

Translation, original language: German

(1) **EC-TYPE EXAMINATION CERTIFICATE**

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 08ATEX0144** Issue Number: **2**

(4) Equipment: **Analyzing Unit Type M420...X...**

(5) Manufacturer: **Mettler-Toledo AG**

(6) Address: **Heuwinkelstrasse, CH-8606 Nänikon, Switzerland**

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

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential test report no. 212538500.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0 : 2006
EN 61241-0 : 2006

EN 60079-11 : 2007
EN 61241-11 : 2006

EN 60079-26 : 2007

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

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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



II 2(1) G
II 1 G
II 1 D
II 2 D

Ex ib[ia] IIC T4 or
Ex ia IIC T4 or
Ex iaD 20 IP6x T85 °C or
Ex iaD 21 IP6x T85 °C

This certificate is issued on 15 December 2009 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.



C.G. van Es
Certification Manager

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Experience you can trust.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 08ATEX0144**

Issue No. 2

(15) **Description**

Analyzing Unit Type M420...X... is used to measure and process electrochemical quantities in liquids in explosive atmospheres. It consists of a front unit, a measuring module and an enclosure. The front unit includes an electronic circuit M420 with the connection terminals and a slot for the measuring module, a backlit LCD and a keypad.

After processing of the measurement signals from the connected detector (connected to the terminals on the respective module or a current input), the measured values are available as display and as an analog output value (4 - 20 mA current signal with or without HART).

The Analyzer is provided with two isolated control inputs and is supplied via the output signal loop.

The Analyzing Unit Type M420...X... consists of the following main unit and one of the measuring or interface modules:

Unit / Module:	Description:	Type of protection:	Control drawing
M420	Main circuitry	Ex ib[ia] IIC, Ex ia IIC or Ex iaD	212.002-230
pH M420i	pH-Measurement Module	Ex ia IIC or Ex iaD	212.002-240
O2 M420i	Oxygen Concentration Measurement Module	Ex ia IIC or Ex iaD	212.002-250
Cond M420	Conductivity Measurement Module	Ex ia IIC or Ex iaD	212.002-260
Cond Ind M420	Inductive Conductivity Measurement Module	Ex ia IIC or Ex iaD	212.002-270

Ambient temperature range -20 °C to +65 °C.

The maximum temperature of the enclosure T 85 °C is referred to an ambient temperature of 65 °C and is applicable to a maximum dust layer thickness of 5 mm.

Electrical data

For connection details and electrical data, refer to the control drawing of the Unit or Module.

Installation instructions

The instruction manual and the control drawing provided with the Unit or the Module shall be followed in detail to assure proper and safe operation.

Routine tests

Each Main Circuitry M420 shall be subjected to a voltage test in accordance with EN 60079-11 clause 11.2, with a test voltage of 500 V during 1 minute, between the output and control circuits (current outputs and OK inputs) on the one side and the Measurement Module interface and the current input circuit on the other side.

(16) **Test Report**

KEMA No. 212538500.



(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 08ATEX0144**

Issue No. 2

(17) **Special conditions for safe use**

None.

(18) **Essential Health and Safety Requirements**

Assured by compliance with the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 212538500.