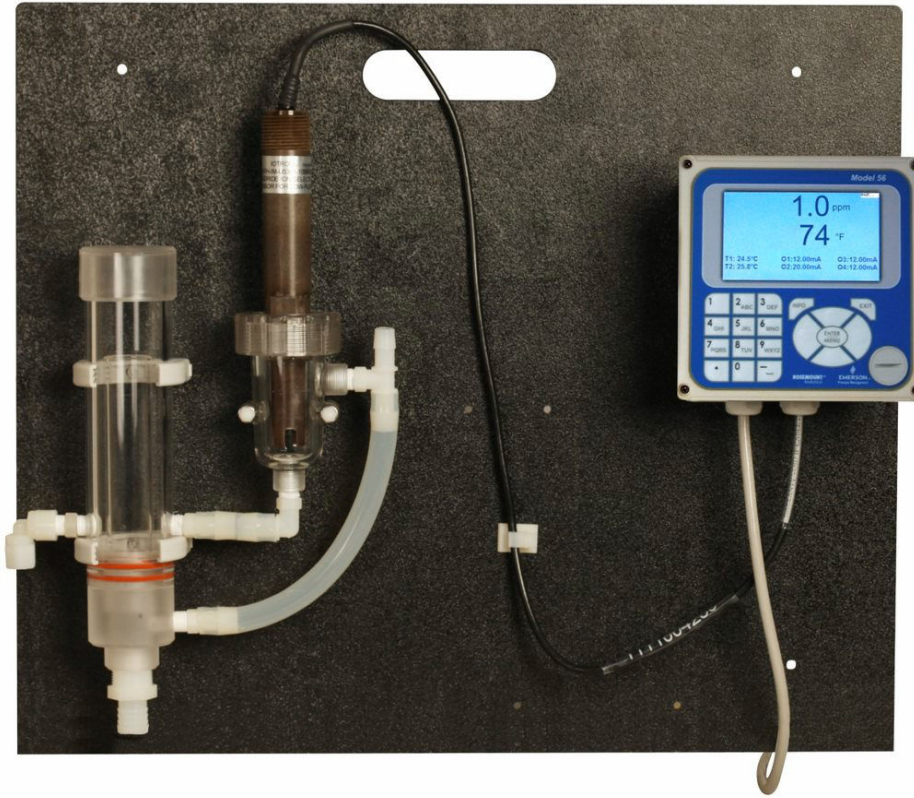


Rosemount™ Fluoride Monitoring System



Complete system for fluoride monitoring

The Rosemount Fluoride Monitoring System provides accurate and low maintenance measurement of fluoride in drinking water.

Overview

Robust solid state fluoride sensor

Fluoride ion selective sensor with monocrystal sensing element and virtually maintenance-free solid state reference system.

Simple reagent-less sample handling system

Constant head flow controller uses gravity to provide stable flow rate that enables accurate measurement with minimal waste and without the use of reagents.

Rosemount 56 Transmitter

- Pertinent information provided by the large customizable display.
- Event logger stores up to 300 events with data and time stamp: faults, warnings, calibration data, calibration results (pass or fail), power on/off cycles, and hold on/off. Data and event downloading is available through USB port on front panel.

Ordering information

The Rosemount Fluoride Monitoring System includes a fluoride sensor, a constant head flow controller and flow cell, and a Rosemount 56 Transmitter.

For a complete system, order each of the part numbers listed in [Table 1](#) in the order they are presented. Emerson ships the system as a single unit, as pictured with the Rosemount 56 Transmitter mounted to the panel and the sensor wired to the transmitter. Power cord is not included.

Table 1: Rosemount Fluoride Monitoring System ordering information

Part number	Description
SQP10102-LQD-99SQ11102A	Sample handling system includes constant head flow controller, low flow cell with bubble shedding nozzle, vented 3/4-in. adapter with all necessary tubing and fittings mounted on panel.
56-03-22-38-HT-99SQ14431	Rosemount 56 Transmitter with 4-20 mA output, AC powered ⁽¹⁾ , and configured for single channel ISE sensor.
S10258-LQD-99SQ10353B	Fluoride sensor with integral cable

(1) For DC powered Rosemount 56 Transmitter configured for ISE sensor, order 56-02-22-38-HT-99SQ14431.

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Specifications

Rosemount Fluoride Monitoring System specifications

- Temperature** 42 to 122 °F (5 to 50 °C)
- Flow rate** Minimum flow: 3 gal/hour (11 L/hour)
Maximum flow: 80 gal/hour (303 L/hour). High flow causes the overflow tube to back up.
- Process connection** ¼-in. OD tubing compression fitting (can be removed and replaced with a barbed fitting for use with soft tubing).
- Drain connection** ¾-in. barbed fitting. Sample must drain to open atmosphere.

