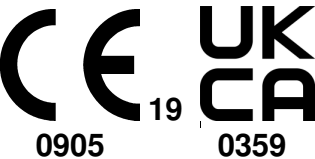


EV-OP2 (-EU) Installation instructions

EV-OP2 (-EU) –Output Module	EN 54-18: 2005 / AC: 2007 – Input / Output Devices
	For use with Nittan Evolution Protocol Only. Loop Voltage: 20 to 38 Vdc Quiescent Current: 720µA Alarm Current: 5.5mA Loop resistance: < 50 ohm/ km Relay Contact rating: 5A at 240Vac Or 5A at 30 Vdc Wire size: Min. 0.75mm² Max. 2.5mm² Operating temperature: -10°C to 55°C Storage temperature: -40°C to 80°C Max. relative humidity: 95%RH, non-condensing Mass EV-OP2: 175g Mass EV-OP2-EU: 140g Technical Data Sheet: TD-EV-OP2(-EU)
DoP Number: 00641	
	Nittan Europe Ltd. Tel: +44 (0) 1483 769 555 Hiple Street, Fax: +44 (0) 1483 756 686 Old Woking, Email: sales@nittan.co.uk Surrey, GU22 9LQ Web: www.nittan.co.uk United Kingdom



WARNING

There is a danger of electric shock due to the presence of high voltage (AC240V). Never touch the terminals while the power is on. Make sure to turn off the high voltage AC power supply before commencing wiring work.

NOTE: Please read these instructions carefully and keep for future reference. The information in this document is subject to change without notice. For updates please refer to our website.

NOTE: Follow the requirements for the installation of the product in accordance with the Specifications. Otherwise it may cause malfunction

NOTE: Do not install the product in any location where oil, dust, iron powder, chemicals, or hydrogen sulphide may occur or affect the product. It may cause malfunction.

This package contains the following items:

Main unit: x 1
Allen Key x 1
Mounting Screws M3.5 x 25mm x 2 (EV-OP2 Only)
Manual: (this document) x 1

General Description

The EV-OP2 (-EU) Single Output Module is an addressable Output module with one dry contact relay output rated at 5A@240Vac. The EV-OP2 uses UK 2-gang box with surface and flush mount options and the EV-OP2-EU uses European 503 electrical box flush-mounted.

The relay output is used for the control of equipment such as dampers and extractors for ventilation or smoke control system. The relay contact is monitored to detect the condition (on /off /relay stuck).

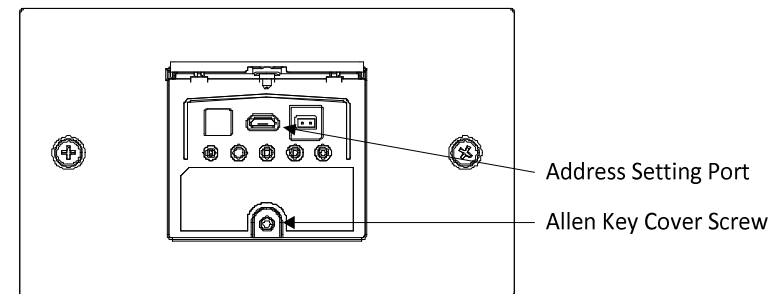


Figure 1

Interchangeability with Existing Products

It is necessary to update the firmware of the control panel to respond to EV-OP2, prior to the replacement of the existing model EV-OP.

RoHS Compliance Statement

This product complies with the European Union RoHS (Restriction of Hazardous Substances) directive (EU) 2015/863 which restricts the use of the following ten hazardous materials in the manufacture of electronic and electrical equipment.

- Cadmium (Cd): < 100 ppm
- Lead (Pb): < 1000 ppm
- Mercury (Hg): < 1000 ppm
- Hexavalent Chromium (Cr VI): < 1000 ppm
- Polybrominated Biphenyls (PBB): < 1000 ppm
- Polybrominated Diphenyl Ethers (PBDE): < 1000 ppm
- Bis(2-Ethylhexyl) phthalate (DEHP): < 1000 ppm
- Benzyl butyl phthalate (BBP): < 1000 ppm
- Dibutyl phthalate (DBP): < 1000 ppm
- Diisobutyl phthalate (DIBP): < 1000 ppm

Address Setting

Loosen the Allen key screw to open the access door in the front, using the 1.5mm Allen key provided. It is possible to configure the address setting (refer to Figure 1).

