SCAN FOR MANUAL

RiserTeQ
FIRE TECHNOLOGIES

RMR Valve Monitor – GEN II

WIRING DETAILS V25.1.EN

WARNING: Always disconnect all power supplies before opening the RMR box and working on any system wiring.

This manual does not show how to mechanically install the RMR into the sprinkler piping system.

This manual for the GEN II Version only is to show different methods of wiring and signal implementation, it is assuming the manifold has first been installed correctly to the sprinkler piping system with brackets where required to avoid any movement.

Stripping of the cable must be done correctly according to manufacturer's details and cable glands tightened once the termination has been made to give the IP54 rating.
Please ensure there is sufficient flex in the cable to avoid strain being put onto the termination connectors.

All RiserTeQ products use Prysmian FP200 cable.

RMR Functionality

This device is designed to be versatile, and is capable of multiple configurations to suit different installations. There are two completely independent modules; ZONE and ZONE2. Typically, ZONE2 is only used where a multiple zone configuration is required.
Three examples are given, but other methods may be used according to the installation's needs.
Resistor values are not given, because these will vary between panel manufacturers and other installation requirements.

Installation must be carried out by a competent person.
If there is any doubt regarding any points covered in this manual, then please speak to a RiserTeQ representative before carrying out any work.

WARNING: While every effort has been made to ensure that the information contained within this document is correct, RISERTEQ Ltd makes no guarantee for completeness or accuracy.
RISERTEQ Ltd reserves the right to change product specifications, designs and standard equipment without notice and without incurring obligation.

Installation Option 1

Single zone (Simple installation)

Step 1:
Install a suitable resistor to the **HANDLE_R** (tamper) position.
Install a suitable resistor to the **FIRE_R** position.

Resistor blocks on the board can be removed to assist with Resistor installation. Ensure they are replaced in the same orientation and location.

Step 2:
Wire the RMR as per the **Diagram A** below

Normal state
No fault is indicated on the Fire Panel when the Tamper Switch/ valve handle is in the open position. The resistance value fitted to the HANDLE_R block is seen.

Tamper state
If the Stop Valve is not fully open, no resistor value will be seen as the panel. This will be indicated as a fault at the Fire Panel.

Flow Activation state
If water passes through the flow switch at a sufficient rate to activate the switch, the FIRE_R resistor is connected, and the Fire Panel will indicate accordingly. Note that the Fire Panel will require a manual reset after the flow stops.

