Rosemount 3101, 3102, and 3105

Ultrasonic Liquid Level Transmitters

- Non-contacting measurement with no moving parts

- Integral LCD and buttons as standard for on-site programming

- Continuous measurement of level

- Volume or open channel flow calculations for the Rosemount 3102 and Rosemount 3105

- Two integral signal relays on the Rosemount 3102

- Easy to install and configure

- Rugged metal or plastic housing. PVDF wetted material
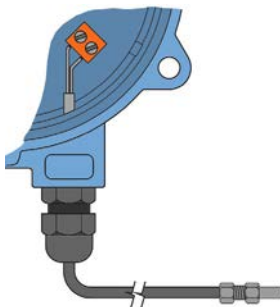
- Two-wire direct current loop-powered

ROSEMOUNT®

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Process Management

Overview of the Rosemount 3101, 3102, and 3105

**Metal housing material
(^{1}/2–14 NPT conduit entries)**

Glass-filled nylon housing material

**Remote Temperature Sensor option
(for the 3102 and 3105)**

Measurement principle

The Rosemount 3100 Series is a liquid level transmitter based on ultrasonic technology that is suitable for many liquid applications. Ultrasonic pulse signals are transmitted and reflected from the liquid surface. The transmitter 'listens' for reflected signals (echoes) and measures the time-delay between transmitting and receiving. The distance to the liquid surface is automatically calculated using the computed time-delay.

The transmitter then calculates the liquid depth (level) and outputs the level as a 4–20 mA signal (and a digital HART® signal on the Rosemount 3102 and 3105).

The Rosemount 3101 is used for measuring the level only. The 3102 and 3105 can calculate distance-to-surface, contents (volume), or open channel flow, and then output the result as a 4–20 mA signal and a digital HART signal.

An integral temperature sensor continuously measures the air temperature around the transmitter. It then computes the speed of sound in air, automatically compensating the calculated distance for temperature effects. The Rosemount 3102 and 3105 have a Remote Temperature Sensor option.

Features and Benefits

- Measures liquid height, distance to liquid, volume, or flow in open channels

- Eliminates problems experienced with contacting instrumentation

- Simple set-up and operation with an integral LCD display and buttons

- Low cost of installation and commissioning. Minimal maintenance after installed

- Process downtime minimized

- Non-contacting measurement with no moving parts

- Two integral signal relays (on the Rosemount 3102 only)

- Corrosion resistant PVDF wetted material

- Two-wire 24 V direct current loop-powered

- Operating range up to 36 ft. (11 m)

- Automatic temperature compensation

Applications

- Storage tank levels
- Open channel flow
- Effluent pits
- Reservoir level
- Buffer tanks

Contents

Special features

Advanced software features on the HART transmitters (Rosemount 3102 and 3105 only)

■ Learn routine (false echo registration)

The transmitter can learn to ignore up to four false echoes, caused by the pulse signal reflecting off obstructions.

■ Empty tank mapping

When a tank is empty, the transmitter can learn to ignore up to four false echoes, without the need for user interaction.

■ Present depth

The bottom reference can be automatically set using a known user-entered depth.

■ Set as empty

When the tank is empty, the bottom reference can be automatically reset to the measured distance.

■ Distance offset

The distance to the surface can be adjusted by a user-entered positive or negative offset value.

■ Level offset

The level can be adjusted by a user-entered positive or negative offset value.

■ Bottom blanking

The transmitter can be set to ignore an area of the tank bottom to avoid false echoes from obstructions.

**Easy programming using built-in buttons and LCD**
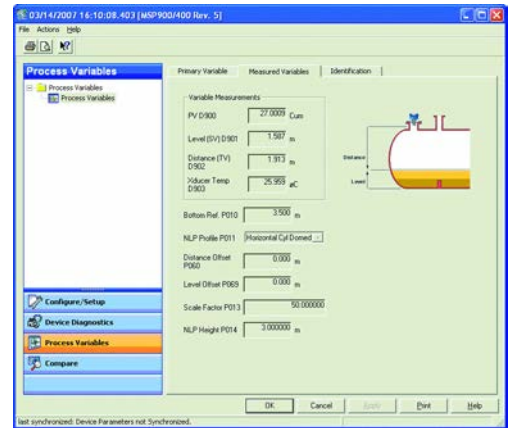
The Rosemount 3102 and 3105 are HART compatible and can be accessed remotely using a field communicator or

How to choose the right model

■ Each model of the Rosemount 3100 Series has been designed for a specific purpose, as shown below:

Table 1. Choosing the right transmitter model

Application	Model	Range
Simple level measurement	3101	26-ft. (8 m) range
	3102	36-ft. (11 m) range
Level measurement and local relays	3102	36-ft. (11 m) range
Level measurement in hazardous areas	3105	36-ft. (11 m) range
Open channel flow or volume measurement	3102	Non-hazardous area
	3105	Hazardous area
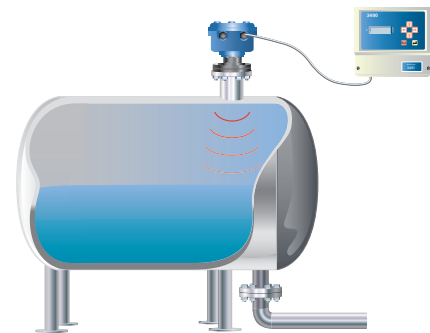
Level measurement with a Rosemount 3100 Series transmitter and Rosemount 3490 Controller Unit

Rosemount 3101 Level Transmitter Ordering

Specification and selection of product materials, options, or components must be made by the purchaser of the equipment. See page 9 for more information on Material Selections.

