



Physical Technical Testing Institute, Ostrava-Radvanice
National testing authority No 210

Certificate No.: FTZÚ 14 Ex 0024

about verification of non-electrical apparatus for potentially explosive gas atmospheres

This certificate is issued for: **Butterfly valves - type series 3E**

Manufacturer: **ABO valve, s.r.o., Dalimilova 285/54, 783 35 Olomouc, Czech Republic**

Applicant: **ABO valve, s.r.o., Dalimilova 285/54, 783 35 Olomouc, Czech Republic**

Above mentioned product and any of its variant are specified in documentation, list of which is in this certificate.

FTZÚ – National testing authority No. 210 confirms, that product comply with requirements following standards:

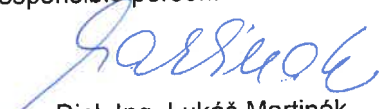
EN 13463-1:2009, EN 50303:2000

Manufacturer (or applicant) listed in the certificate is responsible for product conformity assurance in accordance with its specification (documentation) listed in this certificate and for successful performance of all specified routine tests and verification.

Apparatus marking: **II 1G/2GD TX**
I M1

This certificate is valid till: **31.01.2020**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of certification body



Date of issue: 12.12.2014

Page: 1/4
Annexes: --

This certificate is valid only for products described in this certificate and doesn't replace any other documents.
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Physical-Technical Testing Institute
Ostrava - Radvanice

Supplementary Type Certificate No. 1

about verification of non-electrical apparatus for potentially explosive atmospheres
according to scheme 1a) of EN ISO/IEC 17067:2013

Type Certificate number:

FTZÚ 14 Ex 0024

Product: **Butterfly valves, 3E type series**

Manufacturer: **ABO valve, s.r.o., Dalimilova 285/54, 783 35 Olomouc, Czech Republic**

Applicant: **ABO valve, s.r.o., Dalimilova 285/54, 783 35 Olomouc, Czech Republic**

This supplementary certificate extends Certificate No. FTZÚ 14 Ex 0024 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.

Physical-Technical Testing Institute, Certification Body No. 3051 accredited by ČIA o.p.s. Prague according to ČSN EN ISO / IEC 17065: 2013 confirms that the above mentioned product is in conformity with the requirements of the following standards:

EN ISO 80079-36:2016, EN IEC 60079-0:2018

Manufacturer (or applicant) listed in the certificate is responsible for product conformity assurance in accordance with its specification (documentation) listed in this certificate and for successful performance of all specified routine tests and verification.

This supplementary certificate relates only to verification of non-electrical apparatus for potentially explosive atmospheres. Further requirements can be applied to the manufacturing process and supply of this product. These are not covered by this certificate.

This certificate is valid till: **31.01.2025**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 28.01.2020

Page: 1/7

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

Supplementary Type Certificate No. 1 to FTZÚ 14 Ex 0024

**about verification of non-electrical apparatus for potentially explosive atmospheres
according to scheme 1a) of EN ISO/IEC 17067:2013**

Description of product changes:

The subject of this supplementary certificate is:

- product recertification according to the requirements of the mentioned standards,
- prolongation of certificate validity,
- extension of certified product series.

Originally certified product series is extended with double flange butterfly valves (DF variants), where the connecting flanges are part of the valve design. In the original valve series, the pipeline installation is carried out using external flanges. Other construction and material valve design are not underwent significant changes except for the way of securing the sealing for valves of DN 150 and higher size, where the sealing is secured by a seat fixed by flange to the valve body and by the lamellar ring fixed also by flange to the butterfly. The valves surface treatment is newly performed with CELEROL 962-15 paint.

The valves service temperature range is given by their material design, the maximum range is from -100 °C to +500 °C.

