# Rosemount<sup>™</sup> 1299 Flanged and Threaded Diaphragm Seal Systems



## **Applications**

- Level, flow, pressure, interface, density
- Extreme hot and cold temperatures
- Corrosive, clogging, or viscous processes
- Flanged and threaded process connections



## Proven, reliable, and innovative technologies

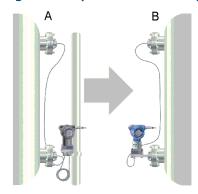
Seal systems provide a reliable process pressure measurement and prevent the process medium from contacting the transmitter diaphragm. Transmitter/diaphragm seal systems should be considered when:

- Process temperature is outside of the operating ranges of the transmitter
- Process is corrosive and/or requires specific exotic materials of construction
- Process contains suspended solids or is viscous and is prone to plugging of connections

#### Rosemount Tuned-System<sup>™</sup> Assemblies optimize results

Rosemount Tuned-System Assemblies utilize a direct mount seal on the high pressure connection and a remote mount (Capillary) connection on the low pressure connection. This improves overall performance and installation compared to a traditional Balanced Seal System.

Figure 1: Comparison of Balanced System to Tuned-system



- A. Balanced system with two equal lengths of capillary
- B. Tuned-system assembly with direct mount plus capillary
- Reduce installed costs by 20 percent by eliminating excess capillary and transmitter mounting hardware
- Improve performance by up to 30 percent
- Increase response time by up to 80 percent
- Reduce risk with up-front quantified performance reports

#### **Contents**

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#### **Application flexibility**

- Flanged and threaded process connections
- Meets industry standards such as EN 1092-1, ASME B16.5, ASME B1.20.1, EN 10226-1, GOST 33259-15, ISO 228-1
- Variety of fill fluids applications including cold temperature and hot temperature
- Multiple diaphragm coatings for tough applications including corrosion and hydrogen permeation

#### Reliable system construction

- Welded design with no threaded connections
- 100 percent helium leak tested
- Advanced manufacturing techniques ensure air-free, leak-tight system that is stable over time
- Reliable operation in full vacuum applications

#### Robust seal design

- Backup convolutions behind the diaphragm protect seal integrity
- Recessed diaphragms reduce potential for handling damage

#### Access information when you need it with asset tags

Newly shipped devices include a unique QR code asset tag that enables you to access serialized information directly from the device. With this capability, you can:

- Access device drawings, diagrams, technical documentation, and troubleshooting information in your MyEmerson account
- Improve mean time to repair and maintain efficiency
- Ensure confidence that you have located the correct device
- Eliminate the time-consuming process of locating and transcribing nameplates to view asset information

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## Connections and materials

To meet your application requirements, Rosemount DP Level technologies deliver an unsurpassed product offering that is easy to specify, order, and install. The offering includes a wide variety of process connections and materials of construction available in both direct mount and capillary connections to address almost any application. If you don't see what you need in the ordering table (link to ordering table, page 7), please reach out. We are ready to create a custom solution out of the options below to meet your needs.

## Flanged connections

ASME raised face ASME small tongue face JIS 2200 other face (?) ASME raised face Smooth EN1092-1 Type B1 GOST 33259 Type J ASME full face EN1092-1 Type B1/ GOST 33259 Type B API Type 6B and 6BX (125-250 Ra) EN1092-1 Type A (125-500 Ra) ASME full face Smooth EN1092-1 Type B2 (32-125 Ra) ASME Ring Type Joint (RTJ) EN1092-1 Type D/ GOST 33259 Type D Replacement Taylor Wedge or Chem "T" (32-125 Ra) ASME large male face EN1092-1 Type C/ GOST 33259 Type C DIN 2696 form L (Linsendichtung) (32-125 Ra) ASME small male face EN1092-1 Type E/ GOST 33259 Type E Lens groove (125-500 Ra) ASME large female face EN1092-1 Type F / GOST 33259 Type F Extruded flange type (125-500 Ra) HGE20615 Chinese Chemical Industrial DIN 2514 form V 14 ASME small female face Standard HG20592 Chinese Chemical Industrial ASME large groove face DIN 2514 form R 14

Standard

ASME small groove face JIS 2220 full face [FF] (125-250 Ra)

