



(1) **Supplementary EU - Type Examination Certificate No.1**

(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 - DN 250**

(5) Manufacturer: **Nederman Manufacturing Poland Sp. z o.o.**

(6) Address: **Okólna 45A, 05-270 Marki, Poland**

(7) This supplementary certificate extends EU - Type Examination Certificate No. FTZÚ 18 ATEX 0147X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached 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, as modified by this supplementary certificate, 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.

(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) The marking of the product shall include the following:

 **D St2**

 **II 1/2 D Ex h IIC T75°C Da/Db**

(12) This certificate is valid till: **16.12.2024**

Responsible person:

  
Dipl. Ing. Lukáš Martinák  
Head of Certification Body



Date of issue: 16.12.2019

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Physical-Technical Testing Institute  
Ostrava - Radvanice

(13)

Schedule

(14) **Supplementary EU - Type Examination Certificate No. 1  
to FTZÚ 18 ATEX 0147X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Extension of the series.
- Extension for the use with metal dust.
- Extension of the certificate validity.

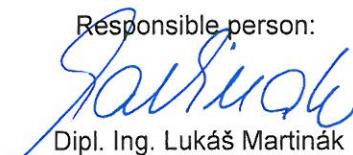
This supplementary certificate describes the extension of series of the CARZ-NS back pressure flaps for the sizes up to DN 250 and allows the use of the metal dust. Type series of explosion isolation flap valves CARZ-NS works as a protective system when fulfilling the requirements in article (17) below.

(16) Report Number.: 18/0147/1

(17) Specific Conditions of Use:

1. Ambient temperature range: -from -20°C to 60°C.
2. a) Organic dust:  $K_{st,max} = 300 \text{ bar.m.s}^{-1}$ ,  $MESG \geq 1,3 \text{ mm}$   
The maximum dust concentration in the ducting is without the limit.  
Push and pull situation allowed, vessel is protected with non-reclosing vent devices, with reclosing vent devices or suppression.
- b) Metal dust:  $K_{st,max} = 260 \text{ bar.m.s}^{-1}$ ,  $MESG \geq 1,3 \text{ mm}$ ,  $MIT = 710^\circ\text{C}$   
The maximum dust concentration in the ducting has to be under the LEL (Lower Explosive Limit) value of the dust.  
Pull situation allowed, vessel is protected with non-reclosing vent devices (this excludes e.g. suppression and venting with reclosing vent devices).
3. Straight ducting with up to maximum of 2 bends 90° between the protected vessel and the flap.
4. Minimal installation distance is 5 m, maximal installation distance is 10 m.
5. Minimal vessel volume is 0,46 m<sup>3</sup>.
6. Maximum reduced pressure in the vessel  $p_{red,max} = 0,5 \text{ bar}$ .
7. Explosion resistance of the flap  $p_{max} = 1 \text{ bar}$ .
8. The maximal speed flow is 35 m.s<sup>-1</sup>.
9. Maximum allowable opening angle of the blade to the vertical is 45°.
10. The product has to be installed so that the propagating brush discharges on the external surface of the device are avoided.
11. The electrical devices installed together with the back pressure flap must have the type of protection corresponding with the defined explosive zone.

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(18) Essential Health and Safety Requirements:

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

(19) Drawings and Documents:

Number	Sheets	Issue	Date	Description
CARZ_NS_G	2	C	22.10.2019	Drawing
CARZ_NS_WD	2	C	25.09.2019	Drawing
CARZ_NS_B	1	D	25.09.2019	Part list
LABEL_CARZ_NS	1	B	09.12..2019	Drawing
QMM076(02)	36		09.12.2019	Instruction manual
IHA_CARZ-NS	2	B	06.12.2019	Risk analysis

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