

General Description

The Input-Output device FD7203 (fig.1) is designated to produce and send an electrical signal to various devices in case of occurred events and recording external impacts, typical for a fire condition events. The device is compatible with addressable fire control panels IFS7002, supplementing the possibilities of the addressable systems of series IFS7000.

The device consists of a printed board with elements, mounted on a plastic base and closed by a cover. The base has an implemented terminal bus (pos.7 and pos.6, fig.1) through which cables connect the addressable loop, the power supply and etc.

Communication between Control Panel IFS7002 and the input-output device is realized by means of the addressable loop through a specialized protocol for data exchanging UniTALK.

Two LED indicators are built-in on the device PCB (pos.1 fig.1), illuminated in yellow and red (pos.2, fig.1) light, providing device status information.

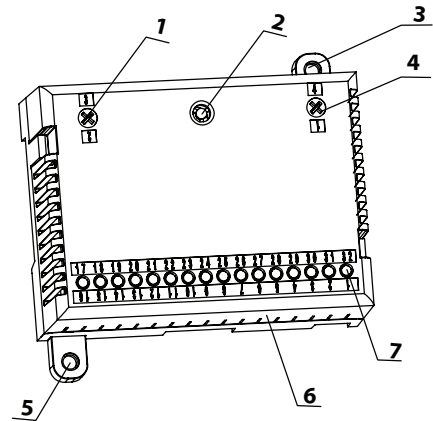


Fig.1 - Picture of input/output module

Technical Data

Addressable loop:

- supply voltage
- current consumption in duty mode
- current consumption in alarm state

(15÷30)Vdc

< 350µA

(2±1)mA

Input:

- "Fault condition" - interruption
- "Fault condition" - short circuit
- "Duty mode" range
- "Activated input" range (fig.3b)
- "Activated input" - input does not check for short circuit (fig.3a)

1 pc.

$R_{line} > 25k\Omega$

$R_{line} \leq 2,2k\Omega$

$5,7k\Omega \leq R_{line} < 15k\Omega$

$2,2k\Omega < R_{line} < 5,7k\Omega$

$0k\Omega < R_{line} < 5,7k\Omega$

Output: Depending on the configuration and the power supply (Relay or monitored)

1 pc.

• Relay

- type
- electrical specifications

potential free,
switching functions
30V DC /1A, 125V AC/0,5A

or

• Monitored

- type
- electrical specification
- peak activation current

potential
(12÷30)Vdc
400mA

Degree of protection:

IP 30

Operating temperature range

from minus 5°C to 40°C

Relative humidity resistance (no condensation)

(95±3) % at 40°C

Dimensions

(90x66x22) mm

Weight

0.075 kg

Installation

LED indication (pos.1 и 4, fig.1) is providing information for the device condition/status as follows:

- Duty Mode – flashes with discontinuous red and yellow light, every 16 seconds;
- Activated output – flashes with continuous red light;
- Activated input– flashes instantly with red light every 2 seconds;
- Fault condition (short-circuit or interruption in an input or an output) – flashes with continuous yellow light;
- Fault condition (activated isolator) - yellow LED flashing briefly in 1 second;
- Fault condition (no power to the monitored output (when the supply voltage monitoring is setted) yellow LED glow constantly;
- Service mode (successfully created new configuration)- The red LED lights continuously;
- Service mode (unsuccessfully created new configurationre) - only yellow LED light;

1. Configuring of the module operation mode

On the FD 7203 IO module PCB has built-in tactile button (position 2 fig. 1). After pressing and holding it for 5 second (refer point 2.5) the module will configure/reconfigure the operational mode in accordance to the electrical installation diagram (point 3).

Note : In order to configure or reconfigure the FD 7203 IO module need to be powered from the signal loop.

	configuration type	
input type	Check for short circuit of the input (it will be activated with additional 10K Ω connected in series)	Does not check for short circuit of the input (With connected EOL element 10K Ω)
output type	Operating as monitored output (Checking for power supply)	Output is operating as a relay with potential-free-functions "C", "NO" and "NC" (Does not check for power supply)

Fig. 2 - Configuration using tactile button

2. Mechanical installation

2.1 Unpack the 7203 IO module /fig. 3, step 1/

2.2 Remove the decorative plastic cover in front of the necessary terminals /fig. 3, step 2/

2.3 7203 IO module need to be mounted on the wall using screw /fig. 3, step 3A/ or on

DIN rail with 35mm width /fig. 3, step 3B/

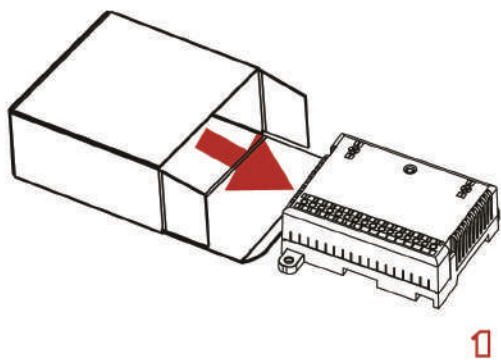
2.4 The 7203 IO module need to be installed in accordance to one of the connection diagram described in point 3.2 .

