MHG 231

Optical Smoke Detector

The MHG 231 Optical Smoke Detector is a conventional fire detector with voltage characteristics. In conjunction with the central control units of the electric fire signalling system LITES it is intended for an automatic signalling of fire occurrence as a detector responsive to fouling – to both visible and invisible smoke particles (aerosols).

The MHG 231 detector is to install at places where occurrence and concentration of smoke is assumed. The detector is responsive to fouling – to both visible and invisible smoke particles (aerosols) – on the principles of detection of scattered infrared radiation.

The MHG 231 detector is to install in the socket MHY 734.029. It is possible to connect it to the central control units MHU 113, MHU 108, MHU 106 with the loop unit JSM-5, or to the addressable central control units of the electric fire signalling system LITES by means of the addressing unit MHY 409. It is also possible to attach the signal lighting units MHS 409, MHS 408 (parallel signalling).

For its use in the electric fire signalling system the detector is liable to the agreement examination according to law No. 22/1997 Sb., in wording law No. 71/2000 Sb. and the relevant orders of the government.
It fulfils the requirements of the European standard specification EN 54 – 7.

Technical specifications

Supply voltage range	16 to 24 V d. c.
Nominal voltage	21,5 V d. c.
Steady state current	max. 70 µA
Current at alarm mode (including optical signalling)	max. 100 mA (limited by the control unit)
Operating voltage at fire alarm	(5,7 ÷ 8) V at 10 mA
Optical signalling	a couple of red LED (light emitting diodes)
Parallel signalling	type LITES
Reaction time short (S) long (L)	adjustable in two degrees (5) s (30 ± 10) s
Smoke sensitivity high (+) normal (N) low (-)	adjustable in three degrees m = (0,08 ÷ 0,11) dB/m m = (0,11 ÷ 0,14) dB/m m = (0,17 ÷ 0,21) dB/m (is not in accordance with EN 54-7)
Protection according to ČSN EN 60529	IP43
Safety requirements	product intended for a plant with safety arrangement in terms of ČSN EN 60950
Radioscreening degree according to ČSN EN 55 022	B-class equipment
Dimensions	(98 x 42) mm
Weight	c. 140 g

Working conditions

The MHG 331 detector is intended for environments protected against weather influence, without occurrence of agressive substances, and for places where its protection and climatic immunity suits, and where sudden temperature changes leading to dew and ice accretion don`t occur.	
Working temperature range	-25℃ až +70℃
Period of significant temperature (45 ℃ ÷ 70 ℃)	2 month in a year
Relative humidity	max. 95% at +40 ℃
Period of significant humidity (85% ÷ 95%/≤40 ℃)	100 hours in a year

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