Product Data Sheet
00813-0100-2405, Rev. AD
October 2026

Rosemount™ 2405 Monitoring Hub



- All-in-one device that combines data concentrator, display and communication unit
- Intuitive and modern interfaces with rich inventory visualizations
- Simplified setup with step-by-step configuration
- HART® Multidrop communication integrates up to eight measuring points into reliable inventory insights

ROSEMOUNT™

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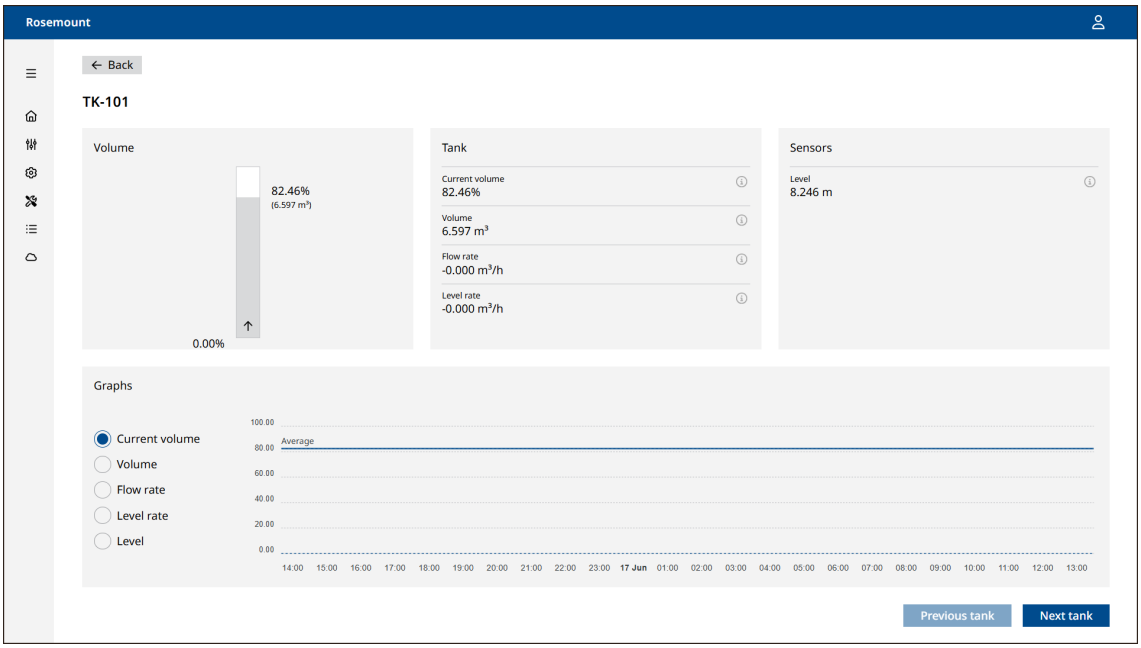
Stay in control of your tank inventory

Optimized inventory

Stay on top of stock levels with real-time inventory insights and enhance replenishment forecasts through historical data logging.

- Gain full inventory insights via local field display with volume, volume utilization, flow, and level rate
- Enhance product availability through data logging for historical analysis and replenishment predictions
- Ensure optimal product inventory with real-time inventory insights

Figure 1: Visualize system and measured values in the web interface



Increased operational efficiency

The Rosemount 2405 enhances operational efficiency by automating data collection and providing real-time insights in the field. Its modern interfaces offers powerful visuals for smooth status checks and faster troubleshooting, minimizing downtime.