Table 2. Rosemount 3101 ordering information

★The Standard offering represents the most common models and options. These options should be selected for best delivery.
The Expanded offering is manufactured after receipt of order and is subject to additional delivery lead time.

Model	Product Description	
3101	Ultrasonic Level Transmitter, 1 to 26 ft. (0,3 to 8 m) range	
Signal Output		
Standard		**Standard**
L	4–20 mA	★
Housing Material		
Standard		**Standard**
A	Polyurethane-covered Aluminum	★
P	Glass Filled Nylon	★
Conduit / Cable Thread		
Standard		**Standard**
1	½ –14 NPT	★
2	M20 x 1.5 adaptor	★
3	M20 x 1.5 supplied with nylon cable glands (Plastic Housing only)	★
Wetted Material		
Standard		**Standard**
F	PVDF	★
Process Connection		
Standard		**Standard**
RC[1]	2-in. NPT thread	★
SC[2]	2-in. BSPT thread	★
Product Certificates		
Standard		**Standard**
NA	No certification	★
G5	FM Ordinary Location	★
G6	CSA Ordinary Location	★
GM[3]	Technical Regulation Customs Union (EAC) Ordinary Locations Mark	★
GP[3]	Korean Testing Laboratory (KTL), KCC Mark for Ordinary Location Use	★
OPTIONS		
Tag Plates		
Standard		**Standard**
ST[4]	Stainless Steel engraved tag plate	★
WT	Laminated paper tag plate	★
Typical Model Number: 3101 L A 1 F RC G5 ST		

(1) Choosing this option implies US (Imperial) units of measurement in feet are required for the default configuration. The configuration can be changed on-site.
(2) Choosing this option implies Metric units of measurement in meters are required for the default configuration. The configuration can be changed on-site.
(3) Contact an Emerson Process Management representative for additional information.
(4) The maximum number of characters that can be engraved is 16.

Rosemount 3102 Level Transmitter Ordering

Specification and selection of product materials, options, or components must be made by the purchaser of the equipment.
See page 9 for more information on Material Selections.

Table 3. Rosemount 3102 ordering information

★The Standard offering represents the most common models and options. These options should be selected for best delivery.
The Expanded offering is manufactured after receipt of order and is subject to additional delivery lead time.

Model	Product Description	
3102	Ultrasonic Level Transmitter with 2 integral relays, 1 to 36 ft. (0,3 to 11 m) range	
Signal Output		
Standard		**Standard**
H	4–20 mA with HART communication	★
Housing Material		
Standard		**Standard**
A	Polyurethane-covered Aluminum	★
P	Glass Filled Nylon	★
Conduit / Cable Thread		
Standard		**Standard**
1	½ –14 NPT	★
2	M20 x 1.5 adaptor	★
3	M20 x 1.5 supplied with nylon glands (Plastic Housing only)	★
Wetted Material		
Standard		**Standard**
F	PVDF	★
Process Connection		
Standard		**Standard**
RC[1]	2-in. NPT thread	★
SC[2]	2-in. BSPT thread	★
Product Certificates		
Standard		**Standard**
NA	No certification	★
G5	FM Ordinary Location	★
G6	CSA Ordinary Location	★
GM[3]	Technical Regulation Customs Union (EAC) Ordinary Locations Mark	★
GP[3]	Korean Testing Laboratory (KTL), KCC mark for ordinary location use	★
OPTIONS		
Special Alarm Options[4]		
Standard		**Standard**
C4	Namur NE43 alarm and saturation levels, high alarm	★
C5	Namur NE43 alarm and saturation levels, low alarm	★
C8	Standard Rosemount alarm and saturation levels, low alarm	★
Special Certification Option		
Standard		**Standard**
Q4	Certificate of functional test	★
Tag Plates		
Standard		**Standard**
ST[5]	Stainless Steel engraved tag plate	★
WT	Laminated paper tag plate	★
Typical Model Number:	**3102 H A 1 F RC G5 C4 ST**	

(1) Choosing this option implies US (Imperial) units of measurement of feet are required for the default configuration. Configuration can be changed on-site.
(2) Choosing this option implies Metric units of measurement of meters are required for the default configuration. Configuration can be changed on-site.
(3) Contact an Emerson Process Management representative for additional information.
(4) When no Special Alarm option code is selected, the configuration is pre-set for a high-signal alarm indication, and standard Rosemount alarm and saturation levels (see "Electrical" on page 8 for details).
(5) The maximum number of characters that can be engraved is 16.

Rosemount 3105 Level Transmitter Ordering

Specification and selection of product materials, options, or components must be made by the purchaser of the equipment. See page 9 for more information on Material Selections.

Table 4. Rosemount 3105 ordering information

★The Standard offering represents the most common models and options. These options should be selected for best delivery.
The Expanded offering is manufactured after receipt of order and is subject to additional delivery lead time.