ASME large tongue face JIS 2220 raised face [RF] (125-250 Ra)

## **Threaded connections**

NPT female BSP-T female

NPT male BSP-T male (R ISO 7/1 ISO7005-1)

Aminco/AutoClave/HIP female (uses BA16537 thread sizes)

Metric screw thread male per ASME B1.13M

NPS female Male threaded seal HTS

"G" male "G" female

C remaie

## **Wetted materials**

Carbon steel	Alloy B2	Titanium grade 2
316 SST	Alloy 400	Titanium grade 4
304 SST	Alloy 20	Titanium grade 7
321 SST	Alloy 625	Duplex 2205
347 SST	Alloy 825	Duplex 2507
1.4466 SST	Alloy C22	Nickel 201
Alloy C-276	Tantalum	Zirconium 702

## **Diaphragm materials**

316 SST	Alloy 625	Duplex 2507
304 SST	Alloy C22	Nickel 201
321 SST	Alloy C2000	Zirconium 702
347 SST	Tantalum	Silver plated
Alloy C-276	Titanium grade 2	Gold plated
Alloy B2	Titanium grade 4	Platinum

Alloy 400 Titanium grade 7 Tantalum with platinum anode

Alloy 20 Duplex 2205

## **Non-wetted materials**

Carbon steel	321 SST	Alloy 825
A350 LF2 carbon steel	347 SST	Duplex 2205
316 SST	Alloy C-276	Duplex 2507
304 SST	Alloy 625	

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## Seal construction

#### All welded

All connection points welded including welded disk over sensor module isolators

- Ideal for vacuum applications (< 6 psia, 400 mbar-a)
- Seal system and transmitter are not repairable

#### Welded repairable

- All connection points welded except gasket between sensor module and transmitter flange
- Transmitter can be re-used if repair work is required

## Offline seal

Rosemount 1299 uses the term offline seal to describe any seal type that requires a lower housing/flushing ring. These are sometimes referred to as Remote Flanges. Previously these were referenced as RFW, RCW, and RTW in the 1199 model structure.

## Ordering information

## Rosemount 1299 Flanged and Threaded Diaphragm Seal ordering information

Rosemount 1299 Direct Mount Seals reduce installation costs by eliminating mounting hardware. Their advanced design also minimizes oil volume improving performance.

Product features and capabilities include:

- Direct mount gauge or absolute seal system can be used for open or vented to atmosphere tank applications
- Tuned-System<sup>™</sup> Assembly order codes can be used to improve performance for DP measurements in closed or pressurized tank applications
- Variety of process connections

Specification and selection of product materials, options, or components must be made by the purchaser of the equipment. See Material selection for more information.

The Rosemount 1299 Direct Mount Seal also requires specification of a Rosemount pressure device. See the appropriate Product Data Sheet for the desired device and include the option indicated in the table below for the configuration desired.

When ordering direct and remote mount seals, add the correct seal system ordering code to the transmitter or gauge model.

Table 1: Seal Attach To Code Per Transmitter or Gauge Model

Rosemount model	Two seals	One seal
3051S_C	B12	B11
3051C	S2	S1
2051C	S2	S1
3051S_T	N/A	B11
3051T, 2051T, , 2088	N/A	S1

A Rosemount 1299 Direct Mount Seal consists of two parts. First, specify the direct mount connection model codes, then specify a remote seal. Model codes for both components are listed in the ordering table.

## Online product configurator

Many products are configurable online using our Product Configurator. Select the **Configure** button or visit our website to start. With this tool's built-in logic and continuous validation, you can configure your products more quickly and accurately.

## **Specifications and options**

See the Specifications and options section for more details on each configuration. Specification and selection of product materials, options, or components must be made by the purchaser of the equipment. See the Material selection section for more information.

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## **Model codes**

Model codes contain the details related to each product. Exact model codes will vary; an example of a typical model code is shown in Figure 2.

#### Figure 2: Model Code Example

#### 1299C1DE05AG1SSN M2

1 2

- 1. Required model components (choices available on most)
- 2. Additional options (variety of features and functions that may be added to products)

## **Optimizing lead time**

The starred offerings  $(\star)$  represent the most common options and should be selected for best delivery. The non-starred offerings are subject to additional delivery lead time.

