++	++++
Milk	++++	++++	++++
Mineral Oil	++++	++++	++++
Olive Oil	++++	++++	++++
Oxygen, Gas (Hot)	-	++	-
Oxygen, Liquid	-	-	-
Ozone	++++	++++	-
Propane	++++	++++	++++
Propylene Glycol	++++	++++	++++
Sodium Bicarbonate	++++	++++	++++
Vapour < 149 °C (300 °F)	+++	+++	-
Vapour > 149 °C (300 °F)	++	-	-
Vegetable Oils	++++	++++	++++
Vinegar	S.I.	+++	+++
Water	++++	++++	++++

(++++) Recommended; (+++) Satisfactory; (++) Transitory; (-) Not Recommended; (S. I.) Without Information

Table - O'Ring Materials Guide

**SR301T (RF/FF/RTJ) - "T" Type Flanged Remote Seal and
SR301E (RF/FF/RTJ) - Flanged Remote Seal with Extension
(Integral Flange)**



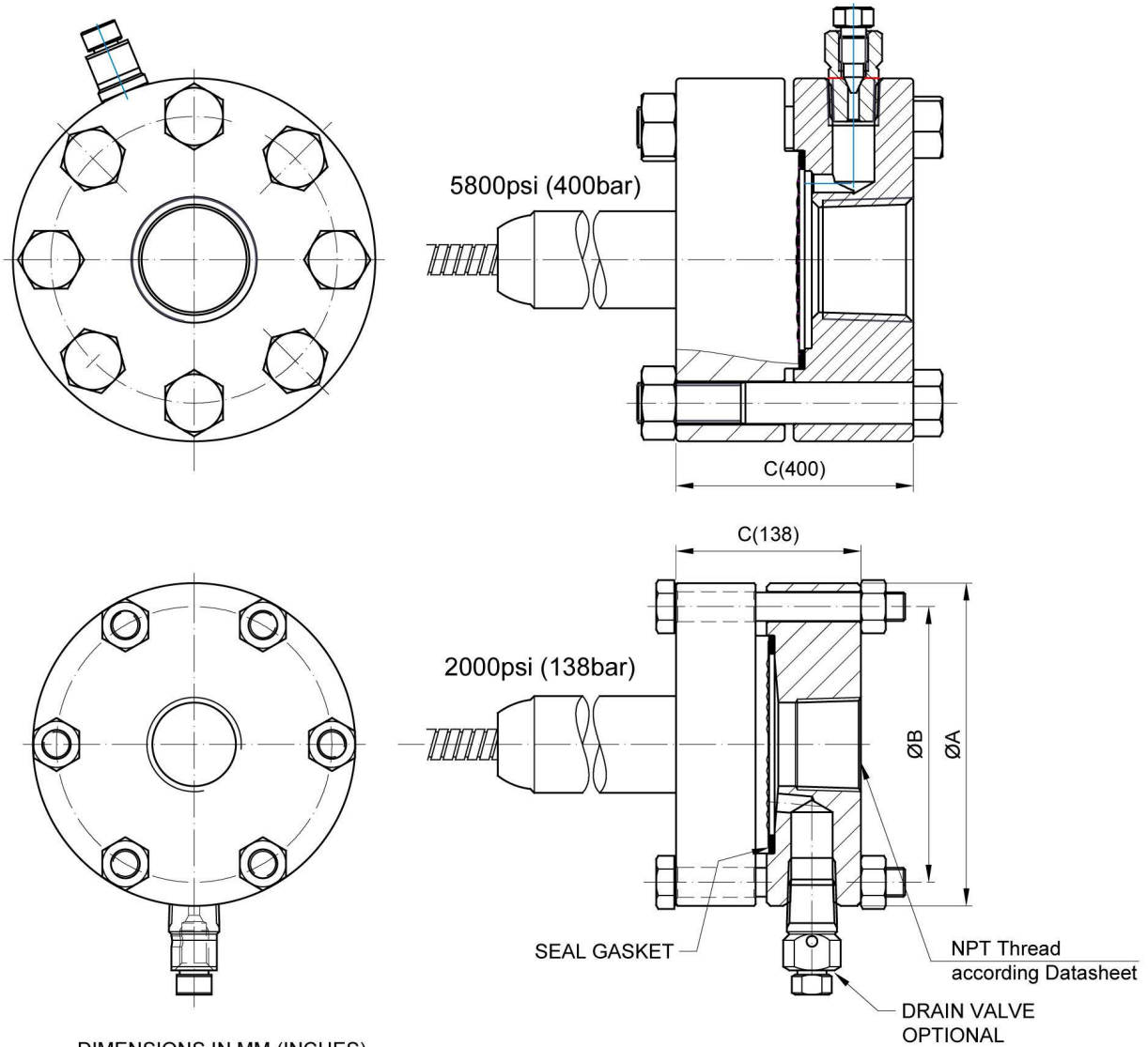
DIMENSIONS IN mm (INCHES)
 EXTENSION LENGTHS: 0 , 50 , 100 , 150 or 200
 EXTENSIONS ONLY AVAILABLE IN RF FLANGES

