

## EVM-DDSM

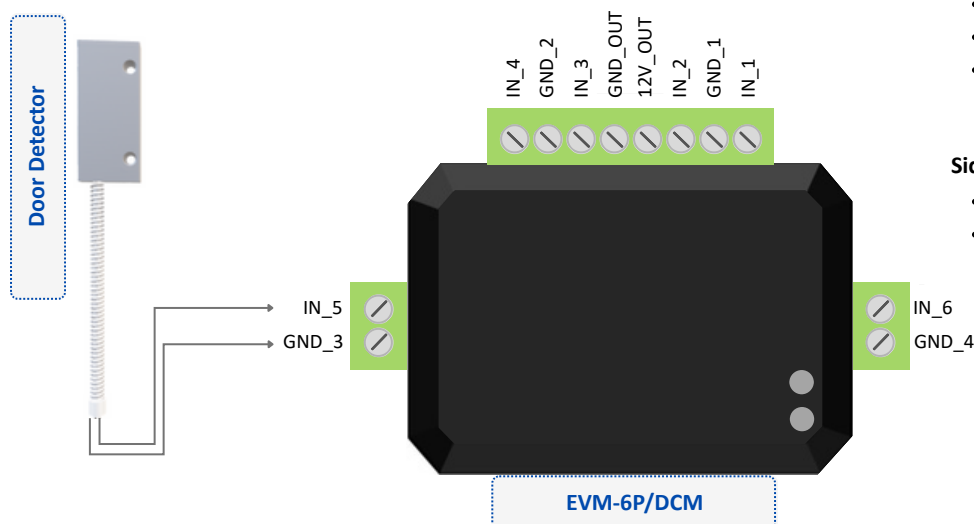
### Door Detector

#### Sensor Description

The magnetic contact sensor is designed to detect the open or closed status of doors, cabinets, or enclosures by monitoring the magnetic field between the sensor body and its corresponding magnet. When the magnetic field is disturbed, such as when the door is opened, the sensor sends a signal indicating a change in the state (open/closed) to the monitoring system.



#### Connecting the EVM-DDSM to the PDU



#### Top Terminal Block:

- IN\_1 and IN\_2 share the GND\_1 terminal.
- IN\_3 and IN\_4 share the GND\_2 terminal.
- 12V\_OUT and GND\_OUT provide power for external sensors.

#### Side Terminals:

- IN\_5 works with GND\_3.
- IN\_6 works with GND\_4.

#### Step 1

Connect a dry contact sensor such as EVM-DDSM to the module, follow the steps below:

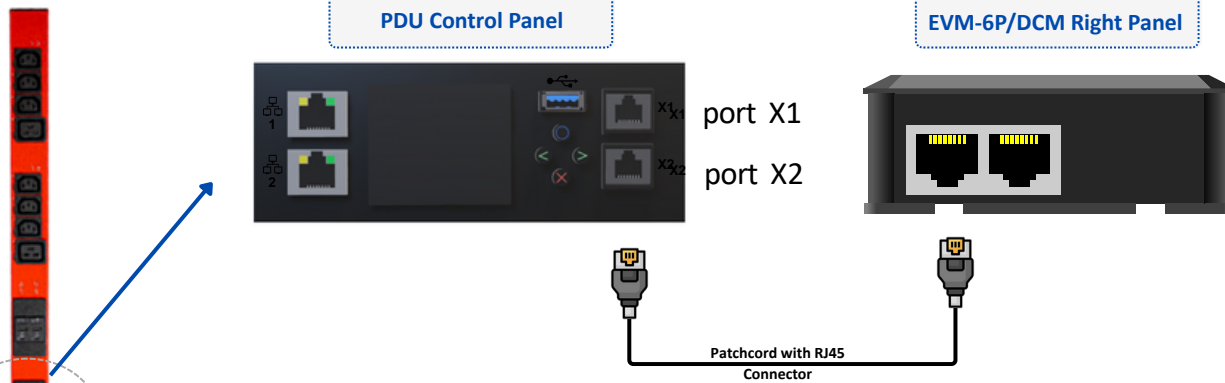
1. Determine an available input (IN\_x) port on the module.
2. Connect the sensor's dry contact output to the selected IN\_x terminal.
3. Connect the sensor's common (COM) or ground terminal to the corresponding GND terminal listed in the terminal block diagram.

**⚠** It is essential to use the correct GND terminal that matches the selected IN\_x port. Otherwise, the input will not function correctly.

#### Example:

If you choose to use IN\_5, connect:

