

Multi-purpose wiring centre

ORC-WC-8 V1.1



Contents

- ORC-WC-8 item list 1
- Description of use 2
 - Brief overview 2
 - Underfloor Heating Control 2
- Mounting..... 2
 - Cable entry 2
- Optional Extras** 3
- Connections 3
- Troubleshooting / FAQ..... 4
- Warranty 5

ORC-WC-8 item list

1x ORC-GW44208-UNF



3x ORC-WAGO-5WAY



2x ORC-BR-RELAY



1x ORC-8SS-RELAY-12V-HL



- 1x Din rail (300mm)
- 4x Screws
- 1x Manual

Description of use

Brief overview

ORC-WC-8 is designed to operate up to 8 No. zones (Solid state relay/s) triggered by 8x digital inputs (0-10V).

The ORC-WC-8 allows the use of different voltage inputs for the 8 No. SOLID STATE Relays. The COMMON input allows 12, 24 and 230V common voltage.

Underfloor Heating Control

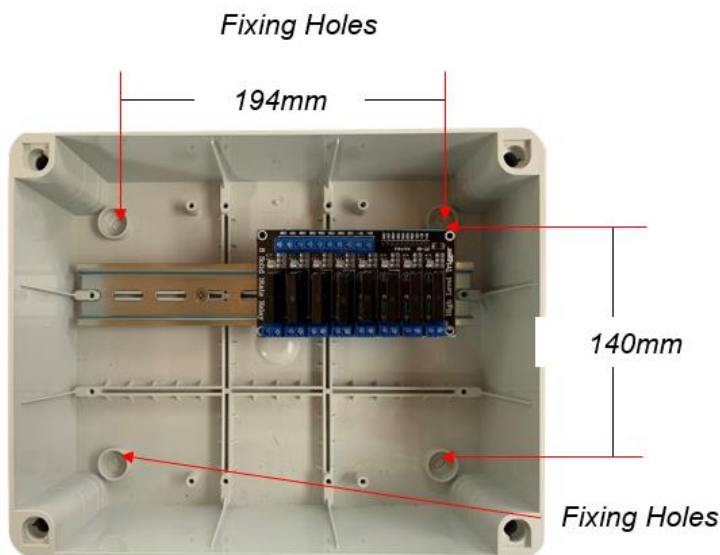
ORC-WC-8 can be used to operate the options below:

Option 1	6No. zone Solid State relay outputs	1No. HIU	1 No. Pump
Option 2	7No. zone Solid State relay outputs	1No. HIU	**
Option 3	7No. zone Solid State relay outputs	*	1 No. Pump
Option 4	8No. zone Solid State relay outputs	*	**

* HIU will be triggered by other means or products

** Pump will be triggered by other means or products

Mounting



Cable entry

Depending on site installation please ensure cables are installed into the IP65 enclosure correctly. For example Cable glands can be used to keep water tight installation.

Not supplied

*Cable glands are recommended to ensure cables are tight on entry
Available in different sizes and design*



Optional Extras

Optional Din Rail terminal connectors to assist in termination if installation required.

