



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**
- (5) Manufacturer: **ZPA Pečky a.s.**
- (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: 12.07.2002

Number of pages: 1/3

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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**

(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	xx6x
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 Ω, 48 V, capacitive: 4 ÷ 20 mA, 10 ÷ 28 V					
Switch off torque: [N.m]	20 - 40	20 - 40	40 - 63	40 - 63	63 - 100	80 - 125
Output revolutions: [min ⁻¹]	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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(14) **EC-Type Examination Certificate N° FTZÚ 02 ATEX 0043X**

(19)

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)
with amendment No. 4 22.11. 1996
27. 09. 2001
- Technical description of actuating motor No. 52 120.xxxx 12. 03. 2001
- Drawing No. 23464441 14. 09. 2001



(1) **Supplement No. 1 to
EC-Type Examination Certificate**

(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: **Electric actuator, type MO EEx 52120.xxxx**

(5) Manufacturer: **ZPA Pečky a.s.**

(6) Address: **Tř. 5. května 166, 289 11 Pečky, Czech republic**

(7) This supplement of certificate is valid for modification of apparatus.

(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.

(9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains another requirements, which manufacturer shall fulfil before products are place on market or introduce in service.

(10) Safety requirements of modified parts were fulfil by satisfying of following standards:

EN 50014:1997 + A1, A2; EN 50018:2000 EN 50019:2000

(11) Marking of equipment designed according to this supplement shall contain symbols:

 **II 2G EEx de IIC T4**


(12) This type examination certificate is valid till: **31. 07. 2007**

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: **07 of October 2003**



Number of pages: **2**
Page: **1/2**

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Supplement No. 1 to
EC-Type Examination Certificate N° FTZÚ 02 ATEX 0043X

(15) Description of Equipment or Protective System:

This supplement extended the possibility usage of other type of electric motors in electric actuator assembly type MO EEx 52120.xxxx.

The design of other parts of actuator, i.e. control box protected by flameproof enclosure (d), terminal box protected by increased safety (e) and mechanical part are consistent with certified type. Alternatively the actuator assembly can be provide with electric motor mentioned in type examination certificate or electric motors according to following table:

Type / variants: MO EEx 52 120.	xxAx	xxBx	xxCx	xxDx	xxEx	xxFx
Electric motor: type: 4KTC	71A-4	71B-4	71A-4	71B-4	71B-4	71A-4
	Type of protection: EEx d IIC T4, Certificate PTB 99 ATEX 1138.					
Electric motor output: [W]	250	370	250	370	370	250
Electric motor supply:	3 AC: from 380 V to 690 V ± 10%					

(16) Report No. : Supplement No.1 to the report 02/0043 (2 pages, 1 annex) on 07. 10. 2003

(17) Special conditions for safe use: The electric actuator is designed for use in special range of ambient temperature: $-25^{\circ}\text{C} < T_a < + 55^{\circ}\text{C}$

(18) Essential Health and Safety Requirements:

They are included in standards, which are mentioned in clause (10) of this certificate. The product was approved in accordance with above-mentioned standards and instruction for use.

(19) List of documentation:

- Documentation listed in EC type examination certificate, which is extended by this supplement.
- Technical specification No. TP 12 – 02 / 97 (25 pages) on 22. 11. 1996 with annex No. 10.
- ES type examination certificate: PTB 99 ATEX 1138

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 07. 10. 2003

Number of pages: 2
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This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute.
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(1) **Supplement No. 2 to
EC-Type Examination Certificate**

(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: **Actuating motor, type MO EEx 52120.xxxx**

(5) Manufacturer: **ZPA Pečky a.s..**

(6) Address: **Tř. 5. května 166, 289 11 Pečky, Czech Republic**

(7) This supplement of certificate is valid for modification of certified apparatus.

(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.

(9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains other requirements, which manufacturer shall fulfil before products are place on market or introduce in service.


(10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 50014:1997 +A1, A2

EN 50018:2000

EN 50019:2000

(11) Marking of equipment shall contain symbols:

 **I M2 EEx de I**

(12) The type examination certificate is valid till: **31. 07. 2007**

Responsible person:

Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: **14. 10. 2005**

Number of pages: **2**
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Supplement No. 2 to
EC-Type Examination Certificate N° FTZÚ 02 ATEX 0043X

(15) Description of Equipment:

The actuating motor type EEx 52120.xxxx modified in accordance with this supplement are design for mining application. The types of protection of single parts of modified actuating motor weren't modified. The control box is protected by flameproof enclosure and its construction fulfil requirements for group I. The terminal box is protected by increased safety "e", and was modified. The basis change is a replacement of aluminium alloy by grey cast iron. The actuating motors assembly according to this supplement contains separately certified electric motors with type of protection EEx d I. The essential technical data are identical with certified type.