In compliance with the mentioned standards, (see title page of the certificate) the product marking is modified:

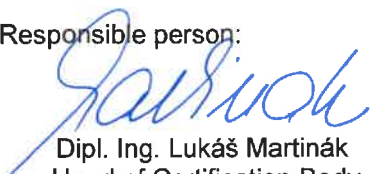
II 1/2G IIC 40°C ... 500°C Ga/Gb
II 1/2D IIIC T40°C ... T500°C Da/Db
I M1 I Ma

The following conditions apply to the surface temperature of product T in relation to its service temperature T_{service} :

$T_{\text{service}} < 40^{\circ}\text{C}$: $T = 40^{\circ}\text{C}$

$T_{\text{service}} \geq 40^{\circ}\text{C}$: $T = T_{\text{service}}$

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 28.01.2020

Page: 2/7

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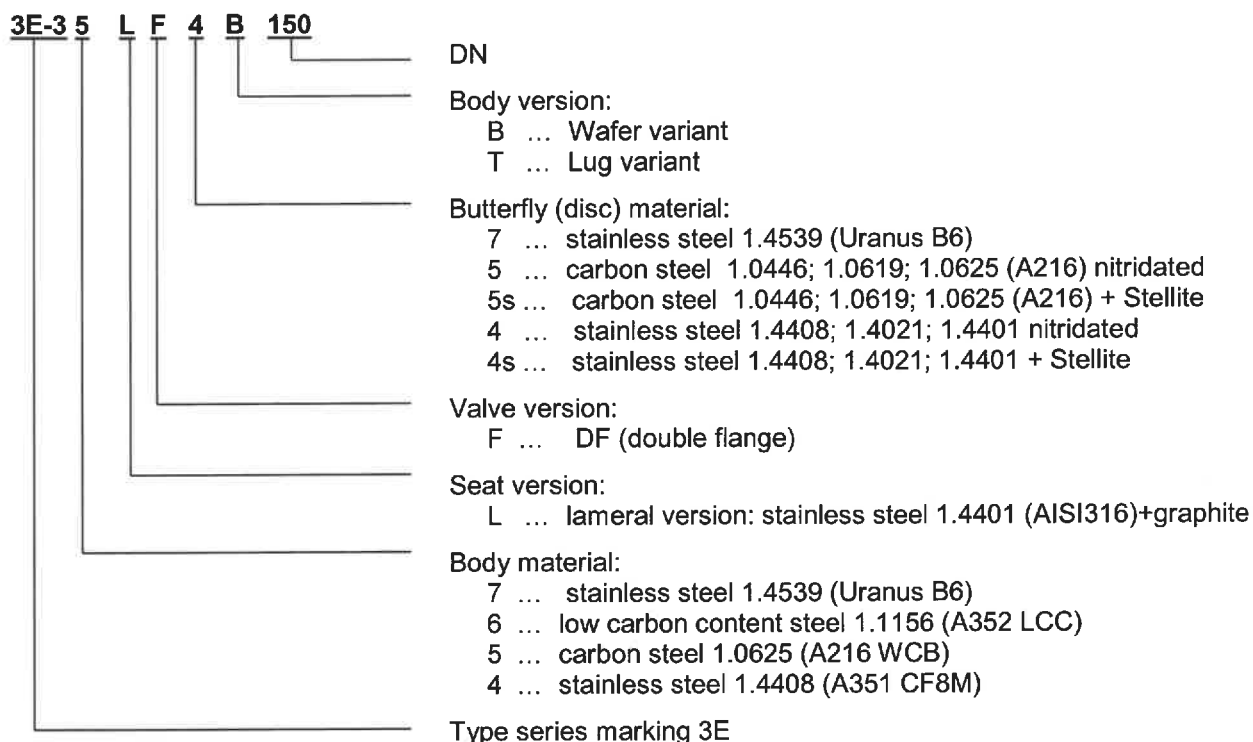


**Physical-Technical Testing Institute
Ostrava – Radvanice**

Supplementary Type Certificate No. 1 to FTZÚ 14 Ex 0024

**about verification of non-electrical apparatus for potentially explosive atmospheres
according to scheme 1a) of EN ISO/IEC 17067:2013**

Example of code marking and overview of approved variants of the butterfly valves:



Test report No.: 14/0024/1

Specific Conditions of Use: none

Essential conditions for use in hazardous areas:

1. The valve maximum temperature does not depend on the product itself, but on its operating conditions, in particular the operating medium temperature and ambient temperature. The valve maximum surface temperature in relation to the ignition temperature of explosive atmosphere will comply with the general requirements of EN 1127-1, cl. 6.4.2 or of EN 1127-2, cl. 6.4.2 eventually.
2. The valve will be grounded through its earthing clamp. Grounding will meet the requirements of CLC/TR 60079-32-1, cl. 13.
3. Other essential safety requirements are covered by the standards listed on the title page of this document.