The DIN rail installed is 300m x 35mm x 7.5mm



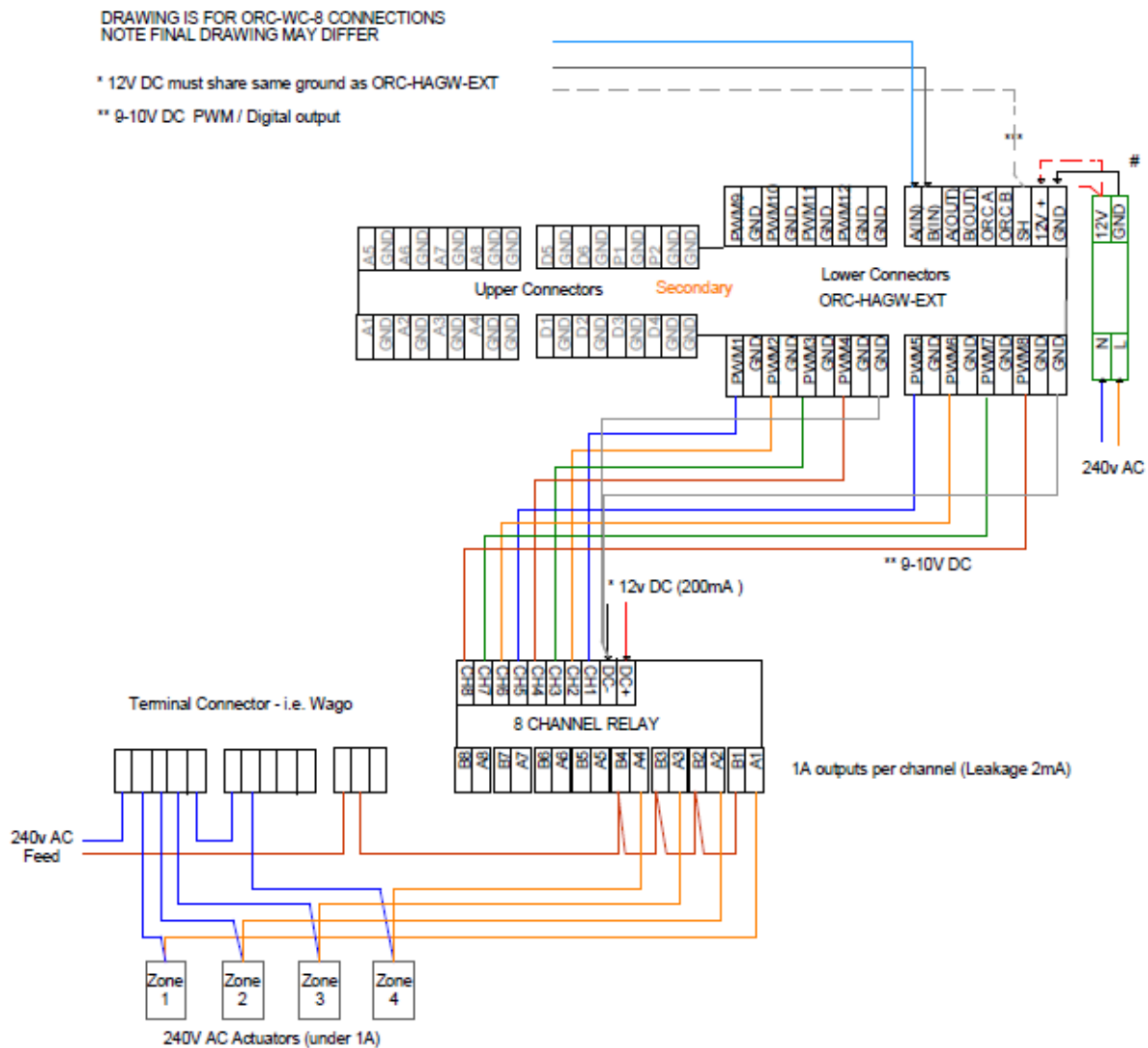
8-way example



12-way example

Connections

Drawing represents a quick overview of connections using terminal connections and 240V AC actuators



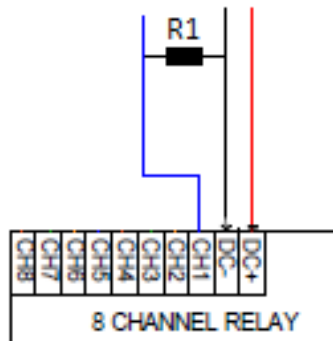
NOTE:

ORC-HAGW-EXT has multiple variations.

Example If using ORC-HAW-EXT-C then a resistor will be required across each Channel input used and GND to ensure the voltage exceeds minimum requirement for triggering.