(16) Report No. : Supplement No. 2 to report 02/0043 on 05. 10. 2005


(17) Special conditions for safe use: The condition mentioned in certificate was not modified by this supplement.

(18) Essential Health and Safety Requirements: They are included in standards, which are mentioned in clause (10) of this certificate and at manufacturer's instruction for use.

(19) List of documentation:

- | | |
|--|--------------|
| • Technical description of actuating motor 52120 | 01. 09. 2005 |
| • Drawings No.: 29253364 | 01. 09. 2005 |
| 22464775 | 29. 09. 2004 |
| 22463525 | 26. 01. 2004 |
| 23464772 | 20. 09. 2004 |
| 23464783 | 18. 10. 2004 |

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 14.10. 2005

Number of pages: 2

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Physical Technical Testing Institute
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(1) **Supplement No. 3 to
EC-Type Examination Certificate**

(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: **Electric actuator, type MO EEx 52120.xxxx**

(5) Manufacturer: **ZPA Pečky a.s.**

(6) Address: **Tř. 5. května 166, 289 11 Pečky, Czech republic**

(7) This supplement of certificate is valid for modification of certified apparatus.


(8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.

(9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains another requirements, which manufacturer shall fulfil before products are place on market or introduce in service.

(10) Safety requirements of modified parts were fulfil by satisfying of following standards:

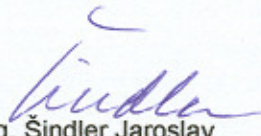
EN 50014:1997 + A1, A2; EN 50018:2000 EN 50019:2000

(11) Marking of equipment designed according to this supplement shall contain symbols:

 **II 2G EEx de IIB T4**

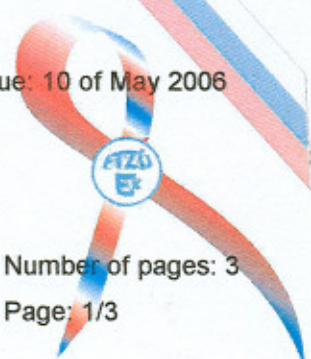
(12) This type examination certificate is valid till: 31. 07. 2007

Responsible person:


Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 10 of May 2006


Number of pages: 3
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**Supplement No. 3 to
EC-Type Examination Certificate N° FTZÚ 02 ATEX 0043X**

(15) Description of Equipment:

The electric actuator type MO EEx 52120.xxxx modified according to the supplement are designed for ambient temperature from -50°C to +55°C. The explosion protection types of separate parts of modified electric actuators are not altered. The control compartment has a flameproof enclosure and its construction is identical. There was changed apparatus subgroup from IIC to IIB for above mentioned ambient temperature range. The control compartment is connected with terminal compartment via conductor bushing certified as Ex component type EEx d II, certificate PTB 97 ATEX 1047U. At terminal compartment of electric actuator, that has explosion protection – increased safety "e", were carried out following changes: there are installed terminal blocks certified as Ex component with type of protection EEx e II, certificate PTB 99 ATEX 3117U. Inseparable cable glands was replaced by Ex cable gland with type of protection EEx e II, certificate KEMA 99 ATEX 9671X. The materials ensuring the degree of protection were changed. The supplement also verified another installation orientation of terminal compartment and its fastening to the control compartment. Alternatively, the local control switches can be installed in the terminal compartment. The switches must be certified as Ex components with type of protection EEx de IIC, certificate PTB 00 ATEX 1111U. The electric actuator assembly according to this supplement contains separately certified electric motors with type of protection EEx d IIC T4, certificate PTB 99 ATEX 1138, designed for ambient temperature from -50°C to +60°C. The essential data of electric actuator are equivalent with certified type. The electric actuator for ambient temperature from -50°C to +55°C has in marking additional symbol F.

(16) Report No. : Supplement No.3 to the report 02/0043


(17) Special conditions for safe use:

The electric actuator is designed for use in special range of ambient temperature:
-50°C < Ta < + 55°C

(18) Essential Health and Safety Requirements:

They are included in standards, which are mentioned in clause (10) of this certificate. The product was approved in accordance with above-mentioned standards and instruction for use.

Responsible person:


Dipl. Ing. Sindler Jaroslav
Head of certification body



Date of issue: 10. 05. 2006

Number of pages: 3

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Supplement No. 3 to
EC-Type Examination Certificate N° FTZÚ 02 ATEX 0043X

(19)

LIST OF DOCUMENTATION

- Approval assembly No. 29050273 with amendment a) on 27. 02. 06 20. 02. 2006
- Annex to approval assembly, No. 29253369 11. 01. 2006
- Instruction for service and installation MOEEx 04/2006
- Supplement No.1 to technical specification No. TP 12 – 02 / 97 12/2005
- Supplement No.1 to technical description MO EEx t.č. 52120 ÷ 52125 02. 03. 2006



Date of issue: 10. 05. 2006

Number of pages: 3

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