

Rosemount™ 550PT Pressure Transmitter for Single-Use

and 551 Single-Use Process Connector



Overview

Rosemount™ 550PT Pressure Transmitter for Single-Use Applications

- Proven Rosemount pressure sensor technology in a size profile built for single-use applications
- High accuracy (up to ± 0.3% of span)
- Long-term stability delivers better performance year after year
- Easy start-up reduces downtime between batches
- Size profile allows for use at all stages of process scale-up
- 4-20 mA output easily connects to variety of control systems

Rosemount 551 Single-Use Process Connector

- Wetted materials are certified USP Class VI and ADI-free to reduce extractables risk
- Isolating diaphragm provides a sterile barrier to protect transmitter from contamination
- Process fluids are kept sterile and contained by the isolating diaphragm

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Rosemount 550PT ordering information

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

The purchaser of the equipment must make the specification and selection of product materials, options, or components.

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 1](#).

Figure 1: Model Code Example

3051C D 2 X 2 2 M5 B4

1 2

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

Required model components

Model

Code	Description
550PT	Pressure transmitter for single-use

Performance class

Code	Description
2	Classic

Measurement range

Code	Description
1	0 to 5 psig (0 to 344.74 mbar)
2	0 to 30 psig (0 to 2.06 bar)

Transmitter output

Code	Description
A	Analog 4-20 mA

Fill fluid

Code	Description
1	Neobee® M-20

Sensor diaphragm

Code	Description
1	SST

Electrical interface

Code	Description
E1	13-ft. (4 m) cable
E2	32-ft. (10 m) cable
NA	No cable (for spares only)

Additional options

Calibration certificate

Code	Description
Q4	Calibration certificate

Extended product warranty

Rosemount extended warranties have a limited warranty of three or five years from date of shipment.

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

Rosemount 551 ordering information

Required model components

Model

Code	Description
551	Single-use process connector

Connector style

Code	Description
B	Barbed fitting

Connector size

Code	Description
1	½-in.

Additional options

Material certificate

Code	Description
Q8	Material traceability certificate

Specifications

Physical specifications

Materials of construction

Rosemount 550PT 316 SST

Rosemount 551 Polycarbonate and silicone; USP Class VI and ADI-free; molded in ISO 7 cleanroom

Weight

Rosemount 550PT 2 ounces

Rosemount 551 1 ounce

Fill fluid

Rosemount 550PT Neobee® M-20

Rosemount 551 N/A

Process connection

The Rosemount 550PT and 551 are connected by a ½- / ¾-in. Tri Clamp per ASME BPE.

Performance specifications

Accuracy

Range 1: ± 0.3% of span (0.015 psi [0.001 bar])

Range 2: ± 0.5% of span (0.15 psi [0.01 bar])

Temperature effects

Range 1: ± 0.2% of span per 10 °F change

Range 2: ± 0.1% span per 10 °F change

Long term stability

± 0.2% of span per year

Functional specifications

Shelf life

Rosemount 551 2 years

Gamma irradiation compatibility

Rosemount 551 Up to 50 kGy

Operating temperature

Rosemount 550PT Range 1: 35 to 140 °F (2 to 60 °C)
Range 2: 35 to 122 °F (2 to 50 °C)

Storage temperature

Rosemount 550PT -13 to 149 °F (-25 – 65 °C)

Overpressure limit

Rosemount 550PT 45 psig

Burst pressure rating

Rosemount 551 7.5 psig unsupported, 150 psig when connected to Rosemount 550PT

Input voltage

24 ± 4 Vdc

Output

4-20 mA, alarm set at 21.75 mA

Electromagnetic compatibility (EMC)