- Sensor contact output → IN\_5
- Sensor COM/GND → GND\_3



## Step 2

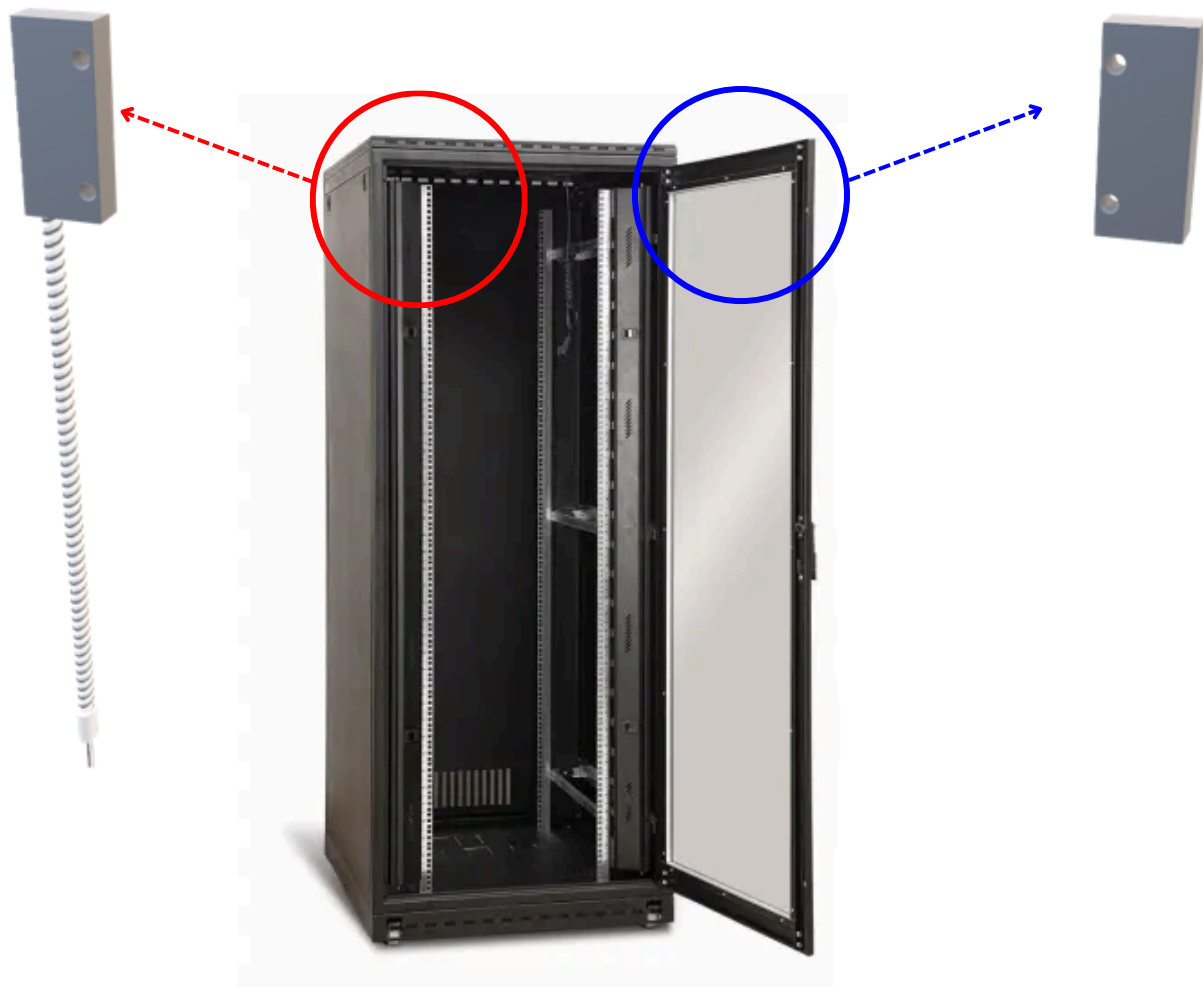
- Before connecting the dry contact module to X2 of the PDU, make sure to set the voltage level to 12V in the 'Internal Sensor Voltage Levels' section of the PDU's web interface. X1 is fixed and provides a default output of 3.3 V. This value is not user-configurable.




- The RJ45 port of the EVM-6P/DCM Module is connected to the X2 port of the PDU control panel using a standard Ethernet (RJ45) cable. Connection to the X2 port is recommended due to its appropriate voltage level.
- Once the system is powered on, the open/closed status of the door sensor can be monitored in real time via the PDU interface.


## Mounting the EVM-DDSM


- Mounting Surface Requirement:** The sensor body must be securely mounted on a stable surface, such as a door frame. The magnet component should be affixed to the movable part of the door, ensuring proper alignment for accurate detection.
- Alignment Accuracy:** Ensure the sensor and magnet are positioned with the recommended gap not exceeding the specified tolerance (typically  $\leq 10$  mm). Proper alignment is essential for reliable detection performance.
- Orientation Guidelines:** Both components (sensor and magnet) must be mounted in parallel alignment, ensuring no lateral displacement. Misalignment can result in false triggers or failure to detect the door's status.
- Mounting Method:** Use the appropriate mounting solution, such as adhesive pads or screws, based on the surface material and environmental conditions. For applications in high-vibration environments, mechanical fastening (screws) is recommended to ensure secure attachment.
- Wiring Considerations:** Route the sensor cable along the door frame or a designated cable tray. Ensure the cable is not bent sharply, stressed, or exposed to potential sources of mechanical interference that could affect signal integrity.





- **Magnet:** Installed on the moving part (e.g., door or window).
- **Sensor:** Mounted on the fixed frame to detect changes in the magnetic field.

 The sensor is for indoor use only. Avoid installing it in high humidity, dusty, or condensation-prone areas without additional protection.

 Regularly check the sensor and magnet alignment. Ensure the gap remains within the specified tolerance to avoid false detection.

 Do not apply excessive force during door movement. Mechanical stress may damage the sensor or affect detection reliability.

 After installation, test the sensor by opening and closing the door to ensure it correctly detects state changes.

 Secure the sensor's cable and protect it from vibrations or movement to prevent disconnections or damage.