

# Esmi Impresia 2 Inputs/2 Monitored Outputs Module

Instruction Sheet  
R10221GB0



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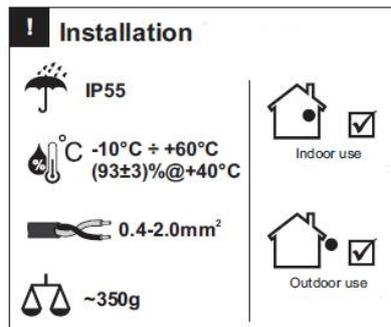
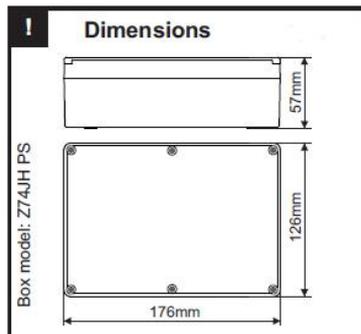
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# 1 Esmi Impresia 2 Inputs/2 Monitored Outputs Module

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.

The active state of the monitored outputs can be programmed for operation in Normal or Inverted Mode via the panel programming menus. When an output is set as monitored, it must be powered on from an external power supply unit (see the connection diagrams). The module has a built-in isolator module which when used allows continuous operation of the loop in case of module's failure and without need of using additional isolator modules.

The module is mounted in a separate plastic box suitable for wall mounting with IP55 protection and possible for outdoor installations.



**CE**<sub>19</sub>  
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

# 1.1 Installation

**Attention: Turn the power off the loop circuit before installing the module!**

1. Choose the proper place for installation of the module.
2. Set the module address using programmer or directly from addressable fire panel.
3. 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*.
4. Run the cables to the module terminals.
5. Connect the cables to the loop and input-output terminals of the module according the shown connection diagrams.
6. Power on the module.
7. Test the module for proper operation and LED indication.
8. Close the cover of the plastic box.

\* 3-position jumper-block. **Attention:** 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.

### 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.*

Terminals	OUT 1	OUT 2	Description
P1 -	P2 -		Ext. power supply "-"
P1 +	P2 +		Ext. power supply "+"
1	5		Monitored output "-"
2	6		Monitored output "+"
3, 4	7, 8		Not used

*\* A 56k resistor must be connected at the end of the output circuit.*

**NON-MONITORED OUTPUTS MODE**

*ATTENTION: NO JUMPERS SET TO *Jmp1* and *Jmp2* terminals.*

Terminals	OUT 1	OUT 2	Description
2	6		Common
3	7		Normal close relay contact
4	8		Normal open relay contact
P1 -, P1 +, 1	P2 -, P2 +, 5		Not used

**b) Inputs connection**

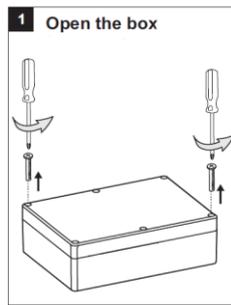
*In 1 - Terminals for INPUT 1*  
*In 2 - Terminals for INPUT 2*

*Use the 56k balancing resistors from the spare parts kit for realizing connection of control devices to the module inputs.*

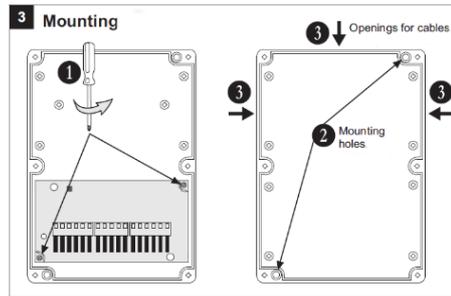
**c) Loop connection**

*Line + - Connect the positive loop line*  
*Line - - Connect the negative loop line*

*Izo + - When you use the integrated short circuit isolation module connect one of the "Loop" loop lead to the "Izo" terminal of the module*



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



**! 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			
	Normal	Normal	Inverted	Inverted
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	Status			Yellow
INPUT 1	INPUT 2	LED		INPUT 1	INPUT 2	LED	
Normal	Normal	OFF		Normal/ON	Normal/ON	OFF	
Normal	ON	ON		Short/Open	Normal/ON	ON	
ON	Normal	ON		Normal/ON	Short/Open	ON	
ON	ON	ON		Short/Open	Short/Open	ON	

## 1.2 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.

Attention: The monitored outputs could be programmed for operation in Normal or Inverted mode (from the panel menus). 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).