- Eliminate manual inventory checks with automated measurements and data logging
- Reduce installation and wiring costs with digital HART® Multidrop communication
- Minimize downtime with fast troubleshooting

Reduced complexity

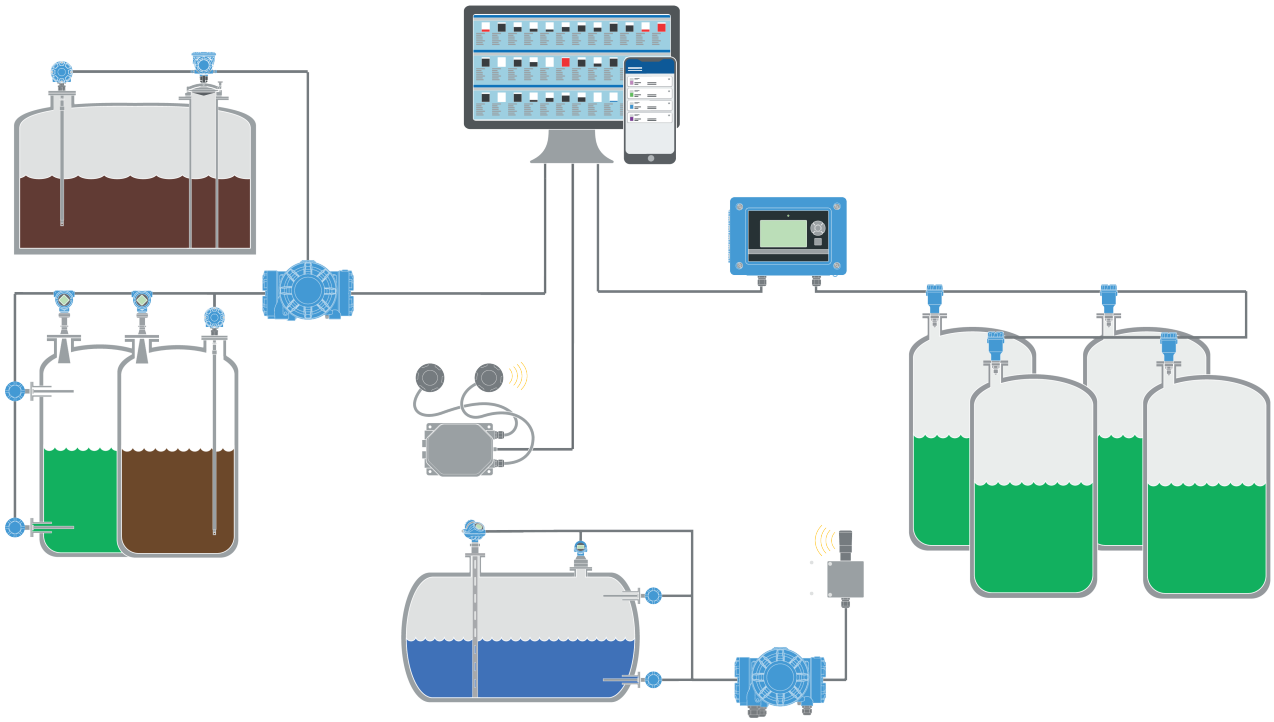
Centralize inventory data access with an all-in-one device featuring a display, communication unit, and monitoring hub. Its user-friendly interface simplifies system configuration by providing essential settings through only the monitoring hub

- Simplify system configuration with an intuitive, user-friendly, and modern interface
- Centralize quick and easy access to inventory data with an all-in-one device that combines a display, communication unit, and monitoring hub
- Eliminate the need for multiple devices with a versatile all-in-one monitoring hub

Enhanced flexibility and connectivity

The Rosemount 2405 provides flexible access to visualizations via both a local field display and a remote web server. It also connects seamlessly with the inventory management platforms Rosemount TankMaster and Rosemount TankMaster Mobile, or connects reliably to any third party systems.

