

**Features**

- Allows easy access to measured and weighed brass and steel test strips to gauge decay rate without opening or disabling sprinkler system
- Sight glass allows easy viewing of test strips without opening system.
- Suitable for use on wet or dry systems
- Provides convenient location for mounting optional corrosion monitoring probe
- Provides isolation valves to allow testing, water sampling, inspection and replacement without opening or disabling sprinkler system



**Description**

The Model PCMS-RM, is a Corrosion Monitoring Station-Riser Mount consisting of a coupon rack that is installed on fire sprinkler riser to monitor corrosion in a fire sprinkler system. The PCMS-RM is designed to simulate conditions within the fire sprinkler system. The coupon rack can be isolated from the fire sprinkler riser and easily accessed for servicing and monitoring of test specimens (corrosion coupons) without interruption to fire protection. Test material strip specimens (corrosion coupons) are installed into the coupon rack using coupon holders. The PCMS-RM can be used on wet or dry pipe systems.

The optional PCMPK-1 contains a corrosion monitoring probe and pressure switch that provides notification to the fire/sprinkler administrator when there may be an excessive amount of corrosion taking place in the sprinkler piping. The corrosion monitoring probe has a precision thin wall thickness which will eventually corrode through, allowing the system pressure to enter into the probe and actuate the pressure switch. When the pressure switch is wired to the building fire alarm panel, a trouble or supervisory signal is generated notifying the fire/sprinkler administrator. This is the notification to remove the test coupons that were installed at the same time as the probe, for analysis on the condition of the sprinkler piping. The corrosion monitoring probe is a single use device and must be replaced upon the installation of new test coupons.

The CPRTK2-Coupon/ Probe Replacement Test Kit contains the necessary components to remove, replace, and forward for analysis, test coupons, and water sample from a PCMS-RM.

**Note:** The probe is not for analysis. It allows the fire sprinkler administrator to leave the coupons in the system until the probe activates the pressure switch.

**Technical Specifications**

Service Pressure	Up to 250 PSIG
Temperature Range	40°F to 120°F (4.5°C to 49°C)
Coupon Holders	Qty. (2) included

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## **Installation** (See Fig. 1)

1. The PCMS-RM is assembled in two sections to be joined by the attached 1" union, to allow for quick installation. Install the unit on the system side of any control valve. Install the unit in the vicinity of the riser, when it is installed on a main horizontal feed.
2. The contractor shall supply and install a 1" NPT female connection to the sprinkler system riser or supply main (as determined by the engineer or designer).
3. Using the lower 1" union connection pointing in the up position, connect the lower, sub-assembly section with the isolation and drain valve to the previously installed 1" NPT male connection. NOTE: Install this sub-assembly in a horizontal and level position. Make sure that the isolation valve is in the closed position.
4. Attach the upper coupon rack sub-assembly section union to the previously installed lower section union and tighten union fitting. The product labels and sight glass shall be visible in the installed position.
5. The contractor shall verify that the corrosion monitoring station has the appropriate coupons/probes (as required by the engineer or designer). Verification shall be made by viewing the coupons/probes through the sight glass end of the PCMS-RM corrosion monitoring station.

**Note:** The corrosion monitoring station shall be installed in a horizontal and level position. It may be necessary to exchange the location of the sight glass and the blank end cap so the inside of the coupon rack is visible through the sight glass for the PCMS-RM.

### ***Placing the PCMS-RM in Service on a Wet Pipe System***

1. With the coupon rack isolation valve closed to the system, and the coupon rack drain valve closed and plugged, pre-charge the coupon rack with air through the air inlet isolation valve to approximately  $\frac{1}{2}$  the system water pressure.
2. Open the coupon rack isolation valve and check the water level in the coupon rack through the end sight glass. For wet systems which have a vent installed, to removed trapped air per NFPA requirements, relieve air pressure to allow monitoring station to fill with water simulating a sprinkler system filled with water. For wet system which do not have air vents installed, to relieve trapped air, relieve air pressure to allow station to be  $\frac{3}{4}$  or more filled with water to simulate trapped air pockets.

**Note:** Add additional air through the air inlet isolation valve to lower the water level or relieve air to raise the water to the correct level.

3. Close the air inlet isolation ball valve after the correct water level has been maintained.

### ***Placing the PCMS-RM in Service on a Dry Pipe System***

1. Close the air isolation valve. Open the coupon rack isolation valve. Verify monitoring station is not filled with water through sight glass. On dry systems, only a small amount of water from flow testing should be allowed in the bottom of the corrosion station, simulating filling and draining with trapping of minimal residual water.

