

[1] **EC-TYPE EXAMINATION CERTIFICATE**
according to Directive 94/9/EC, Annex III



(Translation)

- [2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC
- [3] EC-Type Examination Certificate Number: **IBExU07ATEX1081**
- [4] Equipment: Flow transducer type OCM F, OCM FR, OCM FM
NFP
- [5] Manufacturer: NIVUS GmbH
- [6] Address: Im Täle 2
75031 Eppingen
GERMANY
- [7] The design of this equipment mentioned under [4] and any acceptable variation thereto are specified in the schedule to this EC-Type Examination Certificate.
- [8] IBExU Institut für Sicherheitstechnik GmbH, NOTIFIED BODY number 0637 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment mentioned under [4] 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 test results are recorded in the test report IB-07-3-145/1 of 3rd July 2007.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2004 and EN 60079-11:2007.
- [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 under [17] in the schedule to this EC-Type Examination Certificate.
- [11] This EC-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this directive apply to the manufacture and supply of this equipment.
- [12] The marking of the equipment mentioned under [4] shall include the following

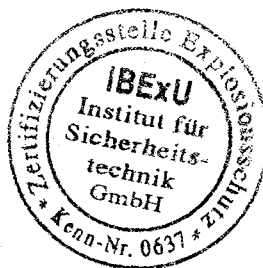
II (2)G [Ex ib] IIB

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Authorised for certifications
-Explosion protection-By order

By order

(Dr. Lösch)



- Seal -
(ID no. 0637)

Freiberg, 4th July 2007

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Schedule

[13] **Schedule**

[14] **to the EC-TYPE EXAMINATION CERTIFICATE IBExU07ATEX1081**

[15] **Description of equipment**

The Flow transducer is an associated apparatus and is to install outside of hazard areas. It serves to the galvanic isolated supply and the signal transmission for 2- line sensors an flow rate sensors. The electronics components are on a circuit board inside a front board and wall form enclosure. The electrical connections are carried out with terminals. The equipment is fit out with LC-Display and foil keyboard and USB-connector for services.

Ambient temperature -20 °C up to +40 °C

Electrical data

Supply circuit: Terminal-No. 4[DC+], 5[DC-] and 3[PE]

U_N 18 - 36 VDC

Terminal-No. 1[L1], 2[N] and 3[PE]

U_N 85 - 264 VAC

Signal circuits: Terminal-No. 6 up to 45

U_N 24 VDC resp. I_N 0/4 -20 mA

U_N 250 VAC (relay)

maximum r.s.m U_m 250 VAC

Sensor current circuits: **type of protection Ex ib IIB**

2- wire sensors Terminal-No.46 - 49 and 55 - 58

per channel U_O 27.3 V

I_O 91.8 mA

characteristic linear

C_O 400 nF

L_O 5 mH

Flow sensors Terminal-No.50 - 54 and 59 -63

per channel U_O 9.9 V

I_O 629 mA

characteristic rectangular

C_O 5 μ F

L_O 0.15 mH

The maximum values are valid also for combined lumped capacitances/ inductances. Further details are specified in the test documents which are part of the test report.

[16] **Test report**

The test results are recorded in the test report IB-07-3-145/1.

Summary of the test results:

The NIVUS-Tranducer fulfils the requirements of explosion protection for associated apparatus of Equipment group II and Category (2) G in type of protection Intrinsic safety for explosive atmospheres of explosion group IIB.

[17] **Special conditions for safe use**

none

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

Confirmed by compliance of standards (see [9]).

By order

Freiberg, 4th July 2007



(Dr. Lösch)