ASME-B 16.5 - 2017 DIMENSIONS														
DN	CLASS	A	B	C	C1 (FF)	C2 (RTJ)	D	E	F	F1 (RTJ)	RTJ RING	G	HOLES	
1"	150	110 (4.33)	79,2 (3.12)	17 (0.67)	17 (0.67)	21 (0.83)	2 (0.06)	16 (0.63)	50,8 (2)	47,6 (1.87)	R15	/	4	
	300	125 (4.92)	88,9 (3.50)	19 (0.75)	19 (0.75)	25 (0.98)	2 (0.06)	19 (0.75)	50,8 (2)	50,8 (2)	R16		4	
	600	125 (4.92)	88,9 (3.50)	25 (0.96)	/	25 (0.98)	7 (0.25)	19 (0.75)	50,8 (2)	50,8 (2)	R16		4	
	1500	150 (5.90)	101,6 (4)	35,6 (1.40)		35 (1.38)	7 (0.25)	25 (0.98)	50,8 (2)	50,8 (2)	R16		4	
	2500	160 (6.30)	108 (4.25)	42 (1.65)		41,4 (1.63)	7 (0.25)	25 (0.98)	50,8 (2)	60,3 (2.37)	R18		4	
1.1/2"	150	125 (4.92)	98,6 (3.88)	20 (0.78)	20 (0.79)	24,4 (0.96)	2 (0.06)	16 (0.63)	73,2 (2.88)	65,1 (2.56)	R19	40 (1.57)	4	
	300	155 (6.10)	114,3 (4.5)	21 (0.83)	20 (0.79)	28,7 (1.13)	2 (0.06)	22 (0.87)	73,2 (2.88)	68,3 (2.68)	R20	40 (1.57)	4	
	600	155 (6.10)	114,3 (4.5)	29,3 (1.15)	/	28,7 (1.13)	7 (0.25)	22 (0.87)	73,2 (2.88)	68,3 (2.68)	R20	40 (1.57)	4	
	1500	180 (7.09)	124 (4.88)	38,8 (1.53)		38,2 (1.52)	7 (0.25)	28 (1.10)	73,2 (2.88)	68,3 (2.68)	R20	40 (1.57)	4	
	2500	205 (8.07)	146 (5.75)	51,5 (2.03)		52,4 (2.06)	7 (0.25)	32 (1.26)	73,2 (2.88)	82,6 (3.25)	R23	40 (1.57)	4	
2"	150	150 (5.90)	120,7 (4.75)	20 (0.79)	20 (0.79)	23,9 (0.94)	2 (0.06)	19 (0.75)	92 (3.62)	82,6 (3.25)	R22	48 (1.89)	4	
	300	165 (6.50)	127 (5)	22,7 (0.89)	20,7 (0.81)	28,6 (1.13)	2 (0.06)	19 (0.75)	92 (3.62)	82,6 (3.25)	R23	48 (1.89)	8	
	600	165 (6.50)	127 (5)	32,3 (1.27)	/	33,3 (1.31)	7 (0.25)	19 (0.75)	92 (3.62)	82,6 (3.25)	R23	48 (1.89)	8	
	1500	215 (8.46)	165 (6.50)	45 (1.77)		46 (1.81)	7 (0.25)	25 (0.98)	92 (3.62)	95,3 (3.75)	R24	48 (1.89)	8	
	2500	235 (9.25)	171,5 (6.75)	58 (2.27)		58,8 (2.31)	7 (0.25)	28 (1.10)	92 (3.62)	101,6 (4)	R26	48 (1.89)	8	
3"	150	190 (7.48)	152,4 (6)	24,3 (0.96)	22,3 (0.88)	28,7 (1.13)	2 (0.06)	19 (0.75)	127 (5)	114,3 (4.5)	R29	73 (2.87)	4	
	300	210 (8.27)	168,1 (6.62)	29 (1.14)	27 (1.06)	34,9 (1.37)	2 (0.06)	22 (0.87)	127 (5)	123,8 (4.87)	R31	73 (2.87)	8	
	600	210 (8.27)	168,1 (6.62)	38,8 (1.53)	/	39,7 (1.56)	7 (0.25)	22 (0.87)	127 (5)	123,8 (4.87)	R31	73 (2.87)	8	
4"	150	228,6 (9)	190,5 (7.5)	24,3 (0.96)		22,3 (0.88)	28,7 (1.13)	2 (0.06)	19 (0.75)	157 (6.19)	149,2 (5.87)	R36	89 (3.50)	8
	300	255 (10)	200 (7.87)	32,2 (1.27)		30,2 (1.19)	38,1 (1.50)	2 (0.06)	22 (0.87)	157 (6.19)	149,2 (5.87)	R37	89 (3.50)	8
	600	275 (10.83)	215,9 (8.5)	45,1 (1.77)	/	46 (1.81)	7 (0.25)	25 (1)	157 (6.19)	149,2 (5.87)	R37	89 (3.50)	8	

