

MHG 862

Multisensor Detector

Ineractive Multisensor detector with extended spectrum of detected smokes and with isolator is intended for the automatic fire alarm signalling as a smoke detector in the analogue and addressable Fire Detection and Fire Alarm System LITES.

The detector combines two principles at its function - it responds to smoke particles on the principle of detection of scattered blue radiation, and it also responds to temperature and its changes. Type MHG 862 does not contain an isolator.



The MHG 862i detector is meant for cooperation with the analogue Control and Indicating Equipments (C.I.E.) MHU 110 and MHU 111, MHU 115, MHU 116 and MHU 117, eventually with the addressable C.I.E. MHU 109. The detector contains a program that evaluates the fire situation pursuant to measuring of surrounding temperature and smoke concentration, namely in agreement with the following adjustable characteristics:

- sensitivity of the detector; it monitors the surrounding smoke concentration increase compared to the quiescent state, that compensates the climatic and other influences continuously; the sensitivity can be adjusted in three degrees that must be selected with reference to the detectors combustion gas load that the detector responds to
- reaction time; it is the verification level of the fire situation; also adjustable in two degrees, however they can't be expressed by a simple time stamp, because the reaction time depends on the time progression of the fire situation
- watching of dusty; it monitors the quiescent level of the detector, and upon this it evaluates the dustiness rate of the optical chamber and consequently the reliability of the detector; it can be turned on or laid up; it's set in reference to the dust nuisance rate round the detector and to the setting of other parameters
- the threshold temperature - at this temperature level the fire alarm puts on; it can be set in the interval 45°C - 90°C at 3°C
- temperature change that leads to an alarm (so-called differential part); it may be set in the interval 10°C - 45°C at 5°C; eventually the reaction to a temperature change may be not allowed
- the minimum average speed (steepness) of the temperature increase so that it comes to a respond to the differential part, if it's allowed; it may be set at c. 3°C/min or 10°C/min
- the minimum temperature that must be reached at a fire alarm and also at the reaction of the differential part; it can be set from 0°C up to the threshold temperature in seven equidistant steps
- the way/mode of combining the effects of the optical and the temperature part of the Multisensor detector for the alarm making; the single parts can react either separately (through the program one of the sensors is disconnected), or independent (at least one sensor must signalize), together (both sensors must signalize), or their effects can be summed up.

Further, the pre-alarm sensitivity (it is always higher then the alarm sensitivity) of the optical part can be adjusted. Also the temperature of the temperature part for the pre-alarm signalling in the interval 3°C - 24°C before the alarm can be adjusted (not on the C.I.E. MHU 109). The detector self regulates its internal working characteristics, if they don't respond to the allowable tolerance, fault warnings occur.

The adjustable characteristics can be set either into the configuration program and recorded to the detector through the C.I.E. (not on the C.I.E. MHU 109), or they can be programmed directly by means of the preparation MHY 535.

The detector has a built-in isolator (MHY 862 does not contain an isolator), that - in case of a short circuit - separates the shortcut part between detectors with connected isolators on the circuit. The detector is installed into the Base MHY 734, or into the Base MHY 734.028 with audible signalling. At the installation it is possible to use the Mounting Bar Stock MHY 736.

The detector fulfils the requirements of the standard specifications ČSN EN 54-5 and ČSN EN 54-7.

Technical parameters

Power supply	addressable C.I.E. LITES
Optical signalling	pair of red LED
Parallel signalling	type LITES
Testing	test bar MHY 506 test from the C.I.E.
Protection according to ČSN EN 60529	IP 43
Radio screening degree according to ČSN EN 55 022	B-class equipment
Address setting	Addressing Preparation MHY 535 in the range 1 ÷ 128
Dimensions	(Ø98 × 42) mm
Weight	around 150 g

Product is intended for operation with safe equipment in sense of ČSN EN 60950.

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
- without condensation and ice accretion	
Z: special conditions	3Z1 heat radiation negligible 3Z8 irrigation water
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
Maximal duration of spraying	10 min/month

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