

Remote Dry Contact Monitor

Installation Manual



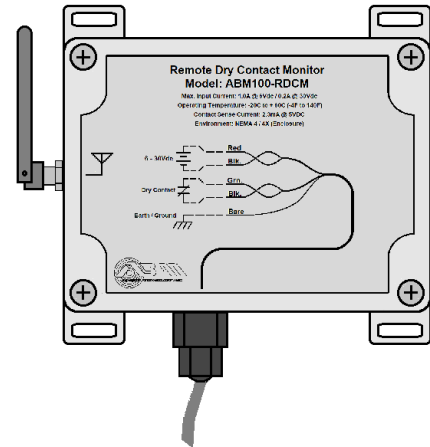
730 The Kingsway Peterborough, ON K9J6W6 Canada
Tel: (705) 740 — 2010 Web: www.abmsensor.com
Fax: (705) 740 — 2563 E-mail: info@abmsensor.com

A – Introduction

This manual describes the requirements to successfully install the Remote Dry Contact Monitor (RDCM).

The RDCM is designed to monitor a single dry relay or switch contact and reports its status to the ABM Sensor Access server. Users can login to the ABM Sensor Access server to configure their RDCM, view alarm history and setup emails to receive alarm messages.

The RDCM provides a “heartbeat” measurement every 12 hours by default when no alarm conditions have been detected. If an alarm condition is detected and reported to the server, the heartbeat timer is reset. The purpose of the heartbeat measurement is to provide regular health status of the RDCM. The heartbeat timer can be configured from 1 hour to 12 hours through the Sensor Access Website <https://sensor.abmsensor.com/login.php>.



B - Requirements

Cellular Network

The key to reliable RDCM operation is suitable cellular phone network access. Urban and developed areas typically provide excellent cellular signal strength. However, for installations where the cellular signal is weak, it is recommended that the installer determine an optimal mounting location by using a cell phone display to assess the signal strength.

The antenna cable allows the antenna to be mounted at a higher location for improved signal strength while the RDCM can be mounted in a more sheltered or accessible area.

Power Supply

The RDCM requires an input supply voltage of 6 to 30Vdc. Peak power is 6W (1A at 6V down to 0.2A at 30V). This peak only occurs for a very short period during cellular transmissions. Otherwise, power consumption is very minimal.

Environmental

The RDCM is designed for operation over the temperature range of -40°F to +140°F (-40°C to +60°C).

The RDCM enclosure is rated for NEMA 4/4X ingress protection – suitable for exposed outdoor applications.

If installed outdoors and unsheltered, the RDCM must be mounted vertically, such that the wiring exits from the bottom and the antenna from the left side, to prevent a build up of water, snow or ice around the cable glands or the antenna (SMA connector). The mounting feet may be relocated to the sides of the enclosure (rather than the top and bottom as shown in the illustration below) to allow mounting flexibility.

Remote Dry Contact Monitor

C - Installation:

Wiring Configuration

The RDCM is supplied with a 6ft long pigtail cable, consisting of two #24AWG pairs of wires:

- Red/Black for the 6-30Vdc power supply input
- Green/Black for the dry contact connection

A typical installation requires a junction box with three or more cable entries – assuming the dry contact and power supply are connected through separate cables – and an earth/ground connection for the RDCM cable shield.

If either the dry contact or its cable is physically located near electrical noise sources such as motors, motor drives, etc., it is recommended that its cable be shielded, with its drain wire connected only to the earth/ground point in the junction box.

The following diagram illustrates the wiring of a typical installation.