EN 1092-1-2008 DIMENSIONS													
DN	PN	A	B	C	C1 (FF)	D	E	F	G	HOLES			
25	10/40	115 (4.53)	85 (3.35)	19 (0.75)	19 (0.75)	2 (0.08)	14 (0.55)	68 (2.67)	/	4			
	63/160	140 (5.51)	100 (3.94)	24 (0.95)	/	2 (0.08)	18 (0.71)	68 (2.67)		4			
	250	150 (5.91)	105 (4.13)	28 (1.10)		2 (0.08)	22 (0.87)	68 (2.67)		4			
40	10/40	150 (5.91)	110 (4.33)	20 (0.78)		20 (0.78)	3 (0.12)	18 (0.71)	88 (3.46)	/	40 (1.57)	4	
	63/160	170 (6.69)	125 (4.92)	28 (1.10)	/	3 (0.12)	22 (0.87)	88 (3.46)	40 (1.57)		4		
	250	185 (7.28)	135 (5.31)	34 (1.34)		3 (0.12)	26 (1.02)	88 (3.46)	40 (1.57)		4		
50	10/40	165 (6.50)	125 (4.92)	20 (0.78)		20 (0.78)	3 (0.12)	18 (0.71)	102 (4.01)	/	48 (1.89)	4	
	63	180 (7.09)	135 (5.31)	26 (1.02)	/	3 (0.12)	22 (0.87)	102 (4.01)	48 (1.89)		4		
	100/160	195 (7.68)	145 (5.71)	30 (1.18)		3 (0.12)	26 (1.02)	102 (4.01)	48 (1.89)		4		
	250	200 (7.87)	150 (5.91)	38 (1.50)		3 (0.12)	26 (1.02)	102 (4.01)	48 (1.89)		8		
80	10/40	200 (7.87)	160 (6.3)	24 (0.95)		24 (0.95)	3 (0.12)	18 (0.71)	138 (5.43)	/	73 (2.87)	8	
	63	215 (8.46)	170 (6.69)	28 (1.12)	/	3 (0.12)	22 (0.87)	138 (5.43)	73 (2.87)		8		
	100/160	230 (9.06)	180 (7.09)	36 (1.42)		3 (0.12)	26 (1.02)	138 (5.43)	73 (2.87)		8		
100	10/16	220 (8.67)	180 (7.08)	20 (0.78)		/	3 (0.12)	18 (0.71)	158 (6.22)	/	89 (3.50)	8	
	25/40	235 (9.25)	190 (7.5)	24 (0.95)	3 (0.12)		22 (0.87)	162 (6.38)	89 (3.50)		8		

JIS B 2220 DIMENSIONS													
CLASSE	A	B	C	D	E	F	G	HOLES					
40A	20K	140 (5.5)	105 (4.13)	20 (0.78)	2 (0.08)	19 (0.75)	81 (3.2)	/	40 (1.57)	4			
50A	10K	155 (6.1)	120 (4.72)	20 (0.78)	/	2 (0.08)	15 (0.59)		96 (3.78)	48 (1.89)	4		
	20K	155 (6.1)	120 (4.72)	20 (0.78)		2 (0.08)	19 (0.75)		96 (3.78)	48 (1.89)	8		
	40K	165 (6.5)	130 (5.12)	26 (1.02)		2 (0.08)	19 (0.75)	105 (4.13)	48 (1.89)	8			
80A	10K	185 (7.28)	150 (5.9)	22 (0.87)	/	2 (0.08)	19 (0.75)	126 (4.96)	/	73 (2.87)	8		
	20K	200 (7.87)	160 (6.3)	22 (0.87)		2 (0.08)	19 (0.75)	132 (5.2)		73 (2.87)	8		
100A	10K	210 (8.27)	175 (6.89)	20 (0.78)	/	2 (0.08)	19 (0.75)	151 (5.95)	/	89 (3.50)	8		