## **Required model components**

#### Model

Code	Description	
1299	Flanged and threaded diaphragm seal	*

#### System type

Code	Description	
С	One remote seal system, Coplanar <sup>™</sup> transmitter; high side	*
N	One remote seal system, In-Line transmitter, high side	*
Т	Two remote seal system, Tuned-System <sup>™</sup> assembly, high side	*
U	Two remote seal system, Tuned-System <sup>™</sup> assembly, low side	*
В	Two remote seal system, balanced assembly, high side	*
Α	Two remote seal system, balanced assembly, low side	*

#### **System connection type**

Code	Description	
1	Welded-repairable	*
2	All-welded <sup>(1)</sup>	*

<sup>(1)</sup> All welded system connection types require either a 316L SST or Alloy C-276 isolating diaphragm in the pressure transmitter model codes.

### Fill fluid

Code	Description	
D	Silicone 200	*
F	Silicone 200 for vacuum applications	*
J <sup>(1)</sup>	Tri-Therm 300	*
Q <sup>(2)</sup>	Tri-Therm 300 for vacuum applications	*
Н	Inert (Halocarbon)	*

<sup>(1)</sup> This is a food grade fill fluid.(2) This is a food grade fill fluid.

## Capillary length/direct mount

Code	Description		
Direct ı	nount		
D00	Direct mount, no extension	*	
D02	Direct mount, 2-in. (50 mm) extension	*	
D04	Direct mount, 4-in. (100 mm) extension		
Capilla	ry length <sup>(1)</sup>		
Exx	5- to 95-ft, 5-ft increments Example: 5-ft = E05, 50-ft = E50		
Mxx			

<sup>(1)</sup> Capillary lengths below 25 feet (8 meters) are common options and should be selected for best delivery.

## **Industry standard**

Code	Flanged	Threaded	
Α	ASME B16.5	ASME B1.20.1	*
D	EN 1092-1	EN 10226-1/ISO 228-1	*
G	HG20615 (China standard based on ASME B16.5)	N/A	*
K	HG20592 (China standard based on EN 1092-1)	N/A	*
Т	GOST 33259-15 (Russian standard)	N/A	*

## Process connection/flange pressure rating

Code	Seal type	ASME		EN/ISO/GOST		
		Size	Pressure rating	Size	Pressure rating	
A1	Offline flanged	½-in.	Class 150	N/A	N/A	*
A2	Offline flanged	½-in.	Class 300	N/A	N/A	*
A3	Offline flanged	½-in.	Class 600	N/A	N/A	*

Code	Seal type	ASME		EN/ISO/GOST		
		Size	Pressure rating	Size	Pressure rating	
A4	Offline flanged	½-in.	Class 900	N/A	N/A	
B1	Offline flanged	³⁄4-in.	Class 150	N/A	N/A	*
B2	Offline flanged	³⁄4-in.	Class 300	N/A	N/A	*
В3	Offline flanged	³⁄4-in.	Class 600	DN 10	PN 40	*
B4	Offline flanged	³⁄4-in.	Class 900	DN 10	PN 63	
B5	Offline flanged	N/A	N/A	DN 10	PN100	
C1	Offline flanged	N/A	N/A	N/A	N/A	*
C2	Offline flanged	N/A	N/A	N/A	N/A	
C3	Offline flanged	N/A	N/A	DN 15	PN 40	*
C4	Offline flanged	N/A	N/A	DN 15	PN63	
C5	Offline flanged	N/A	N/A	DN 15	PN 100	
D1	Offline flanged	N/A	N/A	N/A	N/A	
D2	Offline flanged	N/A	N/A	N/A	N/A	
D3	Offline flanged	N/A	N/A	DN 20	PN 40	
D4	Offline flanged	N/A	N/A	DN 20	PN 63	
D5	Offline flanged	N/A	N/A	DN 20	PN 100	
E1	Offline flanged	1-in.	Class 150	N/A	N/A	*
E2	Offline flanged	1-in.	Class 300	N/A	N/A	*
E3	Offline flanged	1-in.	Class 600	DN 25	PN 40	*
E4	Offline flanged	1-in.	Class 900	DN 25	PN63	
E5	Offline flanged	N/A	N/A	DN 25	PN 100	
F1	Offline flanged	1½-in.	Class 150	N/A	N/A	*
F2	Offline flanged	1½-in.	Class 300	N/A	N/A	*
F3	Offline flanged	1½-in.	Class 600	DN 40	PN 40	*
F4	Offline flanged	1½-in.	Class 900	DN 40	PN 63	
F5	Offline flanged	N/A	N/A	DN 40	PN 100	
G0	Pancake	2-in.	None - user supplied	DN 50	None - user supplied	*
G1	Flush flanged	2-in.	Class 150	N/A	N/A	*
G2	Flush flanged	2-in.	Class 300	N/A	N/A	*
G3	Flush flanged	2-in.	Class 600	DN 50	PN 40	*
G4	Flush flanged	2-in.	Class 900	DN 50	PN 63	
G5	Flush flanged	N/A	N/A	DN 50	PN 100	
H0	Pancake	3-in.	None - user supplied	DN 80	None - user supplied	*
H1	Flush flanged	3-in.	Class 150	N/A	N/A	*
H2	Flush flanged	3-in.	Class 300	N/A	N/A	*