### ***Notes:***

- Be sure to leave the coupon rack isolation valve open to the fire sprinkler system. Verify that all valves are in the correct position and the corrosion monitoring station is free of any leaks.
- Fill out the coupon envelopes being sure to note installation date. Retain envelopes to be returned analysis after required amount of time or when the optional PCMPK-1 probe activates the pressure switch.

Fig 1

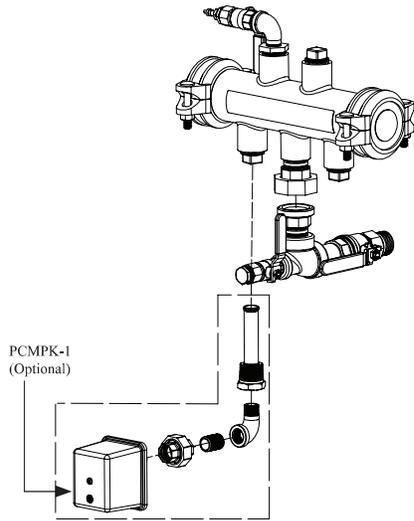


Fig 2

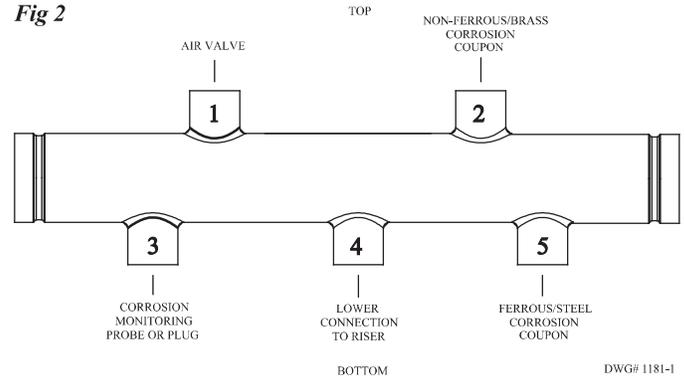
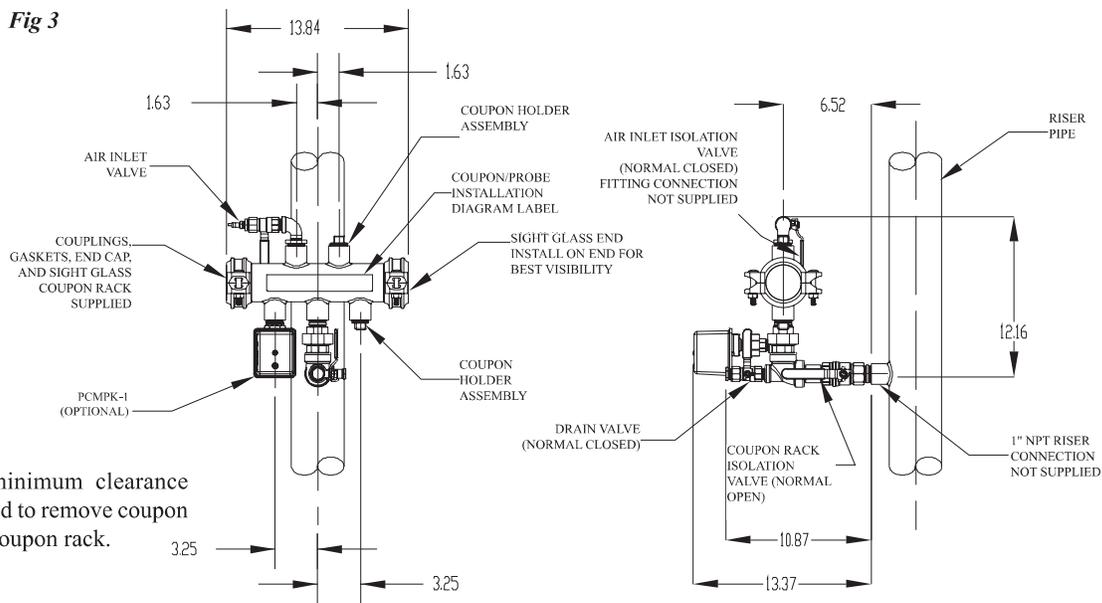


Fig 3



**Note:** 3½" minimum clearance height required to remove coupon holder from coupon rack.

## Ordering Information

Model	Description	Stock No.
PCMS-RM	Potter Corrosion Monitoring Station-Riser Mount for Wet or Dry Pipe Sprinklers	1119546
	Replacement Coupon Holder Assembly	1119670
CRTK-2	Coupon Replacement Test Kit	0090173
CPRTK-2	Coupon/Probe Replacement Test Kit	0090177

Model	Description	Stock No.
PCMPK-1	Potter Corrosion Monitoring Probe Kit	0090180
RBVS	Retrofit Ball Valve Switch	1000065
	Cover Tamper Switch Kit for RBVS	0090224