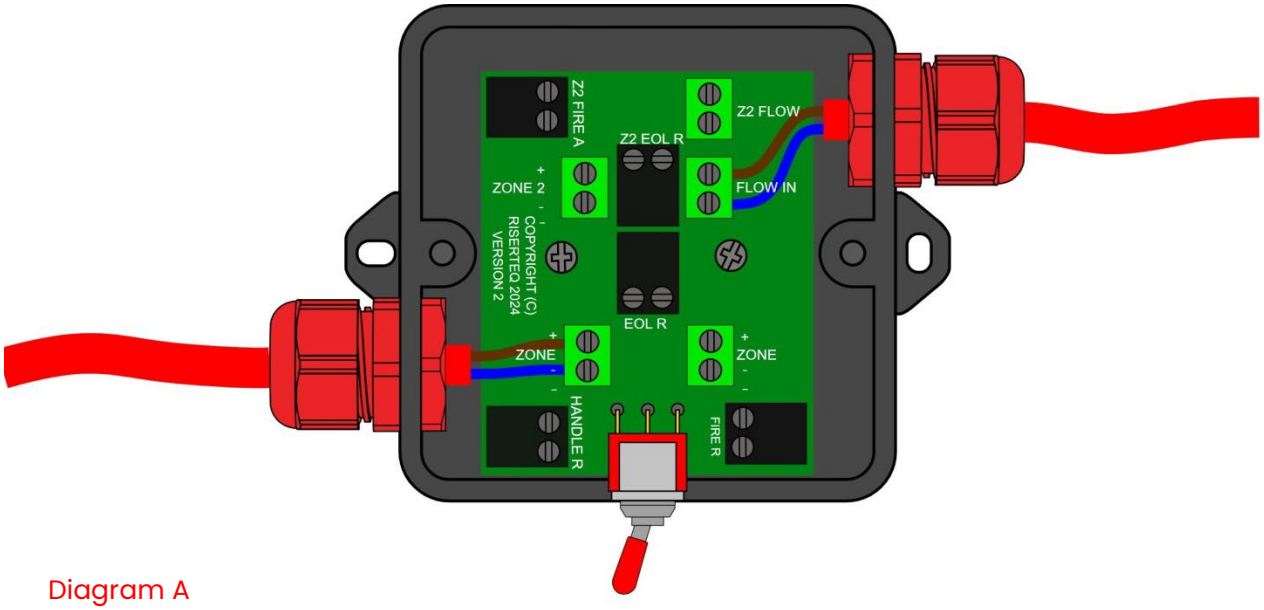


Diagram A

Installation Option 2

Single zone (full installation).

Step 1:

Install a suitable resistor to the **HANDLE_R** (tamper) position.
Install a suitable resistor to the **FIRE_R** position.
Install a suitable resistor to the **EOL_R** position.

Resistor blocks on the board can be removed to assist with Resistor installation. Ensure they are replaced in the same orientation and location.

Step 2:

Wire the RMR as per the **Diagram B** below

Normal state

No fault is indicated on the Fire Panel when the Tamper Switch/ valve handle is in the open position. The resistance value fitted to the HANDLE_R block is seen.

Tamper state

The EOL_R resistor is connected and the HANDLE_R resistor is disconnected if the Stop Valve is not fully open. This will be indicated as a fault at the Fire Panel.

Flow Activation state

If water passes through the flow switch at a sufficient rate to activate the switch, the FIRE resistor is connected, and the Fire Panel will indicate accordingly. This will be in addition to either the EOL_R or HANDLE_R resistor depending on the position of the handle. Note that the Fire Panel will require a manual reset after the flow stops.

Disconnected state

No resistance is seen by the panel. This allows wiring breaks to be identified.