Figure 2: Tank monitoring system

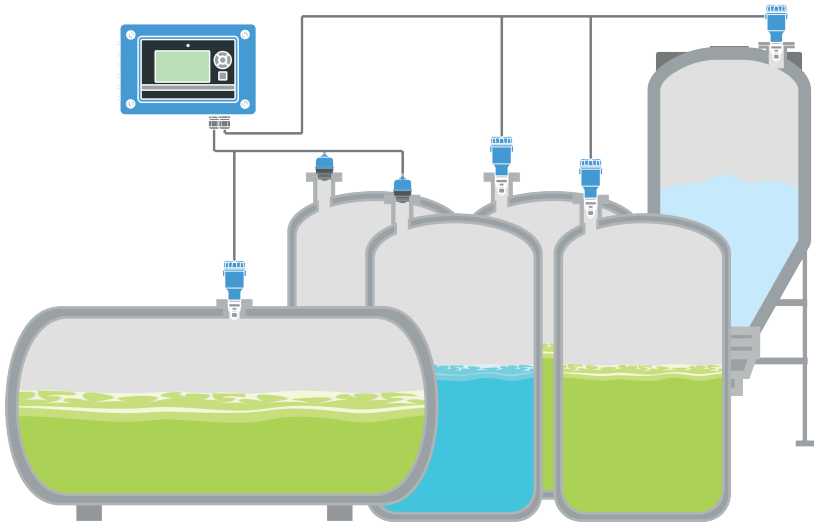


Application examples

Level measurement and inventory control of the chemical storage process vessels

Manual tank inventory checks often result in inefficiencies, inaccuracies, and stock issues. A tank monitoring system automates the inventory management and provides real-time insights, improving inventory control and supply reliability.

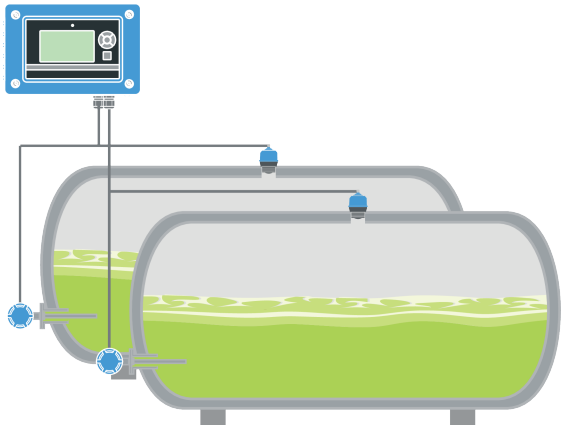
- Real-time inventory data in field and control room
- Always know when to place new orders for material
- Stay in control of loading/unloading with a field display



Level and temperature measurement for control in chlorine storage tanks

In water and wastewater plants, chlorine is essential for disinfecting water and preventing harmful bacterial growth. Maintaining optimal temperature and inventory levels in chlorine storage tanks ensures a consistent disinfection process, accurate dosing, and chemical stability.

- Real-time level and temperature measurements both in field and control room



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.

Ordering information

Specifications and options

Specification and selection of product materials, options, and/or components must be made by the purchaser of the equipment.

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 3.

Figure 3: Model Code Example

2405 1 P 1 KL 0 1	WR3 ST
1	2

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

Rosemount 2405 Monitoring Hub ordering information



- Modern exterior design with a user-centric interface
- Continuous access to information
- Pipe or wall mounting for easy field installation
- Weather protection cover to increase screen readability in sunlight, rain, hail, and snow

VIEW PRODUCT >

Required model components

Model

Code	Description
2405	Monitoring Hub

Inputs and outputs

Each tank requires at least one level sensor. Temperature and pressure sensors are optional.

Code	Description
1	Up to 8 HART® transmitters

Application

Code	Description
I	Tank Inventory Management

Host communication

Code	Description
M	Modbus® TCP, HART® IP

Housing

Code	Description
P	Engineered polymer

Hazardous location certification

Code	Description
NA	No Hazardous locations certifications
KL	ATEX, IECEx, US, and Canada Intrinsic Safety (Associated Apparatus)
I4	Japan Intrinsic Safety (Associated Apparatus)
IP	Republic of Korea Intrinsic Safety (Associated Apparatus)
IW	India Intrinsic Safety (Associated Apparatus)

Local certifications (for safe zone)

Code	Description
00	None

Cable/conduit connections

Code	Description
00	None
01	3 pcs M20 cable glands + 5 pcs plugs
02	7 pcs M20 cable glands + 5 pcs plugs + 1 M20 gland for RJ45
03	3 pcs M20 cable glands + 5 pcs plugs + NPT adapter (3 pcs ½ in. NPT)