2.5 After Fire panel ON and in case of new module wiring configuration, the module will enter in Fault condition (exclude the first module start-up when is connected in according to step 3A - then the module will enter in Duty mode).

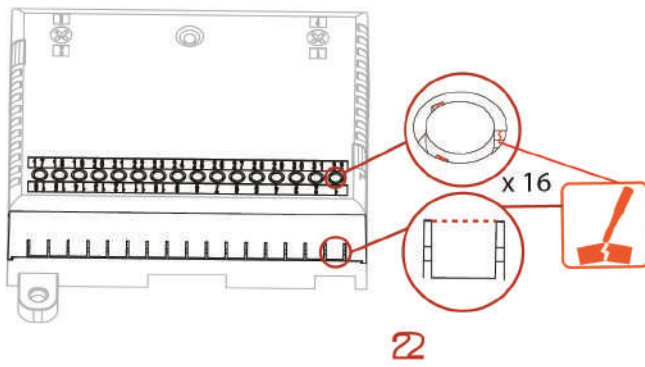
In order to "learn" the new configuration it is required to press and hold for 5 second the tactile button /fig 3, step 5/. In case that operation is successfully done the module red LED indication will be activated (in the left site of the module PCB) /fig. 3 step 5/ the module enter in service/system mode. The module will not communicate with Fire panel.

2.6 Restart the IFS 7002 panel /fig. 3, step 6/

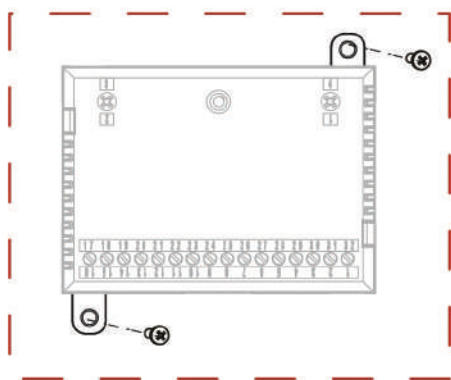
*After second or subsequent restart of fire panel, the FD 7203 IO module (1 input/ 1 output) will retain the last configured parameters (operation mode).



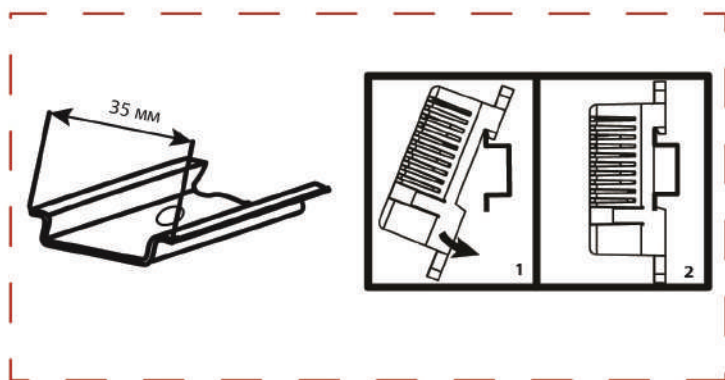
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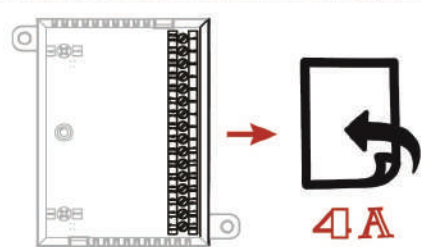
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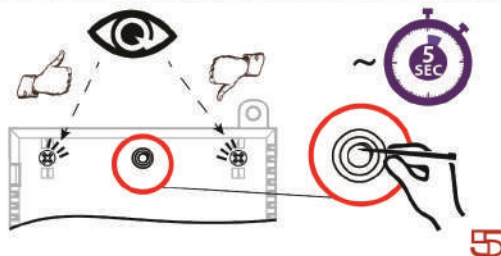
3A