Responsible person:

Lukáš Martinák
Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 28.01.2020

Page: 3/7

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Physical-Technical Testing Institute
Ostrava - Radvanice

Supplementary Type Examination Certificate No. 2

about verification of the non-electrical apparatus
used for explosive atmospheres
according to the Certification Scheme A

Type Examination Certificate number:

FTZÚ 14 Ex 0024

Product: **Butterfly valves type series 3E x x x x**

Manufacturer: **ABO valve, s.r.o.**

Address: **Dalimilova 285/54, 783 35 Olomouc, Czech Republic**

This supplementary certificate extends Certificate No. FTZÚ 14 Ex 0024 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.

Physical-Technical Testing Institute, Certification Body No. 3051 accredited by ČIA o.p.s. Prague according to EN ISO / IEC 17065:2012 confirms that the above mentioned product is in conformity with the requirements of the following standards:

EN ISO 80079-36:2016, EN IEC 60079-0:2018

Manufacturer (or applicant) listed in the certificate is responsible for product conformity assurance in accordance with its specification (documentation) listed in this certificate and for successful performance of all specified routine tests and verification.

This supplementary certificate relates only to verification of non-electrical apparatus used for explosive atmospheres. Further requirements can be applied to the manufacturing process and supply of this product. These are not covered by this certificate.

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 16.01.2025

Page: 1/4

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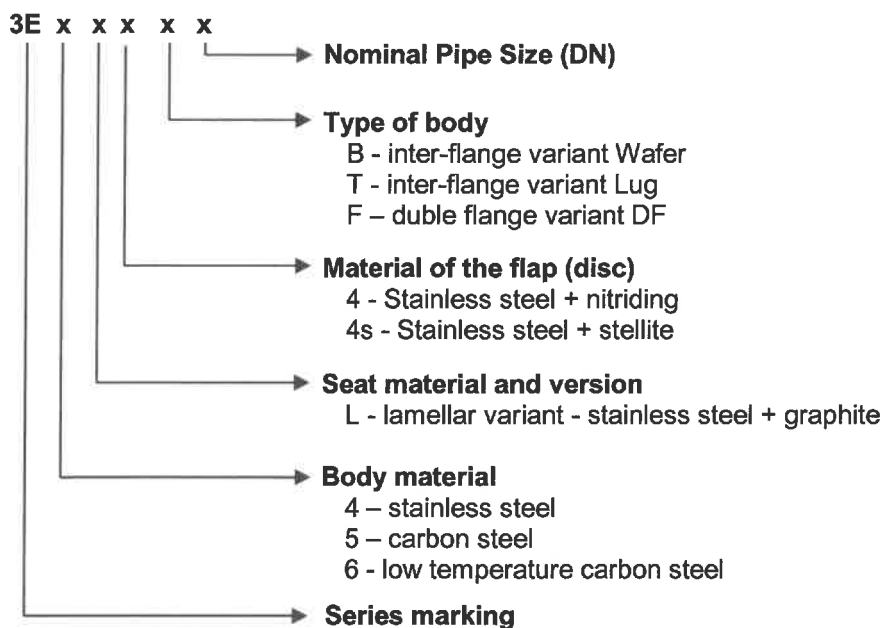
Schedule

Supplementary Type Examination Certificate No. 2 to FTZÚ 14 Ex 0024

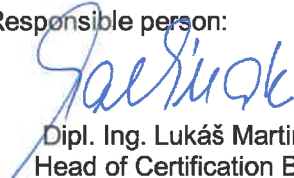
Description of product changes:

The subject of this supplementary certificate is:

