

MHG 383

Heat Detector

The MHG 383 Heat Detector is a self-acting detector intended for the automatic fire alarm signalling as a heat detector of the analog and addressable Electric Fire Detection and Alarm System LITES.



It is especially intended for environs with explosion danger, eventually for such environs without explosion danger that require higher mechanical endurance of detectors. It responds to a fixed reached temperature level or to a temperature change before or during a fire.

The detector may work:

- in zone 1 and 2 of a space with gas burst danger according to ČSN EN 60079-14
- in zone 22 of a combustible dust space according to ČSN EN 50281-1-2
- in space V1, V2, V3 with fire or explosion danger of explosives according to ČSN 33 2340

The MHG 383 detector is meant for cooperation with the analog Control and Indicating Equipments (C.I.E.) MHU 110 or MHU 111, eventually with the addressable C.I.E. MHU 109. The detector contains a program that evaluates the fire situation pursuant to measuring of the surrounding temperature, namely in agreement with the following adjustable characteristics:

- the threshold temperature - at this temperature level the fire alert puts on; it can be set in the interval 45°C - 90°C at 3°C

- the temperature change that leads to an alert (so-called differential part); it may be set in the interval 10°C - 45°C at 5°C; eventually the reaction to the 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 alert 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

Further the pre-alert in the interval between 3°C and 24°C before the alert can be adjusted (applies only for the C.I.E.'s MHU 110 and MHU 111). If the evaluated temperatures are too low, too high, or they do not make sense, the detector signals a fault.

The adjustable characteristics can be set either into the configuration program and recorded to the detector through the C.I.E. (MHU 110 or MHU 111), or they can be programmed right by means of the preparation MHY 535 (MHU 109).

To a detection line the detector is to install through the use of the MHY 703 Mounting Base, eventually in environs without explosion danger through the MHY 713 Base.

The detector complies with the standard specifications ČSN EN 54-7. For its use in the Electric Fire Detection and Alarm System it is liable to the compliance examination according to law No. 22/1997 Sb., in wording law No. 71/2000 Sb. and the relevant orders of the government. For the use in environs with explosion danger the detector is liable to the homologation of the FTZÚ Ostrava - Radvanice A0 210.

Technical specifications

Power supply	Addressable C.I.E.'s LITES
Optical signalling	red LED
Parallel signalling	type LITES
Response temperature Tx of the static element	adjustable 45 ÷ 90°C
Reaction temperature at temperature rise	adjustable DT = 10 ÷ 45°C
Detector classification according to ČSN EN 54-5	*
Theoretical normal surrounding temperature	(Tx - 37)°C
Maximum normal surrounding temperature	(Tx - 12)°C
Testing procedure	by the test bar MHY 533 by a test from the C.I.E.
Construction according to ČSN EN 50014	EExe II T6
Protection according to ČSN EN 60529	IP 65 (with the MHY 703 Mounting Base) IP 54 (with the MHY 713 Mounting Base)
Radioscreening degree according to ČSN EN 55 022	B-class equipment
Address setting	by the Addressing Preparation MHY 535 in the range 1 ÷ 128
Dimensions and form	(147 x 92) inclusive the base
Weight	c. 0,5 kg
Safety requirements	Product intended for a plant with safety arrangement in terms of ČSN EN 60950

* It is possible to set the classifications A1, A1S, A1R, A2, A2S, A2R, B, BS, BR to these detectors. The detectors may also be adjusted in a way so that they don't conform to any classification according to ČSN EN 54-5.

Working conditions

The MHG 383Heat Detector is intended for the interior of objects without occurrence of aggressive substances, and for places where its protection and climatic immunity conform, and where sudden temperature changes leading to dew and ice accretion don't occur.	
Working temperature range	-25°C ÷ +70°C
Relative humidity	Permanent ≤ 75% 3 x 21 days in a year 95% at +40°C
Atmospheric pressure	(66 ÷ 106) kPa

Verze 03/2017