

CERTIFICATE OF CONFORMITY



- HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT PER US REQUIREMENTS**
- Certificate No:** FM16US0068X
- Equipment:** *NIVOTRACK Series Magnetostrictive Level Transmitter*
(Type Reference and Name) *Level Transmitter*
- Name of Listing Company:** NIVELCO Process Control Co.
- Address of Listing Company:** Dugonics u. 11
1043, Budapest
Hungary
- The examination and test results are recorded in confidential report number:

3053681 dated 30th August 2016
- FM Approvals LLC, certifies that the equipment described has been found to comply with the following Approval standards and other documents:

FM Class 3600:2011, FM Class 3610:2015, FM Class 3611:2016, FM Class 3615:2006, FM Class 3810:2005, ANSI/ISA 60079-0:2013, ANSI/UL 60079-1:2015, ANSI/IEC 60529:2004
- If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.
- This certificate relates to the design, examination and testing of the products specified herein. The FM Approvals surveillance audit program has further determined that the manufacturing processes and quality control procedures in place are satisfactory to manufacture the product as examined, tested and Approved.
- Equipment Ratings:**

Flameproof for Class I, Zone 1, AEx db IIB Gb: Temperature Class T6...T5 Ta= -40°C to +70°C hazardous (classified) locations, indoor and outdoor (IP67).

Explosionproof and Intrinsically Safe for Class I, Division 1, Groups C and D Temperature Class T6...T5 Ta= -40°C to +70°C hazardous (classified) locations; Type IP67.

Certificate issued by:

J. E. Marquedant
VP, Manager, Electrical Systems

11 August 2017

Date

To verify the availability of the Approved product, please refer to www.approvalguide.com

THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE

FM Approvals LLC. 1151 Boston-Providence Turnpike, Norwood, MA 02062 USA
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SCHEDULE



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Nonincendive for Class I, Division 2, Groups C and D Temperature Class T6...T5 Ta= -40°C to +70°C hazardous (classified) locations; Type IP67.

11. The marking of the equipment shall include:

Class I, Zone 1, AEx db IIB T6...T5 Gb Ta = -40°C to +70°C, IP67

Class I, Division 1, Groups C,D T6...T5 Ta = -40°C to +70°C, IP67

Class I, Division 2, Groups C,D T6...T5 Ta = -40°C to +70°C, IP67

12. **Description of Equipment:**

The NIVOTRACK Series Magnetostrictive Level Transmitter is suitable for high accuracy level measurements using the magnetic disc inside the float to signal the internal electronics as to the measurement of the liquid in the tank. Measurement is based on measuring the flying time since it is proportional with the distance of the float from the electronics. The product features a two compartment enclosure made of Aluminium EN-AC 43100 with a rigid stainless Steel 316Ti probe body to a maximum length of 20 feet. The enclosure is accessed through two ½" Npt threaded entries.

Operation Temperature Ranges:

The ambient operating temperature range of the NIVOTRACK Series is -40°C to +70°C. The maximum process temperature is -40°C to +90°C. The Maximum working pressure is 25Bar (363psi).

Electrical data:

Maximum voltage: 35VDC, Maximum current = 22 mA, Um = 250 V.

Mab-5cd-e NIVOTRACK Magnetostrictive Level Transmitter

a = Type: (T and B for AEx db only), (T, B, E, G, W,V, D, J, N or O for XP-IS or NI).

b = Probe/Process Connection: (A, C, D, G, U or L for AEx db only), (A, C, D, G, U, L, K, N or Z for XP-IS or NI).

cd = Nominal probe length in decimeters: 01 (10cm or 4 inch) to 60 (6 meters or 20feet).

e = Output: (E and F for AEx db only), (G, H, for XP-IS), (J and K for NI).

13. **Specific Conditions of Use:**

1. The risk of electrostatic discharge shall be minimized at installation, following the direction given in the instruction.
2. Contact the original manufacturer for information in the dimensions of flameproof joints.
3. For Field connections, use cable rated 20°C greater than Maximum Ambient Temperature.
4. For installation of the NIVOTRACK rated as Class I Zone 1 AEx db IIB, seal all threaded entries at enclosure with suitably rated sealing components.
5. For installation of the NIVOTRACK rated as Class I, Division 1, Group C and D. The NIVOTRACK product is not to be used or installed in Ketone atmospheres.
6. The enclosure contains aluminum and is considered a potential risk of ignition by impact or friction. Care must be taken during installation to prevent impact or friction effects.
7. Temperature codes for the rating AEx db IIB are defined by the following table:

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Process Temperature(PT)	Maximum Ambient Temperature	Temperature Code (TC)
From -40°C to +70°C	+70°C	T6
From +70°C to +80°C	+55°C	T6
From +80°C to +90°C	+55°C	T5

8. For installation of the NIVOTRACK rated as Class I, Division 1, Groups C and D, seal all threaded entries within 18 inches of enclosure with suitably rated sealing components.

9. Temperature codes for the NIVOTRACK rated as Class I, Division 1, Groups C and D is defined by the following table:

Maximum Ambient Temperature	Temperature Code (TC)
+61°C to +70°C	T5
≤ +60°C	T6

10. The installer shall consider the effect of process temperature and ensure that the maximum specified ambient temperature of +70°C is not exceeded.

11. NIVOTRACK units using the nonincendive protection method shall be used in a non-flammable liquid process or without inserting the probe inside the process/pipeline.

14. Test and Assessment Procedure and Conditions:

This Certificate has been issued in accordance with FM Approvals US Certification Requirements.

15. Schedule Drawings

A copy of the technical documentation has been kept by FM Approvals.

16. Certificate History

Details of the supplements to this certificate are described below:

Date	Description
30 th August 2016	Original Issue.
11 th August 2017	Supplement 1: Report Reference: Project ID 3060257 dated 11 th August 2017 Description of change: Description of change: Addition of Explosionproof-Intrinsically Safe version of Level Transmitter and Nonincendive version of Level Transmitter.

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