



**Physical-Technical Testing Institute
Ostrava - Radvanice**



(1) Supplementary EU - Type Examination Certificate No.2

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

(3) EU - Type Examination Certificate number:

FTZÚ 15 ATEX 0128X

(4) Product: Explosion isolation flap valve type CARZ 160-400 (6" –16")

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

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

(7) This supplementary certificate extends EC - Type Examination Certificate No. FTZÚ 15 ATEX 0128X 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) In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20.04.2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20.04.2016.

(10) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 16447:2014

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:



(12) This certificate is valid till: 30.06.2030

Responsible person:

Lukáš Martinák

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 16.06.2025

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This certificate is granted subject to the general conditions of the FTZÚ, s.p.

This certificate may only be reproduced in its entirety and without any change, schedule included.

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
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**Physical-Technical Testing Institute
Ostrava - Radvanice**

(13)

Schedule

(14) **Supplementary EU - Type Examination Certificate No. 2
to FTZÚ 15 ATEX 0128X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Extension of certificate validity.

Construction of the product, materials and technical documentation remain unchanged.

The explosion isolation flap valve type CARZ 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 works as protective system up to the requirements in article (17).

(16) Report Number: 15/0128/2

(17) Specific Conditions of Use:

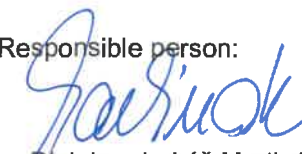
1. Ambient temperature from -20°C to $+60^{\circ}\text{C}$.
2. Dust parameters: $K_{st,max} \leq 20 \text{ MPa.ms}^{-1}$, MESG * $\geq 2 \text{ mm}$.
3. Pull and push system is allowed without restrictions.
4. The maximum allowable opening angle of the blade is 55° to the vertical.
5. The maximum flow velocity is: 30 m.s^{-1} .
6. The maximum number of bends between the flap and the protected vessel is $2 \times 90^{\circ}$.
7. Flap position is horizontal.
8. Parameters dependent on the size of the flap:

Parameter (unit)	Size CARZ DN (mm)	
	160	180 - 400
Maximum explosion reduced pressure $p_{red,max}$ (kPa)	45	45
Explosion resistance of the flap valve p_{max} (kPa)	100	90
Minimum volume of the protected vessel (m ³)	0.4	0.9
Minimum installation distance (m)	3	5
Maximum installation distance (m)	8	10
Max. dust concentration in the duct where device will be installed	no limit	< LEL**

* MESG – maximum experimental safe gap

** LEL – lower explosion limit

Responsible person:


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Head of Certification Body



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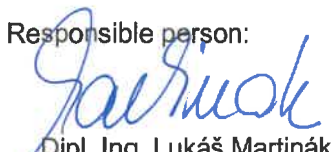
(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (10) of this supplementary certificate.

(19) Drawings and Documents:

Technical documentation remains unchanged and is listed in the original certificate and its supplementary certificate no. 1.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



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