MOUNTING

The **EV-240V MRA** may be mounted in any suitable electrical box. Terminal blocks complying with the EC Low Voltage Directive must be used when 120V ac and 240V ac voltages are used. A warning label must be fitted to the electrical box and EV-OP when mains voltages are used.
In all 24V dc and 24V ac applications, all unused **EV-240V MRA** wires must be individually isolated and insulated to prevent the risk of electrical shorting.

Warning: ***In 120V ac and 240V ac applications, mains voltages (120V ac 0R 240V ac) will be present on some of the unused wires. In all these applications all unused EV-240V MRA wires must be individually isolated and insulated to prevent risk of electricak shorting and electric shock.***

CABLING

An approved low voltage terminal block must be used. Unused wires must be terminated in an approved manner.

WIRING NOTES

1) There are no user-required settings (such as switches or headers) on the **EV-240V MRA**.
2) All wiring must conform to the current edition of IEE Wiring Regulations and BS5839 part 1.
3) All conductors to be free of earths.
4) For typical wiring configuration, see Figures 2 to 6.
5) The GRY and PNK driver 'O' wires on the **EV-240V MRA** must not be used in 24V dc and 24V ac applications.
6) The **EV-240V MRA** must be mounted adjacent the EV-MIO or EV-OP. The maximum cable length can not be greater than 1 metre between the **EV-240V MRA** and the EV-OP/ EV-MIO.

ORDERING INFORMATION

EV-240V MRA F16N82024 High Voltage Relay Interface.
EV-OP F16N82027 Relay Interface Module
EV-MIO F16N82026 Small Addressable Mulit-Input/Output module

NITTAN

EV-240V MRA
Installation Leaflet EV-240V MRA Issue 1

Fig. 1 EV-240V MRA High Voltage Relay

INTRODUCTION

This document refers to EV-240V MRA with a manufacturing date code of 43-03 or later. When used with a EV-OP, EV-OP PCB must be Issue 9 or later.
The **EV-240V MRA** High Voltage Relay Interface is a non-addressable multi-voltage relay module (operating from 24V dc, 24V ac, 120V ac and 240V ac).
The encapsulated **EV-240V MRA** provides a 10 amp volt-free contact that can be used to extend the contact ratings of EV-OP Addressable Relay Module applications.
A maximum of four **EV-240V MRA** can be individually driven and controlled by an EV-MIO Small Addressable Multi-Input/Output module if all **EV-240V MRA** are powered by 120V ac or 240V ac.
For ac operation, no external dc power supply unit is required to operate the relay.
When used to switch 24V dc, the must be provided with an external 24V dc supply which should be switched through the clean relay contacts of an EV-MIO or EV-OP.

TECHNICAL SPECIFICATION EVOLUTION

System Compatibility:	Use only with Evolution Fire Alarm Panels (CIE) which support this unit
Environment:	Indoor Application only
Operating Temperature:	-25°C to +70°C
Storage Temperature:	-40°C to +80°C
Operating Humidity:	Up to 95% non-condensing
Dimensions (HWD):	
Module:	26.5 x 42 x 74mm

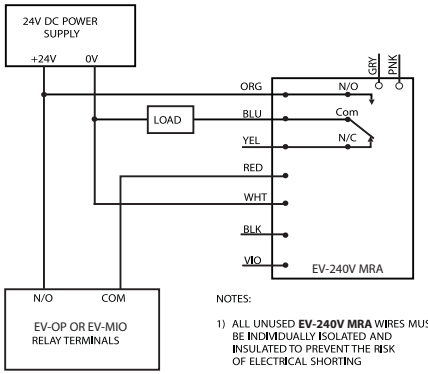
Electrical Characteristics:
Input Voltages: 24V dc, 24V ac, 120V ac, 240V ac
Contact Rating: 8A @ 28V dc
10A @ 28V ac and 120V ac 5A @ 240V ac (resistive)

ELECTROMAGNETIC COMPATIBILITY

The EV-240V MRA complies with the following:
Product family standard EN50130-4 in respect of Conducted Disturbances, Radiated Immunity, Electrostatic Discharge, Fast Transients and Slow High Energy EN61000-6-3 for emissions

FEATURES

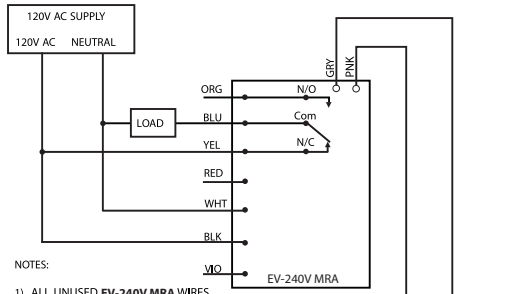
The **EV-240V MRA** is contained on a single sided PCB which is fitted to a plastic tray and then potted (as Fig. 1).