Mechanical installation

Code	Description
MI	Integrated
MP	Installation kit for wall and pipe mounting

Extra 1

Code	Description
0	None

Extra 2

Code	Description
0	None

Additional options

Conformance certificate

Code	Description
Q1	Certificate of conformance

Covers

Code	Description
WP	Weather protection

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

General specifications

Power supply

Power consumption

Maximum 12 W

Supply voltage

- DC: 24-48 Vdc -15% to +10%
- AC: 100-240 Vac 50/60 Hz -15% to +10%

Fuse

2 A, 350 V

Start-up time

Approximately 30 seconds

Write protection

Yes

Memory card

Built-in memory card for logging function, up to 200.000 data points can be logged.

Display

Type

4.3 inch 480 x 272, backlit TFT LCD module color

Output units

- Level: m, feet, feet & inches
- Volume: m^3, l, ft^3, barrels (bbl), US gal, UK gal
- Volume utilization: %
- Level rate: m/h, ft/h
- Flow rate: m^3/h ,l/min, barrel/h, ft^3/h, US gal/h, UK gal/h
- Pressure: psiA, psiG, barA, barG, Pa A, Pa G, kPa A, kPa G, kg/(cm^2)
- Temperature: °C, °F
- Signal strength: mV

Field communication

HART® multi-drop

Supported transmitters

- Rosemount 1208C Level and Flow Transmitter
- Rosemount 3408 Level Transmitter
- Rosemount 5408 Level Transmitter
- Rosemount 5300 Level Transmitter
- Rosemount 3100 Level Transmitter
- Rosemount 2051 Pressure Transmitter
- Rosemount 3051 Pressure Transmitter
- Rosemount 3144 Temperature Transmitter
- Rosemount 644 Temperature Transmitter
- Rosemount 248 Temperature Transmitter
- Generic support for level, temperature and pressure HART® transmitters from other vendors

Host communication

The Rosemount 2405 Monitoring Hub communicates with host systems, such as Rosemount TankMaster WinView and Rosemount TankMaster Mobile, via Modbus® TCP. The Rosemount 2405 also supports HART® IP protocol, which enables tunneling of HART commands from field devices to host.

Ethernet

Modbus® TCP connection to host system, and/or web interface access for service functions and data log download

- 10/100 Mbps
- RJ45 connector

Keypad

Six buttons; up, down, left, right, back, and enter

Light emitting diode (LED)

One multi-colored LED for health status

Electrical specifications

Relay outputs

Six relay outputs

250 Vac 8 A/24 Vdc 8 A resistive load

Analog outputs

Three analog outputs

Signal range

4-20 mA

Accuracy

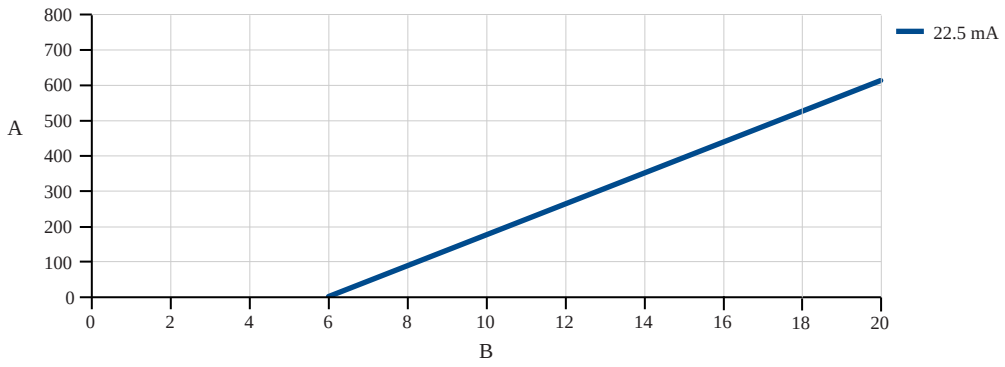
±0.02 mA (0.1% of 20 mA)