Model	Product Description	
3105	Ultrasonic Level Transmitter for hazardous areas, 1 to 36 ft. (0,3 to 11 m) range	
Signal Output		
Standard		**Standard**
H	4–20 mA with HART communication	★
Housing Material		
Standard		**Standard**
A	Polyurethane-covered Aluminum	★
P	Glass Filled Nylon	★
Conduit / Cable Thread		
Standard		**Standard**
1	½ –14 NPT	★
2	M20 x 1.5 adaptor	★
3	M20 x 1.5 supplied with nylon glands (Plastic Housing only)	★
Wetted Material		
Standard		**Standard**
F	PVDF	★
Process Connection		
Standard		**Standard**
RC[1]	2-in. NPT thread	★
SC[2]	2-in. BSPT thread	★
Product Certificates		
Standard		**Standard**
I1	ATEX Intrinsically Safe	★
I3	NEPSI China Intrinsically Safe	★
I5	FM Intrinsically Safe and Non-Incendive	★
I6	CSA Intrinsically Safe and Non-Incendive	★
I7	IECEx Intrinsically Safe	★
IM[3]	Technical Regulation Customs Union (EAC) Intrinsically Safe	★
IP[3]	KTL/KOSHA Intrinsically Safe	★
OPTIONS		
Special Alarm Options[4]		
Standard		**Standard**
C4	Namur NE43 alarm and saturation levels, high alarm	★
C5	Namur NE43 alarm and saturation levels, low alarm	★
C8	Standard Rosemount alarm and saturation levels, low alarm	★
Special Certification Option		
Standard		**Standard**
Q4	Certificate of functional test	★
Tag Plates		
Standard		**Standard**
ST[5]	Stainless Steel engraved tag plate	★
WT	Laminated paper tag plate	★
Typical Model Number: 3105 H A 1 F RC I5 ST		

(1)   Choosing this option implies US (Imperial) units of measurement in feet are required for the default configuration. The configuration can be changed on-site.
(2)   Choosing this option implies Metric units of measurement in meters are required for the default configuration. The configuration can be changed on-site.

(3) Contact an Emerson Process Management representative for additional information.

(4) When no Special Alarm option code is selected, the configuration is pre-set for a high-signal alarm indication, and standard Rosemount alarm and saturation levels (see "Electrical" on page 8 for details).

(5) The maximum number of characters that can be engraved is 16.

Spare parts and accessories

Table 5. Spare parts and accessories

★The Standard offering represents the most common models and options. These options should be selected for best delivery.
The Expanded offering is manufactured after receipt of order and is subject to additional delivery lead time.

Spares and Accessories		
Standard		**Standard**
03100-1001-0001	Flange Mounting, 2-in. NPT to 2-in. ASME B16.5 Class 150, PVC	★
03100-1001-0002	Flange Mounting, 2-in. NPT to 3-in. ASME B16.5 Class 150, PVC	★
03100-1001-0003	Flange Mounting, 2-in. NPT to 4-in. ASME B16.5 Class 150, PVC	★
03100-1001-0004	Flange Mounting, 2-in. NPT to 6-in. ASME B16.5 Class 150, PVC	★
03100-1002-0001	Flange Mounting, 2-in. BSPT to PN16 DN50, PVC	★
03100-1002-0003	Flange Mounting, 2-in. BSPT to PN16 DN80, PVC	★
03100-1002-0004	Flange Mounting, 2-in. BSPT to PN16 DN100, PVC	★
03100-1002-0005	Flange Mounting, 2-in. BSPT to PN16 DN150, PVC	★
03100-1003-0001[1]	2-in. NPT Mounting Bracket	★
03100-1003-0002[1]	2-in. BSPT Mounting Bracket	★
03100-0001-0001	Remote Temperature Sensor (Rosemount 3102 and Rosemount 3105 only)	★
03100-0002-0002	$1/2$–14 NPT to M20 x 1.5 Conduit Adaptor (Pack of two)	★

(1) See "Dimensional Drawings" on page 13.

Specifications

General

Product

Rosemount 3100 Series level transmitters:
- The 3101: Level measurement
- The 3102: Level, Distance, Content (Volume), and Flow measurement, with two integral signal relays
- The 3105: Level, Distance, Content (Volume), and Flow measurement for hazardous locations

Measurement principle

Ultrasonic, time-of-flight

Measuring performance

Measurement range

- Rosemount 3101: 1 to 26 ft. (0,3 to 8 m)
- Rosemount 3102: 1 to 36 ft. (0,3 to 11 m)
- Rosemount 3105: 1 to 36 ft. (0,3 to 11 m)

Level resolution

Better than 0.04 in. (1 mm)

Accuracy under reference conditions[1]

- Rosemount 3101:
  ± 0.2 in. (5 mm) for < 3.3 ft. (1 m),
  ± 0.5% of measured distance for > 3.3 ft. (1 m)
- The 3102 and 3105[2]:
  ± 0.1 in. (2,5 mm) < 3.3 ft (1 m),
  ±0.25% of measured distance for > 3.3 ft. (1 m)

Blanking distance (dead zone)

12 in. (0,3 m)

Update interval

Display: 500 ms; Current Output: 200 ms

Display and configuration

Integral display

4/5 digit display for live measurement, and for configuration purposes

Output variables

- Rosemount 3101: Level
- Rosemount 3102:
  Level (or distance-to-surface), Content (Volume), and Flow
- Rosemount 3105:
  Level (or distance-to-surface), Content (Volume), and Flow

Output units

- For Level or distance-to-surface: m, ft, in, or none
- For Contents: l, m^3, gal, ft^3, or none
- For Flow: l/s, l/m, m^3/hr, gal/s, gal/m, ft^3/m (cfm), ft^3/hr, or none

Configuration tools

- Standard integral push-buttons with LCD
- Field communicator[3]
- Rosemount 3490 Series universal control unit[3]
- AMS Suite: Intelligent Device Manager[3]

Electrical

Power supply

- Loop-powered (two-wire)
- Rosemount 3101: 12 to 30 Vdc
- Rosemount 3102: 12 to 40 Vdc
- Rosemount 3105:
  12 to 40 Vdc (non-hazardous area), 12 to 30 Vdc (hazardous area)

