

DUAL INPUT MODULE ESMI EM220EA

Instruction Sheet
R10259GB0



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Contents

1	DUAL INPUT MODULE - ESMI EM220EA	4
1.1	Addressable EM200-series I/O-modules	4
1.2	Specifications	4
1.3	Dimensions	5
1.4	Address setting	5
1.5	Installation	6
1.6	DUAL INPUT MODULE - ESMI EM220EA Module Wiring.....	7

1 DUAL INPUT MODULE - ESMI EM220EA

The DUAL INPUT MODULE - ESMI EM220EA (FFS06717023) provides one contact monitoring circuit for supervision of devices external to the fire detection system. Applications include monitoring of automatic extinguishing systems, smoke ventilation shutters, fire doors. The modules have built-in short circuit isolators.

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.

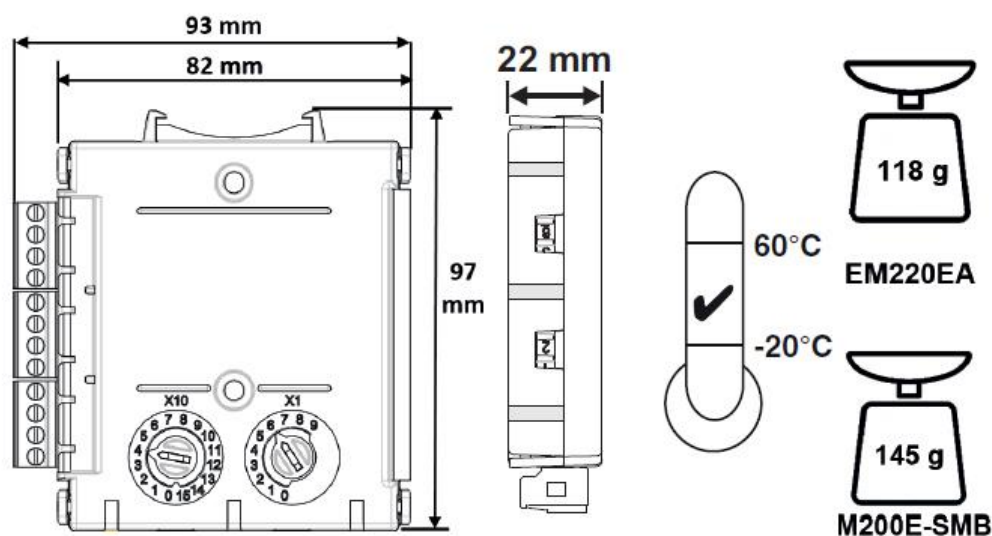
The module has a wide range of input/output combinations. Built in short circuit isolators save installation costs as separate isolator units are not needed.

The DUAL INPUT MODULE - ESMI EM220EA 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 can 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

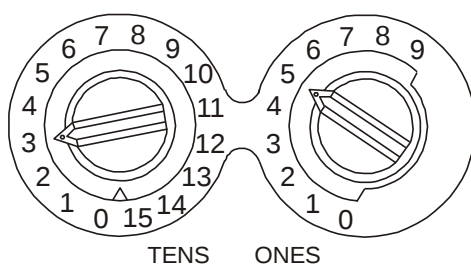
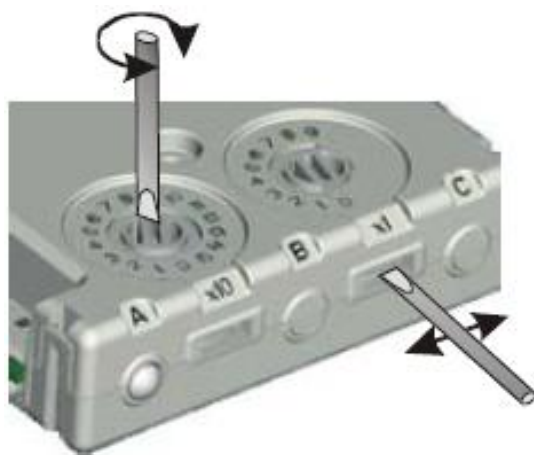
Operating Voltage Range:	15 to 32VDC (Min 16.5VDC for LED operation)
Maximum Standby Current:	140 μ A @24 V and 25oC (no communication)
LED Current (Red):	1.5 mA
LED Current (Yellow):	5.5 mA
Isolator features:	see S00-7100
Humidity:	5% to 95% relative humidity (non-condensing)
Maximum Wire Gauge:	2.5 mm ²

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.

