Contents

Supplementary documentation:

- Operating Instructions NivoRadar 7200
- EU-type approval certificate CSANe 23ATEX1067X (Document ID: 1018325)

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DE	Sicherheitshinweise für den Einsatz in explosionsgefährdeten Bereichen
EN	Safety instructions for the use in hazardous areas
FR	Consignes de sécurité pour une application en atmosphères explosibles
IT	Normative di sicurezza per l'impiego in luoghi con pericolo di esplosione
ES	Instrucciones de seguridad para el empleo en áreas con riesgo de explosión
PT	Normas de segurança para utilização em zonas sujeitas a explosão
NL	Veiligheidsaanwijzingen voor gebruik op plaatsen waar ontploffingsgevaar kan heersen
SV	Säkerhetsanvisningar för användning i explosiionsfarliga områden
DA	Sikkerhedsforskrifter til anvendelse i explosionsfarlig atmosfare
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DE	Die vorliegenden Sicherheitshinweise sind in den Sprachen deutsch, englisch, französisch und spanisch verfügbar. Weitere EU-Landessprachen stellt der Hersteller nach Anforderungen zur Verfügung.
EN	The present safety instructions are available in German, English, French and Spanish. Further EU languages will be provided by the manufacturer upon request.
FR	Les présentes consignes de sécurité sont disponibles dans les langues allemand, anglais, français et espagnol. Le fabricant met d'autres langues de l'Union Européenne à disposition en fonction des demandes.
ES	Las presentes instrucciones de seguridad están disponibles en los idiomas alemán, inglés, francés y español. El fabricante pone a disposición según demanda otros idiomas nacionales de la UE.

Area of applicability

These safety instructions apply to the NivoRadar 7200 of type series:

- NivoRadar 7200

With the electronics versions:

- H - Two-wire 4 ... 20 mA/HART

According to EU type approval certificate CSANe 23ATEX1067X (certificate number on the type label) and for all instruments with safety instruction 1018324.

The classification as well as the respective standards are stated in the EU type approval certificate.

Standards:

- EN 60079-0: 2018, General Requirements
- EN 60079-11: 2012, Intrinsic safety "i"
- EN 60079-26: 2015, Equipment with equipment protection level (EPL) Ga

Type of protection marking:

- II 1G, 1/2G Ex ia IIC T4 ... T1 Ga, Ga/Gb

General information

The NivoRadar 7200 in ignition protection type intrinsic safety "i" are used for detection of the distance between medium surface and sensor by means of high frequency, electromagnetic waves in the GHz range.

The electronics uses the running time of the signals reflected by the medium surface to calculate the distance to the medium surface.

The NivoRadar 7200 consist of an electronics housing, a process connection element and a sensor or an antenna.

The NivoRadar 7200 can be equipped with a display and adjustment module.

The NivoRadar 7200 are suitable for applications in hazardous atmospheres of all combustible materials of explosion groups IIA, IIB and IIC.

The NivoRadar 7200 are suitable for applications requiring category 1G (EPL Ga), 1/2G (EPL Ga/Gb) or 2G (EPL Gb) instruments.

Application area

Category 1G (EPL Ga instruments)
The NivoRadar 7200 with the mechanical fixing element are installed in hazardous areas of zone 0 requiring category 1G (EPL Ga) instruments.

Category 1/2G (EPL Ga/Gb instruments)
The NivoRadar 7200 with mechanical fixing element are installed in hazardous areas of zone 1 requiring instruments of category 2G (EPL Gb). The mechanical fixing element, process connection element is installed in the separating wall, which separates areas requiring instruments of category 2G (EPL Gb) or 1G (EPL Ga). The sensor measuring system is installed in hazardous areas of zone 0 requiring instruments of category 1G (EPL Ga).

Specific conditions of use ("X" identification)

The following overview is listing all special properties of NivoRadar 7200, which make a labelling with the symbol "X" behind the certificate number necessary.

Electrostatic charging (ESD)
You can find the details in chapter " *Electrostatic charging (ESD)*" of these safety instructions.

Ambient temperature
You can find the details in chapter " *Thermal data*" of these safety instructions.