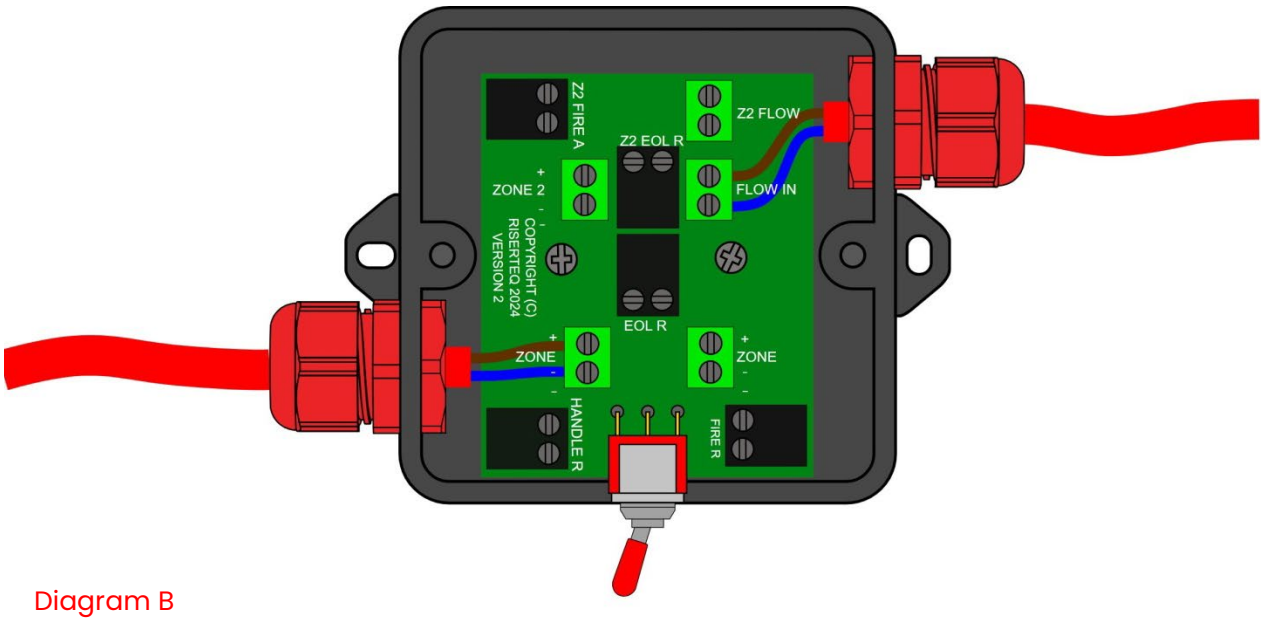


Diagram B

Installation Option 3

Independent Dual zone installation

For Zone1:
Install a suitable resistor to the HANDLE_R (tamper) position.
Install a suitable resistor to the EOL_R position.

Additional for Zone2:
Install a suitable resistor to the Z2_FIRE_R position.
Install a suitable resistor to the Z2_EOL_R position.

Resistor blocks on the board can be removed to assist with Resistor installation. Ensure they are replaced in the same orientation and location.

Wire the RMR as per the **Diagram C** below*
*Ensuring the flow switch is connected to Z2_FLOW.

Normal State ZONE
No fault is indicated on the Fire Panel when the Tamper Switch/ valve handle is in the open position. The resistance value fitted to the HANDLE_R block is seen.

Normal State ZONE 2
The resistance value fitted to the Z2_EOL_R block is seen.

Tamper State
The EOL_R resistor is connected and the HANDLE_R resistor is disconnected if the Stop Valve is not fully open. This will be indicated as a fault at the Fire Panel.

Flow Activation State
If water passes through the flow switch at a sufficient rate to activate the flow alarm, both the Z2_EOL_R and the Z2_FIRE_R resistor is connected in parallel, so the Fire Panel ZONE 2 will see the values according to Ohms law **Rt=(R1∗R2)/(R1+R2)**.
Because this is in ZONE 2, it acts independently of the HANDLE_R (tamper) state in ZONE.
Note that the Fire Panel will require a manual reset after the flow stops.