Code	Seal type	ASME		EN/ISO/GOST		
		Size	Pressure rating	Size	Pressure rating	
НЗ	Flush flanged	3-in.	Class 600	DN 80	PN 40	*
H4	Flush flanged	3-in.	Class 900	DN 80	PN 63	
H5	Flush flanged	N/A	N/A	DN 80	PN 100	
J1	Flush flanged	4-in.	Class 150	N/A	N/A	*
J2	Flush flanged	4-in.	Class 300	N/A	N/A	*
J3	Flush flanged	4-in.	Class 600	DN 100	PN 40	*
J4	Flush flanged	4-in.	Class 900	DN 100	PN 63	
J5	Flush flanged	N/A	N/A	DN 100	PN 100	
K1	Offline threaded	1⁄4-18 FNPT	800 psi	N/A	N/A	*
K2	Offline threaded	1⁄4-18 FNPT	2,500 psi	N/A	N/A	*
К3	Offline threaded	N/A	N/A	N/A	N/A	*
K4	Offline threaded	N/A	N/A	N/A	N/A	
L1	Offline threaded	3⁄8-18 FNPT	800 psi	N/A	N/A	*
L2	Offline threaded	3⁄8-18 FNPT	2,500 psi	N/A	N/A	*
L3	Offline threaded	N/A	N/A	N/A	N/A	*
L4	Offline threaded	N/A	N/A	N/A	N/A	
M1	Offline threaded	½-14 FNPT	800 psi	N/A	N/A	*
M2	Offline threaded	½-14 FNPT	2,500 psi	N/A	N/A	*
M3	Offline threaded	N/A	N/A	N/A	N/A	*
M4	Offline threaded	N/A	N/A	N/A	N/A	
N1	Offline threaded	3⁄4-14 FNPT	800 psi	N/A	N/A	*
N2	Offline threaded	3⁄4-14 FNPT	2,500 psi	N/A	N/A	*
N3	Offline threaded	N/A	N/A	N/A	N/A	*
N4	Offline threaded	N/A	N/A	N/A	N/A	
P1	Offline threaded	1-11.5 FNPT	800 psi	N/A	N/A	*
P2	Offline threaded	1-11.5 FNPT	2,500 psi	N/A	N/A	*
Р3	Offline threaded	N/A	N/A	N/A	N/A	*
P4	Offline threaded	N/A	N/A	N/A	N/A	
Q1 <sup>(1)</sup>	Offline threaded	11⁄4-11.5 FNPT	800 psi	N/A	N/A	*
Q2 <sup>(1)</sup>	Offline threaded	11⁄4-11.5 FNPT	2,500 psi	N/A	N/A	*
Q3	Offline threaded	N/A	N/A	N/A	N/A	*
Q4	Offline threaded	N/A	N/A	N/A	N/A	
R1 <sup>(1)</sup>	Offline threaded	1½-11.5 FNPT	800 psi	N/A	N/A	*
R2 <sup>(1)</sup>	Offline threaded	1½-11.5 FNPT	2,500 psi	N/A	N/A	*
R3	Offline threaded	N/A	N/A	N/A	N/A	*

Code	Seal type	ASME		EN/ISO/GOST		
		Size	Pressure rating	Size	Pressure rating	
R4	Offline threaded	N/A	N/A	N/A	N/A	

<sup>(1)</sup> Flushing connection not available.

