

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 (pos.1, fig.1) and closed by a cover (pos.2, fig.1). The base has an implemented terminal bus (pos.5, 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 the device (pos.3 and 4, fig.1) illuminated in yellow (A) and red (B) light, providing device status information.

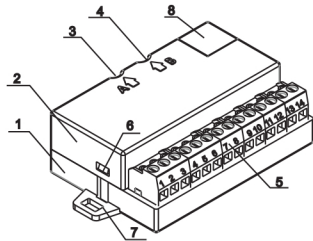


Fig. 1 - Picture of input/output device

Technical Data

Addressable loop:	
- supply voltage	(15+30)V DC
- current consumption in duty mode	< 350µA
- current consumption in alarm state	(2±1)mA
Input:	1 pc.
- "Fault condition" - interruption	$R_{in} > 25k\Omega$
- "Fault condition" - short circuit	$R_{in} \leq 2,2k\Omega$
- "Duty mode" range	$5,7k\Omega \leq R_{in} < 15k\Omega$
- "Activated input" range (fig.3b)	$2,2k\Omega < R_{in} < 5,7k\Omega$
- "Activated input" - input does not check for short circuit (fig.3a)	$0k\Omega < R_{in} < 5,7k\Omega$
Output: (depending on the configuration and the power supply Relay or Controllable)	1 pc.
• Relay	
- type	potential free, switching functions
- electrical specifications	30VDC /1A, 125VAC/0,5A
or	
• Controllable	
- type	potential
- electrical specification	(12+30)V DC
- peak activation current	1 A
Operating temperature range	from minus 5°C to 40°C
Relative humidity resistance (no condensation)	≤ 95%
Dimensions	(92x50x26) mm
Weight	0.082 kg

Indication

LED indication (pos.3 and 4, fig.1) is providing information for the device condition 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 controllable output (when the supply voltage monitoring is setted) yellow LED glow constantly.

Installation

1. Mechanical installation

The device shall be mounted into a place protected from moisture or into additional boxes.

1.1. Unpack the device from the transport package.

1.2. Open the cover (pos.8, fig.1), under which is situated the four positional switcher.

1.3. Configure (the procedure, described chapter 2 of the Instruction Manual) the four positional switcher according to the project.

1.4. Close the cover.
 1.5. Pass the connecting cables to the terminals of the device (chapter 3 of the Instruction Manual). For convenient installation in the device are used terminals which provide possibility for easy dismentling. Thus they can be separated from the device, and placed again after passing the cables.

1.6. Fix the device to the chosen for that purpose place (pos.7, fig.1).

2. Configuring the four positional switcher

A part of parameters of FD 7203 are set via an internal four way diil switch.

DIP	ON	OFF
DIP 1,2 - Type output	Output is operating as controllable output	Output is operating as a relay with potential-free-functions "C", "NO" and "NC"
DIP 3 - On/Off check for short circuit of input	Check for short circuit of the input	Does not check for short circuit of the input
DIP 4 - On/Off check for power supply	Does not check for power supply	Checking for power supply

Fig.2 - Configuration of switchers

3. Electrical installation

The cables are assigned through terminal bus (pos.5, 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. When is connected the input/output device, have to keep the right polarisation.

3.1.2. Input

- Terminal 7 – input "IN";
- Terminal 8 – input "IN"

Note: The line is balanced and checked for interruption. When is checking for short circuit -point t2, and compleat cheme fig.3b, the panel monitor the input for short circuit.

Important: Activation of a input realized through non-potential contact (dry contact).

3.1.3. Output and external power supply

Terminals from 9 to 13 depends from configuring of the type output (point 2 and fig.4a and fig.4b).

3.1.3.1. Output, configured as controllable (switchers 1and 2 in position "On")

- Terminal 9 - "- Out" - negative terminal of controllable output;
- Terminal 10 - "+Out" - positive terminal of controllable output;
- Terminal 11 - "+" - positive terminal for assignment of external power supply;
- Terminal 12 - "-" - negative terminal for assignment of external power supply;
- Terminal 13 - do not use.

3.1.3.2. Output, configured as relay with Non-potential contacts (switchers 1 and 2 in position "Off")

- Terminal 9 - do not use;
- Terminal 10 - "C" - common contact of the relay;
- Terminal 11 - "NO" - normally open contact of the relay;
- Terminal 12 - do not use;
- Terminal 13 - "NC" - normally closed contact of the relay.

