

### **DPCMS-RM DRY POTTER CORROSION** MONITORING STATION-RISER MOUNT



Patent Pending (Shown with optional PCMPK-1)

The Model DPCMS-RM is a Corrosion Monitoring Station-Riser Mount consisting of a coupon rack that is installed on a dry pipe fire sprinkler riser to monitor corrosion in a dry fire sprinkler system. The DPCMS-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 by the use of coupon holders.

The optional PCMPK 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 air 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, the corrosion monitoring probe and test coupons from a DPCMS-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.

#### Coupon Rack Installation: (See Fig. 1)

Install the end caps with the rigid grooved couplings and gaskets provided onto the ends of the Coupon Rack. The product labels

Service Pressure: Up to 175 PSIG Temperature Range: -40°F to 120°F (-40°C to 49°C) **Coupon Holders:** Qty. (2) included **Ordering Information** Stock number: 1119547 DPCMS-RM (Dry) **Replacement Kits** Stock number: 1119670 Replacement Coupon Holder Assembly 0090173 CRTK-2 Coupon Replacement Test Kit 0090177 CPRTK-2 Coupon/Probe Replacement Test Kit **Suggested Options:** 

0090180	PCMPK-1 Potter Corrosion Monitoring Probe Kit
1000040	RBVS Retrofit Ball Valve Switch (w/o cover tamper)
1000035	RBVS-T Retrofit Ball Valve Switch (w/ cover tamper)

should be visible and in proper orientation on the outside edge of the coupon rack.

- 2. Assemble the trim in accordance with the drawing provided in Fig. 1 of this document. The trim can be assembled on the DPCMS-RM components at any time during the installation process. Be sure to properly position all of the components.
- 3. Install the Coupon Rack Assembly in a horizontal and level position with a 1" NPT connection to the sprinkler riser. The product labels must be easily visible in the installed position.

The unit shall be installed on the system side of any control valve. When installed on a main horizontal feed, it shall be installed in the vicinity of the riser.

#### **Corrosion Coupon Installation** (See Fig. 1, 2, 3, & 4)

- Take care not to touch the coupons by using the latex gloves provided. 1
- Assemble all corrosion coupons on to the coupon holders as shown 2. in Figure 2.
- 3. Attach coupon to holder with the supplied nonconductive screw and nut. Follow the instructions provided with coupon.
- Install the Coupon Holder Assemblies-quantity (2) in the 4. recommended 1" NPT outlet fitting on the coupon rack assembly, as indicated in Figure 4 or the label on the coupon rack assembly.
- 5. Open the coupon rack isolation valve. 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.
- 6. Fill out the coupon card completely for the coupon analysis. Forward the coupons and completed card to the coupon supplier after the required amount of time or when the optional PCMPK-1 probe activates the pressure switch.

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#### Fig. 1 DPCMS-RM Assembly

Item Number	Description	Quantity
1	Coupon Rack-Riser Mount	1
2	Coupon Holder Assembly-2 1/2"	2
3	Corrosion Coupon (Steel)	2
4	Plug-1" (Cast Iron)	2
5	Coupling-2 1/2" Grooved Rigid	2
6	Cap-2 <sup>1</sup> / <sub>2</sub> " Cap Grooved	2
7	Union-1" (Cast Iron)	1
8	Elbow-1" Female x Female (Cast Iron)	1
9	Nipple-1" Close (Steel)	3
10	Nipple-1" X 2 <sup>1</sup> / <sub>2</sub> " (Steel)	1
11	Valve-Ball 1" (Brass)	1
12	PCMPK-1 (Optional)	1

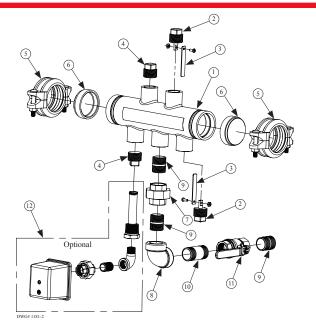


Fig. 2 Corrosion Coupon Holder Assembly

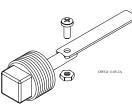
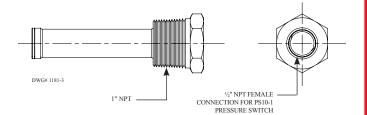


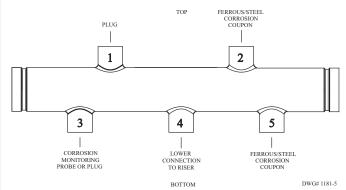
Fig. 4 Corrosion Coupon/Probe Installation Diagram

# **A**CAUTION

Outlets are provided for the most common system sprinklers. These sample sprinklers are installed ONLY when their operation will not interfere with the operation of system fire sprinklers. The operation of test sprinklers could delay or prevent operation of system sprinklers.



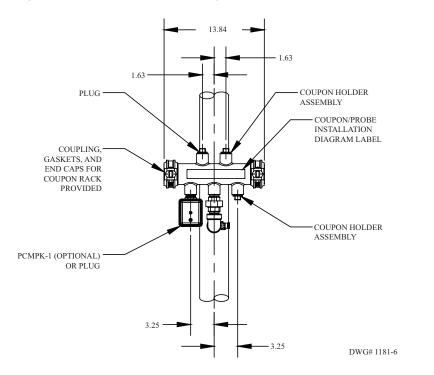


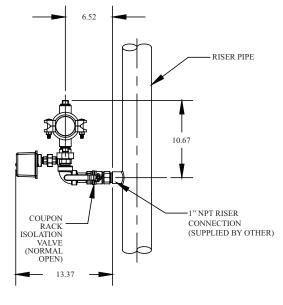




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### Fig. 5 DPCMS-RM Outline Drawing





*Note:* 3<sup>1</sup>/<sub>2</sub>" minimum clearance height required to remove coupon holder from coupon rack.

# CAUTION

Do not inject any corrosion inhibitor directly into the DPCMS-RM as the inhibitor could adversely effect the ability of the coupons and probe to provide an accurate assessment of the condition of the sprinkler system.

Close the DPCMS-RM isolation valve when injecting inhibitor. Open the isolation valve when the injection of the inhibitor is complete.