Conforms to CE Mark requirements and EN-61326

Response time

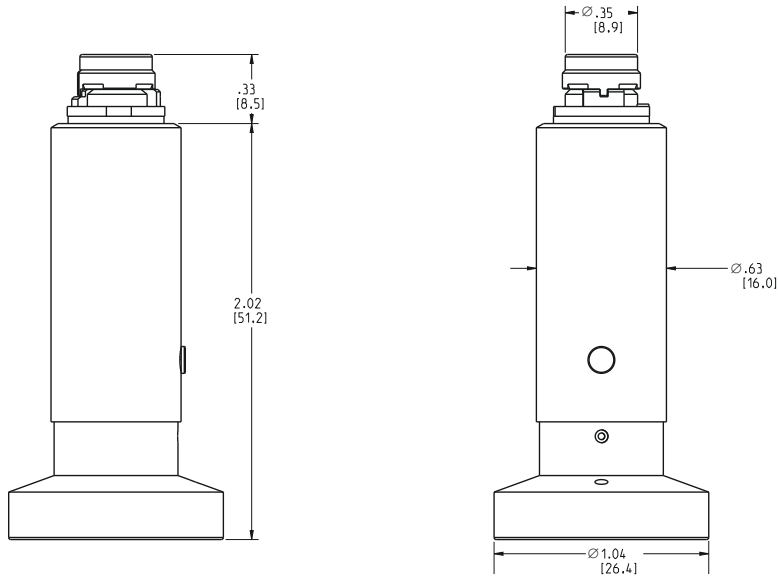
< 1 second

Ingress protection rating

Rosemount 550PT IP 67 with Rosemount cable connected

Dimensional drawings

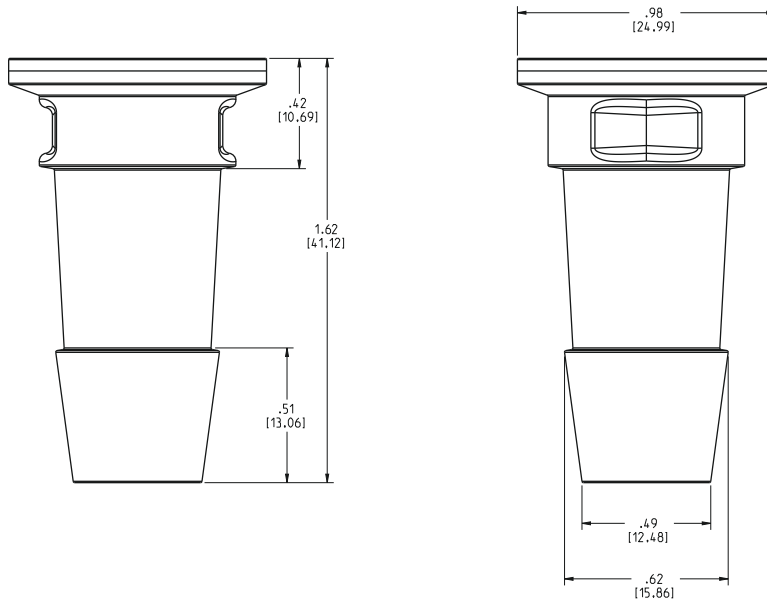
Figure 2: Rosemount 550PT Single-Use Pressure Transmitter



Note

Measurements are in inches (mm).

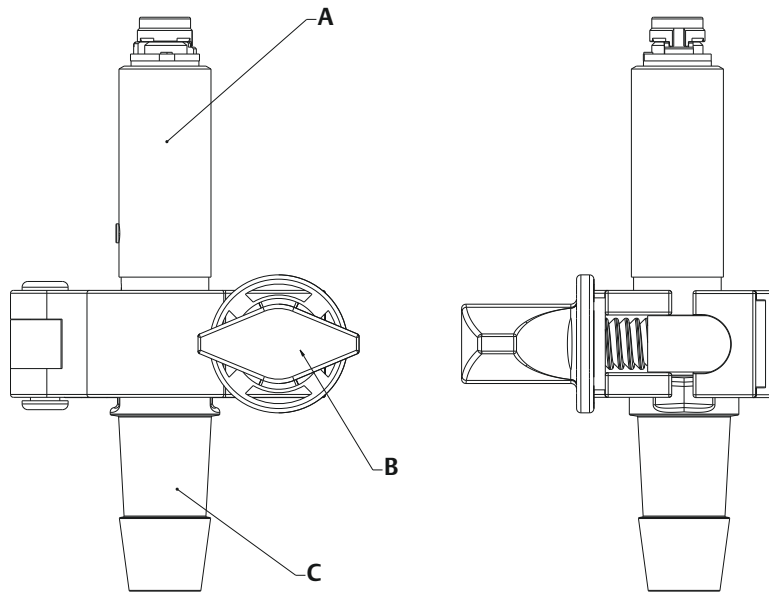
Figure 3: Rosemount 551 Single-Use Process Connector



Note

Measurements are in inches (mm).

Figure 4: Rosemount 550PT and 551 Assembly



- A. Transmitter
- B. Clamp
- C. Process connector

Note

Measurements are in inches (mm).

For more information: [Emerson.com](https://www.emerson.com)

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