



Instruction Sheet UFS-713
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CORROSION MONITOR ASSEMBLY

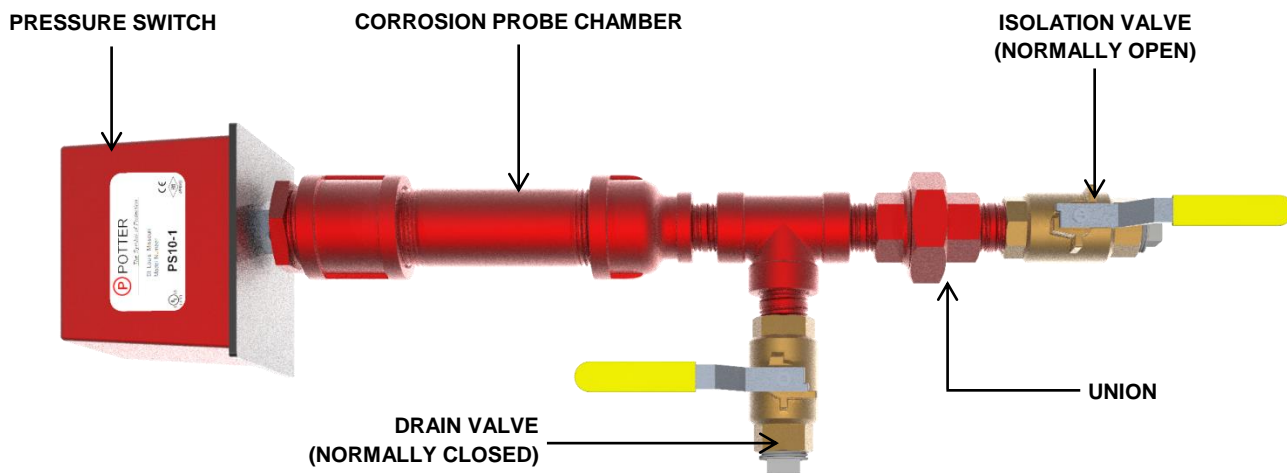


FIGURE 1 – GENERAL ARRANGEMENT

DESCRIPTION

The **UNITED Fire Systems** Corrosion Monitor Assembly, Model CMA-1, is a device for monitoring possible corrosion inside of wet or dry sprinkler system piping. The assembly consists of a corrosion probe within a chamber, a pressure switch, an isolation valve and a drain valve. Under normal circumstances, the corrosion probe keeps system pressure from reaching the pressure switch. When corrosion perforates the probe, system pressure reaches the pressure switch, actuating a signal providing early warning of corrosion inside the sprinkler system piping. The isolation valve allows replacement of the corrosion probe without the need to depressurize the entire sprinkler system, and the drain valve safely vents pressure from within the corrosion probe chamber.

SPECIFICATIONS

| MODEL No. | INLET | OUTLET (DRAIN) | TEMPERATURE RANGE | MAX PRESSURE |
|-----------|----------------|----------------|-------------------------------------|--------------|
| CMA-1 | 1/2 NPT FEMALE | 1/2 NPT FEMALE | -40° F to 140° F (-40°C to 60°C) | 300 PSIG |

| TERMINAL | IDENTIFICATION (see Figure 2) |
|----------|---|
| C | Common |
| 1 | Open under normal circumstances. Closes when corrosion perforates probe and pressure reaches switch. |
| 2 | Closed under normal circumstances. Opens when corrosion perforates probe and pressure reaches switch. |

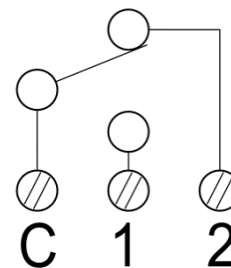


FIGURE 2 – SIGNAL SWITCH WIRING

TECHNICAL DATA

- Pressure Switch Range: 4 – 8 PSIG
- Switch Contact Rating: 10A @ 125/250 VAC; 2A @ 30 VDC