Earthing

None required

Current output

- Rosemount 3101: Analog 4–20 mA
- Rosemount 3102: Analog 4–20 mA, HART
- Rosemount 3105: Analog 4–20 mA, HART

Signal on alarm

- 3101: Low = 3.6 mA. High = 21 mA
- 3102/3105:
  Standard: Low = 3.75 mA. High = 21.75 mA;
  Namur NE43: Low = 3.6 mA. High = 22.5 mA

Saturation levels

- 3101: Low = 3.8 mA. High = 20.5 mA
- 3102/3105:
  Standard: Low = 3.9 mA. High = 20.8 mA;
  Namur NE43: Low = 3.8 mA. High = 20.5 mA

Relay output (Rosemount 3102)

Two integral signal relays, SPST rated 1A @ 30 Vdc (inductive) and 2A @ 30 Vdc (resistive)

Electrical parameters
(for Rosemount 3105 hazardous area approvals)

U_i = 30 V, I_i = 120 mA, P_i = 0,82 W, L_i = 108 µH, C_i = 0 nF

---

(1) Temperature: 68 °F (20 °C), Pressure: 1013 mbar (atmospheric pressure), and Relative Humidity: 50%.

(2) GOST/Belarus-approved 3102 and 3105: see the Russian product data sheet 00813-0107-4840 for revised accuracy of ±0.12 in. (±3 mm) for measured distances less than 3.5 ft. (1.2 m).

(3) This configuration tool uses HART which is not supported on the Rosemount 3101.

Cable entry

- Aluminum housing:
  Two ½" - 14 NPT conduit entries for cable glands
  Option: M20 x 1.5 conduit/cable adaptor
- Glass-filled nylon housing:
  Two M20 x 1.5 conduit entries for cable glands

Output cabling

Single twisted-pair and shielded, min. 0,22 mm^2 (24 AWG), max. 1,5 mm^2 (15 AWG)

Materials selection

Emerson provides a variety of Rosemount product 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 Process Management 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.

Materials of construction

Wet-side material

PVDF

Body and cover materials

- Body: Polyurethane-covered aluminum, or glass-filled nylon
- Cover Seal: Silicone rubber
- Cover Screws: 316 Stainless Steel
- Transducer Body Seal: EPDM

Mechanical

Mounting thread size

- 2-in. NPT, or 2-in. BSP.
- Optional flange accessories available

Weight of transmitter

- Rosemount 3101 with aluminum housing: 3.1 lb (1,4 kg)
- Rosemount 3102 with aluminum housing: 3.3 lb (1,5 kg)
- Rosemount 3105 with aluminum housing: 4.4 lb (2,0 kg)
- Rosemount 3101 with glass-filled nylon housing: 2.0 lb (0,9 kg)
- Rosemount 3102 with glass-filled nylon housing: 2.2 lb (1,0 kg)
- Rosemount 3105 with glass-filled nylon housing: 3.1 lb (1,4 kg)

Measuring

Temperature compensation[1]

- Rosemount 3101:
  Automatic Integral temperature compensation
- Rosemount 3102:
  Automatic Integral temperature compensation. Optional remote temperature sensor for dynamic temperature compensation
- Rosemount 3105:
  Automatic Integral temperature compensation. Optional remote temperature sensor for dynamic temperature compensation

Environment

Ambient temperature[2]

- Rosemount 3101:
  −4 to 158 °F (−20 to 70 °C)
- Rosemount 3102 and Rosemount 3105:
  −40 to 158 °F (−40 to 70 °C)

Process temperature

- Rosemount 3101:
  −4 to 158 °F (−20 to 70 °C)
- Rosemount 3102 and Rosemount 3105:
  −22 to 158 °F (−30 to 70 °C)

Process pressure

−4 to 44 psi (−0,25 to 3,0 bar)

Ingress protection

- NEMA 4X, IP 66 for aluminum housing
  (requires a suitably rated cable gland/blanking plug – not supplied)
- IP 66/67 for glass-filled nylon housing
  (when using the supplied cable gland/blanking plug)

Electromagnetic compatibility

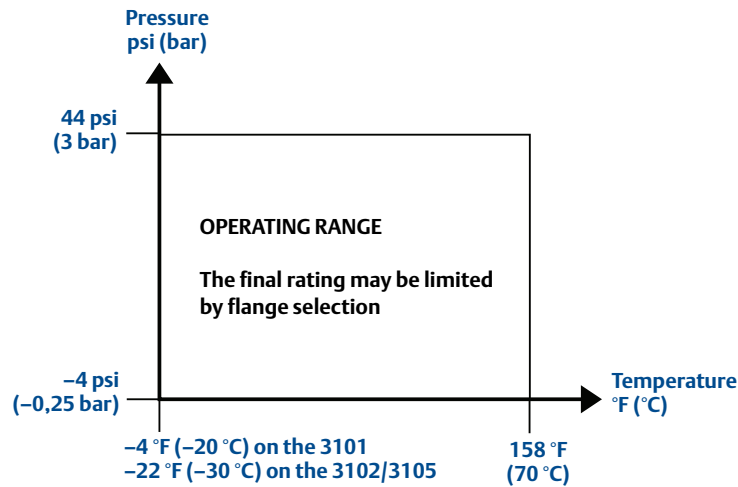- EN61326 (Class B)

Certifications

- CE-mark, FM, CSA, EAC, KTL (KCC-mark), NEPSI, ATEX, or IECEx (dependent on order code)
- Technical Regulation Customs Union (EAC) approvals – *contact an Emerson Process Management representative for additional information*

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(1) See page 7 for optional accessories.
(2) See page 11 onwards for approval temperature ranges.

