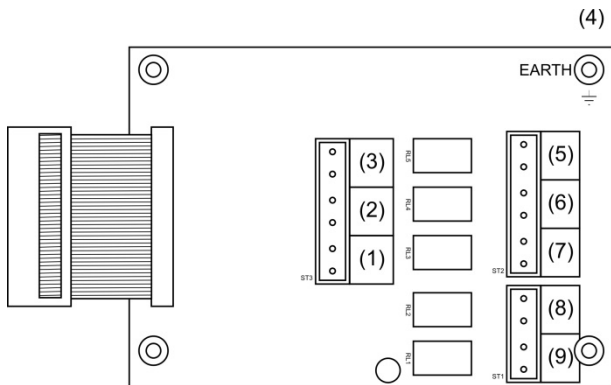


9-30436 Relay Expansion Board Installation Sheet

1



Description

The Relay Expansion Board is designed for installation in the Micra range of aspirating smoke detectors (Micra 10, 25, and 100, including OEM variants). The board provides five nonconfigurable relay outputs and three configurable inputs.

Note: Use this installation sheet in conjunction with the installation and configuration documentation for your detector.

Figures

Figure 1: Expansion board connectors

(1) Input 1	(6) Aux. Alarm
(2) Input 2	(7) Pre-alarm
(3) Input 3	(8) Fire 1
(4) Earth	(9) Fault
(5) Fire 2	

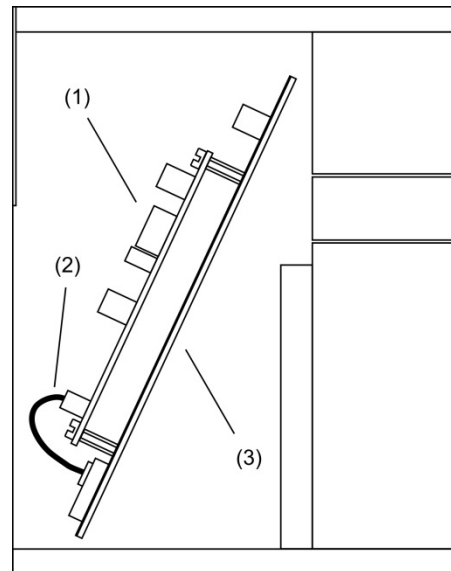
Figure 2: Expansion board installation

- (1) Relay expansion board
- (2) Ribbon cable
- (3) Detector PCB

Installation

WARNING: Electrocution hazard. To avoid personal injury or death from electrocution, remove all sources of power and allow stored energy to discharge before installing or removing equipment.

2



To install the board:

1. Install the expansion board onto the four threaded pillars of the detector PCB (as shown in Figure 2) and secure it using the four M3 screws and washers provided.
2. Connect the mounting screw marked EARTH to the earth stud inside the detector housing.
3. Connect the expansion board ribbon cable to the 26-way IDC connector on the detector PCB (the plug has a polarizing key to ensure correct connection).
4. Connect the screen wire of any cables connected to the expansion board to the earth stud inside the detector housing.

To ensure compliance with EMC requirements, conductors connected to the fault output (including screen wire) should be wound once around the supplied ferrite ring.

Relay output and input functionality

Relay outputs

The expansion board provides five nonconfigurable relay outputs to transmit alarm and fault status signals to external monitoring equipment (for example, the primary fire alarm system).

Details for each output are shown in the following table.

Output	Description
Fire 1	Main fire alarm output. Provides a duplicate relay which operates in conjunction with the fire relay in the detector.
Fire 2	Additional fire alarm output. Indicates the smoke level has increased past the Fire 1 level.
Pre-alarm	Pre-alarm relay output. Provides pre-warning to a fire activation.
Aux. Alarm	Auxiliary alarm output. Can be used for any signalling or interface requirement.
Fault	Common fault output. Operates under any fault condition or when the unit is isolated.

Inputs

The expansion board provides three configurable inputs that activate when a short circuit is applied (except PSU monitoring – mains and battery monitoring activates a fault when the short circuit is removed).

Configurable options for each input are shown in the following table.

Function	Description
Remote reset	Resets any alarm or fault condition (providing the cause of the condition has been cleared).
Remote isolate	Isolates the detector. This prevents alarm outputs from operating if the associated alarm level is triggered.
Remote day/night	Changes between day and night alarm sensitivity settings.
PSU monitoring	Generates a fault on the detector if the mains supply or battery fail when the power supply fault output is connected to the input. If a power supply has separate mains and battery fault inputs, these can be configured to separate inputs.
Classifire override [1]	Desensitizes the detector while the input is active.

[1] ClassiFire override can only be configured to Input 2

Configuring inputs

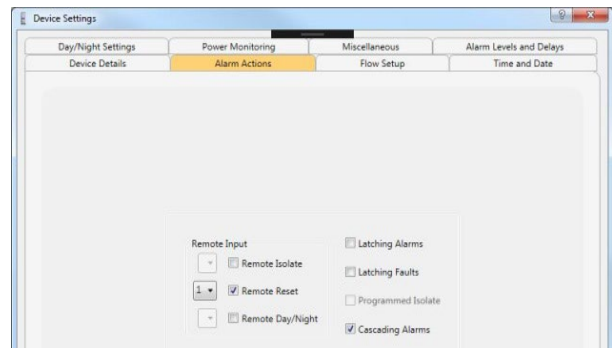
A laptop with the latest version of Remote (4.2.4.21 or later) and a serial cable (9-30419) is required to configure inputs.

The following example shows how to configure an input for remote reset. The procedure is the same for all functions.

1. With the Remote application open, connect the laptop to the detector.
2. Open the Device Settings menu, and then click on the tab for the function that you want to configure (Alarm Actions in this example).
3. In the Remote Input area, enter the number of the input being configured, and then click the corresponding checkbox to enable Remote Reset (see Figure 3).
4. Click Apply to apply the configuration.

Once configured, any activation of Input 1 on the expansion board will initiate a reset of the detector.

Figure 3: Input configuration with Remote 4.2.4.21



Specifications

Relay contact rating	
Max. switching current	400 mA at 24 VDC, resistive load
Max. switching power	24 W
Operating environment	
Operating temperature	-10 to +60°C
Relative humidity	0 to 90% (noncondensing)
Dimensions (W × H × D)	71 × 102 × 26 mm

Regulatory information

Conformity	
Manufacturer	Carrier Manufacturing Poland Spółka Z o.o., Ul. Kolejowa 24, 39-100 Ropczyce, Poland. Authorized EU manufacturing representative: Carrier Fire & Security B.V., Kelvinstraat 7, 6003 DH Weert, Netherlands.
	2012/19/EU (WEEE Directive): Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points. For more information see: recyclethis.info .

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