

GENERAL DESCRIPTION

The input/output unit is designed to control and receive information from external devices for the fire alarm system IFS 7000 in case of detecting fire conditions.

The input/output unit (fig.1) consists of a printed circuit board (pos.2) and an unit carrier (pos.4), fixed in a plastic box with bottom (pos.1) and a cover (pos.3). The terminals for connecting the signal loop **SL** (pos.3), the power loop **PL** (pos.4), potential free relay outputs **OUT2, OUT3, OUT4, OUT5-1, OUT5-2** (pos.1), the controllable output **OUT1** (pos.6), the inputs separated by means of electroplating **IN1, IN2, IN3** (pos.2) and constant current supply output **24VDC** (pos.7) are located on the printed circuit board (fig.2). Outputs **OUT5-1** and **OUT5-2** are switched over simultaneously and are controlled by one relay. The unit is completed by terminating resistor **R** (pos.5) with value 5k Ω .

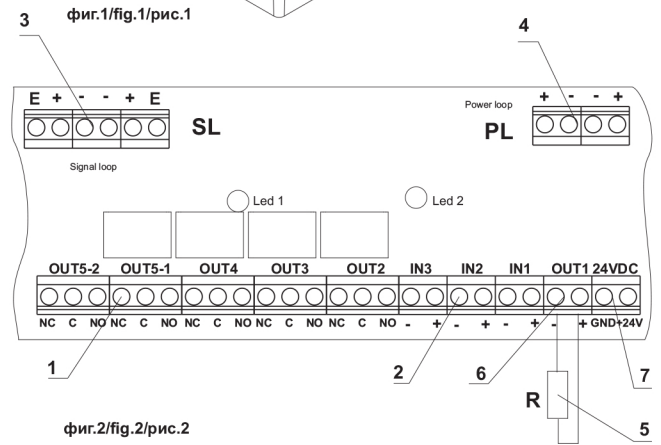
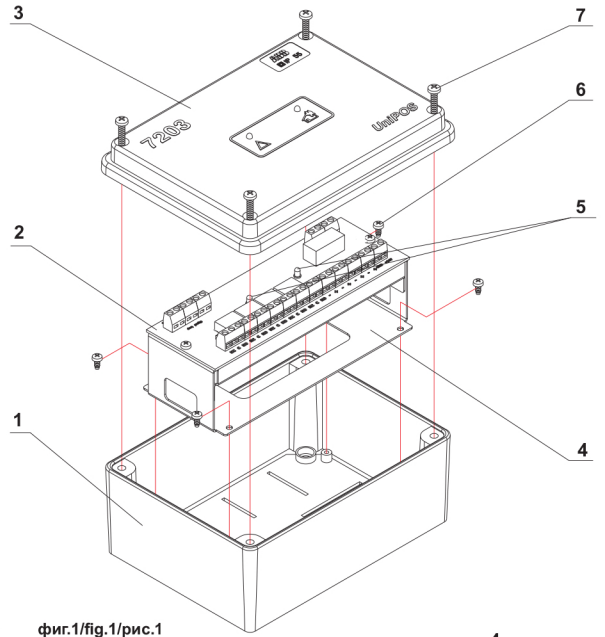
The communication between the Fire Control Panel IFS 7002 and the input/output unit is completed via the signal loop by the specialized data exchange protocol UniTALK. The input/output unit is power supplied simultaneously by the power and the signal loops. Two built-in isolators are provided for short circuit protection - one on the signal loop and one on the power loop.

Both LED indicators (fig.1, pos.5) provide information for the current status:

- **Duty mode** - red and yellow LEDs flash briefly every 16s;
- **Activated controllable output** - the red LED produces continuous light, the yellow LED is not lit;
- **Activated relay output** - the red LED flashes briefly every 1s; the yellow LED is not lit;
- **Activated input** - the red LED flashes briefly every 2s, the yellow LED is not lit;
- **Fault condition (activated isolator on the signal loop)** - the yellow LED flashes briefly every 1s, the red LED is not lit;
- **Fault condition (activated isolator on the power loop)** - the yellow LED flashes briefly every 2s, the red LED is not lit;
- **Fault condition (short circuit or interruption of the controllable output)** - the yellow LED produces continuous light, the red LED is not lit.

TECHNICAL DATA:

Supply voltage:		(15-30)V DC
	- signal loop	(12-30)V DC
Current consumption in Duty mode:		
	- signal loop	300 μ A
	- power loop	2 mA
Current consumption in Activated state:		
	- signal loop	3 mA
	- power loop	up to 1 A
Controllable output:		
	- voltage	(11-30)V DC
	- maximum current	200 mA
Relay outputs:		
	- type	4 pcs. potential free, switching over
	- electrical parameters of the contact system	1A/30V DC 0,5A/125V AC
Constant current supply output:		
	- voltage	1 pc. (12-30)V DC
	- maximum current	1 A
Inputs:		
	- type	3 pcs. potential, separated by electroplating
	- voltage of activating/input current	5V DC / 3 mA
	- maximum voltage/input current	30V DC / 15 mA
Cross section of connecting wires		(0,8-2,5) mm ²
Type of the connecting cables:		
	- of the signal loop	two-wire, shielded
	- of the power loop	two-wire
Degree of protection		IP 50
Operational temperature range		minus 10°C - plus 55°C
Relative humidity resistance		(92 \pm 3)% at 40°C
Dimensions		120x164x74 mm
Weight		0,250 kg



INSTALLATION

Install it according to fig.1 in the following sequence:

1. Dismantle the input/output unit by unscrewing screws pos.7 and pos.6.
2. Installation holes and connecting wires holes are drilled on the designated places on the bottom.
3. Fix the bottom on the desired place by means of pins and screws. The connecting wires are threaded in advance in the box.
4. Install the unit carrier to the bottom by using screws pos.6.
5. The electrical connection is done according to fig.3, where "A" is an external device controlled by means of potential free contact, "B" - by means of potential contact, and "C" transmits signal along input **IN1** via potential contact. The terminating resistor **R** is connected to the terminals of the last device in the line when connecting external devices to the controllable output **OUT1**. It is not necessary to take into consideration the conditional beginnings and ends of the loops. It is recommended cable shoes to be used.
6. Place the cover to the bottom by using screws pos.7.

TESTING

The input/output unit is tested after installation as a part of the site's fire alarm system or with maintenance activities, following this order:

1. The outputs of the input/output unit are tested by the Fire Control Panel. They should be activated and the respective indication to be on.
2. The external devices connected to the inputs of the input/output unit are activated consecutively. The respective indication should be on.

SERVICE SCHEDULE

It is done by authorized personnel and includes the following activities:

1. Inspection for visible physical damage - monthly
2. Testing in real conditions - monthly

WARRANTY

The warrant period is 36 months from the date of sale.

The manufacturer guarantees the normal operation of the unit providing that the requirements set herein have been observed.

The manufacturer does not bear warranty liabilities for damages caused through accidental mechanical damage, misuse, adaptation or modification after production. The manufacturer bears warranty liabilities for damages in the unit caused through manufacturer's fault only.

