

2 INPUT, 1 OUTPUT MODULE ESMI EM221EA

Instruction Sheet
R10260GB0



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1 2 INPUT, 1 OUT MODULE - ESMI EM221EA

The 2 INPUT, 1 OUT MODULE - ESMI EM221EA (FFS06717022) provides dual channel monitoring of normally open contact and supervisory devices, and also provides single pole changeover contacts for the control of auxiliary devices such as fire shutters and sounders.

1.1 Addressable EM200-series I/O-modules

The EM200 series of modules are a family of microprocessor-controlled interface devices permitting the monitoring and/or control of auxiliary devices and are compatible Esmi Sense FDP and FX 3NET fire detection system.

Compact construction enables more units to be mounted in installation boxes.

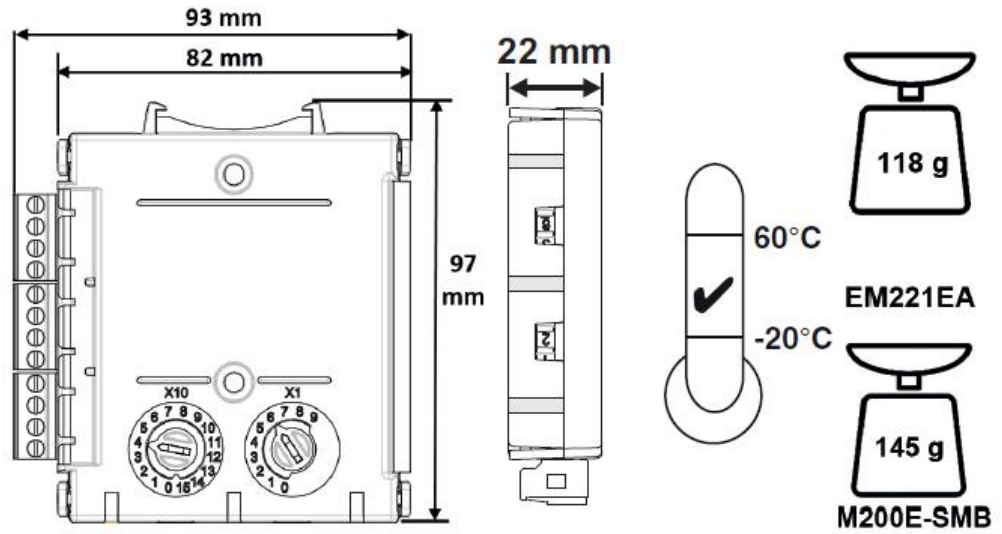
The module has a wide range of input/output combinations. Built in short circuit isolators save installation costs as separate isolator units are not needed.

The 2 INPUT, 1 OUT MODULE - ESMI EM221EA has a single tri-colour green/red/yellow LED, which can be set by panel command to pulse green each time the module is polled. In case of an alarm the panel switch the red indicator on continuously. The Yellow LED is controlled by the module and blinks to indicate an open circuit on the input circuit. This fault indication is overridden by a panel command to turn the red LED on.

1.2 Specifications

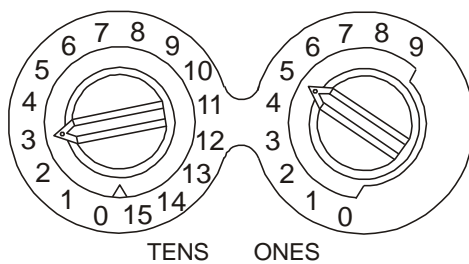
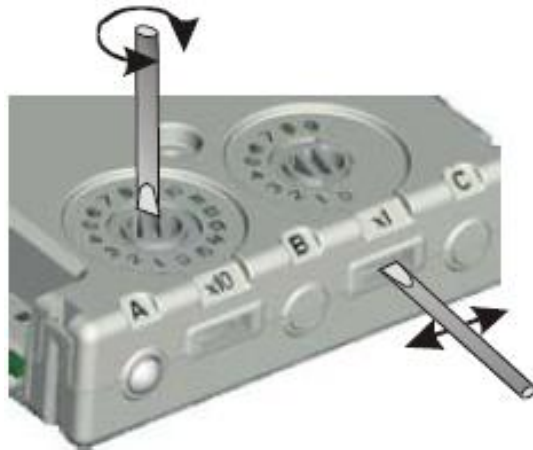
Operating Voltage Range:	15 to 32VDC (Min 16.5VDC for LED operation)
Maximum Standby Current:	140 μ A @24 V and 25oC (no communication)
LED Current (Red):	1.5 mA
LED Current (Yellow):	5.5 mA
Humidity:	5% to 95% relative humidity (non-condensing)
Operating temperature range	-20°C to +60°C
Maximum Wire Gauge:	2.5 mm ²
IP rating	IP30 (IP44 in M200E–SMB)

1.3 Dimensions



1.4 Address setting

All modules are addressable. The address setting is done with two rotary switches, accessible either on the wide side or the front edge, depending on means of mounting. The dual input and dual input – single output modules are automatically assigned to two and three consecutive addresses.