The relay / output may be constantly active if the resistor is not installed correctly.

R1 typically 800 ohms 1/5W using cat5 between HAGW-EXT and ORC-WC-8



The resistor installed can be changed to suit installation, including variable distances between the ORC-HAGW-EXT and ORC-WC-8.

Troubleshooting / FAQ

Q: None of the outputs will activate.

Is there a load/actuator connected to output, without the load the solid state relay will not operate correctly.

Is there 12V DC constantly at the input to allow system to work.

If you put a temporary link across 12V DC + and CH1 – does the solid state relay activate. If YES, then the GND might be missing

from PSU to ORC-HAGW-EXT. If No then the unit does not have 12V DC available with current. Check cables and double

connections to assist in more power for Main board

Q: Zone 1 on the system is triggering Zone 8

Note: the CH inputs may read form right to left. On the board is indication of Output Channel as well as Input channel. Make sure

these correspond to your requirements.

Q: The actuator does not operate.

Note some actuators take time i.e. 2 minutes before fully open.

Check the power feed is correct for actuator, if YES check actuator works correctly, bypass board by connecting feed directly to

actuator

Q: What is the leakage from the output

(2mA @ 200VAC) is typical with output voltage drop of RMS 1.6V Max

Q: Can we install 24V AC actuators

Yes – please ensure there are no links between 240V and 24 V

Q: Can you install more than 1 actuator to a zone.

Yes – ensure the load does not exceed the relay board (typically 1 or 2A)

Warranty

Warranty: Orcomm provides warranty for this product against defects due to workmanship or materials but does not cover damage or breakdown due to; normal wear, abuse, improper maintenance, disassembly of parts, scratches to the finish (Normal Wear) attempted repair, natural disaster and force majeure. The warranty excludes, among other items; installation, providing access to products and special incidental and consequential damages. (Loss of revenue / profits, damages to property or miscellaneous cost not previously mentioned). Subject to the conditions as set forth by the "Conditions of warranty" and set forth hereunder, the purchaser receives the RTB warranty for the applicable period of 2 years. Conditions of warranty: This warranty covers products within their intended or normal use as by the following: Operation conditions are in accordance with the information on the product, datasheet and its packaging. The warranty periods start from the date of invoice. The products have been properly installed and operated in accordance with the manufacturer's instructions. Adequate records of operating history are retained and available to the manufacturer for review. We will have access to the defective product, if the product or other components become suspect, then we have the right to evaluate the lighting system with the assistance of a third party.

Ambient temperatures never exceed the operation temperature range of -10°C to +40°C Relative humidity in the installation location never exceeds the range of 20% - 85% RH Product are not subjected to more than 50,000 switched cycles. The electrical installation in which the product operates is not subjected to voltage fluctuations in a range exceeding 230 VAC +/- 10%. Labour cost for installation or de-installation of the products are not covered under this warranty. Orcomm cannot be held liable for electrical supply conditions, including spikes, over / under voltage and ripple current control systems that are beyond the specific limits of our products and those defined by relevant installation and environmental standards.

Warranty claims: Warranty claims have to be reported to Orcomm within 20 days of discovery, specifying the following information. Part code, batch number, installation date, number and percentage of failures, application, hours used and estimated number of cycles. Maintenance of devices: Keep the surface clean with a dry cloth or appropriate cleaner containing no acids, benzene, thinners, or solvents. The use of the above may cause damage to the casing or the surface finish / colour. Failure to follow these directions could invalidate all warranties.

Returns policy: Return shipping even if the item is defective should be paid for by the buyer. We do not provide any refunds as per our terms of sales. Full details of returns are covered in our standard terms of sales agreed to upon account opening. Operation and further information: Full operation and user manuals are available from downloads.orcomm.co.uk

Support and aftercare: In the event of support or aftercare please email: support@orcomm.co.uk or call 01923 851890 option 2