

MHG 943

Fourfold input element (technological detector)

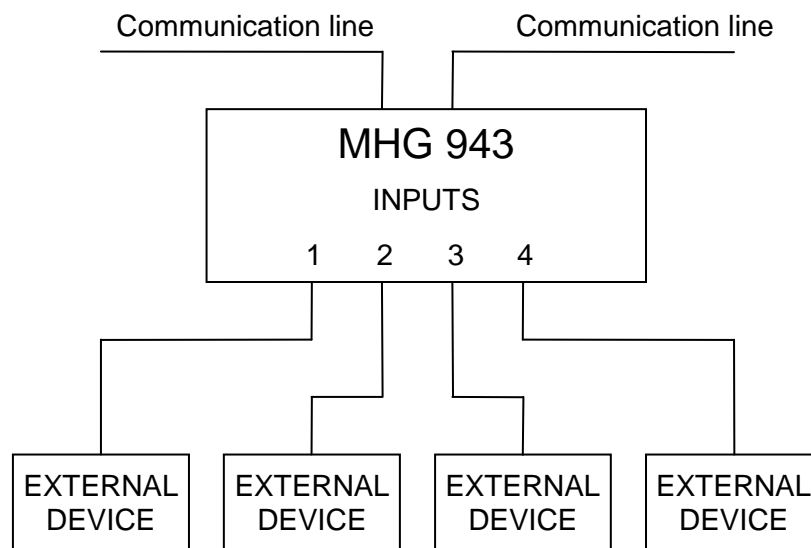
MHG 943 is an addressable input element with four inputs intended in cooperation with addressable C.I.Es Lites for automatic signalling of user defined exceptional state(s) of any external device, which indicates this state either by closing or opening an electrical contact or by voltage received on the optoisolated input. Contacts can also be set as guarded.



The element communicates with C.I.E. on 4 consecutive addresses. The first one is set by the addressing preparation MHY 535. Activation of any input is signalled by blinking of a red LED and additional SMD LED of appropriate input. The element consists of printed circuit board with terminal blocks which is placed in a plastic box with removable transparent cover.

The element is powered by a pulse voltage from the detection line of C.I.E. It contains power supply for its own electronic circuits. Evaluation circuits of input can be set as optoisolated or for connection of switching contact. These inputs can as well be set as guarded, where with the external device an opening (FAULT) or closing (ALARM) contacts can be connected simultaneously. At the same time the loop is guarded for interruption or a short-circuit.

Addressable part registers the communication from C.I.E., refers under appropriate address and sends information about input activation to the C.I.E.



Connection of input element MHG 943

Technical parameters

Power supply	(18 ÷ 21) V _{imp}
Rated voltage	12 V _{imp}
Standby current	max. 200 µA
Number of inputs	4
Optoisolated input – current	
input voltage	9 V ÷ 30 V (logical 1) 0 V ÷ 3 V (logical 0)
input resistance	cc 10 kΩ
Input contact closing/opening	
resistance of line and closed contact	max. 1 kΩ
resistance of open contact	min. 10 kΩ
output test voltage	cc 12 V _{imp}
output test current (closed contact)	max. 1,2 mA
Input contact guarded	
Test voltage	12 V _{imp}
Line resistance	max. 100 Ω
test current standby	cc 0,8 mA _{imp}
test current FIRE	cc 1,5 mA _{imp}
test current FAULT	cc 0,5 mA _{imp}
resistance standby	10 kΩ
resistance FIRE	4,7 kΩ
resistance FAULT	20 kΩ
Optical signalling	red LED
Address range (by indicating preparation MHY 535)	1 - 128
Parallel signalling line resistance	max. 100 Ω
Protection according to ČSN EN 60529	IP 65
Radio screening degree according to ČSN EN 55022	B-class equipment
Cross-section of connectable wires	(0,2 - 1,5) mm ²
Dimensions (w x h x d)	(130 x 94 x 57) mm
Weight	cc 220 g

Product is intended for operation with safe equipment in sense of ČSN EN 60950 and meets the requirements of input/output device ČSN EN 54-18.

When designing the detector must heed the recommendations and measures to reduce the impact of interference voltages and regulations for projection fire detection and fire alarm systems C.I.E.s.

Working conditions

Application of the detector is in areas protected against weather conditions with classification according to ČSN EN 60721-3-3.

K: climatic conditions for environment	3K5
- working temperature range	-25°C ÷ +70°C
- max. relative humidity	95 % at 40°C
- atmospheric pressure range	(86 – 106) kPa
- without condensation and ice accretion	
Z: special conditions	3Z1 heat radiation negligible
B: biological conditions	3B1 without presence of flora and fauna
C: chemical active substances	3C2
S: mechanical active substances	3S1
M: mechanical conditions	3M2
Duration of significant temperature (45°C ÷ 70°C)	2 months/year
Duration of significant humidity (85 % ÷ 95 % / ≤ 40°C)	100 hours/year

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