

# Installation and Operation Instructions

Address device 3 inputs / 5 outputs

## M9000A IO

### Description

The M9000A IO I/O is designed to create and send an electrical signal to various devices in the event of events occurring and to record external influences typical of recovery events. The device is compatible with addressable control panels FP9000A. The device consists of a printed circuit board with elements mounted on a plastic base and closed with a lid. The base has terminals through which the connection between the loop, power supply, etc. is made. Communication between the control panel FP9000A and the I/O device is carried out via an addressable loop through a specialized DMTEch data exchange protocol. Two LED indicators are embedded on the PCB of the device, which glow in yellow and red light, providing information about the status of the device. The device is certified according to EN 54-18:2005/AC:2007, EN54-17:2005 and EN 54-17:2005/AC:2007.

### 1. Technical data

#### Address outline:

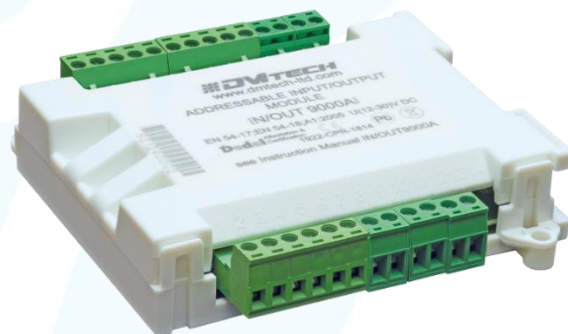
- Supply voltage (15÷30)V DC
- Electricity consumption in standby mode < 500  $\mu$ A
- power consumption in "Alarm" mode (2±1) mA

#### Entrance: 3 pieces.

- "Error" status - interrupt  $R_{input} > 10k\Omega$
- Error status – short circuit  $R_{input} \leq 100\Omega$
- Standby range  $8k\Omega > R_{input} > 2k\Omega$
- Login Enabled range  $1.3k\Omega > R_{input} > 800\Omega$
- "Input enabled" - no short-circuit check  $1.3k\Omega > R_{input} > 0\Omega$

#### Output: Relay

- potential-free, switching functions
- Electrical Specifications 30V DC /1A, 125V AC/0,5A
- Degree of protection: IP 30
- Operating Temperature - 5°C to 60°C
- Relative humidity (non-condensing) (95±3) % at 40°C
- Sizes (105x85x23) mm
- Weight 0.085 kg



### 2. Indication

The LED indication provides information about the status/status of the device as follows:

- Standby mode – Red and yellow light every 15 seconds;
- Output enabled – red light;
- Login Enabled – red light every 2 seconds;
- Status "Error" (input short circuit) – The yellow LED turns on with a short shutdown;
- Error status (isolator activated) – The yellow LED lights up every single second;
- Status "Error" (there is no power supply to the monitored input (when the supply voltage monitoring is set), the yellow LED lights up constantly);
- Error status (open circuit) – the yellow LED flashes every 2 seconds.

### 3. Electrical installation

The cables are connected to the terminals:

#### Addressing the outline






LOOP-1-1 – "+" of the addressable loop;

LOOP-1-1 – "-" of the addressable loop;

E – Mass of the addressable loop;

LOOP-1-2 – "-" of the addressable loop;

LOOP-1-2 – "+" of the addressable loop;

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

#### Entrance

IN – input "IN";

IN – input "IN"

#### Checking the external power supply

V input - " + " - positive terminal for checking external power supply;

V input - " - " - negative terminal for checking external power supply;

#### Relay output

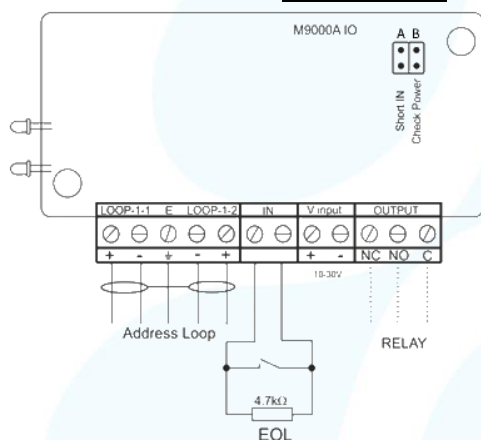
OUTPUT - "C" - common contact of the relay;