Temperature and pressure ratings

The process temperature/pressure rating depends on the design of the transmitter in combination with the flange materials.

Pressure psi (bar)

44 psi (3 bar)

OPERATING RANGE

The final rating may be limited by flange selection

−4 psi (−0,25 bar)

Temperature °F (°C)

−4 °F (−20 °C) on the 3101
−22 °F (−30 °C) on the 3102/3105

158 °F (70 °C)

**Process Temperature And Pressure Diagram For Rosemount 3101, 3102, and 3105**

Load limitations

A Field Communicator requires a minimum load resistance of 250 Ohm within the loop in order to function properly. Communication with Rosemount 3490 Universal Controller does not require additional resistance. The maximum load resistance can be determined from these diagrams:

Non-Intrinsically Safe Installations

Intrinsically Safe Installations

R (Ohms) — Rosemount 3101

R (Ohms) — Rosemount 3102
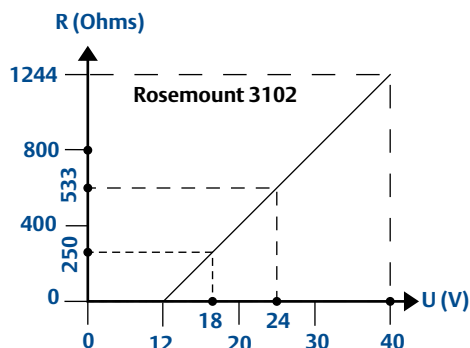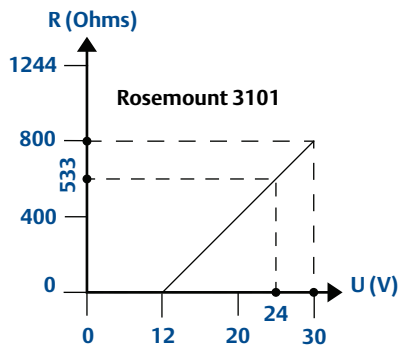
R (Ohms) — Rosemount 3105

R (Ohms) — Rosemount 3105
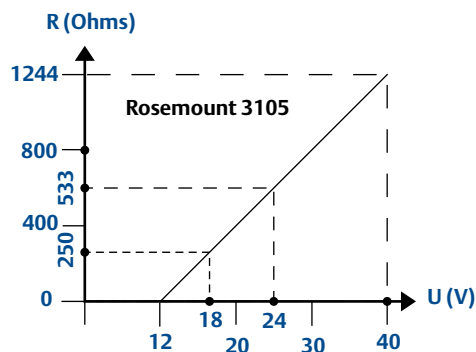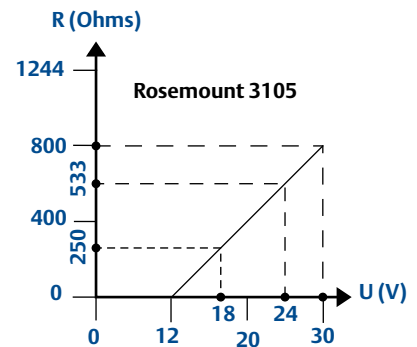
Note
R = Maximum Load Resistance
U = External Power Supply Voltage

Product Certifications

Ordinary location certification for FM *(Rosemount 3101 and 3102 only)*

G5   Project ID: 3024095
The transmitter has been examined and tested to determine that the design meets basic electrical, mechanical, and fire protection requirements by FM, a nationally recognized testing laboratory (NRTL) as accredited by the Federal Occupational Safety and Health Administration (OSHA).

Ordinary location certification for CSA *(Rosemount 3101 and 3102 only)*

G6   Project ID: 02 CSA 1871624
The transmitter has been examined and tested to determine that the design meets basic electrical, mechanical, and fire protection requirements by CSA, a nationally recognized testing laboratory as accredited by the Standards Council of Canada (SCC).

Special condition for safe use:

For this CSA approval, the power for the Rosemount 3100 Series must be supplied from a Rosemount 3490 Series Control Unit, or from a class 2 or SELV source.

Technical Regulation Customs Union (EAC) ordinary location mark

GM   Contact an Emerson Process Management representative for additional information.

Korean Testing Laboratory (KTL), KCC mark for ordinary location use

GP   Contact an Emerson Process Management representative for additional information.

European directive information

The EC declaration of conformity for all applicable European directives for this product can be found on the Rosemount website at www.rosemount.com. A hard copy may be obtained by contacting your local sales office.

ATEX directive (94/9/EC)

The 3105 complies with the ATEX directive.

Pressure equipment directive (PED) (97/23/EC)

The 3100 Series is outside the scope of the PED directive.

Electro magnetic compatibility (EMC) Directive

EN 61326-1:2006, EN 61326-2.3:2006

CE-mark

Complies with applicable directives: Rosemount 3101 (EMC), Rosemount 3102 (EMC), and Rosemount 3105 (EMC, ATEX)

Hazardous locations certifications *(Rosemount 3105 only)*

Special conditions for intrinsically safe use (I1, I3, I5, I6, I7, and IM):

1.   All transmitter models have external plastic parts, which could present a risk of ignition due to electrostatic charge build-up. They shall not be directly installed in any process where its enclosure might be charged by the rapid flow of non-conductive media.

2.   All transmitter models shall only be cleaned with a damp cloth.

3.   When the transmitter housing uses aluminum alloy in its construction, this presents a risk of ignition due to impact and shall be taken into consideration on installation and use.