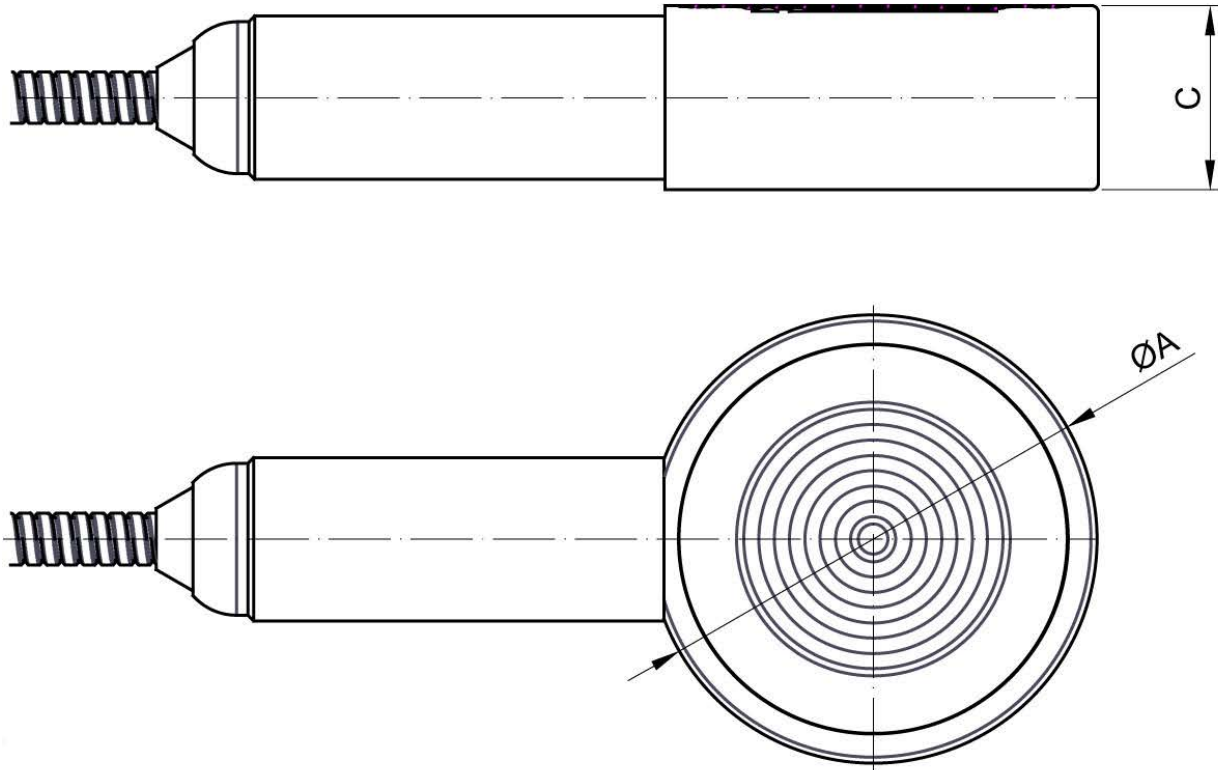
SR301R - Threaded Remote Seal



DIMENSIONS IN MM (INCHES)
 DRAIN VALVE NOT ALAILABLE TO 1.1/2"NPT

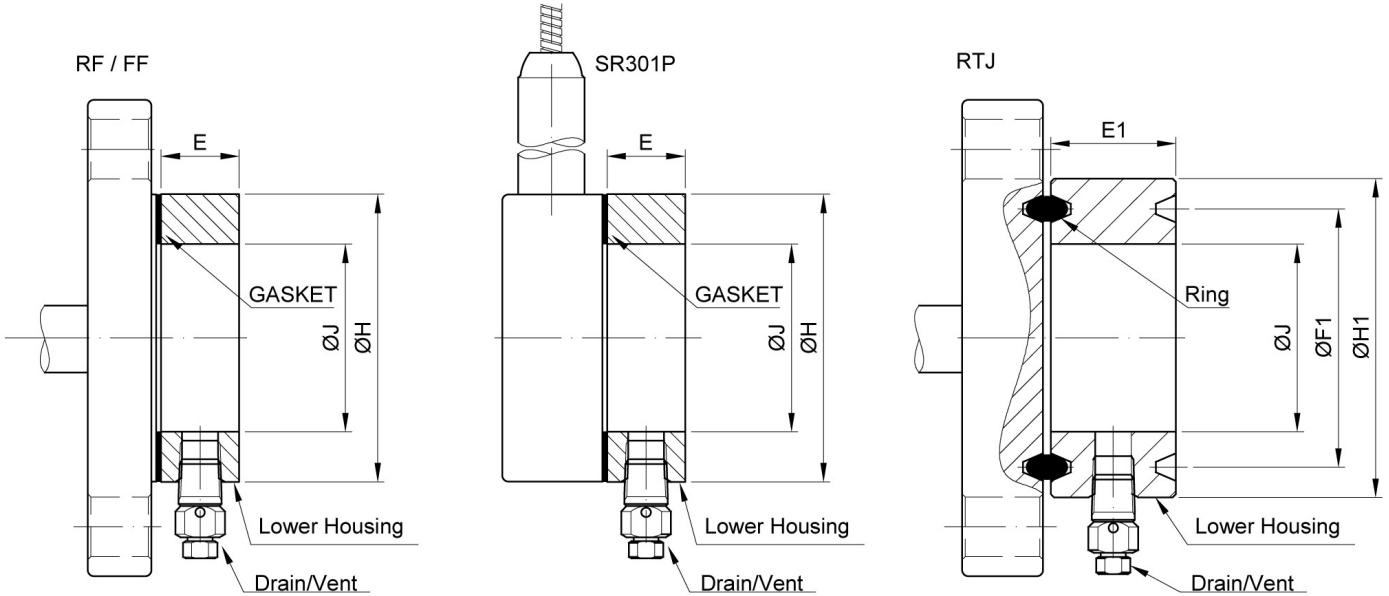
LIMIT	A	B	C	HOLES	BOLTS
2000psi (138bar)	89 (3.50)	76 (2.99)	51 (2.01)	6	5/16-24UNF
5800psi (400bar)	100 (3.93)	79 (3.11)	65,5 (2.58)	8	7/16-20UNF

