

Translation

EU-Type Examination Certificate Supplement 23

Change to Directive 2014/34/EU

Device with a measuring function for explosion protection
Directive 2014/34/EU

EU-Type Examination Certificate Number: **DMT 03 ATEX G 003 X**

Product: **SUPREMA**

Manufacturer: **MSA EUROPE GmbH**

Address: **Schlüsselstr. 12, 8645 Rapperswil-Jona, Switzerland**

This supplementary certificate extends EC-Type Examination Certificate No. DMT 03 ATEX G 003 X to apply to products designed and constructed in accordance with the specification set out in the Annex of the said certificate but having any variations specified in the Annex attached to this certificate and the documents therein referred to.

DEKRA EXAM GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report PFG-no. 41300202P NXVII.

Compliance with the Essential Health and Safety Requirements with respect to the measuring function for explosion protection has been assured by compliance with:

EN 60079-29-1:2007

EN 50104:2010

EN 50271:2010

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the annex to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

Ex II (1) G (2) G

DEKRA EXAM GmbH
Bochum, 2017-04-19

Signed: Koch

Certifier

Signed: Bredenbröker

Approver

13 **Annex**

14 **EU-Type Examination Certificate**

**DMT 03 ATEX G 003 X
Supplement 23**

15 **Product description**

15.1 **Subject and type**

Control unit SUPREMA

15.2 **Description**

With this supplement the certificate is changed to Directive 2014/34/EU.

(Annotation: In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.)

Reason for the supplement:

New modules MAI30, MAR30, MHS30, MGI30 and MGR30 and modification of the software of the modules MCP20 and MDO20

Description of Product

The modular control system SUPREMA of MSA EUROPE GmbH when operated with remote catalytic sensors or transmitters with 2-wire or 3-wire 4-20 mA interface is a fixed control system for the measurement of flammable gases and vapours and oxygen (transmitters only). The control system is not intended to be used in potentially explosive atmospheres.

15.3 **Parameters**

Not applicable

15.4 **Measuring function for explosion protection**

This EU-type examination certificate covers:

- Control unit SUPREMA consisting of the following modules:
 - SUPREMA Touch 19" Rack, part no. 10166233, 10163234, 10163235 or 10163236
 - MIB20, part no. 10050712
 - MST20, part no. 10104584
 - MCP20, part no. 10101581, software version 3.02.01 or 3.01.06
 - MDO20, part no. 10109638, software version 3.02.01 or 3.01.06
 - MDC20, part no. 10110482
 - MDA20, part no. 10080011, software version 2.01.02
 - MAI30, part no. 10151719, software version 1.01.01
 - MAR30, part no. 10151720, software version 1.01.01
 - MHS30, part no. 10151731
 - MGI30, part no. 10170299, software version 1.01.01
 - MGR30, part no. 10170300, software version 1.01.01
 - MAO20, part no. 10102071, software version 3.01.02
 - MGO20, part no. 10083804, software version 3.01.02
 - MAT, part no. 10015759
 - MAT TS, part no. 10022311
 - MGT40 TS, part no. 10026772
 - MRC TS, part no. 10021676
 - MRO20 8 TS, part no. 10112807
 - MRO20 16 TS, part no. 10112805
 - MRO20 8 TS-SSR, part no. 10115115

- MRO10 16 TS-SSR, part no. 10105281
- MRO 8 TS, part no. 10021674
- MRO 16 TS, part no. 10021430
- MHD TS, part no. 10038420
- MRD, part no. 10052880
- MRO 8, part no. 10018946
- MUT, part no. 10019468

- when operated with remote catalytic sensor type 47K-ST the measurement of methane, propane, 2-butanone, acetone, acetylene, ammonia, 1,3-butadiene, diethyl ether, acetic acid, acetic anhydride, ethane, ethanol, ethylene, ethyl acetate, ethylene oxide, (FAM-)Standard mineral spirit 65/95, i-butyl acetate, n-butyl acetate, n-butane, n-hexane, n-nonane, n-pentane, 2-propanol, propylene, propylene oxide, toluene, hydrogen, xylene (mixture of isomers 1:1:1 p-m-o), cyclopentane, allyl alcohol, i-butylene, i-butane, methanol und cyclohexane mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with remote catalytic sensor type 47K-PRP the measurement of methane, propane, 2-butanone, acetone, ethanol, ethyl acetate, (FAM-) Standard mineral spirit 65/95, 1-Propanol, 2-Propanol, propene, toluene, hydrogen and 1-Ethoxy-2-propanol mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with remote catalytic sensor type 47K-HT the measurement of methane, propane, 2-butanone, acetone, ethanol, ethyl acetate and toluene mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with remote catalytic sensor type 47K-HT-PRP the measurement of methane mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with transmitters with a 4-20 mA interface the measurement of the flammable gases and vapours which are listed in the EC- or EU-type examination certificate of the transmitter
- when operated with transmitters with a 4-20 mA interface the measurement of oxygen (measurement of inertisation) according to the EC- or EU-type examination certificate of the transmitter
- use of the following outputs for safety relevant purposes:
 - display
 - relays
 - optocoupler
- use of the following accessories:
 - CAN-bridge, part no. 10034641
 - CAN/LWL converter, part no. 10052948
 - Power supply 250W/24 VDC, part no. 10152510
 - Sensor simulation module 4-20 mA, part no. 10030262
 - Sensor simulation module WT, part no. 10030263
 - MBC20-Modbus, part no. 10122578, with MBT20, part no. 10105279 (functionality not tested)
 - microSD card, part no. 10179005

The EU-type examination includes the following deviations from the operating conditions required by EN 60079-29-1 or EN 50104:

- none

16 Test report

PFG-no. 41300202P NXVII of 2017-04-19

17 **Special Conditions for Use**

- When using 4-20 mA transmitters, pay particular attention to the following:
 - The specifications of the 4-20 mA interface
 - Behaviour with currents less than 4 mA
 - Behaviour with currents in excess of 20 mA
- Catalytic remote sensors shall be connected with 5-core cables when the 3-core cable length allowed for proper cable control has been exceeded (see chapter sensor data in the manual).
- The system fault relays of all racks in the system shall be monitored.
- For each measuring point, the alarm with the highest significance for safety shall be configured as Latching.
- Switching outputs for safety-related switching operations shall be configured as "New Alarm" not selected.
- Time delayed switching outputs should not be used for safety related purposes. If their use is unavoidable, the delay time shall be set to the minimum possible for the required operation. The maximum possible rate of increase of gas concentration shall be taken into account when determining the delay time.
- All controls, including digital inputs and inputs from communication interfaces shall be protected against unauthorised or inadvertent interference or operation.

18 **Essential Health and Safety Requirements**

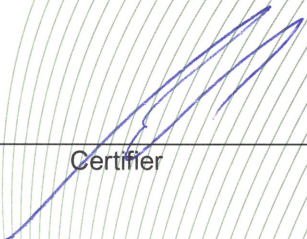
The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are covered by the standards listed under item 9.

19 **Drawings and Documents**

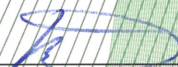
Drawings and documents are listed in the confidential test report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
Bochum, dated 2017-04-19



Certifier



Approver