OUTPUT - "NO" - normally open contact of the relay;

OUTPUT - "NC" - normally closed contact of the relay;

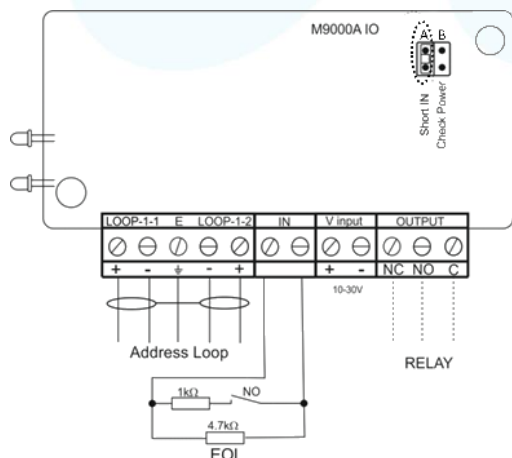
### 4. Connection diagrams of the INPUT

#### 4.1. It is activated in case of a short circuit.



In case the input is configured to be activated in case of a short circuit (the jumper "Short IN" is not connected) – the plant does not check/monitor the input for failure in case of a short circuit.

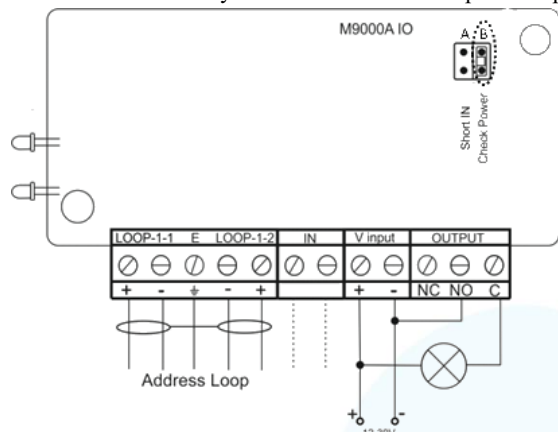
#### 4.2. Activated with a 10 kΩ series-connected resistor



In case the input is configured to be activated with a 10 kΩ resistor connected in series (the "Short IN" jumper is connected) - the panel monitors the short-circuit input.

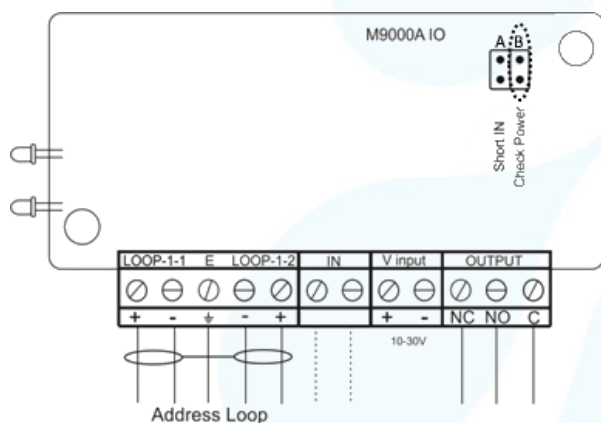
## 5. Connection diagram of the OUTPUT

### 5.1. The relay and controlled external power supply.



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

### 5.2. Relay contacts only.



Relay contacts are used to control devices in fire automation. The external power supply is not controlled.

## 6. Content

- 6.1. M9000A I/O I/O I/O (3 inputs/5 outputs) – 1 piece.
- 6.2. Resistor 4.7 kΩ for the controlled output - 1 piece.
- 6.3. Resistor 10 kΩ for the input - 1 piece.

## 7. Guarantee

The warranty period is 36 months from the date of sale, provided that the installation requirements are met.

The manufacturer is not guaranteed liability for damage caused by accidental mechanical damage, improper use, adaptation or modification after production.

1922 – CPR – 1814



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