SR301P - Pancake Remote Seal without Extension



ASME-B 16.5 DIMENSIONS			
DN	CLASS	C	ØA
1.1/2"	150....2500	30 (1.18)	73,2 (2.88)
2"	150....2500	30 (1.18)	92 (3.62)
3"	150....2500	30 (1.18)	127 (5)
4"	150....2500	30 (1.18)	157,2 (6.19)
DIN EN 1092-1 DIMENSIONS			
DN	PN	C	ØA
40	10....250	30 (1.18)	88 (3.46)
50	10....250	30 (1.18)	101,6 (4)
80	10....250	30 (1.18)	138 (5.43)
100	10....250	30 (1.18)	162 (6.38)

Lower Housing



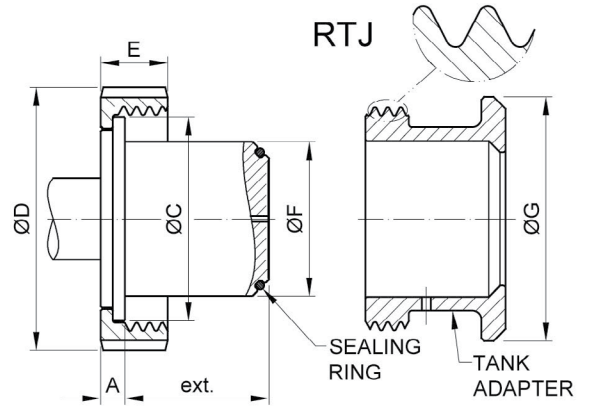
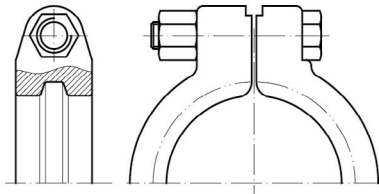
DIMENSIONS - RF / FF - mm (inch)						
STANDARD	DN	CLASS	H	J	E	
					1/4"NPT	1/2"NPT
ASME B16.5	1"	ALL	50,8 (2,00)	35 (1,38)	25	
	1.1/2"		73,2 (2,88)	48 (1,89)	25	35
	2"		91,9 (3,62)	60 (2,36)	25	35
	3"		127 (5,00)	89 (3,50)	25	35
	4"		158 (6,22)	115 (4,53)	25	35
DIN EN 1092-1	25	ALL	68 (2,68)	35 (1,38)	25	35
	40		88 (3,46)	48 (1,89)	25	35
	50		102 (4,02)	60 (2,36)	25	35
	80		138 (5,43)	89 (3,50)	25	35
	100		158 (6,22)	115 (4,53)	25	35
JIS B 2220	40A	20K	81 (3,19)	48 (1,89)	25	35
	50A	10K	96 (3,78)	60 (1,36)	25	35
		40K	105 (4,13)	60 (1,36)	25	35
	80A	10K	126 (4,96)	89 (3,50)	25	35
		20K	132 (5,20)	89 (3,50)	25	35
	100A	10K	151 (5,94)	115 (4,53)	25	35

DIMENSIONS - RTJ - mm (inch) - ASME B16.5							
DN	CLASS	F1	RING	H1	J	E1	
						1/4"NPT	1/2"NPT
1"	150	47,6 (1,87)	R15	63,5 (2,50)	35 (1,38)	40	45
	300	50,8 (2,00)	R16	70 (2,75)	35 (1,38)	40	45
	600	50,8 (2,00)	R16	70 (2,75)	35 (1,38)	40	45
	1500	50,8 (2,00)	R16	71,5 (2,81)	35 (1,38)	40	45
	2500	60,3 (2,37)	R18	73 (2,88)	35 (1,38)	40	45
	150	65,1 (2,56)	R19	82,5 (3,25)	48 (1,89)	40	45
1.1/2"	300	68,3 (2,69)	R20	90,5 (3,56)	48 (1,89)	40	45
	600	68,3 (2,69)	R20	90,5 (3,56)	48 (1,89)	40	45
	1500	68,3 (2,69)	R20	92 (3,62)	48 (1,89)	40	45
	2500	82,6 (3,25)	R23	114 (4,50)	48 (1,89)	40	45
	150	82,6 (3,25)	R22	102 (4,00)	60 (2,36)	40	45
2"	300	82,6 (3,25)	R23	108 (4,25)	60 (2,36)	40	45
	600	82,6 (3,25)	R23	108 (4,25)	60 (2,36)	40	45
	1500	95,3 (3,75)	R24	124 (4,88)	60 (2,36)	40	45
	2500	101,6 (4,00)	R26	133 (5,25)	60 (2,36)	40	45
	150	114,3 (4,50)	R29	133 (5,25)	89 (3,50)	40	45
3"	300	123,8 (4,87)	R31	146 (5,75)	89 (3,50)	40	45
	600	123,8 (4,87)	R31	146 (5,75)	89 (3,50)	40	45
	150	149,2 (5,87)	R36	171 (6,75)	115 (4,53)	40	45
4"	300	149,2 (5,87)	R37	175 (6,88)	115 (4,53)	40	45
	600	149,2 (5,87)	R37	175 (6,88)	115 (4,53)	40	45