Use EV-AD2-EXT to set the address of the EV-OP2 (-EU). The factory default address of 1 is given to the module. Connect the EV-AD2-EXT to the address setting port with the Micro USB cable for the programmer, and change the address to any of 1-254, with reference to the instruction manual of EV-AD2-EXT programmer. (Note that the number of available addresses can be less depending on a control panel model.) The address can be set regardless of whether power supply from the control panel is turned on or off.

Address setting is possible even after connecting the module to the Loop.

NOTES:

LED Operation

Three LEDs are visible through the translucent access door of the enclosure (refer to Figure 2 and Table 1).

Polling LED: flashes green during polling from the control panel.

Output LED: illuminates red when the output relay is on after receiving a command from the control panel.

Fault LED: illuminates yellow when a fault condition, i.e. relay stuck fault is detected in the output circuit.

Indicating LEDs

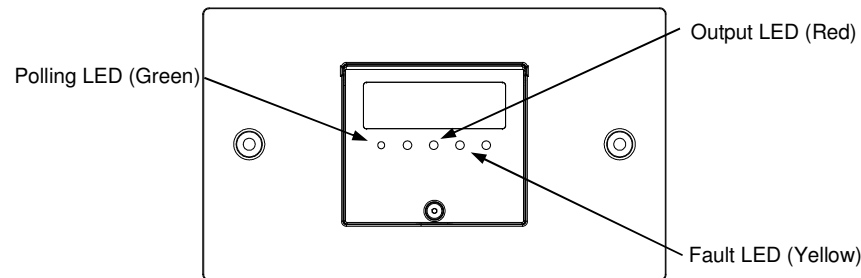


Figure 2

	Colour	Function	State of module	State of LED
Polling LED	Green	Polling	Polling	Flashing
Output LED	Red	Output	Relay on	Steady on
Fault LED	Yellow	Fault	Relay stuck	Steady on

Table 1

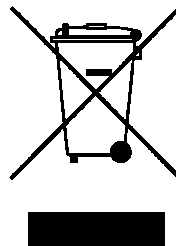
EV-OP2 (-EU) Installation instructions

Trouble shooting

Problem	Possible cause
No response	The module falls off. Address setting is not correct. Duplicate address. Loop wiring is not correct. An open or short circuit in the loop. Loop voltage is too low.
Communication error	Duplicate address. Loop voltage is too low.
The module information is not found on the panel	Data registered on the control panel is not correct.
Relay stuck is detected	Relay is at fault. Relay is welded due to exceeding the rating.
Relay fails to operate while relay stuck is not detected	Loop wiring is not correct. Address setting is not correct. Control panel has incorrect cause and effect programming.
Relay is activated continuously while relay stuck is not detected	Loop wiring is not correct.

End of Life Disposal

Like all electronic equipment, at the end of its working life this unit should not be disposed of in a refuse bin. All Nittan products since 2005 have been marked with the WEEE Logo in compliance with European Directive 2012/19/EU and Nittan Europe Limited is a member of a WEEE Compliance Scheme. Contact sales@nittan.co.uk for a copy of our WEEE Compliance Policy.



Installation

The EV-OP2 is designed to mount on the range of 2-Gang back boxes widely available in the UK (Min 35mm depth). Refer figure 3. The EV-OP2-EU is designed to mount on the European 503 series back boxes available in many European countries. Refer figure 4.

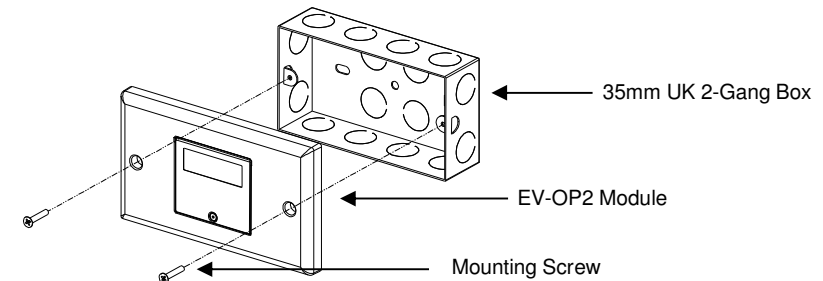


Figure 3 – EV-OP2

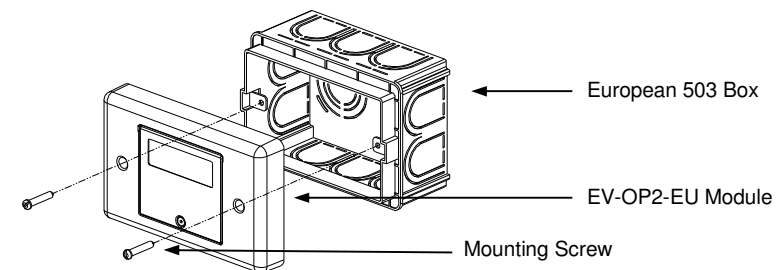


Figure 4 – EV-OP2-EU

Service and Maintenance

Inspection and tests of the module shall be carried out periodically according to the requirements of BS 5839 Part 1, Fire Detection and Alarm Systems for Buildings: Code of Practice for System Design, Installation and Servicing, or equivalent local codes of practice.