NOTES:

1) ALL UNUSED **EV-240V MRA** WIRES MUST BE INDIVIDUALLY ISOLATED AND INSULATED TO PREVENT THE RISK OF ELECTRICAL SHORTING
2) CONNECT LOAD WIRE TO YEL FOR A NORMALLY 'ON' LOAD
3) GRY AND PNK WIRES MUST NOT BE USED IN THIS APPLICATION

Fig. 2 EV-240V MRA in 24V dc Application



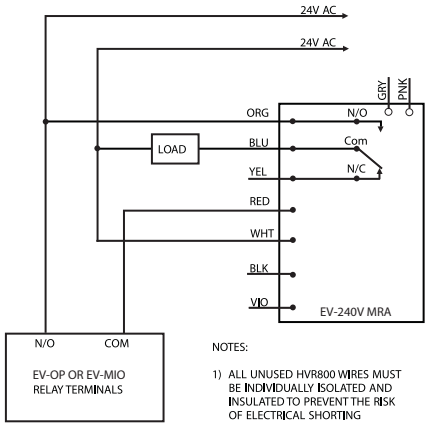
NOTES:

1) ALL UNUSED **EV-240V MRA** WIRES MUST BE INDIVIDUALLY ISOLATED AND INSULATED TO PREVENT THE RISK OF ELECTRICAL SHORTING AND ELECTRIC SHOCK.
2) CONNECT LOAD WIRE TO ORG FOR A NORMALLY 'ON' LOAD.

WARNING!

IN THIS APPLICATION, 120 AC WILL BE PRESENT ON SOME OF THE UNUSED WIRES ON THE EV-240V MRA

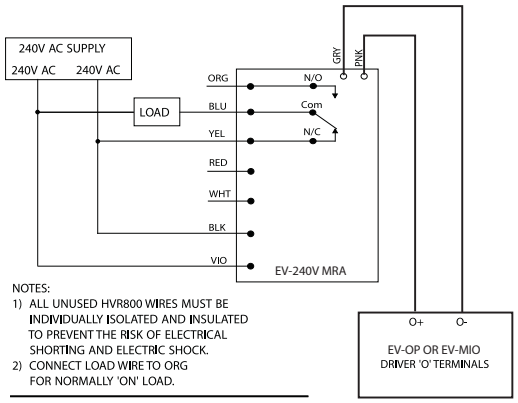
Fig. 4 EV-240V MRA in 120V ac Application



NOTES:

1) ALL UNUSED HVR800 WIRES MUST BE INDIVIDUALLY ISOLATED AND INSULATED TO PREVENT THE RISK OF ELECTRICAL SHORTING
2) CONNECT LOAD WIRE TO YEL FOR A NORMALLY 'ON' LOAD
3) GRY AND PNK WIRES MUST NOT BE USED IN THIS APPLICATION

Fig. 3 EV-240V MRA in 24V ac Application



NOTES:

