

MHU 116, MHU 117

Modular analogue addressable Control and Indicating Equipment (C.I.E.)

Analogue addressable C.I.E. with modular structure with capacity up to 3072 elements are intended to evaluation of fire situation in medium and larger objects. Redundant conception provides a high degree of reliability of the entire system.



Electronics of C.I.E. is built in metal cabinet with lid. In upper part of lid is panel With graphics display 320x240 points, signalling diodes and control buttons. Inside of box they are boards with electronics assembled (except power elements) components for surface mounting.

Operation of C.I.E. is performed by using multifunctional buttons and control menu in 4 access levels (according to ČSN EN 54-2) preventing access unauthorized persons.

C.I.E. allows modular solution of their installation in the rack tub. Slots of system module and power supply module have predefined location. C.I.E. MHU 116 contains 6 user slots and C.I.E. MHU 117 12 user slots for mount of line modules, loop modules, input and output modules, communication modules Master and Slave and peripherals module for connection of the superstructure, ZDP (Alarm transmission equipment), OPPO (Fire brigade panel).

Line module contains two circles, each of which allows connection of 128 addressable detectors and line elements. Circle line is possible to divide on two simple lines. Detectors and elements are connected to the detection lines in parallel, lines can be branched out. Number of element (address) is set by addressing preparation MHY 535.

Loop module contains 12 conventional loops for connecting of up to 25 conventional detectors.

Up to 16 C.I.E. and remote indicators is possible to interconnect in the system. All this C.I.E. and remote indicators show information about the whole system and they allow fully control of it, unless the system is divided by configuration program into subsystems.

To the C.I.E. it is possible to connect printer, configuration PC, PC of the superstructure, ZDP, OPPO and KTPO (Key safe).

Using configuration program can be created mutual linkages between individual inputs and outputs of all C.I.E. in system (e.g. point detectors and manual point calls, input/output elements on detection lines, modules of inputs and outputs).

Figure 1 – C.I.E. MHU 116

Figure 2 – C.I.E. MHU 117 (without lid, full installation of modules)



Technical parameters

Power supply

	<u>MHU 116</u>	<u>MHU 117</u>
a) Basic source	230 V ^{+10%} _{-15%}	
Mains frequency	50 Hz ± 5%	
b) Backup supply		
gas-tight lead accumulator	2 × 12 V	2 × 12 V
capacity inside C.I.E.	12 Ah	40 Ah
capacity outside C.I.E.	38 Ah	38 Ah ÷ 65 Ah

Detection lines (addressable detectors and elements)

Number of user slots	6	12
Number of detectors total	max. 1536	max. 3072
Number of circle lines	max. 12	max. 24
Number of simple lines	max. 24	max. 48
Number of detectors on circle line		max. 128
Number of detectors on simple line	max. 64 (32 according to ČSN EN 54-2)	
Current of addressable detectors total	max. 130 mA	max. 130 mA
Resistance of lead of line		max. 100 Ω
Capacity of lead of line		max. 200 nF
Types of addressable lines		two wire addressable system LITES

Other parameters (according to used optional modules)

DSY-2	System module, USB, RS232, slot micro SD card, 1x contact input, 3x relay output
DZD-1	Power supply module, connectors for mains sources and accumulators, 2x power supply output
DLI-1	Line module, 2 circle line, 128 address on one circle line
DSM-1	Loop module, 12 conventional loops, up to 25 conventional detectors on loop
DSL-1	Slave communication module SLAVE RS485, max. 16 devices
DMA-1	Master communication module MASTER RS485/422, max. 16 devices
DPE-1	Peripherals module for connection of superstructure, ZDP, OPPO
DVV-1	Input/output module, 8x input (guarded, contact, isolated), 6x relay output with change-over contact.
DVV-2	Outputs module, 12x relay output with changeover contact
DVV-3	Input/output module, 6x input (guarded, contact, isolated), 12x open collector
DVV-4	Inputs module, 16x input (guarded, contact, isolated)
DVV-5	Input/output module, 8x input (guarded, contact, isolated), 8x guarded relay

Working conditions

C.I.E. is intended for stationary use in areas protected against weatherproof with classification according to ČSN EN 60 721-3-3:

Working temperature range	-5°C to +40°C
Relative humidity	≤ 75%, 10 days/ year 95% In other days occasionally 85%
Atmospheric pressure	(86 ÷ 106) kPa
Mounting position	vertical on walls without vibration

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