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# 4. Maintenance

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**Warning:** To avoid hazards to personnel, ensure that all environmental isolation seals are properly maintained.



**Caution:** The flow transmitter contains electrostatic discharge (ESD) sensitive devices. Use standard ESD precautions when handling the flow transmitter. See Chapter 2, Installation, for ESD details.

## Introduction

The flowmeter needs very little maintenance. There are no moving parts or mechanical parts subject to wear in the flowmeter. The flow element that is exposed to the process media is all stainless steel construction with nickel braze. The flow element is only subject to chemical attack based on the corrosion relationship between the flow element sensing point material and process media.

## Maintenance

No specific maintenance steps are made for inspecting, cleaning, or testing procedures without detailed knowledge of the process media components. However, shown below are some general guidelines for maintenance. Use operating experience to set the frequency for each type of maintenance.

**Calibration** - Every 18 months as a minimum, verify the calibration of the flowmeter and re-calibrate if necessary (contact the factory).

**Electrical Connections** - Periodically inspect the cable connections, the terminal strips and the terminal blocks for good connections. Verify that terminal connections are tight and physically sound with no sign of corrosion.

**Enclosures** - Verify that the moisture barriers and seals that protect the local and remote enclosures are in tact.

**Electrical Cables** - Periodically inspect the power cable, flow element cable(s) and output cable. Check for deterioration of the cable's insulation.

**Flow Element Mounting Connections** - Verify that all seals are performing properly and that there is no leakage of the process media. Check for deterioration of the gaskets and environmental seals used.

**Flow Element Assembly** - Periodically remove the flow element for inspection based on historical evidence of debris, foreign matter, or scale build-up. Also the flow element can be removed at appropriate plant shutdown schedules. Check for corrosion, stress cracking, and/or build-up of oxides, salts, or foreign substances. The thermowells must be free of excessive contaminants and be physically intact. Any build-up could cause faulty readings. Clean the flow element as needed with a soft brush and available solvents (compatible with stainless steel).

