

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



# (1) Supplementary EU - Type Examination Certificate No.7

(2)

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

(3) EU - Type Examination Examination Certificate number:

# **FTZÚ 02 ATEX 0043X**

(4) Product:

Electrical Actuator type MO EEx 52120.xxxx (F,FF)

(5) Manufacturer: ZPA Pečky a.s.

(6) Address:

tř. 5. května 166, 289 11 Pečky, Czech Republic

- (7) This supplementary certificate extends EC Type Examination Certificate No. FTZÚ 02 ATEX 0043X 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 60079-0:2012+A11:2013; EN 60079-1:2014; EN 60079-7:2015; EN 60079-11:2012

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

II 2G Ex db eb IIC T4 Gb

-25°C ≤ Ta ≤ +55°C

II 2G Ex db eb IIB T4 Gb

-50°C ≤ Ta ≤ +55°C

II 2G IM2

Ex db eb IIB T4 Gb

-60°C ≤ Ta ≤ +55°C

Ex db eb I Mb

IM2 Ex db ib I Mb

(12) The certificate is valid till: 31.10.2022

Responsible person:

Date of issue: 31.10.2017

Dipl. Ing. Lukáš Martinák Head of Certification Body

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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** Ostrava - Radvanice

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## Schedule

### Supplementary EU - Type Examination Certificate No. 7 (14)to FTZÚ 02 ATFX 0043X

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Evaluation according to the new edition of the standards: EN 60079-0:2012+A11:2013, EN 60079-1:2014, EN 60079-7:2015 and EN 60079-11:2012.
- Prolongation of certificate validity.

Technical parameters and construction of the product remain unchanged.

(16) Report Number.: 02/0043/7

dated: 31.10.2017

- (17) Specific Conditions of Use:
  - 1. Verified values of the maximum gaps and minimum constructional length of flameproof joints of the enclosure are different from relevant minimum and maximum values mentioned in standard. To obtain information about joints dimension it is necessary to contact the manufacturer.
- (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. Non-electric part of the equipment - mechanical gearbox is not covered by this certificate.

(19) Drawings and Documents:

| Number                       | Issue | Sheets | Date       | Description |
|------------------------------|-------|--------|------------|-------------|
| MOED EEx t.No. 52120 - 52125 |       | 47     | 2017       | Manual      |
| 29050273                     | С     | 1      | 24.08.2017 | Drawing     |

Responsible person:

Dipl. Ing. Lukáš Martinák Head of Certification Body

Date of issue: 31.10.2017

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## Physical Technical Testing Institute Ostrava-Radvanice



#### **EC-Type Examination Certificate** (1)

(2)

**Equipment or Protective Systems Intended for use** in Potentially Explosive Atmospheres Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

## **FTZÚ 02 ATEX 0043X**

- (4) Equipment or protective system: Actuating motor, type MO EEx 52120.xxxx
- ZPA Pečky a.s. (5) Manufacturer:
- (6) Address: Tř. 5. května 166, 289 11 Pečky, Czech Republic
- (7) This equipment or protective system and any of 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 Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Report N°

## 02/0043 dated 11 June 2002

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:

EN 50014:1997 +A1.A2.

EN 50018:2000 EN 50019:2000

- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.
- (11) This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and testing of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- (12) The marking of the equipment or protective system shall include following:



II 2G EEx de IIC T4

This EC-Type Examination Certificate is valid till:

31, 07, 2007

Responsible person:

Dipl. Ing. Šindler Jaroslav Head of certification body

Date of issue: 12.07.

Number of pages: 1/3

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# Physical Technical Testing Institute Ostrava-Radvanice

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#### Schedule

#### EC-Type Examination Certificate N° FTZÚ 02 ATEX 0043X (14)

(15) Description of Equipment:

Actuating motor, type MO EEx 52120.xxxx is equipment intended for remote control of fittings (valves, slide valves, etc.) by reverse rotary movement. The actuating motor consists of electric and mechanical parts. Electric parts consists of control box protected by flameproof enclosure (d), terminal box with type of protection increased safety (e) and electric motor protected by flameproof enclosure. The enclosures are connected via multi-conductor bushings, certified as Ex component with type of protection EEx d IIC. Inside of control box are: torque, signalling and positioning units, position transmitter and eventually heating unit. The control box is made of grey cast iron. The terminal box is made of aluminium alloy (Mg < 1 %) and it is equipped by terminal blocs with type of protection increased safety EEx e II. Two cable glands, which forms a part of enclosure (inseparable), are used for cable entry of external control and auxiliary circuits, the terminal box is not intended for connection of power circuits. The electric motor has separate terminal compartment. The mechanical part of actuating motor consists of counter gear box and power gear. The counter gear are centrally placed on output shaft and forms a separate assembly. The shaft of driving flange-mounted electric motor enters to the counter gear box.

The electric motors are separately certified equipment and are protected with type of protection EEx d IIC T4.

Essential technical data:

| Type/variant: MO EEx 52120.              | xx1x   | xx2x    | xx3x    | xx4x    | xx5x     | хх6х     |  |
|--|--|---------|---------|---------|----------|----------|--|
| Degree of protection                     | IP 65  |         |         |         |          |          |  |
| Rated data:                              | Control circuits: max. AC: 250 V , 2 A, DC: 250 V, 0,2 A   |         |         |         |          |          |  |
|  | Position transmitter: resistive: 100 $\Omega$ , 48 V, capacitive: 4 $\div$ 20 mA, 10 $\div$ 28 V |         |         |         |          |          |  |
| Switch off torque: [N.m]                 | 20 - 40  | 20 - 40 | 40 - 63 | 40 - 63 | 63 - 100 | 80 - 125 |  |
| Output revolutions: [min <sup>-1</sup> ] | 25   | 40      | 25      | 40      | 25       | 11       |  |
| Electric motor type: AVM                 | 71 MK04  | 71 M04  | 71 MK04 | 71 M04  | 71 M04   | 71 MK04  |  |
| Electric motor power [W]                 | 250  | 370     | 250     | 370     | 370      | 250      |  |
| Electric motor supply:                   | AC 3 x 400 V   |         |         |         |          |          |  |

(16) Report No.: 02/0043 (43 pages, 7 annexes)

(17) Special conditions for safe use: There are not defined. The actuating motor is designed for special range of ambient temperature: -25 °C < Ta < + 55 °C

(18) Essential Health and Safety Requirements: They are included in standards, which are mentioned in clause (9) of this certificate. The product was approved in accordance with above-mentioned standards and instruction for use.

Responsible person:

Date of issue: 12.07. 2002

Dipl. Ing. Šindler Jaroslav Head of certification body

Number of pages: 2/3

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# Physical Technical Testing Institute Ostrava-Radvanice

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## Schedule

# (14) EC-Type Examination Certificate N° FTZÚ 02 ATEX 0043X

## LIST OF DOCUMENTATION

| • | Approval Drawing No.: 29050273                           | 13. 03. 2001 |
|---|--|--------------|
| • | Annex to the approval drawing No. 52120                  | 15. 05. 2002 |
| • | Instruction for service and assembly                     | 04. 06. 2002 |
| • | Technical specification No. TP 12 - 02/97 (23 pages)     | 22.11. 1996  |
|   | with amendment No. 4                                     | 27. 09. 2001 |
| • | Technical description of actuating motor No. 52 120.xxxx | 12. 03. 2001 |
| • | Drawing No. 23464441                                     | 14. 09. 2001 |