

Safety Information

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

Esmi Impresia 2 Inputs/2 Monitored Outputs Module

Esmi Impresia 2 Input/2 Monitored Outputs Module (FFS06741008) is an addressable input-output module, designed for installing in addressable fire alarm systems with Esmi ELC loop controller supporting Schneider Electric communication protocol. The module monitors two analogue input signals and controls two relay outputs. The outputs can be set to be monitored or non-monitored via jumpers on the module's PCB. Approvals EN 54-18/17 for indoor and outdoor use. The address setting is done by the panel, QR code or handheld addressing device. The address range is 1-250.

For more technical information visit www.se.com.



DANGER

HAZARD OF ELECTRIC SHOCK

Ensure that the correct terminals are used for the loop and switched voltage connections. Do not exceed the relay ratings. High voltages may be present on the relay terminals. Always turn off all power supplying this device before working inside the device enclosure. Failure to follow these instructions will result in death or serious injury.

Installation Instructions

Note: Collect the QR code stickers from the devices if QR codes are used for addressing of the devices.

1. Choose the proper place for installation of the module.
2. Turn the power off the loop circuit before installing the module.
3. Set the module address using programmer or directly from addressable fire panel.
4. Set the operation mode of the outputs:
Monitored output (set by default) – at terminal Jmp1/ Jmp2 is set a jumper*.
Non-monitored output – no jumper* is set at terminal Jmp1/ Jmp2.
5. Run the cables to the module terminals.
6. Connect the cables to the loop and input-output terminals of the module according the shown connection diagrams.
7. Power on the module.
8. Test the module for proper operation and LED indication.
9. Close the cover of the plastic box.

* 3-position jumper-block. **Note:** The correct position of the jumper is when all terminal ends are covered! The incorrect position of the jumper may affect on the operation of the module and cause trouble fault.

Technical Specifications

Operating voltage	16 ÷ 32VDC
Outputs, electrical characteristics (max)	DC 30V/2A; AC 125V/0.5A
Consumption - two non-monitored outputs:	
- Nom. current consumption	< 0.87mA@27VDC
- Current consumption with 1 LED on	3.9mA
- Current consumption with 2 LEDs on	7.2mA
Consumption - two monitored outputs:	
- Nom. current consumption	< 1.03mA@27VDC
- Current consumption with 1 LED on	4.15mA
- Current consumption with 2 LEDs on	7.2mA
Material (plastic)	PS
Color	Grey
EOL	56k
Supported communication protocol	Esmi ELC

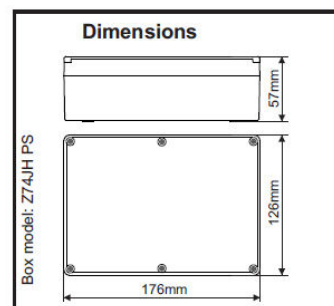
Isolator Module Technical Specifications

V _{max}	Maximum line voltage	32V
V _{nom}	Nominal line voltage	28V
V _{min}	Minimum line voltage	16V
V _{so max} *	Maximum voltage at which the device isolates	7.5V
V _{so min} *	Minimum voltage at which the device isolates	5.9V
V _{sc max} **	Maximum voltage at which the device reconnects	6.7V
V _{sc min} **	Minimum voltage at which the device reconnects	5V
I _{c max}	Maximum rated continuous current with the switch closed	0.7A
I _{s max}	Maximum rated switching current (e.g. under short circuit)	1.8A
I _{l max}	Maximum leakage current with the switch open (isolated state)	16mA
Z _{c max}	Maximum series impedance with the switch closed	0.12Ω@28VDC; 0.15Ω@16VDC

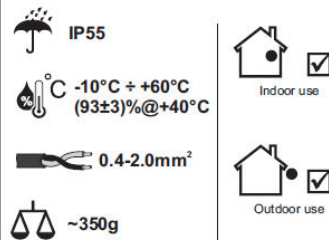
Notes:

* Switches from closed to open

** Switches from open to closed



Installation

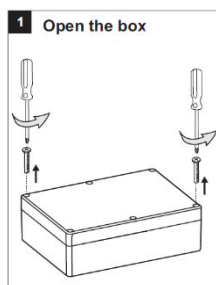


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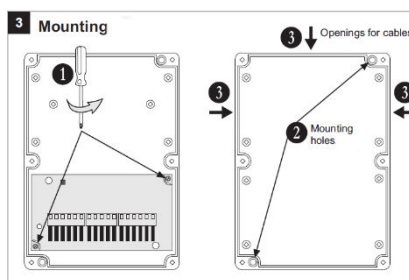
1293
DoP No: DP20024
Made in Bulgaria
EN 54-18:2005
EN 54-18:2005/AC:2007
EN 54-17:2005
EN 54-17:2005/AC:2007