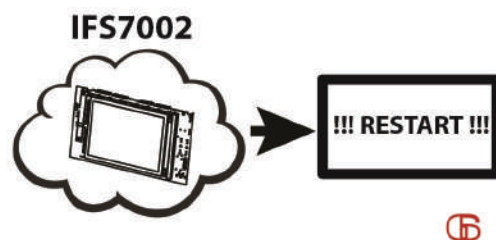
3B



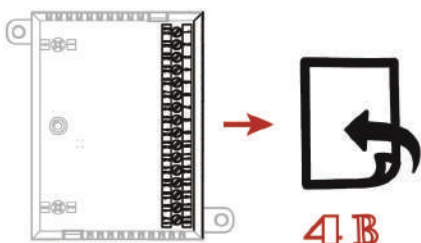
4A



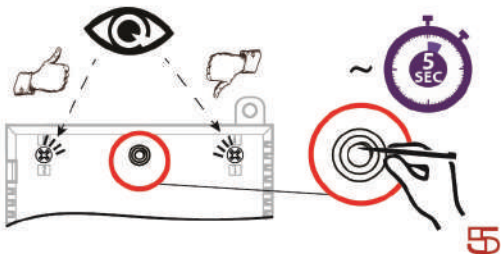
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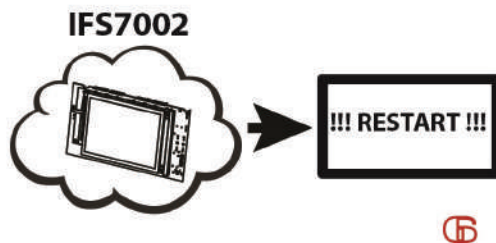
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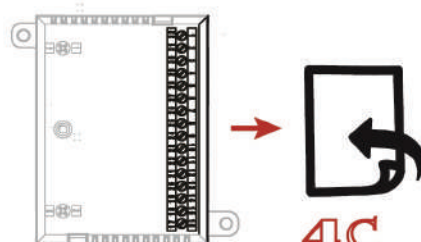
4B



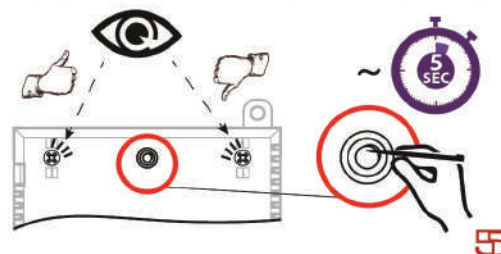
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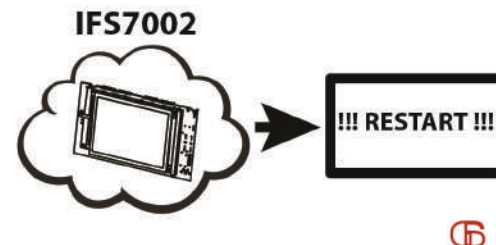
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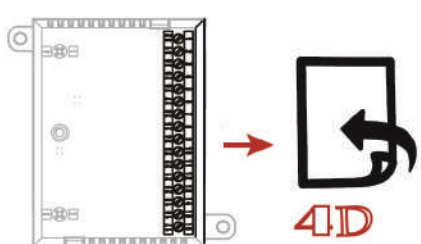
4C



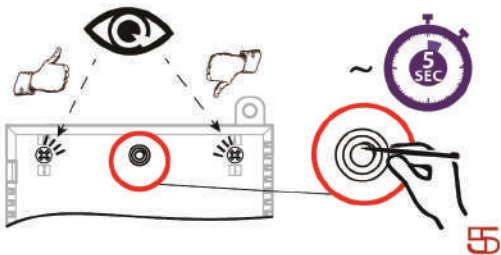
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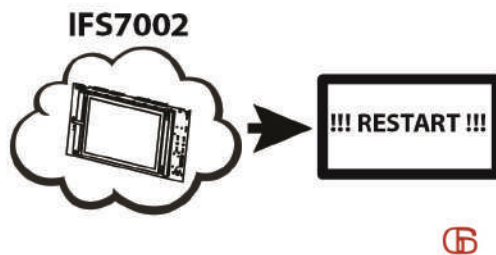
6



4D



5



6

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Фиг. 3

3. Electrical installation

The cables are assigned through terminal bus (pos.7 and 6, fig.1).

3.1. Terminal bus

3.1.1. Addressable loop

- Terminal 1 – shield of the addressable loop;
- Terminal 2 – “+” of the addressable loop;
- Terminal 3 – “-” of the addressable loop;
- Terminal 4 – “-” of the addressable loop;
- Terminal 5 – “+” of the addressable loop;
- Terminal 6 – shield of the addressable loop;

Note: It is not necessary to note the conditioned beginning and end of addressable loop. Polarity is mandatory when connecting the device.