American and Canadian approvals

Factory Mutual (FM) intrinsically safe approval

I5   FM Instrinsic Safety
Project ID: 3024095
Intrinsically Safe for Class I, Div. 1, Groups A, B, C, and D
Zone Marking: Class I, Zone 0, AEx ia IIC
Temperature Code: T6 (T_a = 55 °C)
Temperature Code: T4 (T_a = 60 °C)
Control Drawing: 71097/1216
Ui = 30 V, li = 120 mA, Pi = 0.82 W, Li = 108 µH, Ci = 0 µF

Factory Mutual (FM) non-incendive approval

I5   FM Non-Incendive
Project ID: 3024095
Non-Incendive for Class I, Div. 2, Groups A, B, C, and D
Zone Marking: Class I, Zone 2, AEx nA IIC
Temperature Code: T6 (T_a = 55 °C)
Temperature Code: T4 (T_a = 60 °C)
Control Drawing: 71097/1216
Ui = 30 V, li = 120 mA, Pi = 0.82 W, Li = 108 µH, Ci = 0 µF

Canadian Standards Association (CSA) intrinsically safe approval

I6 CSA Intrinsic Safety
Project ID: 02 CSA 1352094
Intrinsically Safe for Class I, Div. 1, Groups A, B, C, and D
Zone Marking: Class 1, Zone 0, Ex ia IIC
Temperature Code:
T4 (T_a –40 to 60 °C)
T6 (T_a –40 to 55 °C)
Control Drawing: 71097/1218
Ui = 30 V, Ii = 120 mA, Pi = 0.82 W, Li = 108 μH, Ci = 0 μF

Canadian Standards Association (CSA) non-incendive approval

I6 CSA Non-Incendive
Project ID: 02 CSA 1352094
Non-Incendive for Class I, Div. 2, Groups A, B, C, and D
Zone Marking: Class I, Zone 2, Ex nL IIC
Temperature Code:
T4 (T_a –40 to 60 °C)
T6 (T_a –40 to 55 °C)
Control Drawing: 71097/1218
Ui = 30 V, Ii = 120 mA, Pi = 0.82 W, Li = 108 μH, Ci = 0 μF

European approval

ATEX intrinsically safe approval

I1 Certificate Number: SIRA 06ATEX2260X
ATEX Intrinsic Safety
II 1 G
Ex ia IIC T6 Ga (T_a –40 to 55 °C)
Ex ia IIC T4 Ga (T_a –40 to 60 °C)
Ui = 30 V, Ii = 120 mA, Pi = 0.82 W, Li = 108 μH, Ci = 0 μF

Rest of the world approvals

NEPSI China intrinsically safe approval

I3 Certificate: GYJ11.1709X
Intrinsic Safety
Ex ia IIC T4 / T6
Ta (see table in the certificate)

IECEx intrinsically safe approval

I7 Certificate: IECEx SIR 06.0068X
Intrinsic Safety
Zone 0
Ex ia IIC T6 Ga (T_a –40 to 55 °C)
Ex ia IIC T4 Ga (T_a –40 to 60 °C)
Ui = 30 V, Ii = 120 mA, Pi = 0.82 W, Li = 108 μH, Ci = 0 μF

Technical Regulation Customs Union (EAC) intrinsically safe approval

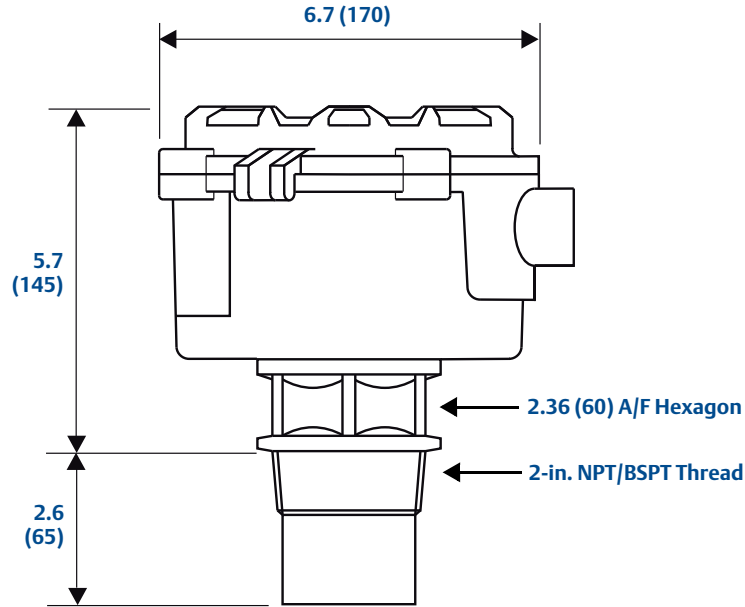**IM** Contact an Emerson Process Management representative for additional information.

