

CERTIFICATE

(1) Type Examination

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

(3) Type Examination Certificate Number: **KEMA 04ATEX1170 X** Issue Number: **3**

(4) Equipment: **Magnetic Angle Transmitter Type MAT01**

(5) Manufacturer: **Cimar Electronics B.V.**

(6) Address: **Kruisboog 31, 3905 TE Veenendaal, The Netherlands**

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

(8) DEKRA Certification B.V., 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. 210729600, issue 2.

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

EN 60079-0 : 2012

EN 60079-15 : 2010

(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 Type Examination Certificate relates only to the design, examination and tests of the specified equipment and not to the manufacturing process and supply of this equipment.

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



II 3 G

Ex nA IIC T6 Gc

This certificate is issued on 28 April 2014 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.

DEKRA Certification B.V.


R. Schuller

Certification Manager

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° Integral publication of this certificate and adjoining reports is allowed. This Certificate may only be reproduced in its entirety and without any change.

(13) **SCHEDULE**

(14) **to Type Examination Certificate KEMA 04ATEX1170 X**

Issue No. 3

(15) **Description**

The Magnetic Angle Transmitter Type MAT01 is used to convert a magnet angle (e.g. the position of a magnet in a Variable Area Flowmeter) into a 4 - 20 mA current signal. There are two variations. One with terminal connections, for use inside an additional enclosure, the other one with a permanently connected cable.

Ambient temperature range: -30 °C to +65 °C

Electrical data

Supply voltage: max. 28 Vdc

Output current: 4 ... 20 mA

Installation instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.

(16) **Test Report**

DEKRA No. 210729600, issue 2.

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

The apparatus version with terminal connections must be mounted in an additional enclosure, providing a degree of ingress protection of at least IP 54 in accordance with EN 60529.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 210729600, issue 2.

CERTIFICATE

(1) EC-Type Examination

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

(3) EC-Type Examination Certificate Number: **KEMA 04ATEX1169 X** Issue Number: **3**

(4) Component: **Magnetic Angle Transmitter Type MAT01**

(5) Manufacturer: **Cimar Electronics B.V.**

(6) Address: **Kruisboog 31, 3905 TE Veenendaal, The Netherlands**

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

(8) DEKRA Certification 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 component 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 report no. 210729600, issue 2.

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

EN 60079-0 : 2012

EN 60079-11 : 2012

EN 60079-31 : 2009

(10) The sign "U" placed after the certificate number indicates that this certificate describes components and must not be mistaken for a certificate intended for an equipment or protective system. This EC-Type Examination Certificate may be used as a basis for certification of an equipment or protective system.

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

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



II 2 G Ex ia IIC T6 Gb
II 2 D Ex tb IIIC T70 °C Db

This certificate is issued on 28 April 2014 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.

DEKRA Certification B.V.

R. Schuller
Certification Manager

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(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 04ATEX1169 X** Issue No. 3

(15) **Description**

The Magnetic Angle Transmitter Type MAT01 is used to convert a magnet angle (e.g. the position of a magnet in a Variable Area Flowmeter) into a 4 - 20 mA current signal. There are two variations. One with terminal connections, for use inside an additional enclosure, the other one with an integrated cable.

The enclosure of the apparatus with integrated cable provides a degree of protection of at least IP 65 according to EN 60529.

Ambient temperature range -30 °C to +65 °C.

The maximum surface temperature of the enclosure $T = 70$ °C is referred to a maximum ambient temperature of 65 °C.

Electrical data

Equipment with code II 2 G Ex ia IIC T6 Gb:

Supply and output signal (terminals 1 and 2 or red and black wires):
in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with following maximum values:

$U_i = 30$ V; $I_i = 100$ mA; $P_i = 0,75$ W; $C_i = 0$ nF; $L_i = 1,8$ mH.

Equipment with code II 2 D Ex tb IIIC T70 °C Db:

Supply and output signal (terminals 1 and 2 or red and black wires):

supply voltage: max. 28 Vdc

output current: 4 ... 20 mA

(16) **Report**

DEKRA No. 210729600, issue 2.

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 04ATEX1169 X** Issue No. 3

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

The apparatus version with terminals, when intended to be installed in an explosive atmosphere caused by dust, requiring equipment category 2, must be mounted in an additional enclosure, providing a degree of protection in accordance with the requirements of EN 60079-31.

When the apparatus is intended to be installed in an explosive atmosphere caused by gases, vapours or mists, requiring equipment category 2, the apparatus must be mounted in an enclosure providing a degree of protection of at least IP 20 according to EN 60529.

The free end of the cable of the Magnetic Angle Transmitter with permanently connected cable must be connected in a suitably protected enclosure (e.g. in an enclosure providing a degree of protection in accordance with EN 60079-0), or outside the hazardous area.

If the Magnetic Angle Transmitter has been used in a non-intrinsically safe circuit, it may not be used as an intrinsically safe apparatus anymore. The part of the marking that is not applicable shall be removed.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 210729600, issue 2.