



EU - Type Examination Certificate

- (1) **EU - Type Examination Certificate**
- (2) **Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

FTZÚ 18 ATEX 0147X

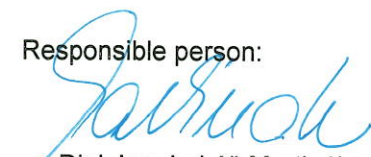
- (4) Product: **Explosion isolation flap valve type CARZ-NS DN160 (6")**
- (5) Manufacturer: **Nederman Manufacturing Poland Sp. z o.o.**
- (6) Address: **Okólna 45A, 05-270 Marki, Poland**
- (7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) The Physical-Technical Testing Institute, Notified Body number 1026, in accordance with Articles 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
- The examination and test results are recorded in confidential Report number:
18/0147 dated 10.12.2018
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 16447:2014, EN ISO 80079-36:2016
- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.
- (11) This certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- (12) The marking of the product shall include the following:

 **II D St2**

 **II 1/3 D Ex h IIIC 90°C Da/Dc**

This certificate is valid till: **18.12.2023**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 18.12.2018

Page: 1/3



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(13) **Schedule**

(14) **EU - Type Examination Certificate No. FTZÚ 18 ATEX 0147X**

(15) Description of Product:

The explosion isolation flap valve type CARZ-NS are designed as explosion pressure resistant equipment, which is able to prevent a transmission of dangerous effects of explosion, pressure wave, and flames in one direction and separates volumes with potentially explosive atmosphere of industrial dusts. In opposite direction back pressure flaps enable transfer of powdery flammable material. Type series of explosion isolation flap valves CARZ-NS works as protective system up to the requirements in article (17).

(16) Report Number.: 18/0147

(17) Specific Conditions of Use:

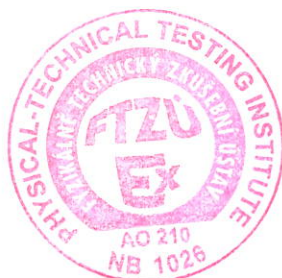
- Ambient temperature from -20 °C to 60°C
- Dust parameters: organic non-metal dust: $K_{st,max}= 300 \text{ bar.m.s}^{-1}$, MESH * $\geq 1,3 \text{ mm}$
- Push and pull situation allowed without restrictions
- The maximum number of bends between the flap and the protected vessel is: $2 \times 90^\circ$
- Max. dust concentration in duct where device will be installed is without limits.
- The maximum allowable opening angle of the blade is 45° to the vertical.
- The maximum flow velocity is 35 m.s^{-1}
- Maximum explosion reduced pressure $p_{red,max}= 0,50 \text{ bar}$
- Explosion resistance of flap $p_{max} = 1 \text{ bar}$
- Minimum volume of protected vessel $V_{min}=0,46\text{m}^3$
- Minimum installation distance $L_{min}=5\text{m}$
- Maximum installation distance $L_{max}=10\text{m}$

(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (9) of this certificate.

Responsible person:


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Head of Certification Body



Date of issue: 18.12.2018

Page: 2/3

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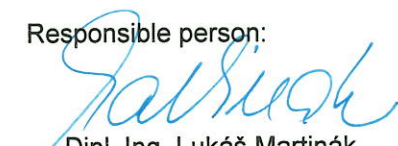
Schedule

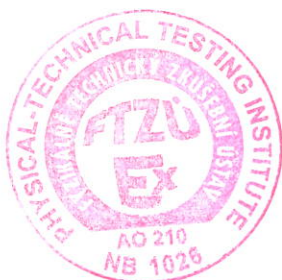
(14) **EU - Type Examination Certificate No. FTZÚ 18 ATEX 0147X**

(19) Drawings and Documents:

Number:	Rev.:	Date:	Description:
QMM076(01)		12/2018	Manual
IHA_CARZ-NS	A	12/2018	Ignition hazard analysis
CARZ_NS_B	B	12/2018	Part list and material specification
CARZ_NS_G	B	12/2018	Drawing
CARZ_NS_LMS	B	12/2018	Drawing
CARZ_NS_WD	B	12/2018	Drawing
Label_CARZ-NS	A	12/2018	Drawing
CRZ-NS_gasket_shape	A	12/2018	Drawing

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Page: 3/3

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