- Change of the product marking by the manufacture:
Type series 3E x x x x IIC (with coating ALEXIT DECKLACK 412-1, without coating):
II 1/2 D Ex h IIC T85 °C ... T500 °C Da/Db
II 1/2 G Ex h IIC 85 °C ... 500 °C Ga/Gb
I M1 Ex h I Ma
Type series 3E x x x x (with coating CELEROL Decklack 962-15):
II 1/2 D Ex h IIB T85 °C ... T500 °C Da/Db
II 1/2 G Ex h IIC 85 °C ... 500 °C Ga/Gb
I M1 Ex h I Ma
Type series 3E x x x x (with coating ≤ 200 µm):
II 1/2 G Ex h IIC 85 °C ... 500 °C Ga/Gb
I M1 Ex h I Ma
- Modification of certified product:
Unification of design and securing the sealing for valves.
- Change of Type designation of the butterfly valve:



Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 16.01.2025

Page: 2/4

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

Schedule

**Supplementary Type Examination Certificate No. 2
to FTZÚ 14 Ex 0024**

Description of product changes - continue:

- Extension of product series.
- Update of technical documentation.
- Extension of the certificate validity:

This supplementary Certificate extends the validity of the original Certificate and Supplement No. 1 for unlimited period. Parameters, used materials and construction (except the modification describe above) of shutoff and regulation butterfly valves type series 3E x x x x x remain unchanged and are listed in the original Certificate and in Supplementary No. 1.

Conditions of use for hazardous areas:

1. Because the actual maximum temperature doesn't depend on the butterfly valve itself but on its operating conditions, in particular the operating temperature of the medium, the specific maximum surface temperature with the respect of the operating temperature of the medium given on the production label shall not exceed:


a) For Group I equipment:

- 150 °C on any surface where coal dust can form a layer,
- 450 °C where coal dust is not expected to form a layer and assuming that the actual maximum surface temperature is marked on the equipment,

b) For Group II equipment (EPL Ga):

Operating temperature of the medium	Max. surface temperature
≤ 68 °C	85 °C
≤ 80 °C	100 °C
≤ 108 °C	135 °C
≤ 160 °C	200 °C
≤ 240 °C	300 °C
≤ 360 °C	400 °C
≤ 400 °C	500 °C

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 16.01.2025

Page: 3/4

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

Schedule

**Supplementary Type Examination Certificate No. 2
to FTZÚ 14 Ex 0024**

c) For Group III equipment (EPL Da):

Operating temperature of the medium	Max. surface temperature
$\leq 85\text{ }^{\circ}\text{C}$	85 $^{\circ}\text{C}$
$\leq 100\text{ }^{\circ}\text{C}$	100 $^{\circ}\text{C}$
$\leq 135\text{ }^{\circ}\text{C}$	135 $^{\circ}\text{C}$
$\leq 200\text{ }^{\circ}\text{C}$	200 $^{\circ}\text{C}$
$\leq 300\text{ }^{\circ}\text{C}$	300 $^{\circ}\text{C}$
$\leq 400\text{ }^{\circ}\text{C}$	400 $^{\circ}\text{C}$
$\leq 500\text{ }^{\circ}\text{C}$	500 $^{\circ}\text{C}$

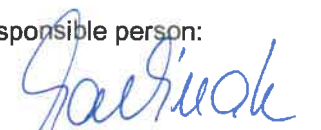
2. The butterfly valve must be conductively connected to the grounded part of associated equipment. Grounding must meet the requirements of CLC/TR 60079-32-1:2018, cl. 13.
3. The butterfly valve must be installed so that generation of propagating brush discharges on the external surface of the valve is avoided. More detailed information is in given the Operating regulation.
4. Ambient temperature range: $-40\text{ }^{\circ}\text{C} \leq T_a \leq +60\text{ }^{\circ}\text{C}$

Test report No.: 14Ex/0024/2

List of documentation: mentioned only updated documents:

Document No.:	Pages:	Date:	Description:
--	11	08.01.2025	Operating regulation for butterfly valve type series 3E
--	1	08.01.2025	Risk assessment 3E
3E DN050-125 ATEX	1	09.01.2025	Butterfly valve
3E DN150-600 ATEX	1	08.01.2025	Butterfly valve
IMS-852-04a	1	28.11.2023	Name plate for series 2E, 3E_PN
IMS-852-04b	1	28.11.2023	Name plate for series 2E, 3E_class
IMS-852-22	1	08.01.2025	Additional label for butterfly valve ABO s. 3E_ATEX

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Page: 4/4

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