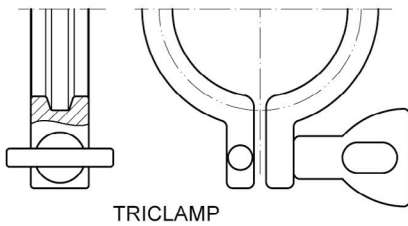
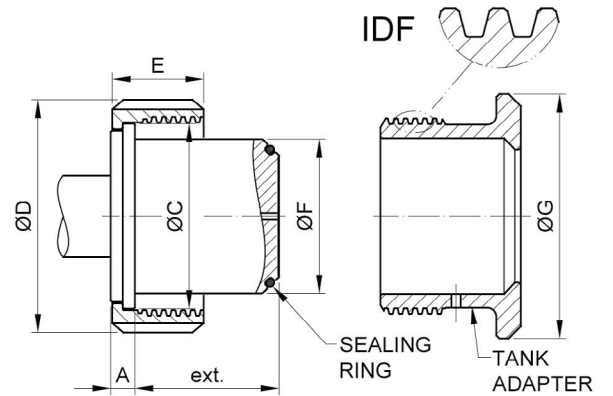
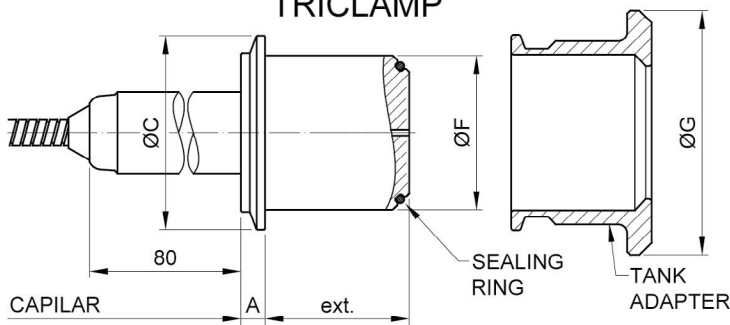
LOWER HOUSING 1/2NPT SUPPLIED WITH PLASTIC PROTECTION
 NOT LOWER HOUSING 1/2 NPT FOR 1 INCH

SR301S – Sanitary Remote Seal with Extension

TRICLAMP
high pressure - HP

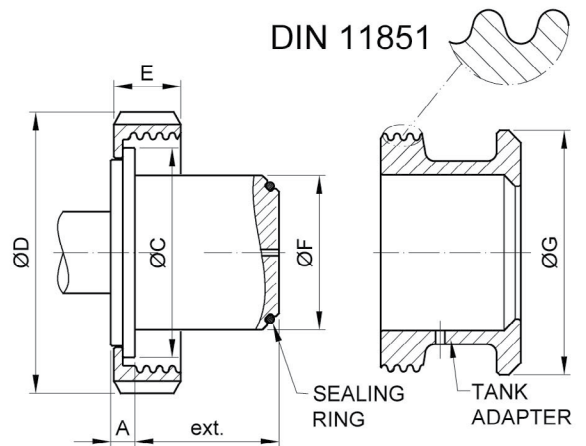
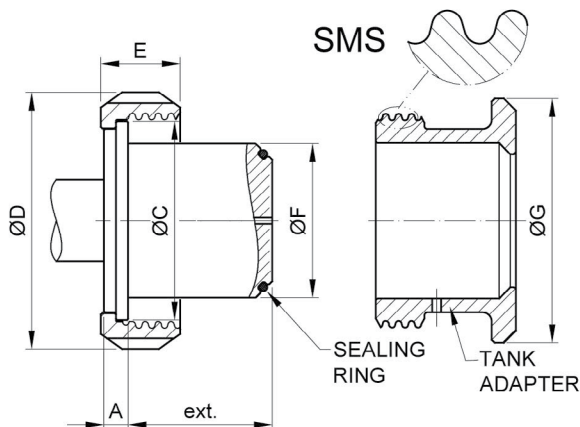


