



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 08 ATEX 0316X

(4) Equipment:

Electrical Actuator,
types: MOED EEx 52123.xxxxED (F), MOED EEx 52124.xxxxED (F)

(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°

08/0316 dated 5 January 2009

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

EN 60079-0:2006; EN 60079-1:2007

(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

Ex d IIC T4

- 25°C ≤ Ta ≤ 55°C

Ex d IIB T4

- 50°C ≤ Ta ≤ 55°C

This EC-Type Examination Certificate is valid till: 15. 01. 2014

Responsible person:

Sindler
Dipl. Ing. Šindler Jaroslav
Head of certification body



Date of issue: 15 of January 2009

Page: 1/3
Number of pages: 3

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This certificate may only be reproduced in its entirety and without any change, schedule included.
FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, státní podnik, Píkartská 7, 716 07 Ostrava Radvanice,
tel +420 595 223 111, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



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Ostrava-Radvanice

(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 08 ATEX 0316X**

(15) Description of Equipment:

The electrical actuators, type series MOED EEx 52123 and EEx 52124 are electronic controlled devices intended for automatic adjustment of fixtures with reciprocating rotation movement. The electrical actuator consists of electrical and mechanic parts. The electrical part consists of control and terminal housing with type of protection – flameproof enclosure (d) and electric motor, also with type of protection – flameproof enclosure. The control housing is made of grey cast-iron. The terminal housing is made of aluminium alloy. Inside of control housing are installed control unit with position sensor, torque unit, heating resistors and alternatively other electronic circuits. The terminal housing serves also as instrument housing and there are installed: source unit, switching relay, contactors or contactless switches, electronic brake (for motors with output up to 2,2 kW) and/or other electrical and electronic circuits necessary for control, signalling, communication and protection. Alternatively, the electrical actuator is equipped with local control unit with magnetic switches and plastic sight glass in enclosure wall. The enclosures are connected via one purpose multi-conductor bushing. The cable entry into terminal compartment provides Ex cable glands approved for direct entry into flameproof enclosure. The electric motors and mechanical part of actuator, that consists of countershaft and gear box, are separately assessed devices of the actuator assembly. The following electric motors are installed: motors series AVM, certificates FTZÚ 06 ATEX 0139, FTZÚ 06 ATEX 0140 and FTZÚ 06 ATEX 0215, or alternatively series 4KTC, certificate PTB 99 ATEX 1005. The electrical actuators for ambient temperature $-50^{\circ}\text{C} \leq T_a \leq 55^{\circ}\text{C}$ has in type marking additional letter F.

Basic technical parameters:

Control gear (alternative apparatus):

Power supply: AC 230 V, 3AC 400 V, 50Hz
Input max.: 30 VA
Output signals: analog circuitry 0-20mA, 4-20mA
contacts relay 250 V AC 3A
max. 20mA, max. 60 V AC/DC

Input signals:

Electric motors:

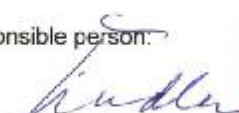
Output: from 0,75 kW to 4 kW
Duty type: S2 ($M_{av}=0,6 M_{dcv}$),
S4 25% ($M_{av}=0,4 M_{dcv}$), max. 1200 cycles per hour

Mechanical output:

Speed: from 16 min^{-1} to 100 min^{-1}
Switch off torque M_{cov} : from 250 Nm to 630 Nm

(16) Report No. : 08/0316 (22 pages 19 annexes)

Responsible person:


Dipl. Ing. Sindler Jaroslav
Head of certification body



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Page: 2/3

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(17) Special conditions for safe use:

Verified values of design joints of flameproof enclosure are given in drawing No. 29050308a. The values differ from relevant minimum or maximum values given in technical standard.

(18) Essential Health and Safety Requirements:

They are included in standards, which are mentioned in clause (9) of this certificate and in manufacturer documentation. The product was approved in accordance with above mentioned standards. Non-electrical part of equipment – mechanical gearbox is not cover by this certificate.

(19) List of documentation:

Technical description No.: MOED EEx t.č. 52123,4	30.11.2007
Approval assembly drawing No. 29050308a	03.12.2008
Drawings No.:	
23465232	10.05.2007
23354379	26.11.2007
21465304	02.08.2007
22354361	14.08.2007
26152003	26.11.2007
21253460	04.02.2008
21253421	04.02.2008
21354344a	11.02.2008
Technical specification No. TP 12-02/97 with annexes No. 1 and No. 2	07/2007
Instruction for use MOED EEx t.č.52120 až 52125	09/2008

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Page: 3/3

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