



# EU Type Examination Certificate CML 18ATEX2193X Issue 0

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment NIVUS R-8z & NIVUS R-16z
- 3 Manufacturer NIVUS GmbH
- 4 Address Im Tale 2,

D-75031 Eppingen,

Germany

- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Certification Management Limited, Unit 1 Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK, Notified Body Number 2503, 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 equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN 60079-0:2012:A11:2013

EN 60079-11:2012

10 The equipment shall be marked with the following:

⟨€x⟩ <sub>II 1 D</sub>

Ex ia IIC T4 Ga Ta= -20°C to +80°C Ex ia IIIC T135°C Da Ta= -20°C to +80°C

H M Amos MIET Technical Manager





## 11 Description

The NIVUS R-8z and NIVUS R-16z are DC powered level measurement sensor utilising radar technology. The sensor models are identical; differing in power outputs only. The sensor is housed in a non-metallic enclosure with integral five core cable which connects to control equipment located in the safe area providing power and data communication. The enclosure incorporates a threaded cap which allows the equipment to be mounted on a suitable bracket or flange.

Intrinsic safety is achieved by connecting to the non-hazardous area via intrinsically safe interface devices, and by encapsulation of the electronics and sensor.

Power Port			Signal Port			RX port			TX port		
Ui	=	28V	Ui	=	10V	Ui	=	10V	Ui	=	10V
li	=	120mA	li	=	200mA	li	=	200mA	li	=	200mA
Pi	Ш	0.83W	Pi	Ш	0.5W	Pi	=	0.5W	Pi	=	0.5W
Ci	Ш	5nF	Ci	Ш	0	Ci	=	0	Ci	Ш	0
Li	Ш	0	Li	Ш	0	Li	=	0	Li	Ш	0
						Uo	=	6.51V	Uo	Ш	6.51V
						lo	=	208mA	lo	=	208mA

The equipment has the following safety description:

## 12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes		
0	06/07/2018	R11818A/00	Issue of prime certificate		

Note: Drawings that describe the equipment or component are listed in the Annex.

## 13 Conditions of manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

13.1 Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.

## 14 Special Conditions for Safe Use (Conditions of Certification)

The following conditions relate to safe installation and/or use of the equipment.

- 14.1 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore, the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. This is particularly important if the equipment is installed in a zone 0 location. In addition, the equipment shall only be cleaned with a damp cloth.
- 14.2 The equipment must be routinely inspected to avoid the build up of dust layers when installed in a Zones 20, 21, or 22.





- 14.3 The equipment must only be connected to resistive intrinsically safe sources with minimum resistances as follows
  - Power connection  $R \ge 234\Omega$
  - Signal connection  $R \ge 50\Omega$
  - TX connection  $R \ge 50\Omega$
  - RX connection  $R \ge 50\Omega$
- 14.4 When installing the equipment, the installer shall consider the length of integral cable attached to the equipment, in addition to any externally installed cable. The integral cable shall be considered to have parameters of 200pF/m, and 1 $\mu$ H/m or 30 $\mu$ H/ $\Omega$

# **Certificate Annex**



Certificate Number	CML 18ATEX2193X			
Equipment	NIVUS R-8z & NIVUS R-16z			
Manufacturer	NIVUS GmbH			

The following documents describe the equipment or component defined in this certificate:

# Issue 0

Drawing No	Sheets	Rev	Approved date	Title		
D-804-1284-B	1 of 1	В	06/07/2018	NIVUS Ex ia R-8z & R-16z mmWave Radar wrap-around Labels		





# **Certificate and File Transfer**

This document confirms the transfer of the following referenced certificates and files.

### **Receiving Notified Body:**

CML B.V., Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands (Notified Body number 2776) (Original) Issuing Notified Body: Certification Management Limited (Eurofins E&E CML Limited) Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ United Kingdom (Notified Body number 2503)

#### Manufacturer:

NIVUS GmbH Im Täle 2, 75031 Eppingen, Germany

### **Certificates transferred**

CML 18ATEX2193X

CML 18ATEX5194X

The manufacturer may use this document as evidence of continuity of certification.

Where the certification documentation or markings require updating to reflect the transfer, for example, change to Notified Body number, this is permitted without submission of updated documentation to CML.

The manufacturer shall apply to CML for any other changes to the product design.

Signed

On behalf of CML B.V.

D R Stubbings MIET Technical Director Tuesday, 08 December 2020

On behalf of CML UK

A C Smith Technical Operations Director Tuesday, 08 December 2020

On behalf of NIVUS GmbH

Samuel Seiter Ex Representative Tuesday, 08 December 2020

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