

## Addressable Dual Monitor and Single Relay Output Module Specification

### Compliance with standards

The Dual Monitor and Single Relay Output Modules shall be third party certified to CEA GEI 1-082 and CEA GEI 1-084.

### General

Addressable Dual Monitor and Single Relay Output Modules shall be provided to connect two supervised areas of conventional Alarm Initiating Devices (any N.O. volt free contact device).

In addition the Dual Monitor and Single Relay Output Modules shall provide a single change over contact output and shall connect to one of the C.I.E. Signalling Line Circuit Loops.

Addressable Monitor Modules shall operate on a digital protocol to give reduced power consumption, upto 159 detectors and 159 modules may be connected to a single loop.

Location of devices on the loop circuit shall with the aid of a Loop Mapping Tool be able to identify it's location and address on the loop, allowing for a schematic layout drawing to be produced and printed for use in the O&M manual.

The Dual Monitor and Single Relay Output Modules shall mount in a purpose made surface mount box, panel mount clip for mounting in to other equipment housings or on a DIN rail mounting clip.

The Dual Monitor and Single Relay Output Modules shall include loop isolation in each unit, which shall be installer selectable as required.

### Functionality

The Dual Monitor and Single Relay Output Modules shall use two electronic supervised inputs to monitor the conditions of flow switches, sprinkler valves, fire dampers etc.

The Dual Monitor and Single Relay Output Modules shall provide a single addressable change over relay rated at 2A @ 30Vdc.

Dual Monitor and Single Relay Output Modules shall be loop powered and addressable devices, and shall connect with two wires to one of the C.I.E. Signalling Line Circuits.

### Address setting

The Dual Monitor and Single Relay Output Modules shall utilise three module addresses with the start address being set as above and the second and third addresses being automatically assigned at the start address plus one and two respectively.

Addressable Modules that use binary address setting methods, such as a dip switch, code cards or soft addressing are not acceptable.

The modules shall also feature an internal identifying code that the C.I.E. shall use to identify the type of Module.

Address switches shall be viewed in two plains such that the address is visible when mounted in a surface mount box or DIN / panel mounted.

### Visual indication

The Dual Monitor Module shall provide three bi-colour LED's to show the status of each module address. The LED's enable red, amber and green local status indication also indicating that the module is operational and in regular communication with the C.I.E.

The LED's shall be configurable from the C.I.E to give visual indication of:

- Device Healthy
- Fire
- Fault – Isolation in use
- Test Mode

If required, the flashing mode operation of the Dual Monitor Module LED shall be controlled through the system field program.

### **Additional requirements**

Up to 159, addressable Modules (53 Dual Monitor and Single Relay Output Modules) may connect to one Signalling Line Circuit Loop.

The C.I.E software, not the Monitor Module, shall make the alarm/normal decision, thereby allowing the system operator to view the status of each Monitor Module.