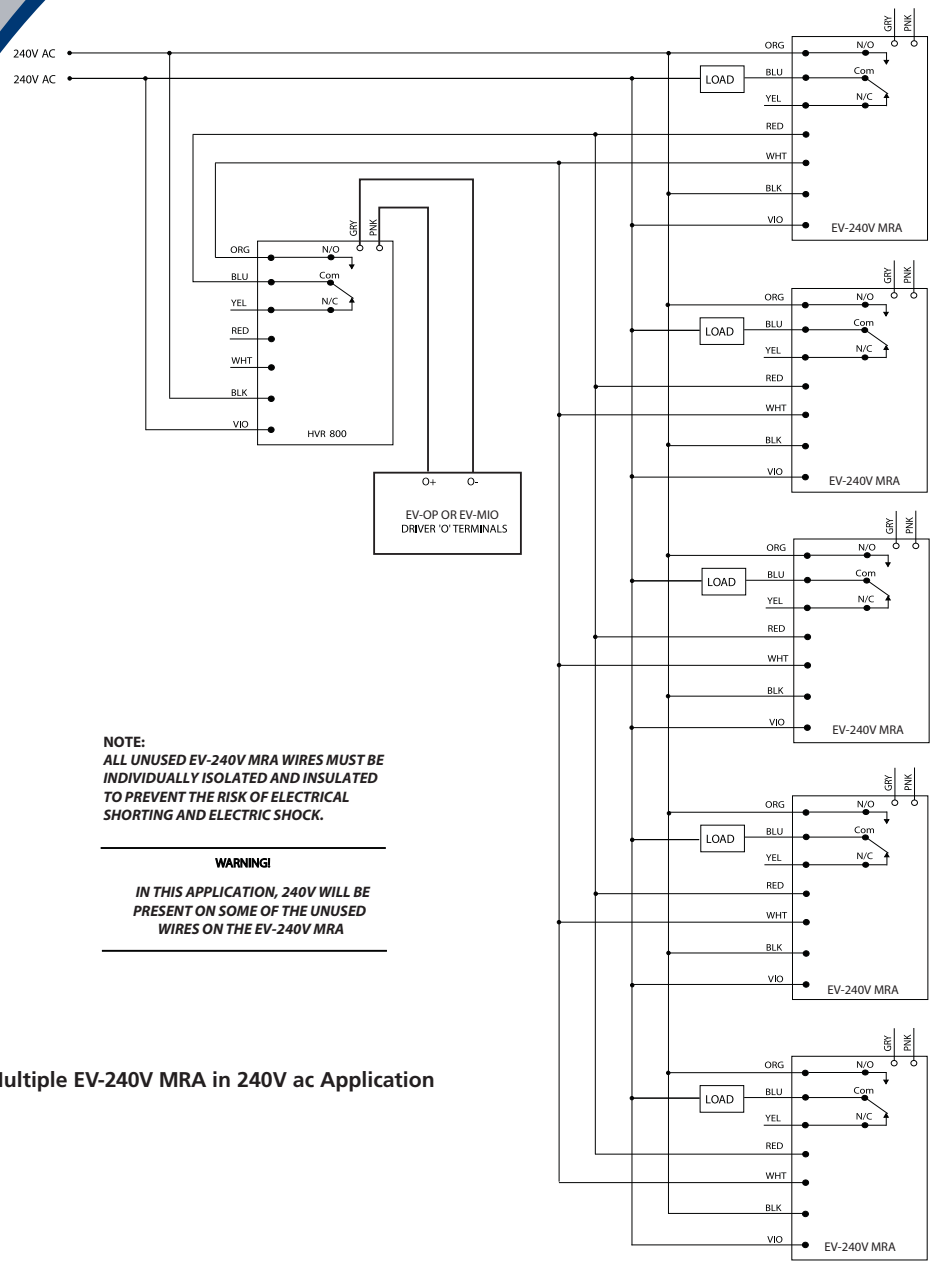
1) ALL UNUSED HVR800 WIRES MUST BE INDIVIDUALLY ISOLATED AND INSULATED TO PREVENT THE RISK OF ELECTRICAL SHORTING AND ELECTRIC SHOCK.
2) CONNECT LOAD WIRE TO ORG FOR NORMALLY 'ON' LOAD.

WARNING!

IN THIS APPLICATION, 240V WILL BE PRESENT ON SOME OF THE UNUSED WIRES ON THE EV-240V MRA

Fig. 5 EV-240V MRA in 240V ac Application

EV-240V MRA
Installation Leaflet EV-240V MRA Issue 1



NOTE:
ALL UNUSED EV-240V MRA WIRES MUST BE INDIVIDUALLY ISOLATED AND INSULATED TO PREVENT THE RISK OF ELECTRICAL SHORTING AND ELECTRIC SHOCK.

WARNING!

IN THIS APPLICATION, 240V WILL BE PRESENT ON SOME OF THE UNUSED WIRES ON THE EV-240V MRA

Fig. 6 Multiple EV-240V MRA in 240V ac Application