TRICLAMP

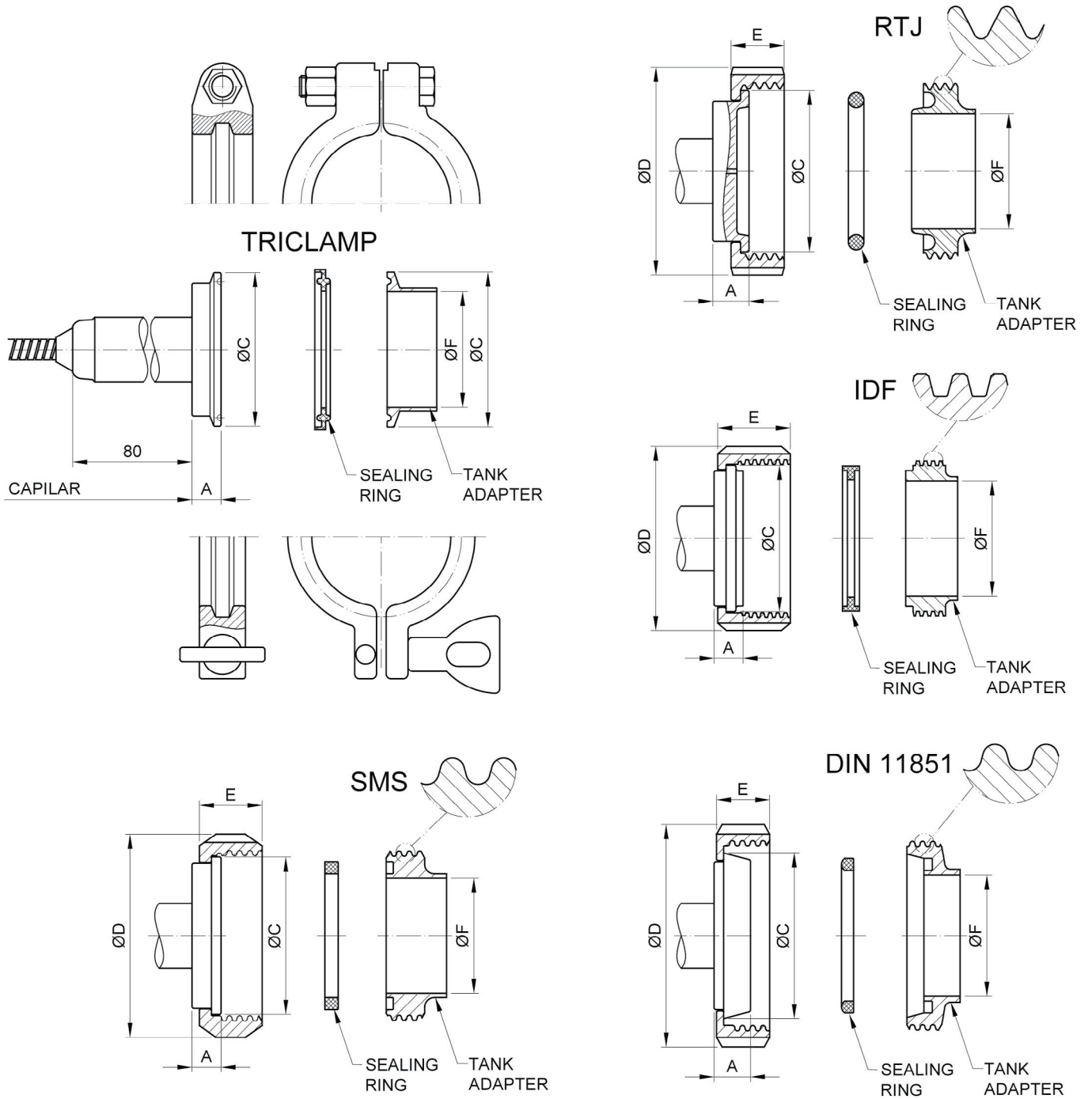


TRICLAMP

DIN 11851



SR301S – Sanitary Remote Seal without Extension



SR301S / LD30XS / LD400S							
CONNECTIONS WITH EXTENSION	Dimensions in mm (inch)						
	A	ØC	ØD	E	ØF	ØG	EXT.
Tri-Clamp DN50 - with extension	8 (0.315)	64 (2.52)	---	---	50,5 (1.99)	80 (3.15)	48 (1.89)
Tri-Clamp DN50 HP - with extension	8 (0.315)	64 (2.52)	---	---	50,5 (1.99)	80 (3.15)	48 (1.89)
Tri-Clamp - 2" - with extension	8 (0.315)	64 (2.52)	---	---	50,5 (1.99)	80 (3.15)	48 (1.89)
Tri-Clamp - 2" HP -with extension	8 (0.315)	64 (2.52)	---	---	50,5 (1.99)	80 (3.15)	48 (1.89)
Tri-Clamp - 3" - with extension	8 (0.315)	91 (3.58)	---	---	72,5 (2.85)	100 (3.94)	50 (1.96)
Tri-Clamp - 3" HP - with extension	8 (0.315)	91 (3.58)	---	---	72,5 (2.85)	100 (3.94)	50 (1.96)
Thread DN25 - DIN 11851 - with extension	6 (0.24)	47,5 (1.87)	63 (2.48)	21 (0.83)	43,2 (1.7)	80 (3.15)	26,3 (1.03)
Thread DN40 - DIN 11851 - with extension	8 (0.315)	56 (2.2)	78 (3.07)	21 (0.83)	50,5 (1.99)	80 (3.15)	48 (1.89)
Thread DN50 - DIN 11851 - with extension	8 (0.315)	68,5 (2.7)	92 (3.62)	22 (0.86)	50,5 (1.99)	80 (3.15)	48 (1.89)
Thread DN80 - DIN 11851 - with extension	8 (0.315)	100 (3.94)	127 (5)	29 (1.14)	72,5 (2.85)	100 (3.94)	50 (1.96)
Thread SMS - 2" - with extension	8 (0.315)	65 (2.56)	84 (3.3)	26 (1.02)	50,5 (1.99)	80 (3.15)	48 (1.89)
Thread SMS - 3" - with extension	8 (0.315)	93 (3.66)	113 (4.45)	32 (1.26)	72,5 (2.85)	100 (3.94)	50 (1.96)
Thread RJT - 2" - with extension	8 (0.315)	66,7 (2.63)	86 (3.38)	22 (0.86)	50,5 (1.99)	80 (3.15)	48 (1.89)
Thread RJT - 3" - with extension	8 (0.315)	92 (3.62)	112 (4.41)	22,2 (0.87)	72,5 (2.85)	100 (3.94)	50 (1.96)
Thread IDF - 2" - with extension	8 (0.315)	60,5 (2.38)	76,2 (3)	30 (1.18)	50,5 (1.99)	80 (3.15)	48 (1.89)