For a routine inspection, ensure the module is secure and undamaged.

When carrying out site testing of the module, set the Fire Alarm Control Panel to test mode and take any necessary precautions, so as to limit the activation of alarm sounders/bells and any fire service summoning device.

Connections

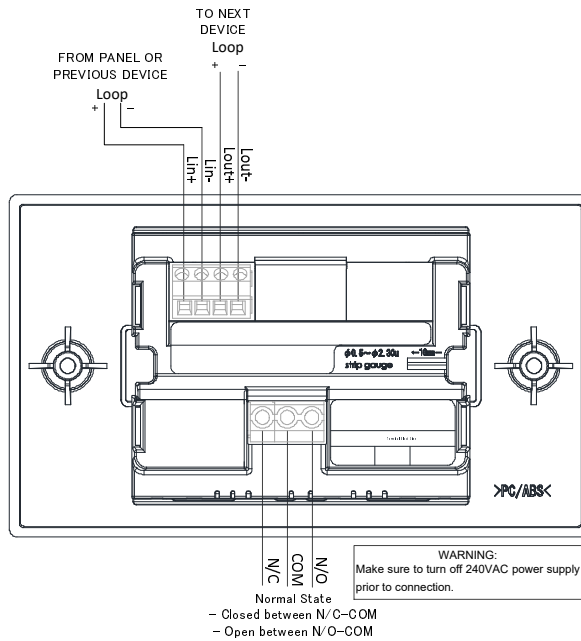
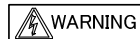


Figure 5



There is a danger of electric shock due to the presence of high voltage (AC240V). Never touch the terminals while the power is on. Make sure to turn off the high voltage AC power supply before commencing wiring work.

General Operation

Standby condition: The module receives polling from the control panel at the regular interval.

Output Operation: On a command from the control panel the output relay will change state.

Fault condition: The module reports to the control panel in the event the relay is stuck in output circuit.

Dimensions

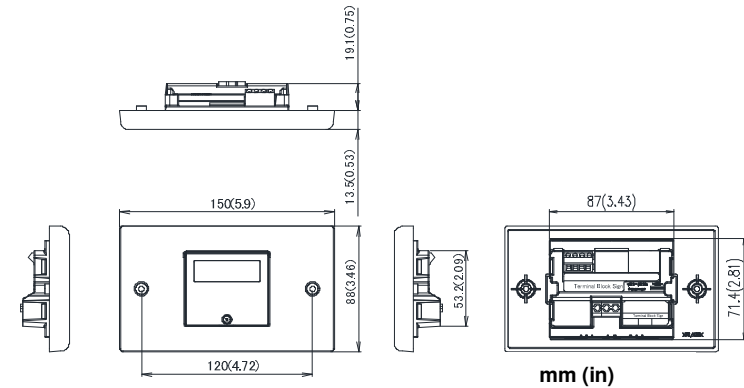


Figure 6 – EV-OP2

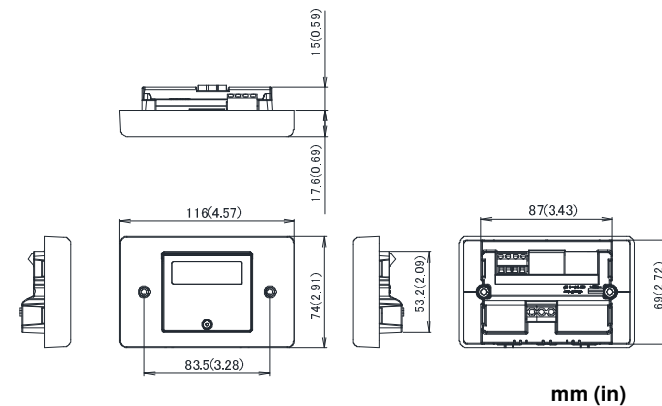


Figure 7 – EV-OP2-EU