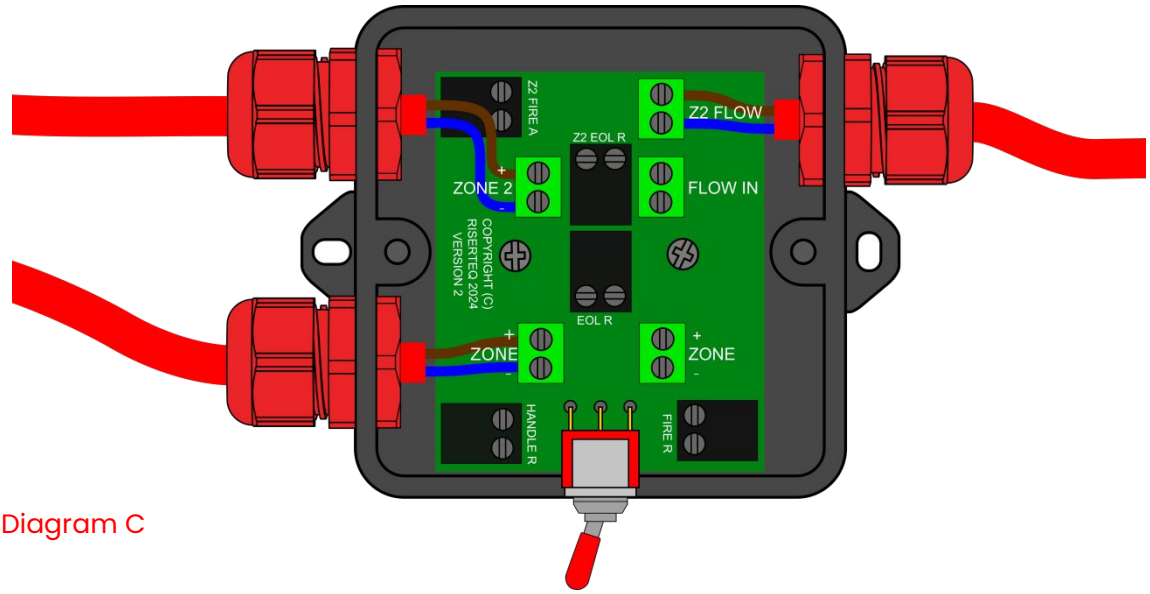
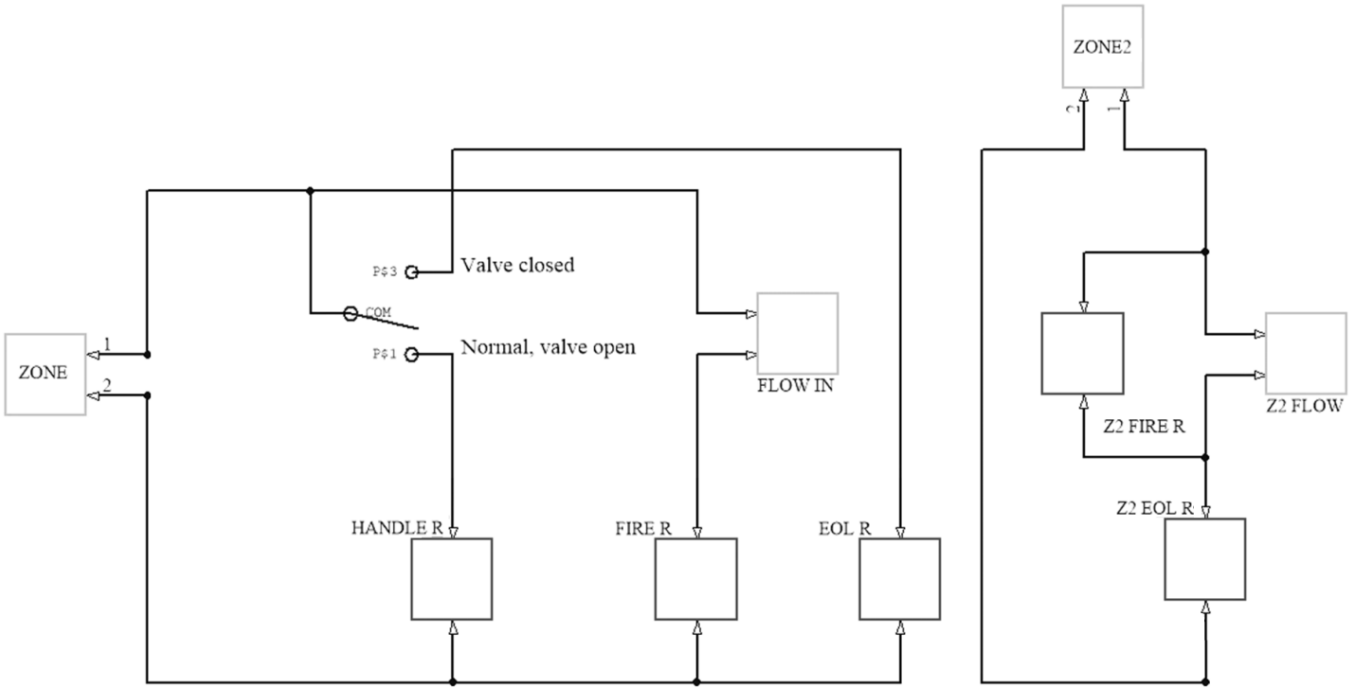


Diagram C

Schematic



WARNING:

Please ensure that terminals are not over tightened as this could damage the board.

Please ensure there is no strain left on the cables after tightening the Cable Glands.

No electrical load can be applied to any of the circuits.

If using a Priority Demand Valve contact our sales team to discuss relay options.