



(1) **Declaration of type testing**

(2) **Equipment or Protective Systems Intended for use
in Potentially Explosive Atmospheres
Directive 2014/34/EU (116/2016 Coll.)**

(3) Number of Type Examination Certificate:

MM 21 ATEX 0001 X

(4) Equipment or protective system: **Intrinsically safe combined smoke detector MM 2351 Ex with intrinsically safe power supply MM 0312 .. and intrinsically safe relay MM 501.. .**

(5) Manufacturer: **MM GROUP, s.r.o.**

(6) Address: **Podolkovicka 1437/21, 735 64 Havířov Suchá, Czech Republic**

(7) This equipment or protective system and any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) The Physical Testing and development laboratory of MM GROUP, Ltd, based on Government regulation 116/2016 Coll., ATEX 2014/34/EU and certification of production of state testing laboratory SZ 210 Ostrava Radvanice, NB 1026 - **Quality Assurance Notification – FTZÚ 08 ATEX Q 005** certifies, that this equipment or protective system has been found to satisfy the essential health and safety requirements relating to the design and construction of equipment or protective systems intended for use in potentially explosive atmospheres (zone 2).

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:
CSN EN 60079-0 : 2018; CSN EN 60079-11 : 2012

(10) If the sign „X“ is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This certificate is valid only for the design, validation and testing of the specified equipments or protective system according to directive 2014/34/EU. For the manufacture and supply of this equipment or protective system applies additional requirements of the directive. These requirements this certificate does not apply.

(12) The marking of the equipment or protective system shall include following:



II 3G Ex ic IIB T5 Gc, II 3D Ex ic IIIA T = 100°C Dc

Responsible person:

Dipl. Ing. Tomáš Wurzel



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Physical testing development laboratory
Ostrava-Radvanice



(13) Continuation

(14) MM 21 ATEX 0001 X

(15) Description of Equipment or Protective System:

Smoke and fire detection system consists of following inseparable combined products:
Intrinsically safe smoke detector equipped with alarm relay contact output, Intrinsically safe power supply which provides power for the detector and intrinsically safe relay (barrier) for separation of the system from uncertified equipment. It is necessary to install the system in configuration according to schematics supplied by the manufacturer. To preserve intrinsic safety, it is necessary to use power supply unit that matches the input/output parameters of the detector. It is forbidden to connect more power supply units together in parallel. Output relay contacts of the detector units might be combined and connected to a single barrier (intrinsically safe relay) for separation from uncertified equipment.

Input parameters smoke detector MM 2351 Ex:

$U_i = 16,8 \text{ V}$, $I_i = 0$, $C_i = 0$

Ambient temperature: $T_a = -20^\circ\text{C}$ to $+60^\circ\text{C}$

Input parameters contact relay smoke detector MM 2351 Ex:

$U_i = 16,8 \text{ V}$, $I_i = 180 \text{ mA}$, $I_c = 0$, $C_i = 0$

Housing:

Protection - IP40

Housing material:

Acrylonitrilbutadienstyrene - ABS coated with electrically conductive layer of colloidal graphite

(16) Special conditions for safe use in zone 2:

Supplier of the intrinsically safe smoke detector specified safety conditions in following way:
For installation of the device in zone 2, the supply voltage must not exceed $U_{max} = 16,8 \text{ V}$.
System must be connected to a power supply with limited output energy. Input and output must be galvanically separated by intrinsically safe relay. Device must be equipped by a label containing safety information, Ex logo and device type information.

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(17) **Continuation**

(18) **MM 21 ATEX 0001 X**

(19) **Essential Health and Safety Requirements:**

Essential health and safety requirements of Directive 2014/34/EU are covered by standards mentioned in (9), according which the product was verified and in the manufacturer's instruction for use.

(20) **List of documentation:**

Documentation:

- Technical conditions MM 2351 Ex
- Datasheet with schema to use
- Declaration of conformity

Date of verification:

2. 11. 2021

Responsible person:

Dipl. Ing. Tomáš Wurzel



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