

# CESI



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Schema di certificazione

# CESI-ATEX

# CERTIFICATE



## [1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use  
 in potentially explosive atmospheres  
 Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

**CESI 10 ATEX 032X /03**

[4] **Product: Gas detectors series NETC..**

[5] **Manufacturer: N.E.T. S.r.l.**

[6] **Address: Via Campania, 5, 20006 Pregnana Milanese (MI) – Italy**

[7] This supplementary certificate extends EC-Type Examination Certificate CESI 10 ATEX 032X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 26 February 2014, certifies that this equipment or protective system 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 n. EX-C2011825.

[9] 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

[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 EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

- II 2G Ex db IIC T6, T5 Gb » (all models)
- or
- II 2GD Ex db IIC T6, T5 Gb and » (only for detectors type NETC2 and  
 Ex tb IIIC T85°C, T100°C Db NETC3 equipped with GD Adapter)  
 IP65

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Date 02/09/2022 - Translation issued the 02/09/2022

Prepared  
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Verified  
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Approved  
 Roberto Piccin



PRD N. 018B  
 Membro degli Accordi di Mutuo  
 Riconoscimento EA, IAF e ILAC  
 Signatory of EA, IAF and ILAC  
 Mutual Recognition Agreements

[13]

## Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 10 ATEX 032X /03**

[15] **Description of the variation**

*Variation 3.1:*

N.E.T. Srl has changed its company address from **Via Legnano, 2, 20010 Cornaredo (MI) - Italy** to **Via Campania, 5, 20006 Pregnana Milanese (MI) – Italy**

*Variation 3.2:*

The **Gas detectors series NETC**, previously assessed in compliance to EN 60079-0:2012/A11:2013 were re-assessed on the basis of the Standards bring in the paragraph [18].

*Variation 3.3:*

Removal of types NETC6, NETC7 and NETC8.

*Variation 3.4:*

Update of technical documents due to editorial corrections and minor changes.

Unchanged the other constructional characteristics of **Gas detectors NETC.. series**.

### **Description of equipment**

The **Gas detectors series NETC..** are devices used for the detection of flammable or toxic gases.

They are manufactured with a flameproof enclosure equipped with a sintered element; inside the enclosure are installed the sensing element and any electronic circuitry for the signal amplification or transmission.

All the models are provided with a multi-core cable permanently connected to (non-detachable) that through a sealed bushing allows connection to external circuits for supply/measure.

The type NETC2 and type NETC3 may be equipped with a device (GD adapter) for the dust ingress protection of the sintered element. In this configuration the Db Equipment Protection Level is assigned to the gas detectors.

The different types of sensing elements and / or electronic circuitry installed within the flameproof enclosure are detailed in the Manufacturer's documents.

The devices installed within the flameproof enclosure must comply with defined electrical/dimensional limits specified in in the Manufacturer's documents in order to ensure the temperature class assigned to the equipment.

Gas detectors series NETC carry information on the plate regarding electrical parameters of the sensing element; is also specified the type of gas for which they are used.

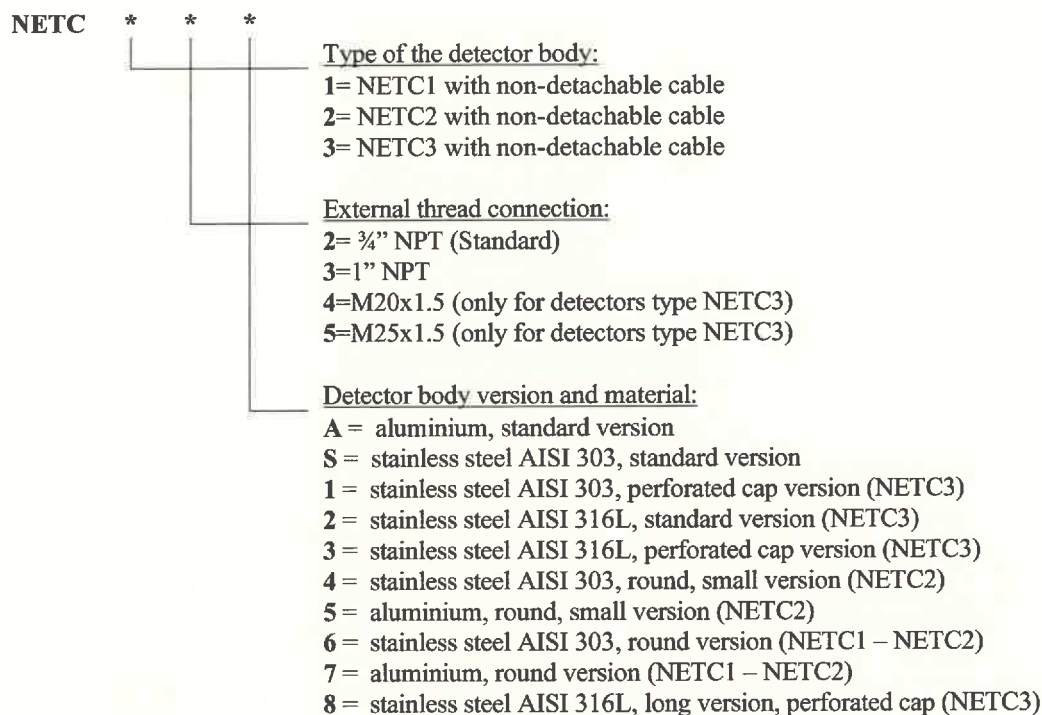
[13]

## Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 10 ATEX 032X /03**

### Model identification

The gas detector types NETC1, NETC2 and NETC3 are identified by the following code:



### Electrical characteristics

The specific electrical and functional characteristics of the various devices are detailed in the descriptive documents supplied with the equipment.

Maximum supply voltage	30 Vdc
Maximum absorbed current	400 or 500 mA (depending on the type)
Maximum dissipated power	0.7 W (types NETC1 and NETC2) 1.4 W (types NETC3 – long version excluded) 2.5 W (type NETC3*8 – long version)
Ambient temperature	-40 /-30 /-20 ÷ +45 / +50 /+55 / +60°C

The ambient temperature values above reported represent the upper and lower limits of the applicable temperature range, taking into account the constructional and functional characteristics of the gas detectors, as specified in the descriptive documents annexed to the certificate.

In the following table are reported the temperature class (for EPL Gb) and the maximum surface temperature (for EPL Db) in function of the maximum ambient temperature and of the power dissipated within the enclosure of the gas detector.

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## Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 10 ATEX 032X /03**

Gas detector type	Maximum dissipated power [W]	Maximum ambient temperature [°C]	Temperature class (Gb)	Maximum surface temperature (Db)
NETC1	0.7	60	T6	--
NETC2	0.7	50	T6	T85 °C
		55	T6	T85 °C
		60	T5	T100 °C
NETC3	1.4	55	T6	T85 °C
		60	T5	T100 °C
NETC3*8 long version	2.5	45	T6	T85 °C
		50	T5	T85 °C
		60	T5	--

The marking nameplate shows the temperature class and the ambient temperature range assigned to the equipment.

### Warning labels

For type NETC3:

**"Warning - do not open when energized".**

[16] **Report n. EX-C2011825.**

### Routine tests

The Gas detectors series NETC are exempted from the routine overpressure test since the internal volume is less than to 10 cm<sup>3</sup>.

[17] **Special conditions for safe use (X)**

- The supply cable of the gas detector must be protected against mechanical damages caused by impact or friction.
- User side connection of the supply cable must be in a safe area or be protected by one of the types of protection listed in EN IEC 60079-0 standard.
- The installation of the gas detector shall guarantee the equipotential bonding and metal continuity of the enclosure.
- The gas detectors series NETC are designed for stationary installation and shall not be used for portable applications.
- The flamepaths are specified in the manufacturer drawings. For information regarding the dimensions of the flameproof joints the manufacturer shall be contacted.
- The conditions of the installation of the equipment are included within the safety instructions. For a safe use these mounting instructions are to be followed precisely. In case of use with enclosure subject of a separate certification for a type of protection listed in EN IEC 60079-0 standard, the coupling enclosure/gas detector shall not affect the type of protection of the enclosure. The requested degree of protection IP shall be guaranteed by the user.
- The Gas detectors NETC2 and NETC3 can guarantee the degree of protection IP65 only if supplied with the GD Adapter mounted according to the safety instructions.
- The sealed bushing of the gas detectors has been submitted to an overpressure test of 30 bar. The gas detectors can be coupled, without any supplementary test, to explosion-proof enclosures with a reference pressure not exceeding 20 bar.