KTL/KOSHA intrinsically safe approval

IP Contact an Emerson Process Management representative for additional information.
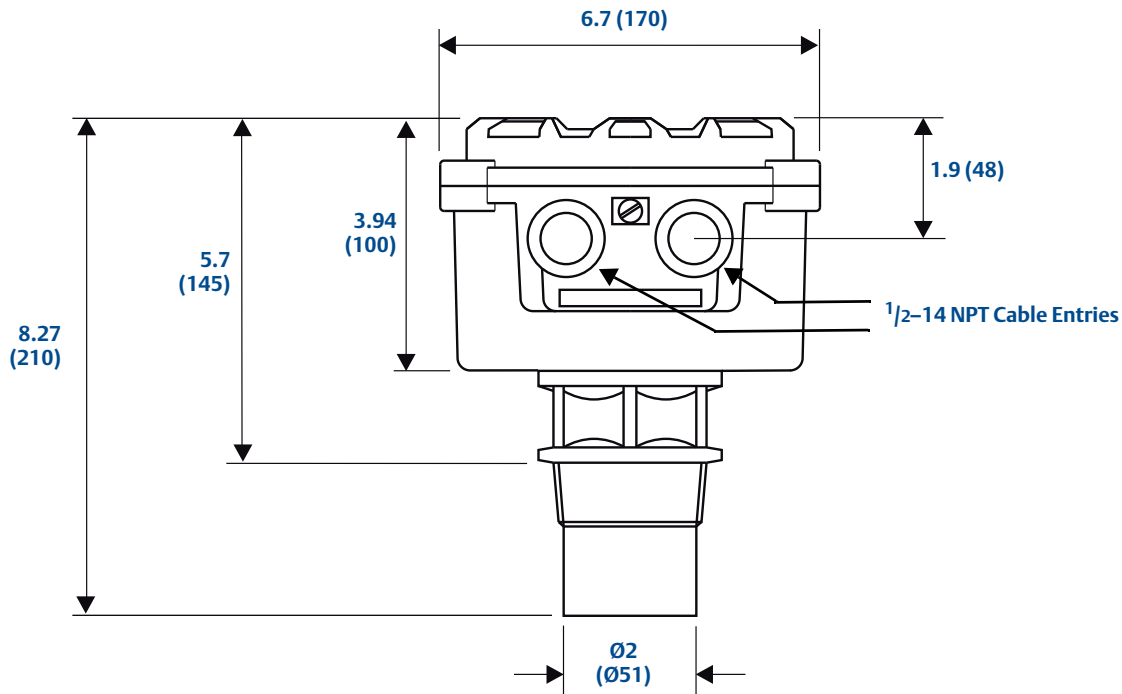
Dimensional Drawings

Aluminum housing

Note: Dimensions are in inches (mm).

6.7 (170)

5.7 (145)

2.36 (60) A/F Hexagon

2-in. NPT/BSPT Thread

2.6 (65)

Note:
$^1/_2$–14 NPT to M20 x 1.5 Adaptors are available when ordering the transmitter (see pages **4** to **6**)

6.7 (170)

1.9 (48)

3.94 (100)

5.7 (145)

$^1/_2$–14 NPT Cable Entries

8.27 (210)

Ø2 (Ø51)

Plastic housing

 Note: Dimensions are in inches (mm).

3 (77)   4.5 (113.5)

2.36 (60) A/F Hexagon

2-in. NPT/BSPT Thread

Ø2
(Ø51)

5.6 (142)

1.9 (48)

3.8
(96)

5.5
(138.5)

8
(202.5)