## Material for diaphragm and wetted, upper housing, and flange

If an extended flange is needed, select a flush flanged option. The extension length is specified in the options.

Code	Diaphragm and wetted	Upper housing	Flange	
CS <sup>(1)</sup>	316L SST	316 SST	Carbon steel	*
SS <sup>(2)</sup>	316L SST	316 SST	316 SST	*
CH	Alloy C-276	316 SST	Carbon steel	*
SH	Alloy C-276	316 SST	316 SST	*
СТ	Tantalum	316 SST	Carbon steel	*
ST	Tantalum	316 SST	316 SST	*
CD	Duplex 2205 SST	316 SST	Carbon steel	
SD	Duplex 2205 SST	316 SST	316 SST	
CM	Alloy 400	316 SST	Carbon steel	
SM	Alloy 400	316 SST	316 SST	
NS	316L SST	316 SST	None	*
NH	Alloy C-276	316 SST	None	*
NT	Tantalum	316 SST	None	*
ND	Duplex 2205 SST	316 SST	None	
NM	Alloy 400	316 SST	None	

## Lower housing/flushing ring/seal extension

Select One:

Code	Description	
N	No lower housing, flushing ring, or seal extension length	*
Flushin	g ring/lower housing	
S	316L SST	*
Н	Alloy C-276	*
Extensi	on lengths	
2	2-in. (50mm)	*
4	4-in. (100mm)	*
6	6-in. (150mm)	*

<sup>(1)</sup> Only available with two-piece design(2) For use with spiral wound metallic gaskets

Code	Description	
8	8-in. (200mm)	

## **Additional options**

## Intermediate gasket material

Code	Description	
G0	None - user supplied intermediate gasket	*
G2	Klinger® C-4401	
G3	Klinger Top-Chem 2000 PTFE	
G5	GRAFOIL <sup>®</sup>	

## **Flushing connection**

Code	Description	
F2	Two (1/4-18 NPT)	*

## Flushing plugs/vents

Code	Description	
FB	316 SST plugs	*
FC	316 SST drain/vent valves	*
FD	Alloy C-276 plugs	*

## Low side drain/vent valve

Code	Description	
FJ	Low side drain/vent valve (coplanar transmitter with one remote seal)	*

#### **Extension diameter**

Extension Diameter options are valid with Flush Flanged Seals only

Code	English	Metric	Process connection size	
E145	1.45-in.	37 mm	1½-in.	
E190	1.90-in.	48 mm	2-in.	
E258	2.58-in.	66 mm	3-in. schedule 80	
E287	2.87-in.	73 mm	3-in. headbox	
E350	3.50-in.	89 mm	4-in. schedule 80	
E378	3.78-in.	96 mm	4-in. headbox	

## Extension and gasket surface material

Code	Description	
E7	Same as diaphragm material	
E8	316L SST	

## **Capillary construction**

Code	Description	
C3	PVC coated capillary	*
C4	PVC coated capillary with environmental corrosion protection for capillary welds	*

### **Material traceability certification**

Code	Description	
Q8	Material traceability certification per EN 10204 3.1	*

#### **NACE** certificate

Materials of construction comply with metallurgical requirements highlighted within NACE® MR 0175/ISO 15156 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR 0103 for sour refining environments. Order with Q15 or Q25 to receive a NACE certificate.

Code	Description	
Q15	Certificate of compliance to NACE MR0175/ISO 15156 for wetted materials	*
Q25	Certificate of compliance to NACE MR0103 for wetted materials	*

## Positive material identification (PMI)

Code	Description	
Q76	PMI verification and certificate	*

## Welding documentation

Code	Description	
Q79	Welding document package (WPS, PQR, and WPQ)	*

### **Diaphragm coating**

Code	Description	
D1	PTFE coated diaphragm for nonstick purposes only	
D2	0.0002-in. (5 μm) gold plated diaphragm	
D5	CorrosionShield PFA coated diaphragm	
D7	AbrasionShield diaphragm coating	

### **Bolt material**

Options aren't available with flush flanged and extended flange types.

