

Instruction Manual Probes FA for explosive atmospheres with proximity switches NI 47k or HNV



Apparatus

Vane wheel flow sensors FA with proximity switches NI 47k or HNV



These are intrinsically safe sensors with explosion protection **Ex ia** for measuring the flow velocity of air/gases and water/liquids and designed for use in areas in which an explosive gas atmosphere is likely to occur in normal operation occasionally.

All Höntzsch sensors with vane wheel for measuring flow velocity v in hazardous areas



1. Safety Precautions

Please read this Instruction Manual carefully before initial operation!
Non-compliance can cause an explosion!

The apparatus with NI **47k** and electrical peak values $U_i \leq 11 \text{ V}$, $I_i \leq 3 \text{ mA}$, $P_i \leq 10 \text{ mW}$ may be used only in areas in which the ambient temperature for temperature classes T6 +80 °C, T5 +95 °C and T4 +130 °C, as marked on the type plate and in the technical documents, is not exceeded.

The apparatus with NI **47k** and electrical peak values $U_i \leq 11 \text{ V}$, $I_i \leq 16 \text{ mA}$, $P_i \leq 36 \text{ mW}$ may be used only in areas in which the ambient temperature for temperature classes T6 +60 °C, T5 +75 °C and T4 +110 °C, as marked on the type plate and in the technical documents, is not exceeded.

The apparatus with NI **HNV** and electrical peak values $U_i \leq 11 \text{ V}$, $I_i \leq 42 \text{ mA}$, $P_i \leq 230 \text{ mW}$ may be used only in areas in which the ambient temperature for temperature classes T6 +40 °C, T5 +55 °C and T4 +90 °C is not exceeded. See also type plate and technical documents.

FA sensors for explosive atmospheres may be used only in areas in which the specified gas temperature, ambient temperature and permissible overpressure, as marked on the type plate and in the technical documents, are not exceeded.

Sensors for applications in pressurized pipelines are to be inserted or retracted in depressurized conditions only, unless a probe guide piece with chain guard is being used. Non-observance can result in serious harm to personnel.

FA sensors for explosive atmospheres may be connected to auxiliary electrical equipment with intrinsically safe isolation/supply unit only, so that the ratings in 2.1 are not exceeded.

2. Technical Data

EC type examination certificate: **ZELM 02 ATEX 0085**

Marking



Explosion protection: **Ex ia IIC T6 Gb**

2.1 Electrical Data

Operation range concerning safety specifications:

NI 47k

$U_i \leq 11 \text{ V}$, $I_i \leq 3 \text{ mA}$, $P_i \leq 10 \text{ mW}$

NI 47k

$U_i \leq 11 \text{ V}$, $I_i \leq 16 \text{ mA}$, $P_i \leq 36 \text{ mW}$

NI HNV

$U_i \leq 11 \text{ V}$, $I_i \leq 42 \text{ mA}$, $P_i \leq 230 \text{ mW}$



3. Installation

The current European Specifications for Assembly, the recognised standards of good practice and this Instruction Manual apply.

Refer to the currently valid regulations to ensure localized potential equalization.

Sensors with terminal boxes on the apparatus have an equipotential bonding terminal for this purpose. For other sensors, connection is either on the sensor housing, the probe guide piece or with a standard grounding clamp on the probe shaft.

The earth terminal is designed for cross-sections of 1,5 ... 4 mm². Use a cable lug. The torque for fixture to the earth terminal must amount to 2 ... 3 Nm.



4. Cleaning / Maintenance

Sensors should be cleaned at regular intervals (see User Information FA Probes).

Any covering of dust on the electronic housing may not exceed 5 mm.

Any other maintenance or repair work is to be carried out solely by Höntzsch GmbH & Co. KG.

Declaration of conformity, Declaration of incorporation

We, Höntzsch GmbH & Co. KG
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bearing sole responsibility, hereby declare that the product

Instrument for flow measurement FA-Ex

NI type 47k + HNV

With EC-Type-Examination certificate ZELM 02 ATEX 0085

referred to by this declaration is in conformity with the following standards or normative documents:

Provisions of the directive	No. and date of issue of the standards
2014/34/EU: Equipment and protective systems for use in potentially explosive atmospheres	EN 60079-0: 2018 EN 60079-11: 2012
2014/30/EU: Electromagnetic compatibility	EN 61000-6-4: 2007 + A1: 2011 EN 61000-6-2: 2006 + Ber1: 2011
2014/68/EU: Pressure equipment directive	

One or more of the standards referred to in the EC type examination certificate have been replaced by new versions. We declare that we are also in agreement with these new versions.



Waiblingen, 25.06.2021

Jürgen Lempp / Managing Director

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Subject to alteration