3.1.4. Positive terminal

- Terminal 14 - Positive terminal for power supply of additional LED, for activated input (fig.5). The minus of the LED connected to terminals 3 or 4 ("- " of addressable loop).

3.2. Schemes of connecting

3.2.1. Input

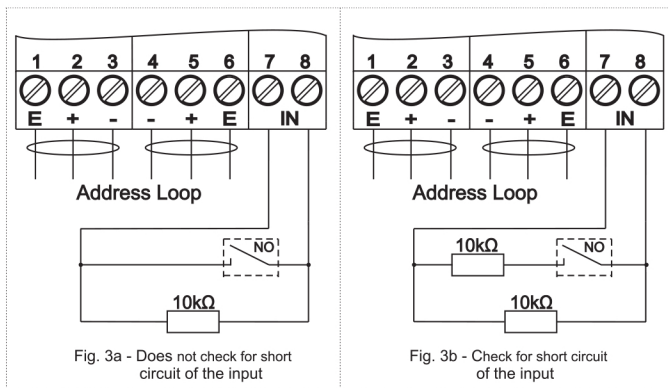


Fig. 3a - Does not check for short circuit of the input

Fig. 3b - Check for short circuit of the input

3.2.2. Using the outputs of the device

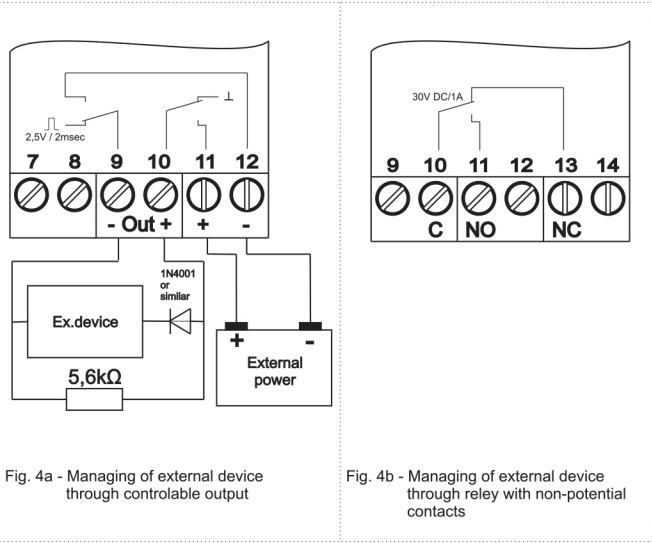


Fig. 4a - Managing of external device through controlable output

Fig. 4b - Managing of external device through relay with non-potential contacts

3.2.3. Connecting of additional LED , indicating activation of the input.

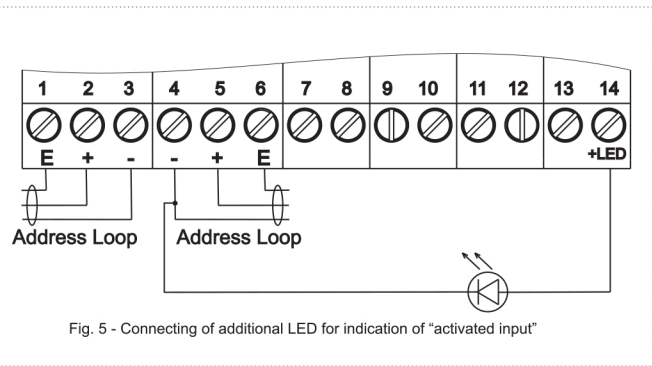


Fig. 5 - Connecting of additional LED for indication of "activated input"

4. Set Up of the Input-Output device FD7203 within the system IFS7000.
 Programming the output of the device FD7203 (1 input/1 output) is realized in menu "Setup/Loops/Device Parameters". Please see "Instruction manual IFS7002".

Complexity

- Input-Output device FD7203 (1input/1output) - 1 pc.
- Instruction manual - 1 pc.
- Resistor 5,6 kΩ for the controllable output - 1 pc.
- Resistor 10 kΩ for the input - 2 pcs.
- Diode 1N4001 - 1 pc.

Warranty

The warranty period is 12 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.