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## Schedule

[13]

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 10 ATEX 032X /03**

[18] **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is assured by compliance to the following harmonized standards:

EN IEC 60079-0:2018	Explosive atmospheres – Part 0: Equipment - General requirements
EN 60079-1:2014	Part 1: Equipment protection by flameproof enclosure “d”
EN 60079-31:2014	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”

[19] **Descriptive documents (prot. EX-C2011842)**

*NTEX4967 TECHNICAL NOTE (15 pg.) Rev.0	dated 28/06/2021
*NTEX4911 GAP ANALYSIS (23 pg.) Rev.0	dated 28/06/2021
*MTEX3749 Safety instructions NETC1/2/3 (6 pg.) Rev.2	dated 26/01/2022
*NTEX4966 Hazards (risk) Analysis (9 pg.) Rev.0	dated 28/01/2022
*IM3748 Head mounting and resin instructions (18 pag.) Rev.0	dated 29/07/2022
-MEEEX2565N Marking for NETC1 (2 pg.) Rev.2	dated 30/07/2015
-MEEEX2565N Marking for NETC2 (3 pg.) Rev.2	dated 30/07/2015
-MEEEX2564N Marking for NETC3 (3 pg.) Rev.2	dated 30/07/2015
*ASEX2599N Part list sensor (4 pg.) Rev.6	dated 04/03/2022
*ASEX2600N Part list electronic circuits (3 pg.) Rev.4	dated 19/07/2022
*ASEX2561N NETC1 head assembly Rev.3	dated 20/01/2022
*MEEEX2568N NETC1 main body – Standard version Rev.3	dated 15/04/2020
*MEEEX2842N NETC1 main body – Round version Rev.3	dated 01/12/2021
*MEEEX2560N Sintered metal element 18x 3 mm Rev.1	dated 30/11/2021
*ME1403N Passive PCB wire guide Rev.4	dated 30/11/2021
*ASEX2288N NETC2 head assembly Rev.3	dated 09/02/2022
*MEEEX2537N NETC2 main body – Standard version Rev.3	dated 17/04/2018
*MEEEX2828N NETC2 main body – Round version Rev.3	dated 30/11/2021
*MEEEX2827N NETC2 main body – Round, small version Rev.3	dated 30/11/2021
*MEEEX2338N NETC2 GD adapter Rev.2	dated 17/04/2018
*ASEX3739 NETC3 head assembly (2 pg.) Rev.1	dated 20/01/2022
*MEEEX2452N NETC3 main body Rev.4	dated 17/08/2018
*MEEEX3733 NETC3 main body (prolonged version) (2 pg.) Rev.4	dated 17/04/2018
*MEEEX4055 NETC3 main body M20x1.5 (2 pg.) Rev.4	dated 16/04/2020
*MEEEX4056 NETC3 main body M20x1.5 alternative Rev.2	dated 30/11/2021
*MEEEX2453N NETC3 cover Rev.3	dated 17/04/2018
*MEEEX2339N NETC3 GD cover Rev.3	dated 17/04/2018
*MEEEX2559N Sintered metal element 32,5x 3 mm Rev.2	dated 31/11/2021
*ASEX3738 NETC3 head assembly (2 pg.) Rev.1	dated 20/01/2022
*MEEEX2829N NETC3 cover (perforated version) Rev.3	dated 31/11/2021
*ASEX3827 NETC3 head assembly (2 pg.) Rev.1	dated 06/06/2022
*MEEEX3826 Central body Rev.1	dated 01/12/2021

*Note: an \* is included before the title of documents that are new or revised.*  
One copy of all documents mentioned above is kept in CESI files.

**Certificate history**

Issue nr	Issue Date	Summary description of variation
00	14/06/2010	First Issue of the Certificate.
01	06/07/2011	Constructional modifications. New models. Update of the identification code.
02	22/02/2016	Updating to EN60079-0: 2012 + A11: 2013, EN60079-1: 2014, EN60079-31: 2014 and EN60079-28: 2007 Standards. Updating of the identification code. Constructional modification to the body of the type NETC3 and added long version NETC3*8. New models type NETC6, NETC7 and NETC8 (with combined type of protection). Updating of the electrical characteristics.
03	02/09/2022	Change of company address. Update to the standard EN IEC 60079-0:2018. Removal of types NETC6, NETC7 and NETC8. Minor changes and update of annexed documents

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