Code	Description	
B2	316 SST	*
В3	316 SST - studs not included	*
B4	304 SST	*

## Alternate design

Code	Description	
M1	Solid faceplate (same as diaphragm material)	
M2	One-piece design	

## **Modified flanged connection**

Code	Description	
V1	Ring type joint flanged connection	*

## **Extended product warranty**

Code	Description	
WR3	3-year limited warranty	*
WR5	5-year limited warranty	*

## Specifications

## Liquid level transmitter specifications

#### Fill fluid specifications

#### Note

Temperature limits are reduced in vacuum service. For more information on fill fluids see Rosemount DP Level Fill Fluid Specification Technical Note.

#### **Table 2: Fill Fluid Specifications**

Seal fill fluid		Specific Viscosity gravity (cSt) at at 77 °F 77 °F (25 °C) (25 °C)		Temperature limits <sup>(1)(2)</sup>			
				No extension	2-in. (50 mm) extension	4-in. (100 mm) extension	Capillary
D	Silicone 200	0.934	9.5	–49 to 401 °F	–49 to 401 °F	–49 to 401 °F	–49 to 401 °F
				(-45 to 205 °C)	(-45 to 205 °C)	(-45 to 205 °C)	(-45 to 205 °C)
F	Silicone 200 for vacuum applications	0.934	9.5	For use in vacuum applications below 14.7 psia (1 bar-a), refer to vapor pressure curves in Rosemount DP Level Fill Fluid Specification Technical Note			
J <sup>(3)</sup>	Tri-Therm 300	0.795	8.6	–40 to 401 °F	–40 to 464 °F	–40 to 572 °F	–40 to 572 °F
				(-40 to 205 °C)	(-40 to 240 °C)	(-40 to 300 °C)	(-40 to 300 °C)
Q (3)	Tri-Therm 300 for vacuum applications	0.795	8.6	For use in vacuum applications below 14.7 psia (1 bar-a), refer to vapor pressure curves in Rosemount DP Level Fill Fluid Specification Technical Note			
Н	Inert	1.85	6.5	5.5 -49 to 320 °F -49 to 320 °F -49 to 32		–49 to 320 °F	–49 to 320 °F
	(Halocarbon)			(-45 to 160 °C)	(-45 to 160 °C)	(-45 to 160 °C)	(-45 to 160 °C)

<sup>(1)</sup> Temperature limits are reduced in vacuum service. For more information on fill fluids see Rosemount DP Level Fill Fluid Specification Technical Note

#### **Physical specifications**

#### **Electrical connections**

½–14 NPT, PG 13.5, G½, and M20 × 1.5 conduit. HART interface connections fixed to terminal block.

#### Non-wetted parts

Transmitter flange is CF-3M (cast version of 316L SST, material per ASTM-A743)

Capillary tube is 316L SST

Capillary armor is SST or PVC coated SST

#### **Shipping weights**

#### Table 3: Rosemount 1299 Weights without SuperModule Platform, Housing, or Transmitter Options

Weights are listed in lb (kg).

<sup>(2)</sup> Due to heat transfer to the transmitter, the maximum process temperature of the transmitter will be de-rated if ambient or process temperatures exceed 185 °F (85 °C). Consult Instrument Toolkit to verify the application.

<sup>(3)</sup> This is a food grade fill fluid.

Flange	Flush	2-in. ext.	4-in. ext.	6-in. ext.
2-in., Class 150	9.5 (4.3)	N/A	N/A	N/A
3-in., Class 150	15.7 (7.1)	16.4 (7.4)	17.6 (8.0)	18.9 (8.6)
4-in., Class 150	21.2 (9.6)	20.9 (9.5)	22.1 (10.0)	23.4 (10.6)
2-in., Class 300	11.3 (5.1)	N/A	N/A	N/A
3-in., Class 300	19.6 (8.9)	20.3 (9.2)	21.5 (9.8)	22.8 (10.3)
4-in., Class300	30.4 (13.8)	30.3 (13.7)	31.5 (14.3)	32.8 (14.9)
2-in., Class 600	12.8 (5.8)	N/A	N/A	N/A
3-in., Class 600	22.1 (10.0)	22.8 (10.3)	24.0 (10.9)	25.3 (11.5)
DN 50/PN 40	11.3 (5.1)	N/A	N/A	N/A
DN 80/PN 40	16.0 (7.3)	16.7 (7.6)	17.9 (8.1)	19.2 (8.7)
DN 100/PN 10/16	11.2 (5.1)	11.9 (5.4)	13.1 (5.9)	14.4 (6.5)
DN 100/PN 40	12.6 (5.7)	13.3 (6.0)	14.5 (6.6)	15.8 (7.1)