Non-grounded, metallic parts
The capacitance of the metal measuring point identification plate was measured as follows:

Measurement loop identification label	Capacitance
45 x 23 mm (standard)	21 pF
100 x 30 mm	52 pF
73 x 47 mm	61 pF

Additional instructions for safe operation

- For process pressures outside the standard atmospheric conditions of 80 kPa (0.8 bar) to 110 kPa (1.1 bar) additional requirements can be valid.

Connection conditions
- Unused openings must be covered. The red thread or/dust covers screwed in when the instruments are shipped (depending on the version) must be removed before setup and replaced by cable entries or closing screws suitable for the respective ignition protection type and IP protection.
- If the temperature at the entry parts exceeds 70 °C, temperature-resistant connection cables must be used
- Metal cable glands must not be used
- If necessary, a suitable overvoltage arrester can be connected in front of the NivoRadar 7200

Important information for mounting and maintenance

General instructions
The following requirements must be fulfilled for mounting, electrical installation, setup and maintenance of the instrument:

- The staff must be qualified according the respective tasks
- The staff must be trained in explosion protection
- The staff must be familiar with the respectively valid regulations, e.g. planning and installation acc. to IEC/EN 60079-14
- Make sure when working on the instrument (mounting, installation, maintenance) that there is no explosive atmosphere present, the supply circuits should be voltage-free, if possible.

- The instrument has to be mounted according to the manufacturer specifications, the EU type approval certificate and the valid regulations and standards
- Modifications on the instrument can influence the explosion protection and hence the safety, therefore repairs are not permitted to be conducted by the end user
- Modifications must only be carried out by employees authorized by UWT company
- Use only approved spare parts

Mounting
Keep in mind for instrument mounting

- Mechanical damage on the instrument must be avoided
- Mechanical friction must be avoided
- If the device is used as a separating wall device, the operator must observe the applicable installation regulations.
- Close the housing lid (s) up to the stop before starting operating, to ensure the IP protection rating specified on the type label

Maintenance
To ensure the functionality of the device, periodic visual inspection is recommended for:

- Secure mounting
- No mechanical damages or corrosion
- Worn or otherwise damaged cables
- No loose connections of the line connections, equipotential bonding connections
- Correct and clearly marked cable connections

Electrostatic charging (ESD)

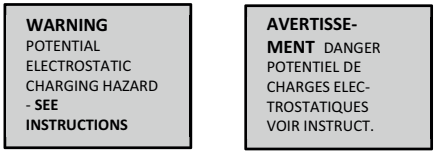
Take note in case of danger of electrostatic charges:

- Avoid friction on the surfaces
- Do not dry clean the surfaces

The instruments must be mounted/installed in such a way that the following can be ruled out:

- electrostatic charges during operation, maintenance and cleaning.
- process-related electrostatic charges, e.g. by measuring media flowing past

The warning label indicates danger:



For media with a conductivity smaller than 10^{-8} S/m applies:

- The level measuring instrument must not be used in highly charge generating processes, e.g. mechanical friction and separation processes, spraying of electrons, etc.
- In particular, the level measuring instrument must not be mounted in a pneumatic conveying flow

Electrical data

Supply and signal circuit:	
Terminals 1[+], 2[-] in electronics compartment	In type of protection intrinsic safety Ex ia IIC
	For connection to a certified, intrinsically safe circuit. $U_i \leq 30$ V DC $I_i \leq 131$ mA $P_i \leq 983$ mW
	The effective internal capacitance C_i is negligibly small. The effective internal inductance L_i is negligibly small.

Display and adjustment circuit:	
Plug connector in the electronics compartment	In type of protection intrinsic safety Ex ia IIC
	Only for connection to the corresponding display and adjustment module.

Thermal data

Temperature class	**Permissible process temperature range on the antenna in zone 0 (EPL Ga)**	**Permissible ambient temperature range on the electronics housing in zone 0 (EPL Ga)**
T4 ... T1	-40 ... +80 °C	-40 ... +70 °C

LEVEL. UP TO THE MAX.

Printing date:

All statements concerning scope of delivery, application, practical use and operating conditions of the sensors and processing systems correspond to the information available at the time of printing.
Subject to change without prior notice

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