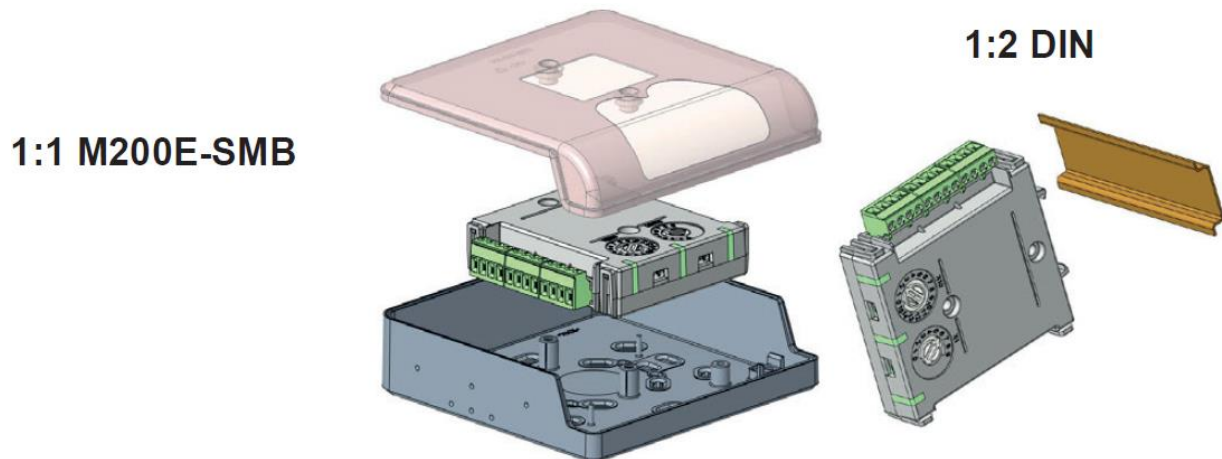


Rotary switches

1.5 Installation

Note: These modules must only be connected to control panels using compatible proprietary analogue addressable communication protocols for monitoring and control. EM200 series modules can be mounted in several ways (See below):

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

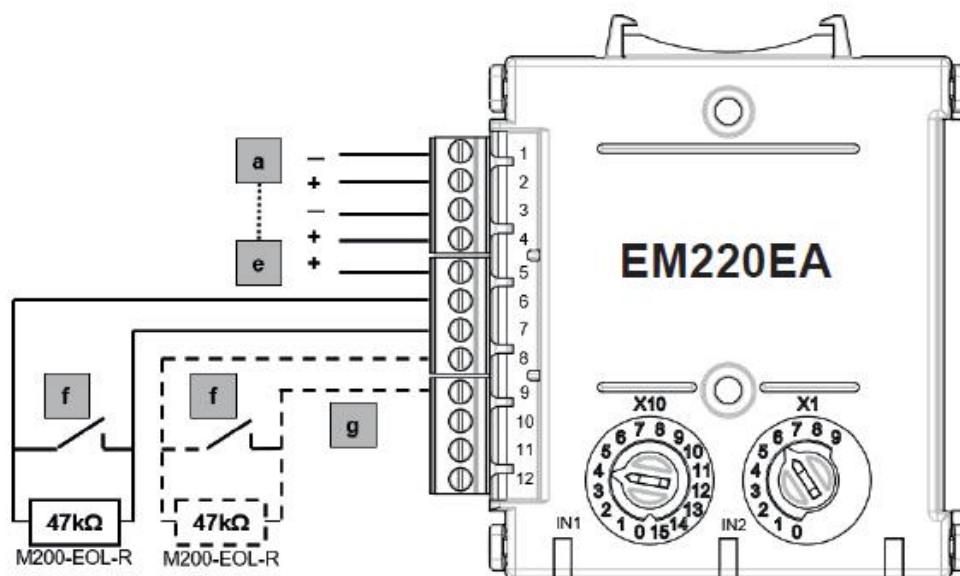


1:1 An M200E-SMB custom low profile surface-mounting box. The SMB Base is affixed to mounting surface, and then the module and cover are screwed onto the base using the two screws supplied. Box dimensions: 132 mm (H) x 137 mm (W) x 40 mm (D)

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.

1.6 DUAL INPUT MODULE - ESMI EM220EA Module Wiring



Notes!

1. If short circuit isolation is not required, loop output+ should be wired to terminal 5 and not 2. Terminal 5 is internally connected to terminal 4.
2. There are no connections to these terminals on the EM210EA.

a: T1 Loop Output -. **b:** T2 Loop Output +. **c:** T3 Loop Input -. **d:** T4 Loop Input +

e: T5 Loop Output +. If short circuit isolation is not required, loop output+ should be wired to terminal 5 and not 2. Terminal 5 is internally connected to terminal 4.

f: Provided the control panel is compatible, short circuit monitoring of the input circuit may be possible. An 18kΩ resistor should be wired in series with each device switch being monitored.

g: The dashed line circuit connected to terminals 8 and 9 should only be used with the EM220EA. There are no connections to these terminals on the EM210EA.