

Instruction Manual

Input-Output Device

M9000A IO

1922-CPR-1276

General Description

The Input-Output device M9000A IO is designated to produce and send an electrical signal to various devices in case of occurred events and recording external impacts, typical for a re condition events. The device is compatible with addressable control panels FP9000A. 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 through which cables connect the addressable loop, the power supply and etc. Communication between Control Panel FP9000A and the input-output device is realized by means of the addressable loop through a specialized protocol for data exchanging DMTEch. Two LED indicators are built-in on the device PCB, illuminated in yellow and red light, providing device status information. The device is certified by standards EN 54-18 and EN 54-17.

1. Technical Data

Addressable loop:

- supply voltage (15÷30)Vdc
- current consumption in duty mode < 500µA
- current consumption in alarm state (2±1)mA

Input: 1 pc.

- "Fault condition" - interruption $R_{input} > 10k\Omega$
- "Fault condition" - short circuit $R_{input} \leq 100\Omega$
- "Duty mode" range $8k\Omega > R_{input} > 2k\Omega$
- "Activated input" range $1.3k\Omega > R_{input} > 800\Omega$
- "Activated input" - not check for short circuit $1.3k\Omega \leq R_{input} > 0\Omega$

Output: Relay

- type potential free, switching functions
- electrical speculations 30V DC /1A, 125V AC/0,5A
- Degree of protection: IP 30
- Operating temperature range from minus 5°C to 60°C
- Relative humidity resistance (no condensation) (95±3) % at 40°C
- Dimensions (105x85x23) mm
- Weight 0.085 kg



2. Indication

LED indication is providing information for the device condition/status as follows:

- Duty Mode – Red and yellow light, every 15 seconds;
- Activated output – Red light;
- Activated input – Red light every 2 seconds;
- Fault condition (short-circuit in an input) – The yellow LED is switched on with a short switch off;
- Fault condition (activated isolator) - Yellow LED every 1 seconds;
- Fault condition (no power to the monitored input (when the supply voltage monitoring is setted) yellow LED glow constantly;

3. Electrical installation

The cables are assigned through Terminal bus:

LOOP-1-1	E	LOOP-1-2	IN	V input	OUTPUT
⊖ ⊕	⊖ ⊕	⊖ ⊕	⊖ ⊕	⊖ ⊕	⊖ ⊕ ⊖
+	-	±	-	+	NC NO C

Addressable loop

- LOOP-1-1 – “+” of the addressable loop;
- LOOP-1-1 – “-” of the addressable loop;
- E – Shield of the addressable loop;
- LOOP-1-1 – “-” of the addressable loop;
- LOOP-1-1 – “+” of the addressable loop;

Input

- IN – input “IN”;
- IN – input “IN”

Check of external power supply

- V input – “+” - positive terminal for check of external power supply;
- V input – “-” - negative terminal for check of external power supply;

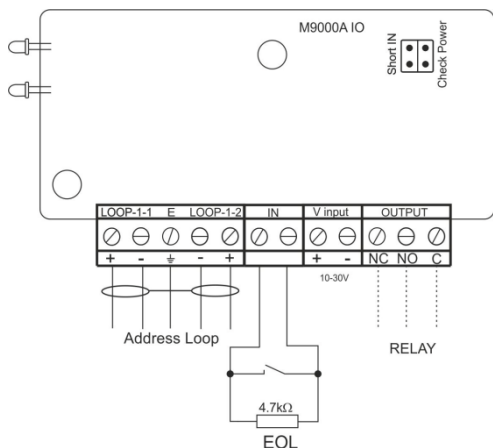
Relay Output

- OUTPUT - “C” - common contact of the relay;
- OUTPUT - “NO” - normally open contact of the relay;
- OUTPUT - “NC” - normally closed contact of the relay;

4. INPUT wiring diagrams

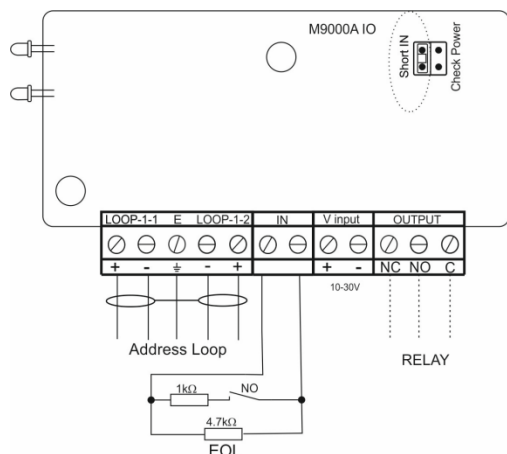
The input line is balanced and checked for interruption.

4.1. Activated with short circuit.



In case that the input is configured to be activated with short circuit (The jumper “Short IN” is not connected) - the panel does not check/monitor input for fault short-circuit.

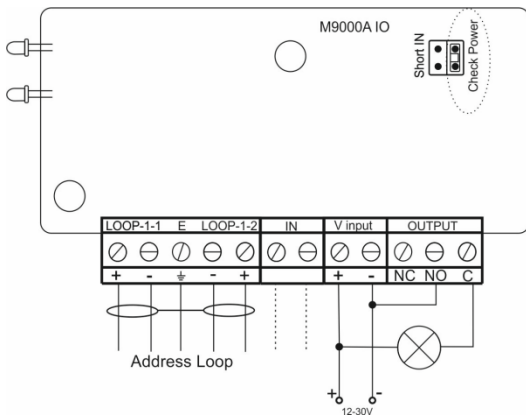
4.2. Activated with resistor 1 kΩ connected in series



In case that the input is configured to be activated with resistor 1 kΩ connected in series (The jumper “Short IN” is connected) - the panel monitor the input for short circuit.

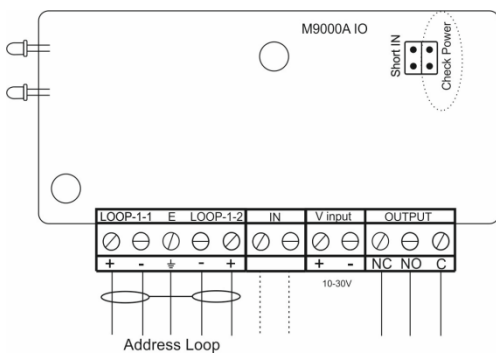
5. OUTPUT wiring diagrams

5.1. The relay and controllable external power supply.



The relay contacts are connected to an external power supply. External power supply is controlled by the device. The jumper “Check Power” is connected.

5.2. Relay contacts only.



The relay contacts are used to control devices in the fire department. External power is not controlled. The jumper “Check Power” is not connected.

6. Complexity

- 6.1 Input-Output device M9000A I/O (1input/1output) - 1piece.
- 6.2 Resistor 4,7 kΩ for the controllable output - 1 piece.
- 6.3 Resistor 1 kΩ for the input - 1 piece.
- 6.4 Jumper - 2 piece.

7. 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.

DMTech wishes you pleasant work!