3.1.2. Input

- Terminal 7 – input “IN”;
- Terminal 8 – input “IN”

Note: The input line is balanced and checked for interruption.

3.1.2.1 In case that the input is configured to be activated with 10kohms connected in series (check for short-circuit check switched ON) fig.2 and wires are connected in according to fig.3A and fig.3C, the panel monitor the input for short circuit.

3.1.2.2 In case that the input is configured to be activated with short circuit (check for short circuit switched OFF) fig 2 and wires are connected in according to fig. 3B and 3D, the panel does not check/monitor for fault short-circuit.

Important note: Activation of the input is done through non-potential contact (dry contact).

3.1.3. Output and external power supply

Terminals from 9 to 15 depends from configuring of the type output (fig.2 and fig.3A or 3B or 3C or 3D).

3.1.3.1. Output, configured as monitored

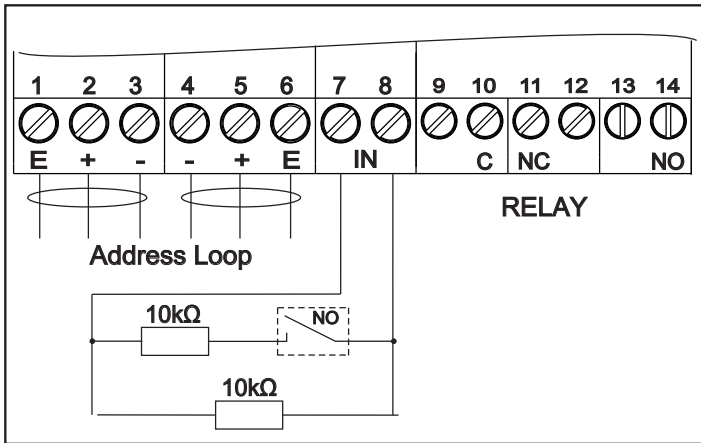
- Terminal 9 - “- Out” - negative terminal of monitored output;
- Terminal 10 - “+Out” - positive terminal of monitored output;
- Terminal 11- it is required to make short circuit between terminal 12;
- Terminal 13 - do not use.
- Terminal 14 - “+ ” - positive terminal for assignment of external power supply;
- Terminal 15 - “- ” - negative terminal for assignment of external power supply;

3.1.3.2. Output, configured as relay with Non-potential contacts

- Terminal 9 - do not use;
- Terminal 10 - “C” - common contact of the relay;
- Terminal 11 - “NC” - normally closed contact of the relay;
- Terminal 12 - do not use;
- Terminal 13 - do not use;
- Terminal 14 - “NO” - normally open contact of the relay;
- Terminal 15 - do not use;

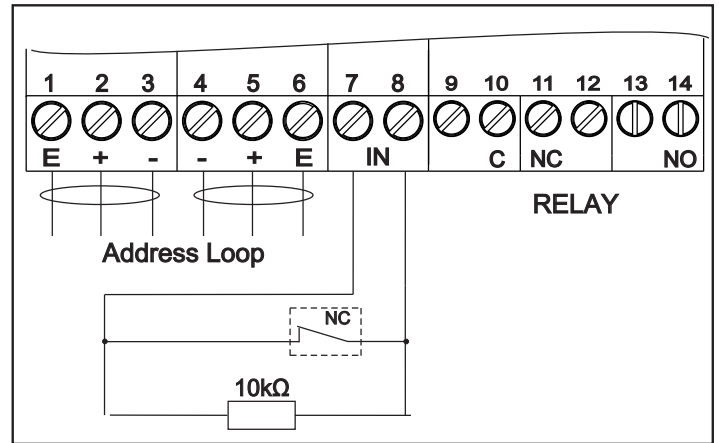
3.2. Wiring diagrams

3.2.1. Using as a relay (dry contact) and/or monitored input - check for short circuit



check for short circuit of the input and managing of external device through relay with non-potential contacts