Resolution

12 bit

Maximum load

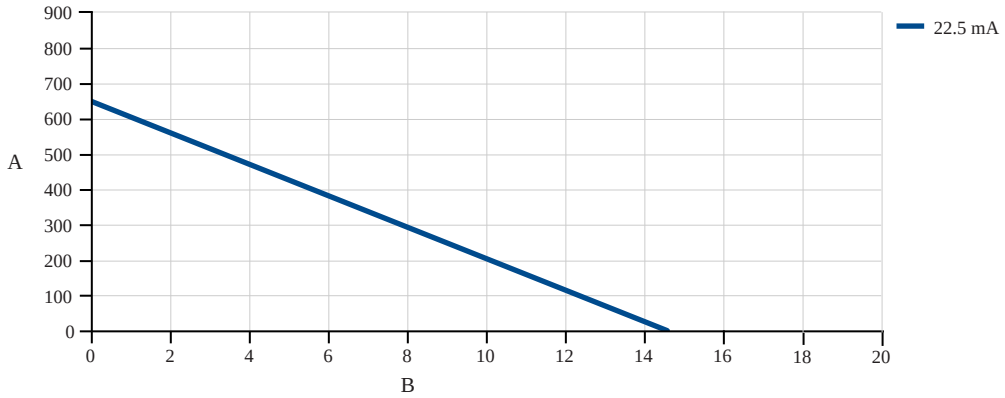
Figure 4: Loop Resistance: Loop Power, Analog Output



A. Loop resistance [Ω]

B. Load voltage [V]

Figure 5: Loop Resistance: Internal Power, Analog Output



A. Loop resistance [Ω]

B. Load voltage [V]

Power supply out
24 Vdc

Analog signal on alarm
The Rosemount 2405 automatically and continuously performs self-diagnostic routines. If a failure or a calculated value error is detected, the analog signal will be driven offscale to alert the user. The fixed analog signal on alarm is user-configurable.

Table 1: Signal on Alarm

Standard	High	Low
Rosemount standard	21.75 mA	3.75 mA
NAMUR NE43	22.5 mA	3.6 mA

Analog saturation levels
The Rosemount 2405 will continue to set a current that corresponds to the calculated value until reaching the associated saturation limit (and then freeze).

Table 2: Saturation Levels

Standard	High	Low
Rosemount standard	≥ 20.8 mA	≤ 3.9 mA
NAMUR NE43	≥ 20.5 mA	≤ 3.8 mA

Digital inputs
Four digital inputs, for use with potential-free contacts

Output voltage
14 V

Output current
6 mA

Sensor inputs
Two inputs, isolated from ground, for loop-powered multi-drop HART® transmitters

Load limitations

Minimum output voltage is 13.5 Vdc. The maximum loop resistance quoted ensures there will be at least 12 Vdc available at the transmitter.

Table 3: Minimum Terminal Output Voltages

Load current (mA)	Rosemount 2405 terminal voltage (Vdc)	Maximum loop resistance (Ohms)
3.75	20.25	2200
4.0	20.16	2040
20.0	14.32	120
21.75	13.77	81
22.5	13.5	66

Mechanical 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 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.

Materials

Housing

Polycarbonat Copolymer

Wall and pipe mounting kit

SST 316L

Weather protection

SST 316L

Weight

3.7 lb (1.7 kg)

Cable/conduit entries

- Seven M20 cable entries
- Support plate in stainless steel with M20 threads for cable glands or NPT adapters/conduit hubs

Terminal connection type
Spring loaded terminals

Environmental specifications

Temperature limits

Ambient temperature
-40 to +140 °F (-40 to +60 °C)[1]

Storage temperature
-40 to +140 °F (-40 to +60 °C)

Humidity
0 - 100% relative humidity

Electrical safety
EN 61010-1:2010 (LVD)

Ingress protection
- Enclosure meets IP66/IP67 according to IEC 60529
- Enclosure meets Type 4X according to UL50E

Impact protection
Enclosure withstands 7 Joule

Maximum vibration
Vibration according to IEC 61298-3, level "field with general application"

