



1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Component intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 08ATEX1102U** Issue: **1**

4 Component: **Types PBOA Linear Operators, Types ROA Rotary Operators and Type MVPL Pilot Lights**

5 Applicant: **Bubezi Controls**

6 Address: **11392 Ward Lane, Conroe, Texas 77306, USA**

7 This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0: 2004

EN 60079-1: 2004

EN 60079-7: 2003

EN 61241-0: 2006

EN 61241-1: 2004

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any special conditions for safe use are listed in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the component shall include the following:



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Ex de IIC
Ex tD A21 IP66

Project Number 23789

C. Ellaby
Certification Officer

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SCHEDULE

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13 DESCRIPTION OF COMPONENT

The **Types PBOA Linear Operators** and **Types ROA Rotary Operators** are certified for use with either flameproof or increased safety enclosures. They comprise a shaft within an externally threaded (either 3/4" NPSM or M25) barrel, a locking ring and sealing gasket maintaining an appropriate Ingress Protection rating when required.

The **Type Multi Voltage Pilot Light (MVPL) Assemblies** are certified for use with either flameproof or increased safety enclosures. They comprise an externally threaded (either 3/4" NPSM or M25) barrel that houses an encapsulated printed circuit board with four LEDs. The barrel is fitted with a Lexan lens cap that is protected with a stainless steel lens guard, a locking ring and sealing gasket maintaining an appropriate Ingress Protection rating when required.

Variation 1 - This variation introduced the following changes:

- i. The introduction of a new long and short version of the Types PBOA Linear Operators and Types ROA Rotary Operator.
- ii. The use of silicone 'O' rings in the Types PBOA Linear Operators and the Types ROA Rotary Operators assemblies was recognised.
- iii. The introduction of a new type of grease used with the Types PBOA Linear Operators and Types ROA Rotary Operators.
- iv. The option to increase to the suitability of the types of the types PBOA Linear Operators and types ROA Rotary Operators assemblies to include use with equipment having a temperature classification of T6 to T3.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	28 April 2009	R59A17366A	The release of prime certificate.
1	28 March 2011	R23789A/00	The introduction of Variation 1.



SCHEDULE

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15 SPECIAL CONDITIONS FOR SAFE USE

- 15.1 When these devices are incorporated into equipment, the temperature classification and/or the maximum surface temperature for dust that is applicable to that equipment shall be determined taking into consideration that the seals of the component Operators and Pilot Lights are limited to a maximum service temperature as shown in the table below, this value has been reduced 20°C as required by appropriate standards.

Equipment name	Type of Seal	Maximum service temperature
PBOA Linear Operators	Buna-N Duro 70	100°C
ROA Rotary Operators	Buna-N Duro 70	100°C
Pilot lights	Buna-N Duro 70	100°C
PBOA Linear Operators	silicone rubber	200°C
ROA Rotary Operators	silicone rubber	200°C

- 15.2 The operator housing mounting thread is provided with an undercut, when attached to flameproof enclosures, the reduction in engaged thread length shall be accounted for in accordance with clause 5 of EN 60079-1.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 The manufacture shall perform a dielectric strength test on each Pilot Light at 500 V r.m.s. +5%.

Certificate Annexe



Certificate Number: Sira 08ATEX1102U

Component: Types PBOA Linear Operators, Types ROA
Rotary Operators and Type MVPL Pilot Lights

Applicant: Bubezi Controls

Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
03●1-PBOA-CCD	1 of 3	C	05 Feb 09	Push button operator assembly
03●2-PBOA-CCD	2 of 3	D	05 Feb 09	Push button operator assembly
03●3-PBOA-CCD	3 of 3	F	06 Apr 09	Push button operator assembly
04●1-ROA-CCD	1 of 3	C	05 Feb 09	Rotary operator assembly
04●2-ROA-CCD	2 of 3	D	05 Feb 09	Rotary operator assembly
04●3-ROA-CCD	3 of 3	F	06 Apr 09	Rotary operator assembly
02●1-MVPL-CCD	1 of 4	C	05 Feb 09	Multi voltage pilot light assembly
02●2-MVPL-CCD	2 of 4	C	05 Feb 09	Multi voltage pilot light assembly
02●3-MVPL-CCD	3 of 4	C	05 Feb 09	Multi voltage pilot light assembly
02●4-MVPL-CCD	4 of 4	D	06 Apr 09	Multi voltage pilot light assembly
22P30005	1 of 1	-	05 Feb 09	Indicator light

Drawing number 22P0005 is not the property of Bubezi and is not controlled by them.

Types PBOA and PBOA-M Linear Operators Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title	IECEX	ATEX
03-1-PBOA-CCD	1 of 5	C	04 Mar 2011	Push button operator assembly	ü	ü
03-2-PBOA-CCD	2 of 5	D	04 Mar 2011	Push button operator assembly	ü	ü
03-3-PBOA-CCD	3 of 5	F	09 Mar 2011	Push button operator assembly	ü	ü
03-4-PBOA-CCD	4 of 5	C	04 Mar 2011	Push button operator assembly	ü	ü
03-5-PBOA-CCD	5 of 5	C	04 Mar 2011	Push button operator assembly	ü	ü

Types ROA and ROA-M Rotary Operators Drawings

Drawing	Sheets	Rev.	Date (Sira stamp)	Title	IECEX	ATEX
04-1-ROA-CCD	1 of 5	C	04 Mar 2011	Rotary operator assembly	ü	ü
04-2-ROA-CCD	2 of 5	D	04 Mar 2011	Rotary operator assembly	ü	ü
04-3-ROA-CCD	3 of 5	F	09 Mar 2011	Rotary operator assembly	ü	ü
04-4-ROA-CCD	4 of 5	C	04 Mar 2011	Rotary operator assembly	ü	ü
04-5-ROA-CCD	5 of 5	C	04 Mar 2011	Rotary operator assembly	ü	ü

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