Table 2: Wetted parts

Part	Material
Sensor body	Ultem (Poly-Ether-Imide)
Sensor junction	HDPE
Sensor membrane	Fluoride sensitive membrane
Flow system	<ul style="list-style-type: none"> ▪ Acrylic ▪ Polycarbonate ▪ Polyester ▪ Kynar® ▪ Nylon ▪ Silicone

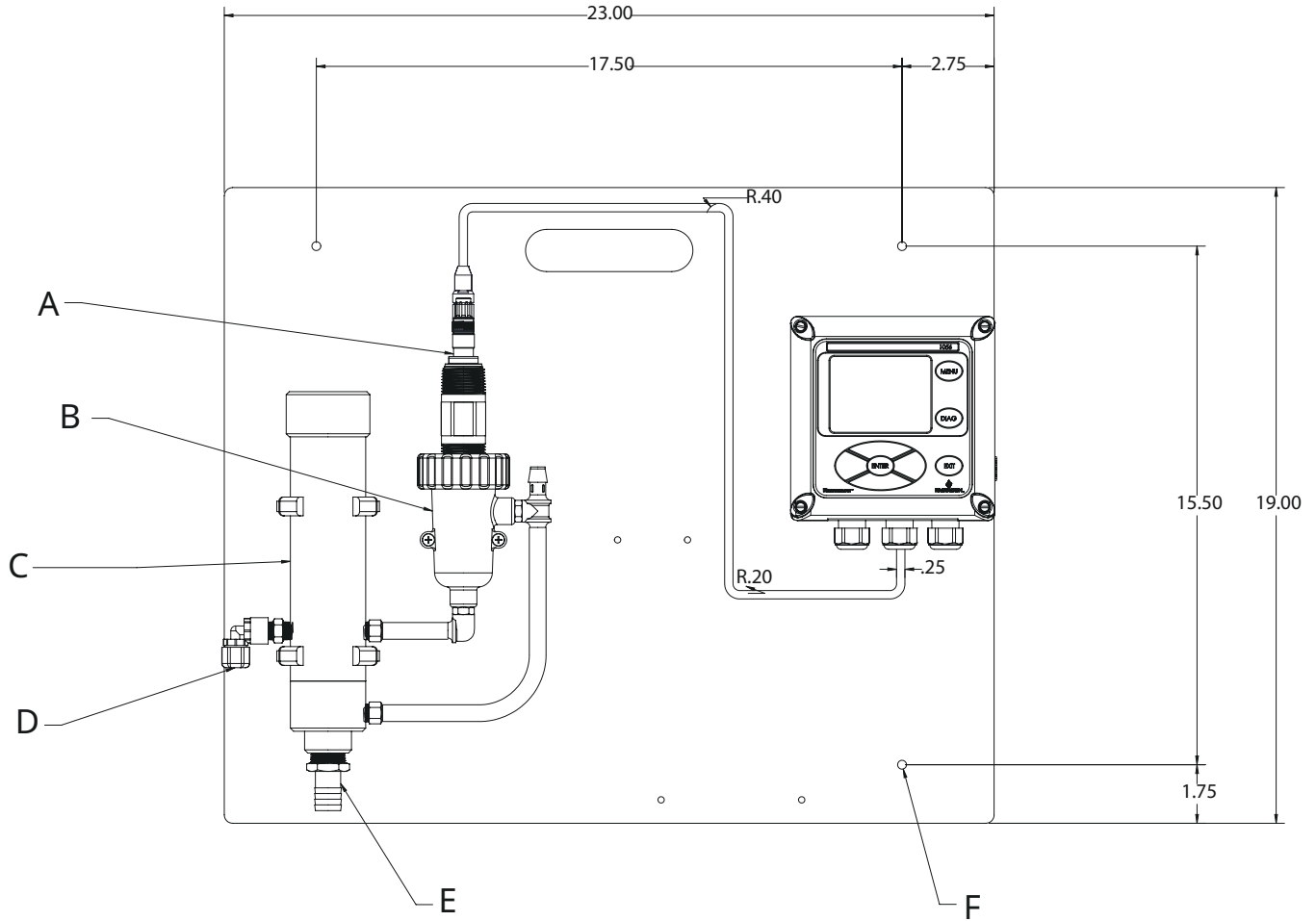
- Sample conductivity** > 50 µS/cm at 25 °C
- Sample pH** 5.5 to 8.5 pH
- Fluoride measuring range** 0.1 to 10 ppm fluoride (lower limit of detection depends on application conditions)
- Accuracy** Accuracy depends on the accuracy of the chemical test used to calibrate the sensor.
- Response time to step change in fluoride concentration** < 80 seconds to 95 percent of final reading for inlet sample flow of 3 gal/hour (11 L/hour)
- Sensor shelf life** 1 year from date of manufacture at room temperature with closed protector cap
- Weight/shipping weight** 10 lb/13 lb (4.5 kg/6.0 kg)

Rosemount 56 Transmitter specifications

Refer to the [Rosemount 56 Transmitter Product Data Sheet](#).

Dimensional drawings

Figure 1: SQP10102-LQD-99SQ11102A drawing with sensor and transmitter mounted



- A. Sensor
- B. Low flow cell
- C. Constant head flow controller
- D. Inlet
- E. Drain 3/4-in. barb fitting
- F. 4X ø.27 thru all

Dimensions in drawing are in inches.

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

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