Thread IDF - 3" - with extension	8 (0.315)	87,5 (3.44)	101,6 (4)	30 (1.18)	72,5 (2.85)	100 (3.94)	50 (1.96)

SR301S / LD30xS / LD400S							
CONNECTIONS WITHOUT EXTENSION	Dimensions in mm (inch)						
	A	ØC	ØD	E	ØF	ØG	EXT.
Tri-Clamp - 1 1/2" - without extension	12 (0.47)	50 (1.96)	---	---	35 (1.38)	---	---
Tri-Clamp - 1 1/2" HP - without extension	12 (0.47)	50 (1.96)	---	---	35 (1.38)	---	---
Tri-Clamp - 2" - without extension	12 (0.47)	63,5 (2.5)	---	---	47,6 (1.87)	---	---
Tri-Clamp - 2" HP - without extension	12 (0.47)	63,5 (2.5)	---	---	47,6 (1.87)	---	---
Tri-Clamp - 3" - without extension	12 (0.47)	91 (3.58)	---	---	72 (2.83)	---	---
Tri-Clamp - 3" HP - without extension	12 (0.47)	91 (3.58)	---	---	72 (2.83)	---	---
Thread DN40 - DIN 11851 - without extension	13 (0.51)	56 (2.2)	78 (3.07)	21 (0.83)	38 (1.5)	---	---
Thread DN50 - DIN 11851 - without extension	15 (0.59)	68,5 (2.7)	92 (3.62)	22 (0.86)	50 (1.96)	---	---
Thread DN80 - DIN 11851 - without extension	16 (0.63)	100 (3.94)	127 (5)	29 (1.14)	81 (3.19)	---	---
Thread SMS - 1 1/2" - without extension	12 (0.47)	55 (2.16)	74 (2.91)	25 (0.98)	35 (1.38)	---	---
Thread SMS - 2" - without extension	12 (0.47)	65 (2.56)	84 (3.3)	26 (1.02)	48,6 (1.91)	---	---
Thread SMS - 3" - without extension	12 (0.47)	93 (3.66)	113 (4.45)	32 (1.26)	73 (2.87)	---	---
Thread RJT - 2" - without extension	15 (0.59)	66,7 (2.63)	86 (3.38)	22 (0.86)	47,6 (1.87)	---	---
Thread RJT - 3" - without extension	15 (0.59)	92 (3.62)	112 (4.41)	22,2 (0.87)	73 (2.87)	---	---
Thread IDF - 2" - without extension	12 (0.47)	60,5 (2.38)	76 (2.99)	30 (1.18)	47,6 (1.87)	---	---
Thread IDF - 3" - without extension	12 (0.47)	87,5 (3.44)	101,6 (4)	30 (1.18)	73 (2.87)	---	---

SR301 Remote Seal



Consult our
representatives



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