

MHY 923 - Input/output device

Element MHY 923 is addressable element of FDFAS, which is intended:

- a) to control and sensing of following devices related to fire protection
- b) to connection and reset of special sensors of FDFAS

in addressable FDFAS LITES with C.I.E. MHU 109 and Firexa, manufactured by LITES Liberec s. r. o. Element is connected to detection line of the C.I.E. The address is set by help of addressable preparation MHY 535.



It contains one separately controllable bi-stable relay and one input for transmission of information to the C.I.E. This input allows checking of connected outer device controlled by built-in relay, or it is possible to set output as independent. On this output it is possible to connect e.g. aspiration detector, where it is simultaneously connected normally closed contact (fault) and normally opened contact (alarm).

Relay output is activated according to kind of connection and setting in configuration program of C.I.E.:

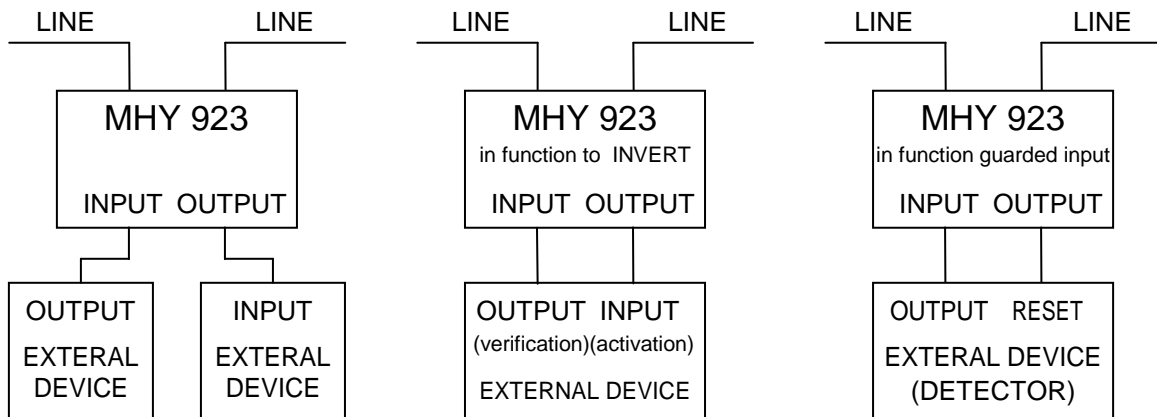
- a) from C.I.E after fulfilment of entered conditions independently or depending on state of input
- b) automatically during reset of C.I.E.. Relay has a function for reset of connected detector.

Electrical circuits of element are on the printed circuit board, which is placed in a plastic box with removable lid.

Element contains input circuit, which can be plugged either as opto-isolated or for connection of normally open or normally closed contact. Input can be connected as a balanced, monitored for interruption and short-circuit with the possibility of transmission of fault of connected device. In guarded regime the activation of input of element MHY 923, connected in system Firexa, is indicated by flashing of LED on element.

Addressable part registers a communication from C.I.E, logs on set address and transmits the information about situation on input, QUIET, ALARM, FAULT).

The possibility of using the input/output element MHY 923



Input and output uses separate two independent devices

Device controlled by output of element MHY 923 is after set delay controlled by input.

State Alarm and Fault of external detector is monitored by input, by output is detector reset

Technical parameters

Power supply	(18 ÷ 21) V _{imp}
Nominal power supply	17 ÷ 20 V _{imp}
Quiescent current (for credit to current of line))	max. 200 µA
Input opto-isolated – voltage	
Input voltage	9 V ÷ 30 V (logical 1) 0 V ÷ 3 V (logical 0)
Input resistance	ca 10 kΩ
Input contact NO/NC	
resistance of line and closed contact	max. 1 kΩ
resistance of open contact	min. 10 kΩ
output test voltage	ca 19 V _{imp}
output test current	max. 1,9 mA
Input guarded	
test voltage	17÷20 V _{imp}
resistance of line	max. 100 Ω
test current quiescent	ca 0,95 mA _{imp}
test current alarm	ca 1,4 mA _{imp}
test current detector fault	ca 0,65 mA _{imp}
resistance quiescent	10 kΩ
resistance alarm	4,7 kΩ
resistance detector fault	20 kΩ
Optical signalling (in regime v guarded input)	red LED
Relay change-over contact	max. 40 V, max. 1 A max. 30 W, max. 40 VA
Setting of address (by preparation MHY 535)	1 to 128
Protection according to ČSN EN 60529	IP 40
Radio screening degree according to ČSN EN 55022	B-class equipment
Cross-section of attachable conductors	(0,2 to 1,5) mm ²
Dimensions (w x h x d))	(81 x 81 x 24) mm
Weight	ca 95 g

Element MHY 923 is designed for connection to the safe device according to ČSN EN 60950 and fulfils requirements of standard for input/output devices ČSN EN 54-18.

During design of device it is necessary to ensure recommendations and measures to reduce the effects of interference voltages and rules for design of C.I.E.

Working conditions

Element MHY 923 is intended for stationary use in areas protected against weatherproof with classification according to ČSN EN 60 721-3-3:

K: climatic conditions for environment

- working temperature range
- relative humidity of air range
- atmospheric pressure range
- without condensation, ice accretion and ice formation

Z: special conditions

B: biological conditions

C: chemical active substances

S: mechanical active substances

M: mechanical conditions

Eminent temperature time duration (45 to 70) °C

Eminent humidity time duration (85% to 95%/≤ 40°C)

3K5

(-25 to +70) °C

max. 95 % by +40 °C

(86 to 106) kPa

3Z1 thermal radiation negligible

3B1 without presence of flora and fauna

3C1

3S1

3M1

2 months per year

100 hours per year

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