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CORROSION MONITOR ASSEMBLY

INSTALLATION INSTRUCTIONS

1. Determine the installation location of CMA-1 device as follows:
 - a. The device location must not interfere with any sprinkler head spray pattern.
 - b. The device must be installed in a manner so that water cannot become trapped within the device.
 - c. The device orientation should be so that the drain valve faces toward a drain.
2. Figure 3 shows a typical installation in a horizontal sprinkler system pipe (CMA-1 may also be installed vertically)
3. Ensure that no pressure is within the sprinkler system before drilling or cutting pipe:
 - a. For dry systems: Drain supervisory gas from sprinkler system.
 - b. For wet systems: Drain water from sprinkler system.
4. Drill a hole in the pipe for use of a mechanical tee, as shown in Figure 3. Failure to orient the CMA-1 unit as recommended may result in malfunction.
5. Remove temporary plug from CMA-1 inlet and discard.
6. Install CMA-1 unit.
7. (Optional) Connect drain tubing to drain valve. Run drain tubing to a suitable drainage area.

WIRING INSTRUCTIONS

1. Loosen the tamper resistant screw on pressure switch with special key provided. Remove pressure switch cover.
2. Carefully dislodge desired knockout plug from pressure switch (2 available).
3. Run wires through an approved conduit connector and affix the connector to the device.
4. Connect the wires to the appropriate terminal connections for the service intended (see Figure 2).
5. Reinstall pressure switch cover. Tighten tamper resistant screw on pressure switch with special key provided.



All wiring to be performed by qualified personnel and in accordance with all national and local codes and ordinances. Disconnect power source before servicing. Serious injury or death could result.

COMMISSIONING

1. Ensure inlet and drain valves are CLOSED.
2. Return pressure/fill sprinkler system:
 - a. For dry systems: Introduce supervisory gas into sprinkler system.
 - b. For wet systems: Introduce water into sprinkler system.
3. When system is full, gently OPEN inlet ball valve.
4. Inspect the installation for any leaks. Repair leaks if necessary

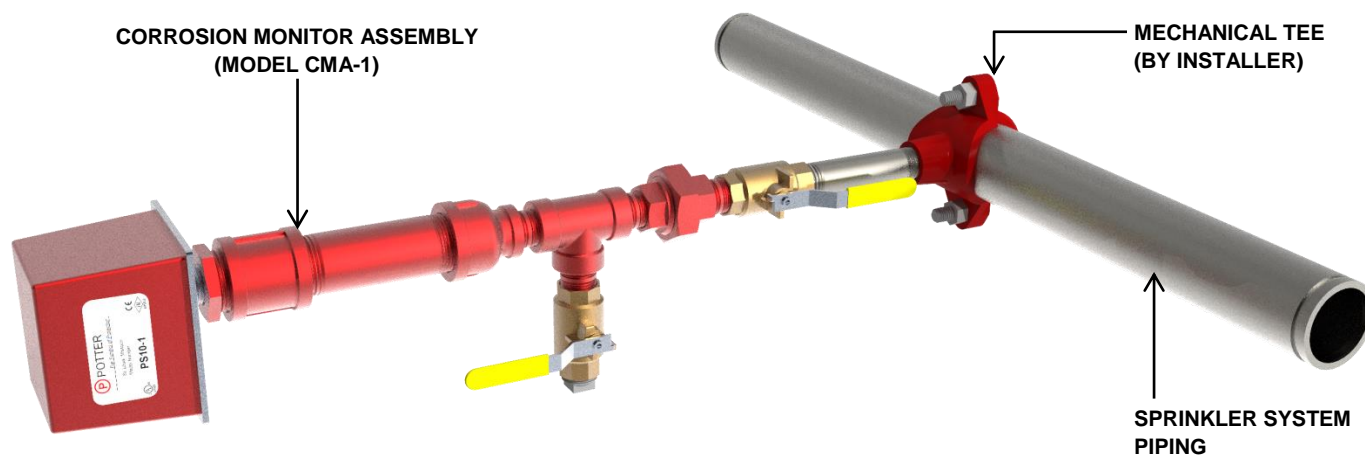


FIGURE 3 – HORIZONTAL INSTALLATION (VERTICAL INSTALLATION NOT SHOWN)

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