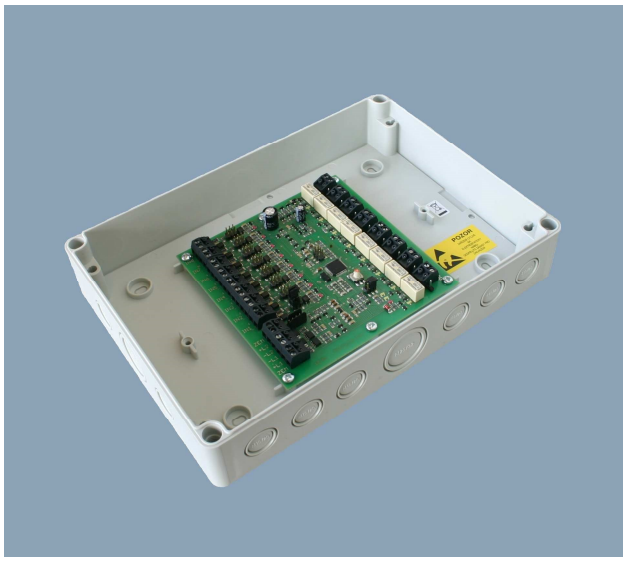
MHY 925 – Multi-fold input/output element with isolator

MHY 925 is an addressable multi-fold element containing 8 (4) programmable inputs and 8 (4) programmable outputs. It connects to a detection loop of analogue addressable control panels LITES, and when supplemented with appropriate module also to SL-RS 485 communication line of control panels MHU 115 and MHU 116/117. The element contains an isolator.



Inputs serve for automatic signalling of pre-defined exceptional states of any external device, which signals this state by either closing or opening an electronic contact, or by voltage applied to opto-isolated input. Inputs can also be set as monitored.

Outputs serve for controlling of external devices connected to device's switch-over NO/NC contacts.

MHY 925 comes in two types:

a) MHY 925/4 - contains 4 programmable inputs and 4 programmable outputs
b) MHY 925/8 - contains 8 programmable inputs and 8 programmable outputs

Input/output element MHY 925 can be connected to a detection loops of control panels MHU 110, MHU 111, MHU 115, MHU 116 and MHU 117. After adding the DLS 925 communication module the MHY 925 can be connected to SL-RS 485 communication line of control panels MHU 115, MHU 116 and MHU 117.

Properties of each input and conditions of outputs activation are defined in configuration program for control panels.

Electronic circuits of element MHY 925 are on a PCB that is placed in a plastic box with removable cover. Communication module DLS 925 connects to a connector and is secured with spacers on the PCB.

Working principle

The element is powered by impulse voltage from detection line of control panel, or if connected to communication line SL-RS 485, from control panel's source or from external backup power supply. Input lines can be connected as opto-isolated, or as closing/opening contact. These inputs can also be set as monitored, where the opening contact (fault) and closing contact (fire alarm) of the connected external device can be connected simultaneously. At the same time the input lines are monitored for interruption and short-circuit.

Outputs are bistable relays with switch-over potential-free contacts.

The addressable part registers the control panel's communication, reports own address and sends information when input is activated or activates own output.

Working conditions

The element is designed for environments protected against weather conditions with classification of conditions according to ČSN EN 60721-3-3.

K: climatic conditions for the environment	3K5
- working temperature range	(from -25 to +70) °C
- relative air humidity range	max. 95 % at +40 °C
- atmospheric pressure range	(from 86 to 106) kPa
- without condensation, icing and ice formation	
Z: special conditions	3Z1 heat radiation negligible
B: biological conditions	3B1 without presence of flora and fauna
C: chemical active substances	3C1
S: mechanical active substances	3S1
M: mechanical conditions	3M1
Lasting of significant temperature (45 – 70)°C	2 months/year
Lasting of significant humidity (85% – 95%/≤ 40°C)	100 hours/year

Technical parameters

Power supply from detection loop:	
Power supply	(18 ÷ 21) V_{imp}
Normal state current (to add to loop current)	max. 200 µA
Power supply from SL-RS 485:	
Power supply	(19 ÷ 28) V
Consumption with module DSL 925	max. 20 mA
Number of inputs	4 or 8
Input opto-isolated – voltage	
input voltage	9 V ÷ 30 V (logical 1) 0 V ÷ 3 V (logical 0)
input resistance	approx. 10 kΩ
Input contact closing/opening	
lines and closed contact resistance	max. 1 kΩ
open contact resistance	min. 10 kΩ
Input contact monitored	
lines resistance	max. 100 Ω
normal state resistance	10 kΩ
alarm state resistance	4,7 kΩ
element fault resistance	20 kΩ
Number of outputs	4 or 8
Maximal switched current	1 A
Maximal switched voltage	48 V
Maximal switched power	30 W_{DC} / 40 VA_{AC}
Usable for grid circuits	no
Optical signalling	red and yellow LED
Address setting (by MHY 535/536)	1 ÷ 128
Protection according to ČSN EN 60529	IP 54
Radioscreening degree according to ČSN EN 55022	B class equipment
Connectable wires cross-section	(0,2 ÷ 1,5) mm^2
Dimensions (w × h × d)	(254 × 180 × 63) mm
Weight	approx. 600 g

The MHY 926 is designed for connection to a safe device according to ČSN EN 60950 and meets the requirements of the ČSN EN 54-18 standard for input / output devices.

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