Technical Specifications for Monitored Output

External power supply (U _{ext})	18 ÷ 30VDC
Monitored (potential) output voltage	U _{ext} - 0.5V
Max. current consumption at activation	2A
Max. switching power	60W, 62.5VA



2. Device will be software addressed from Fire panel. The address must be in the range from 1 to 250.

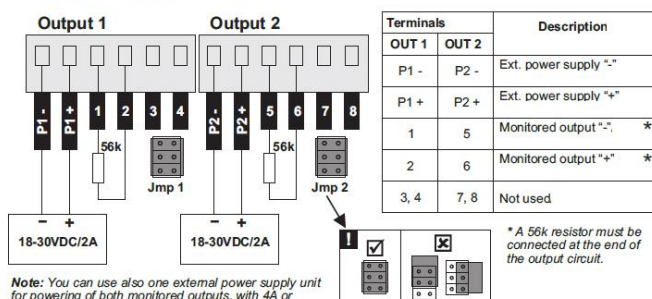


3 Connection diagrams

a) Outputs connection

ATTENTION: The monitored outputs mode is set by default - at terminals Jmp1 and Jmp2 are set jumpers. Every setting or removing of the jumpers must be provided with POWERING OFF the module from the loop line and external power supply.

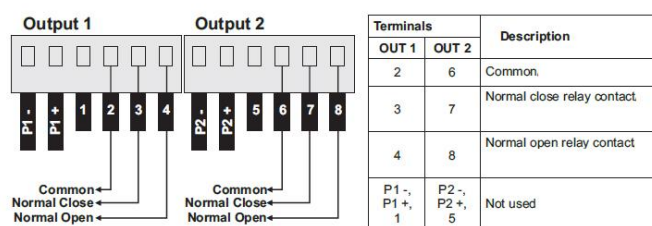
MONITORED OUTPUTS MODE



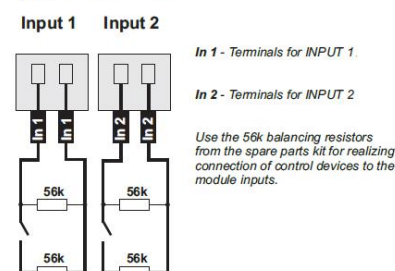
Note: You can use also one external power supply unit for powering of both monitored outputs, with 4A or higher max. current consumption at activation.

NON-MONITORED OUTPUTS MODE

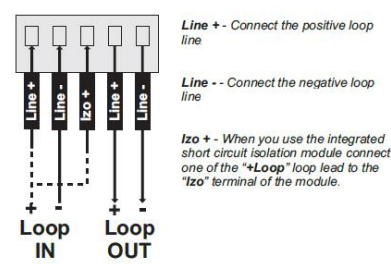
ATTENTION: NO JUMPERS SET TO Jmp1 and Jmp2 terminals.



b) Inputs connection



c) Loop connection



OUTPUTS Status

Status	Description	R
OPEN	Open circuit	>105k
NORMAL	Normal	4.7k < R < 105k
SHORT*	Short circuit	< 4.7k
Ext. power supply fault	Missing or low external power supply	-
Type error, Output x	Wrong output type	-

* Attention: In case of a short circuit at energized monitored output, the power of the output is off until the normal condition is restored.

INPUTS Status

Status	Description	R*	I**
SHORT	Short circuit	<13k	>54μA
ON	Activation	13k-36k	38μA - 54μA
NORMAL	Stand-by mode	36k-90k	23μA - 38μA
OPEN	Open circuit	>90k	<23μA

* R - resistance between the input and GND.

** I - current at the input

Monitored output

Polarity	Normal	Normal	Inverted	Inverted
State	OFF	ON	OFF	ON
Voltage at the output	No	Yes	Yes	No
Red LED	OFF	ON	OFF	ON

2. INPUTS

Status	Red LED	Status	Yellow LED
INPUT 1	INPUT 2	INPUT 1	INPUT 2
Normal	Normal	Normal/ON	Normal/ON
Normal	ON	Short/Open	Normal/ON
ON	Normal	Normal/ON	Short/Open
ON	ON	Short/Open	Short/Open

LED Indication

The yellow LED is lighting on in case of output fault: Open, Short circuit, External power supply fault, Type error-Output x.
The red LED is lighting on in case of output activation.

Note: The monitored outputs could be programmed for operation in Normal or Inverted mode from the Esmi ELC loop controller. When the Inverted operation mode is set for a monitored output, the red LED indication will follow the output logical state. This means, that when the output is in Inverted mode and it is activated - no voltage presence on the terminals 1 and 2 (Output 1), and 5 and 6 (Output 2) - then the red LED will lights ON, because the logical function of the output is "TRUE" (activated).