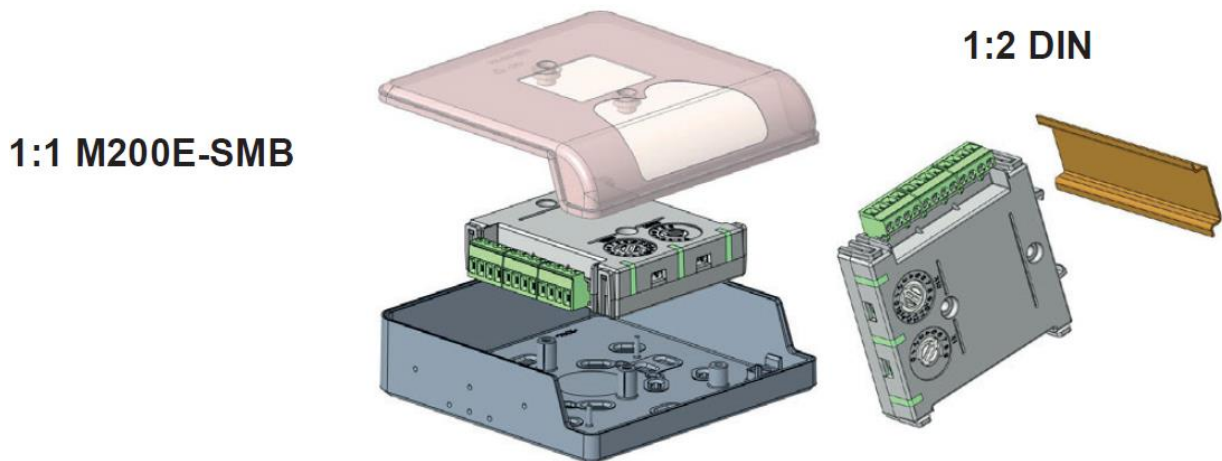
Rotary switches

1.5 Installation

EM200 series modules can be mounted in several ways (See below):

These modules must only be connected to Esmi Sense FDP and FX 3NET fire detection systems equipped with SLC loop controller. Also compatible with Fx LC and Esa/Sesa LIB loop controllers.

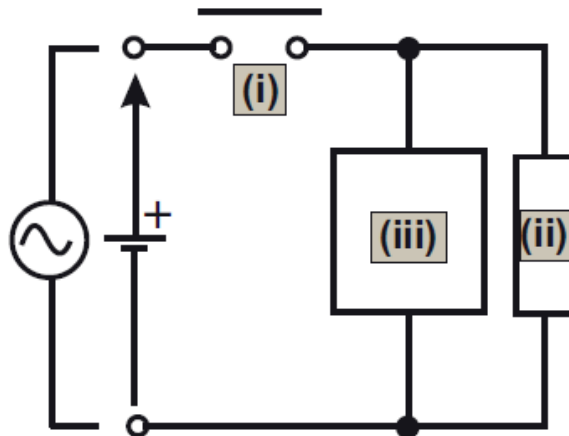
The surface mounting box has a transparent cover that enables verification of address setting and visibility of LEDs, without cover removal.



1:1 An M200E-SMB custom low profile surface-mounting box. The SMB Base is affixed to mounting surface, and then the module and cover are screwed onto the base using the two screws supplied. Box dimensions: 132 mm (H) x 137 mm (W) x 40 mm (D)

1:2 The DIN bracket on top allows mounting onto standard 35 mm x 7.5 mm "Top Hat" DIN rail inside a control panel or other suitable enclosure. Push module into adaptor bracket until it clips into place. Locate top clip over DIN rail and rotate bottom down to clip into place. To remove, lift up, then rotate top away from the rail.

Wiring to all series EM200 modules is via plug in type terminals capable of supporting conductors up to 2.5 mm².



Warning: Switching Inductive Loads (EM221EA Output Channel Only)

See above. Inductive loads can cause switching surges, which may damage the module relay contacts (i).

To protect the relay contacts, connect a suitable Transient Voltage Suppressor (iii) - for example 1N6284CA - across the load (ii) as shown in illustration above.

Alternatively, for unsupervised DC applications, fit a diode with a reverse breakdown voltage greater than 10 times the circuit voltage.