Installation category
Overvoltage category II (according to IEC 60664-1)

Pollution degree
Degree 2 according to IEC 61010-1

Metrology sealing possibility
Yes

Transient/built-in lightning protection

Surge
IEC 61000-4-5, 1 kV line-to-line, 2 kV line to ground

Burst
IEC 61000-4-4, 2 kV

Electromagnetic compatibility
Emission and Immunity: EMC directive 2014/30/EU, EN 61326-1

1. *Display reading: -4 to +140 °F (-20 to +60 °C).*

Maximum altitude

6560 ft. (2000 m)

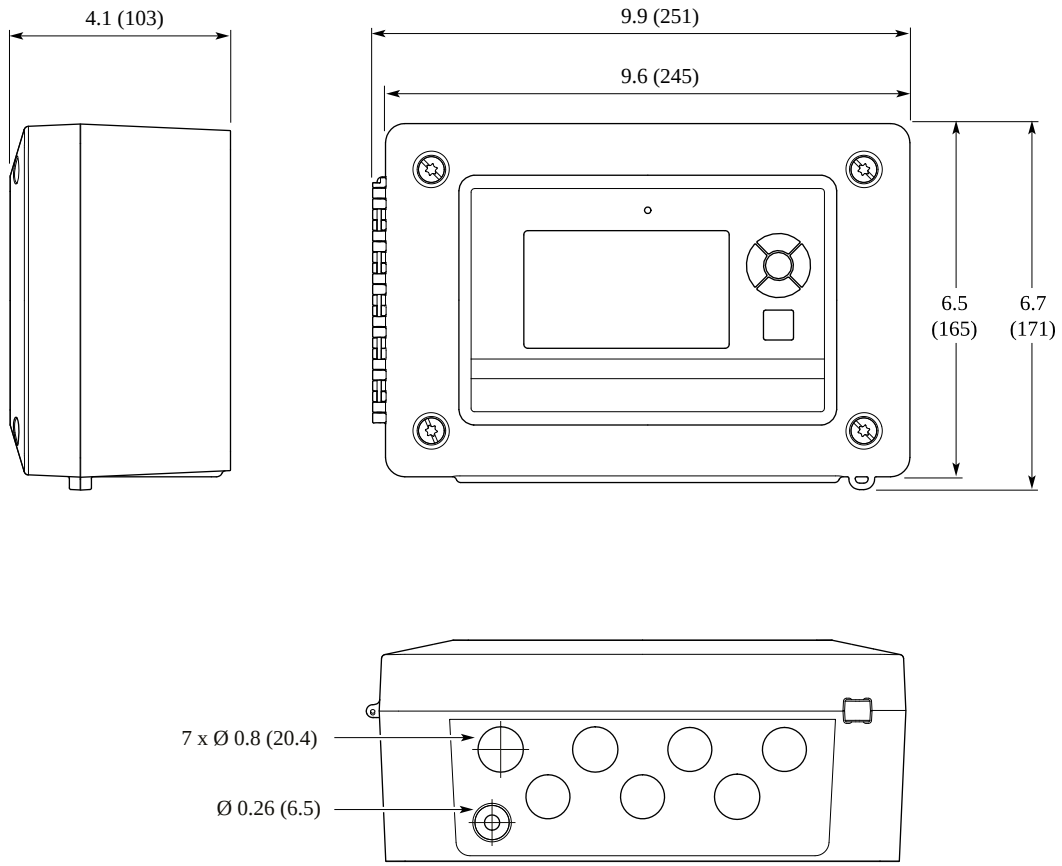
Product certifications

See the Rosemount 2405 Product Certifications document for detailed information on the existing approvals and certifications.

Dimensional drawings

Monitoring hub

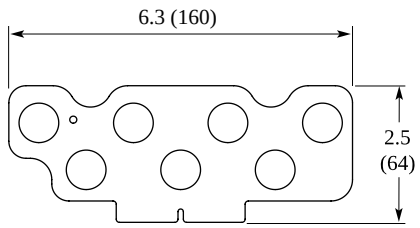
Figure 6: Rosemount 2405



Dimensions are in inches (millimeters).