Two M20 x 1.5 Cable Entries
One Fitted With Cable Gland;
The Other Plugged
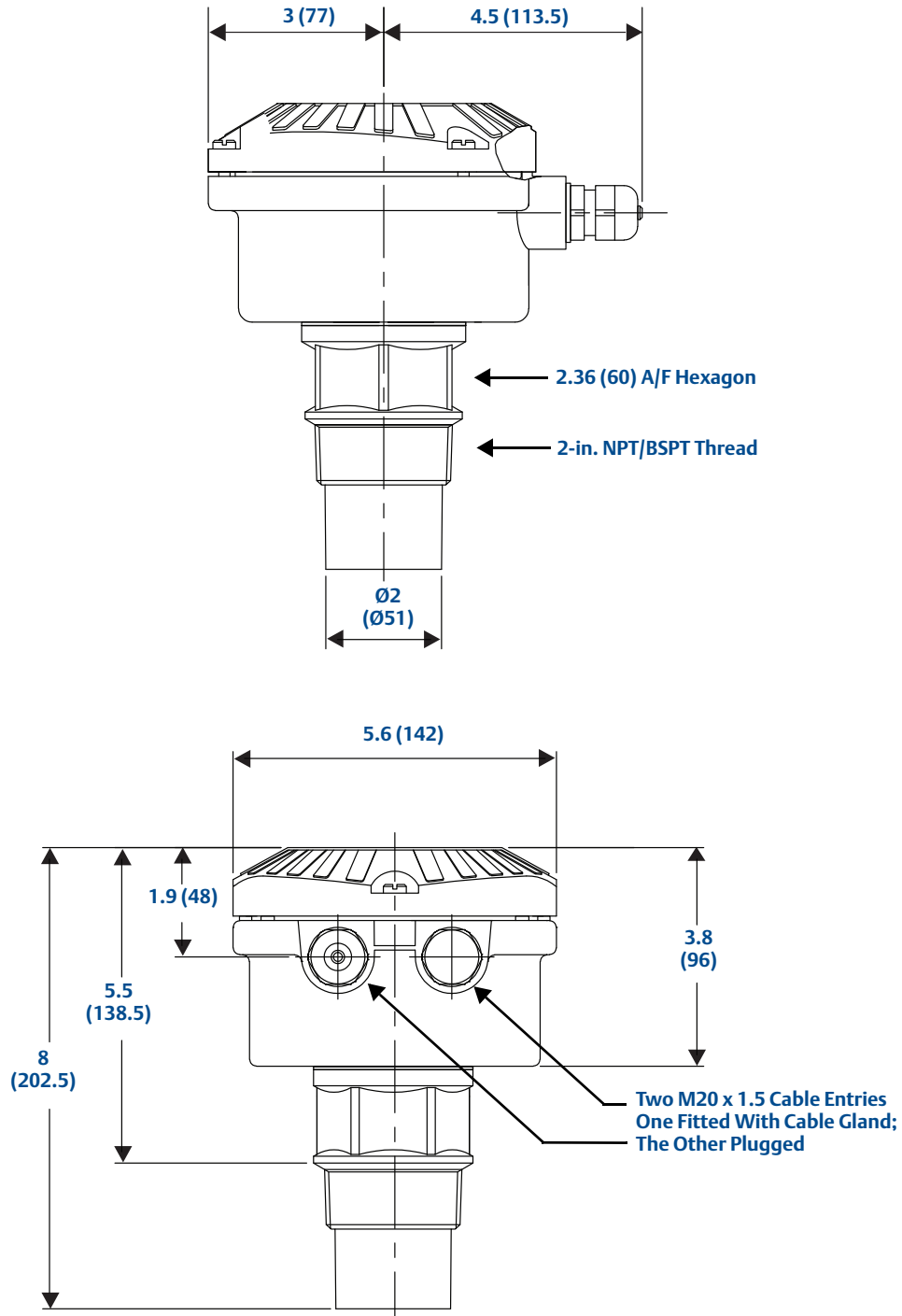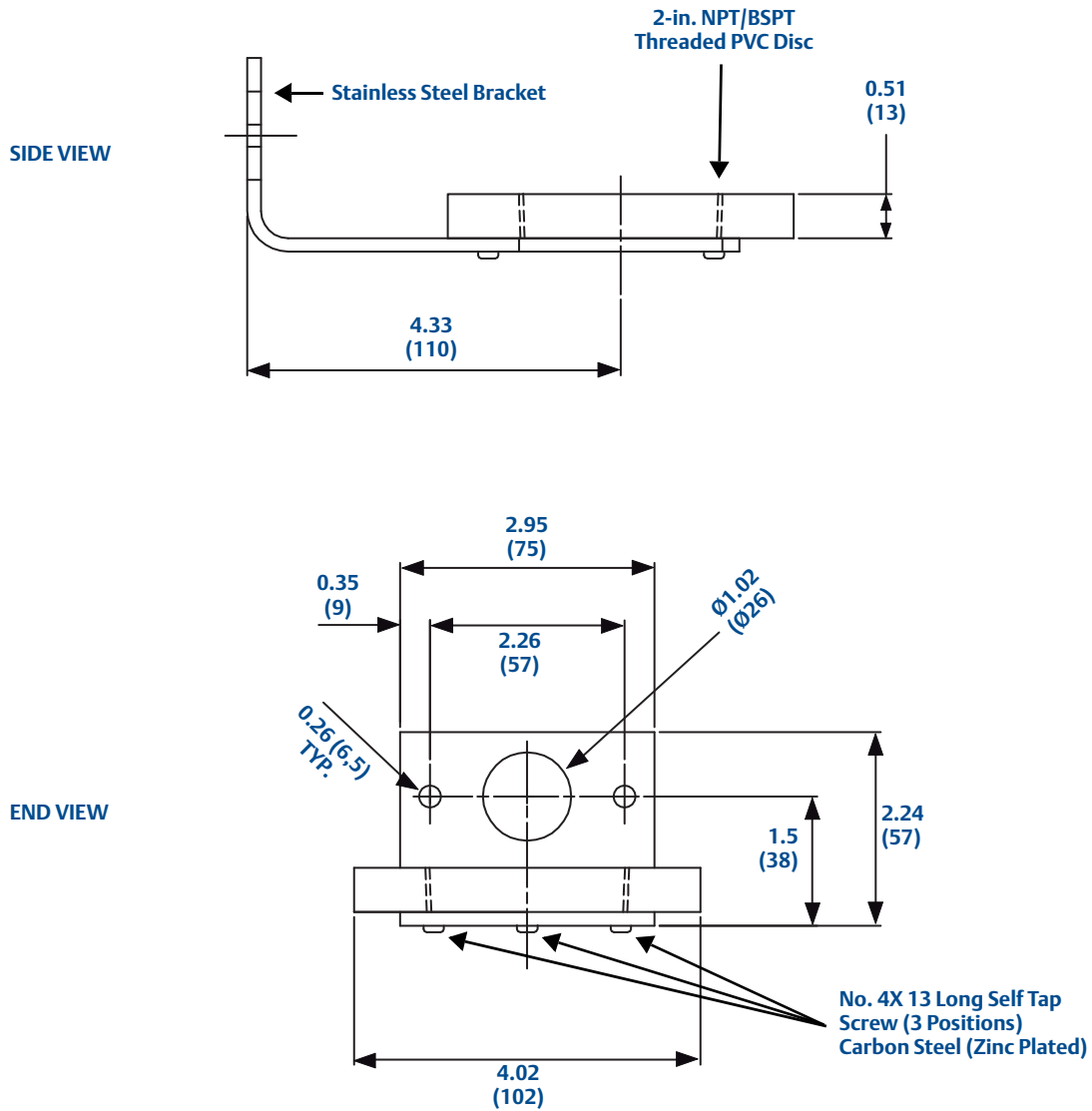
2-in. NPT/BSPT Bracket Kits

Note: Dimensions are in inches (mm).

Note: The combined weight of bracket and disc is 16 oz. (0,5 kg).

SIDE VIEW

2-in. NPT/BSPT
Threaded PVC Disc

Stainless Steel Bracket

0.51
(13)

4.33
(110)

END VIEW

2.95
(75)

0.35
(9)

2.26
(57)

Ø1.02
(Ø26)

0.26 (6,5)
TYP.

2.24
(57)

1.5
(38)

No. 4X 13 Long Self Tap
Screw (3 Positions)
Carbon Steel (Zinc Plated)

4.02
(102)

**ACTUAL VIEWS WITH
MOUNTED TRANSMITTER**