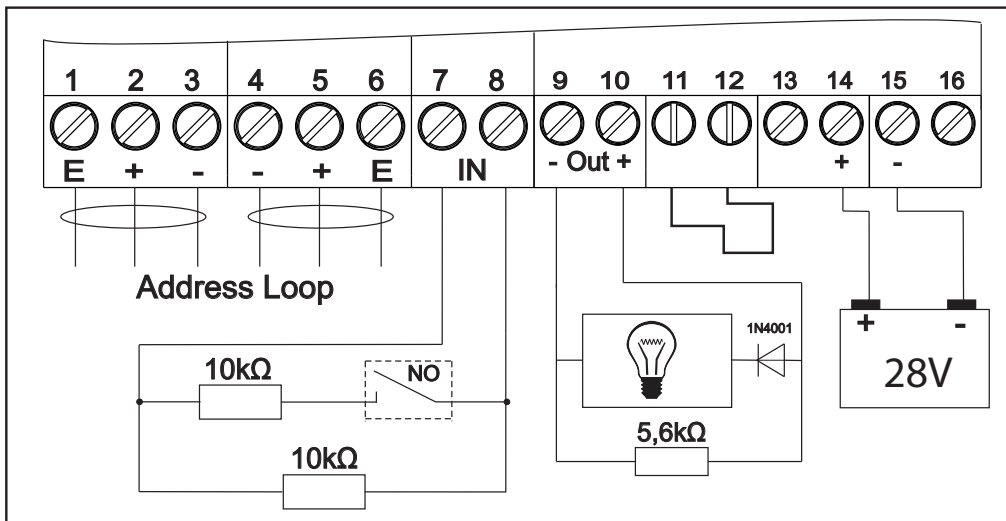
Fig.3A



does not check for short circuit of the input and managing of external device through relay with non-potential contacts

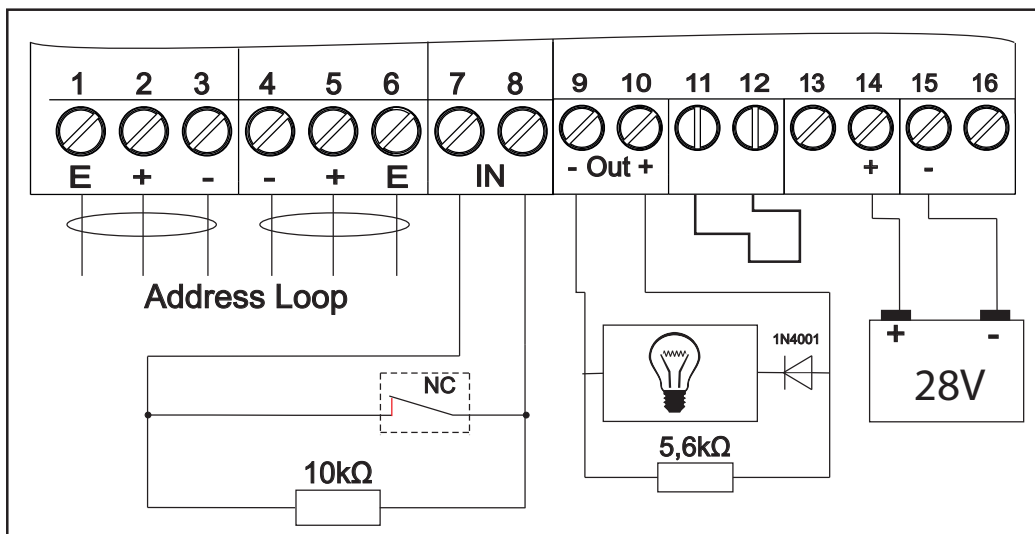
Fig.3B

3.2.2 Using as a monitored output or monitored (technical common) input



check for short circuit of the input and managing of external device through monitored output

Fig.3C



does not check for short circuit of the input and managing of external device through monitored output

Fig.3D

4. Set Up of the Input-Output module FD7203 within the system IFS7000.

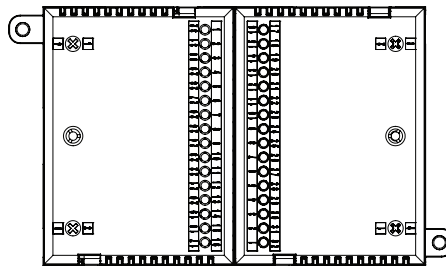
Programming of the FD7203 (1 input/1 output) module output is realized from menu "Setup/Loops /Device Parameters". Please refer "Instruction manual IFS7002" - т.13.4.3.1 - Menu "Device Parameters".

Complexity

Input-Output device FD7203 (1input/1output)	- 1 бр.
leaflet with the installation steps	- 1 бр.
Resistor 5,6 kΩ for the controllable output	- 1 бр.
Resistor 10 kΩ for the input	- 2 бр.
Diode 1N4001	- 1 бр.

Accessory - installation of a modular box/cabinet

For the In-Out module 7203 IO type is available accessory - a modular box consisting of the module cabinet. The accessory is used to bind (to cover) the cables to the connection terminals.



Warranty

The warranty period is 36 months from the date of sale, providing that the installation requirements have been observed.

The manufacturer does not bear warranty liabilities for damages caused through accidental mechanical damage, misuse, adaptation or modification after production.

UniPOS wishes you a successful work !

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