## **Rosemount 1299 Seal specifications**

#### **Functional specifications**

#### NACE Standard (Q15 or Q25 option)

NACE (National Association of Corrosion Engineers) standard MR0175/ISO 15156 defines metallic material requirements for resistance to sulfide stress cracking when applied on petroleum production, drilling, gathering and flow line equipment, and field processing facilities to be used in H2S bearing hydrocarbon service. MR0103 provides material requirements exclusive to sour petroleum refining environments. Compliance guidelines are intended to include "wetted" materials as recommended by both NACE standards. The option code T in several of the general purpose seal types limits the wetted material offering. Metallurgical requirements for alloys used are virtually identical for the two standards, but application conditions enforced are different and can limit material acceptance. Contact an Emerson representative to aid in selecting the proper materials to meet the NACE standard.

#### Material traceability (Q8 Option)

Material traceability is provided for the seal, upper housing, and if applicable, lower housing/flushing connection or diaphragm extension, upon selecting the option code Q8 in the pressure transmitter model number. Material traceability for the transmitter/ seal system is provided per the DIN EN10204 3.1 standard, and is only available for general purpose seal types.

#### **Performance specifications**

For zero-based spans, reference conditions, silicone oil fill, glass-filled PTFE O-rings, SST materials, coplanar flange (Rosemount 3051SMV,  $3051S_C$ ) or  $\frac{1}{2}-14$  NPT (Rosemount  $3051S_T$ ) process connections, digital trim values set to equal range points.

#### **Physical specifications**

#### **Material selection**

Emerson provides a variety of Rosemount products with various product options and configurations including materials of construction that can be expected to perform well in a wide range of applications. The Rosemount product information presented is intended as a guide for the purchaser to make an appropriate selection for the application. It is the purchaser's sole responsibility to make a careful analysis of all process parameters (such as all chemical components, temperature, pressure, flow rate, abrasives, contaminants, etc.), when specifying product, materials, options, and components for the particular application. Emerson is not in a position to evaluate or guarantee the compatibility of the process fluid or other process parameters with the product, options, configuration or materials of construction selected.

#### **Tagging**

The Rosemount remote seal model number is marked on the transmitter nameplate (neck or top label). The pressure transmitter will be tagged in accordance with customer requirements. The standard stainless steel tag is wired to the transmitter. Tag is 0.02-in. (0.051 cm) thick with 0.125-in. (0.318 cm) high letters. A permanently attached tag is available upon request.

#### **Calibration**

Transmitters are factory calibrated to customer's specified range. If calibration is not specified, then the transmitters are calibrated at maximum range. Calibration is performed at ambient temperature and pressure.

## **Product certifications**

To view current Rosemount 1299 Pressure Transmitter product certifications, follow these steps:

#### **Procedure**

- 1. Go to Emerson.com/Rosemount.
- 2. Scroll as needed to the green menu bar and click Documents & Drawings.
- 3. Click Manuals & Guides.
- 4. Select the appropriate Quick Start Guide.

## Ordering information, specifications, and drawings

To view current Rosemount 1299 ordering information, specifications, and drawings, follow these steps:

#### **Procedure**

- 1. Go to Emerson.com/Rosemount.
- 2. Scroll as needed to the green menu bar and click Documents & Drawings.
- 3. For installation drawings, click Drawings & Schematics and select the appropriate document.
- 4. For ordering information, specifications, and dimensional drawings, click Data Sheets & Bulletins and select the appropriate Product Data Sheet.

For more information: **Emerson.com** 

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