

Instruction Manual FA-Ex

For Ex-version FA sensors with proximity switch NI 47k or HNV

Apparatus

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



All Höntzsch Ex sensors with vane wheel for measuring flow velocity v.

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

1. Safety instructions

Read the Instruction Manual carefully before initial operation! Failure to do so may cause an explosion.

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

The apparatus with electrical peak values $I_i \leq 16 \text{ mA}$, $U_i \leq 11 \text{ V}$, $P_i \leq 36 \text{ mW}$ may only be used in areas in which the ambient temperatures for T6 +60 °C, T5 +75 °C and T4 +110 °C are not exceeded.

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

The specified maximum permissible overpressure, ambient temperature and temperature of the medium for these sensors may not be exceeded.

Probes for use in pressurized pipelines may only be inserted and retracted in a depressurized state (danger of severe injury) unless a probe guide piece with chain guard in being used.

Ex-version FA sensors are designed exclusively for connection to an associated electrical apparatus with intrinsically safe isolation / supply unit which does not exceed the electrical data in item 3.1.

2. Compliance with standards

The apparatus meets the requirements of the European Standards:
EN 60079-0:2010:
General Requirements
EN 60079-11:2012:
Intrinsic Safety

3. Technical Data

Type of protection: **Ex ia IIC T6**

EC-Type Examination Certificate:
ZELM 02 ATEX 0085

Marking



3.1 Electrical data

Safety-related peak values:

NI 47 k:

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

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

NI HNV:

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

4. Installation

The European electrical installations design, selection and erection standard EN 60079-14:2009, the generally accepted rules of technology, User Information for FA sensors, the relevant wiring diagram and this Instruction Manual apply.

The apparatus is incorporated in the local equipotential bonding PA according to EN 60079.

For FA sensors with connection housing a terminal on the exterior of the enclosure serves this purpose

For other FA sensors the terminal is either on the sensor housing or the probe guide piece or by means of a standard conductive clamp on the probe shaft.

5. Maintenance

The sensor should be cleaned at regular intervals to prevent contamination (see User Information FA).

Any maintenance and repair to the equipment is to be carried out solely by Höntzsch GmbH.

Konformitätserklärung Declaration of conformity Déclaration de conformité

Wir/We/Nous, **Höntzsch GmbH**
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Waiblingen

erklären in alleiniger Verantwortung, dass das Produkt
bearing sole responsibility, hereby declare that the product
déclarons de notre seule responsabilité que le produit

Flügelrad-Strömungssensoren FA-Ex
vane wheel flow sensors
Capteurs à moulinet
NI type 47k + HNV

mit der EG-Baumusterprüfbescheinigung ZELM 02 ATEX 0085
with EC-Type-Examination certificate
avec attestation d'examen CE de type

**auf das sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten
übereinstimmt:**

referred to in this declaration is in conformity with the following standards or normative documents:
auquel se rapporte la présente déclaration est conforme aux normes ou aux documents normatifs suivants:

Bestimmung der Richtlinie Provisions of the directive Désignation de la directive	Nummer sowie Ausgabedatum der Normen No. and date of issue of the standards No. ainsi que date d'émission de la/des norme(s)
94/9/EG: Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen 94/9 EC: Equipment and protective systems for use in potentially explosive atmospheres 94/9 CE: Appareils et système de protection destinés à être utilisés en emplacements dangereux	EN 60079-0: 2010 + Corrigendum 1:2011 EN 60079-11: 2012
89/336 EWG: Elektromagnetische Verträglichkeit 89/336 EEC: Electromagnetic compatibility 89/336 CEE: Compatibilité électromagnétique	EN 61000-6-4: 2011 EN 61000-6-2: 2006 + Corrigendum 1:2011
97/23/EG: Druckgeräterichtlinie 97/23/EC: Pressure equipment directive 97/23/CE: Directives des appareils de pression	29.05.1997

Eine oder mehrere der in der EG-Baumusterprüfbescheinigung genannten Normen wurden durch neue Ausgaben ersetzt.
Wir erklären auch die Übereinstimmung mit den neuen Normausgaben.
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.
Un ou plusieurs des standards se référant au Certificat CE de contrôle type ont été remplacés par nouvelles versions.
Nous déclarons que nous sommes aussi en agrément avec ses nouvelles versions.

Waiblingen 18.01.2013

Ort und Datum
Place and date
Lieu et date



rechtsverbindliche Unterschrift
legally binding signature
Signature obligatoire