Support plate

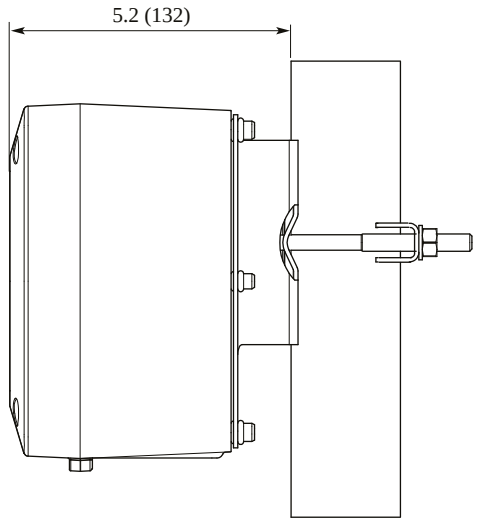
Figure 7: Support Plate



Dimensions are in inches (millimeters).

Wall and pipe mounting kit

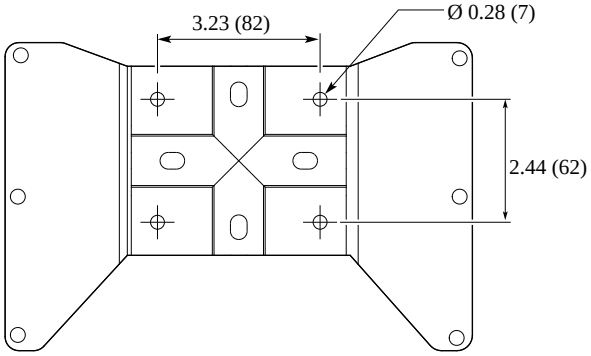
Figure 8: Mounting Bracket



Dimensions are in inches (millimeters).

Bracket hole pattern

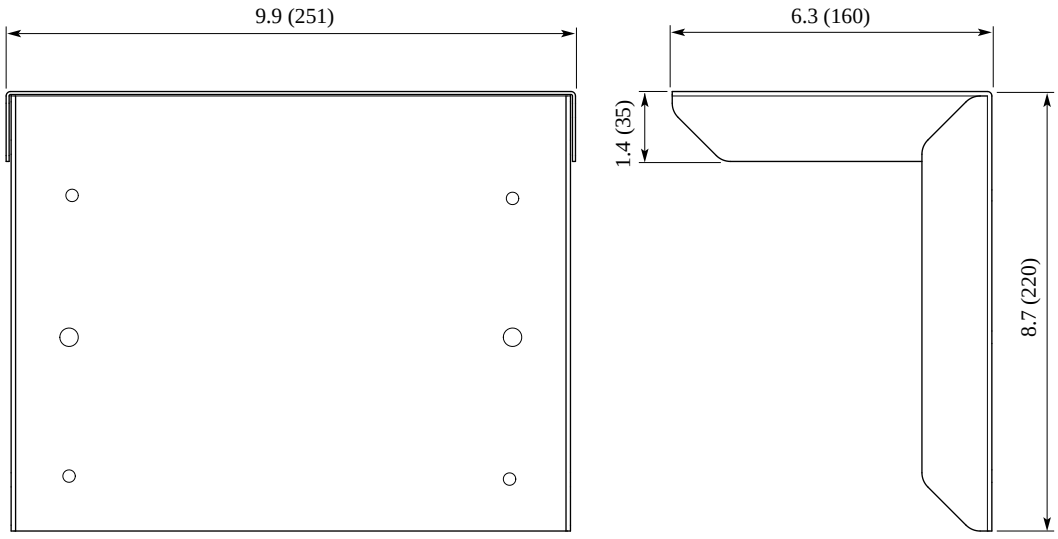
Figure 9: Hole Pattern for Wall Mounting



Dimensions are in inches (millimeters).

Weather protection

Figure 10: Weather protection



Dimensions are in inches (millimeters).

For more information: Emerson.com

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