



EC TYPE-EXAMINATION CERTIFICATE

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

Certificate Number: **Sira 08ATEX5348X** Issue: **2**

Equipment: **Westlock Valve Position Monitors 3400 & 8400**
Westlock Valve Control Monitors 3700 & 8700

Applicant: **Westlock Controls Limited** **Westlock Controls Corporation**

Address: 22 Chapman Way 280 Midland Avenue
Tunbridge Wells Saddle Brook, NJ
Kent TN2 3EF 07663
UK USA

This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment 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.

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:

Original Products

EN 60079-0:2006 EN 60079-7:2007 EN 61241-0:2006 EN 60079-0:2006
EN 60079-18:2004 EN 61241-1:2004 EN 60079-31:2009
IEC 60079-0:2007 was used as guidance in respect of marking

LG2 Enclosure only (plastic)

If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

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

The marking of the equipment shall include the following:



II 2 G D

Ex mb e IIC T* Gb

Ex tb IIIC T*°C Db IP6X

Without Coils (All Models):

T5(T100°C) @ -40°C < Ta < +60°C

T6(T85°C) @ -40°C < Ta < +45°C

With Coils (Model 3700 or 8700):

T5(T100°C) @ -40°C < Ta < +50°C

T6(T85°C) @ -40°C < Ta < +45°C

Project Number 27011

D R Stubbings BA MIET
Certification Manager

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Sira Certification Service

Rake Lane, Eccleston, Chester, CH4 9JN, England

Tel: +44 (0) 1244 670900
Fax: +44 (0) 1244 681330
Email: info@siracertification.com
Web: www.siracertification.com



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13 DESCRIPTION OF EQUIPMENT

The Valve Position Monitor is used to indicate and/or control the status (OPEN or CLOSED) of a process valve. The enclosures consist of a base and cover and are available in two sizes. The enclosures may be constructed of A360 aluminium, AMS 5360-316 stainless steel or a non-metallic Grilamid TR90-UV material. The cover may be flat or fitted with a clear beacon constructed of Eastar DN004 material or Grilamid TR90-UV. Up to five cable/conduit entries may be drilled through the enclosure walls depending on the Valve Position Monitor model. The metallic enclosures provide an external grounding connection near the cable entry points which consists of a spring-style stainless steel screw connection.

This visual indicator provides symbols or words that indicate the 'open' or 'closed' position or direction of flow; the state of the valve is further visibly enhanced by the use of different background colours for the words or symbols

Inside the enclosure is a grounding bar, connection terminals and a selection of encapsulated reed switches or encapsulated coils. The grounding bar is constructed of zinc-plated mild steel and has two spring-style, screw connections. The cable connection terminal strip is one of the two Ex e certified components:

Manufacturer	Part Number	Certification Code	Certificates
Bosha	KL-*-25-400-*	Ex e II	IBExU 02ATEX1095U
Bartec	07-9702-0*20/*	Ex e II	PTB 99ATEX3117U

Westlock 3400 Valve Position Monitor and 3700 Valve Control Monitor

The 3400 and 3700 Monitors use the smaller enclosure that consists of a base and cover fitted together with four hexagon-head stainless steel screws that are mounted in the corners of the enclosure cover. The Grilamid cover mounting threads are stainless steel inserted directly into the enclosure base at each of the four corners. There is a gasket fitted in the cover to allow for an ingress protection level of IP66/7. The enclosure may be fitted with up to three cable/conduit entries for the model 3400 or up to two cable/conduit entries for the model 3700. The enclosures may be configured with:

3400 Valve Position Monitor

- up to four Magnum reed switches

3700 Valve Position Monitor

- up to three Magnum reed switches plus one RGS EP000/m/FL/03 series coil
- one RGS EP000/m/FL/03 series coils and up to two Pepperl & Fuchs NJ2-V3-N Namur sensors

Westlock 8400 Valve Position Monitor and 8700 Valve Control Monitor

The 8400 and 8700 Monitors use the larger enclosure that consists of a base and cover fastened together with six hexagon-head stainless steel screws that are mounted in each of the corners and at the midpoint of the long side of the enclosure. There is a gasket fitted in the cover to allow for an ingress protection level of IP66/7. The enclosure may be fitted with up to five cable/conduit entries for the model 8400 and up to four cable/conduit entries for the model 8700. The enclosures may be configured with:



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8400 Valve Position Monitor

- up to four Magnum reed switches

8700 Valve Position Monitor

- up to four Magnum reed switches plus up to two RGS EP000/m/FL/03 series coils

Variation 1 - This variation introduced the following changes:

- The use of an intrinsically safe Pepperl & Fuchs Namur Sensor (NJ2-V3-N, types 1, 2 and 3 only) in place of Magnum switches was permitted for the 3700, the Description of Equipment was modified to recognise this change and to clarify the list of devices that are used in all the product builds.
- The minimum ambient temperature applicable to Valve Position Control Models 3700 and 8700 was lowered from -20°C to -40°C.

Variation 2 - This variation introduced the following changes:

- The introduction of a new re-designed LG2 enclosure for dust protection Group IIIC 'Ex tb' was approved a Special Condition for Safe Use was introduced as a result of this change.
- Models 8700 and 3700 were permitted to use up to three Magnum reed-switches plus up to two Amisco 3009M-series coils.
- The description was modified to recognise the LG2 enclosure and to correct typographical errors.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	27 March 2009	R52L18385A	The release of the prime certificate.
1	05 August 2009	R52L18385B	The introduction of Variation 1.
2	17 May 2012	R27011A/00	The introduction of Variation 2.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 WARNING: POTENTIAL ELECTROSTATIC CHARGING HAZARD – Refer to the instructions on how to clean the equipment safely and prevent static charge build-up on the Grilamid enclosure or beacon (when fitted).

15.1 The maximum dust layer shall be no greater than 5mm (T₅ 135°C).

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.



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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 Routine Dielectric strength tests shall be conducted on the Magnum Switches at 2U + 1000 (minimum 1500) Vrms, in accordance with EN/IEC 60079-18 clause 8.2.4.
- 17.4 Routine Dielectric strength tests shall be conducted on the RGS and Amisco Coils at 2U + 1000 (min. 1500) Vrms, in accordance with EN/IEC 60079-18 clause 8.2.4.
- 17.5 When the Magnum switches are replaced by the Pepperl & Fuchs NJ2-V3-N only barriers of type 1, 2 or 3 shall be fitted in the Westlock Valve Control Monitors. The Pepperl & Fuchs NJ2-V3-N shall not be connected to a type 4 barrier due to the reduced ambient temperature range.

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Certificate Annexe

Certificate Number: Sira 08ATEX5348X
Equipment: Westlock Valve Position Monitors 3400 & 8400
Westlock Valve Control Monitors 3700 & 8700
Applicant: Westlock Controls Limited



Issue 0

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
SW-10000	1 of 1	A	24 Mar 09	Magnum Switch Assembly
MS-120801UK	1 to 2	A	24 Mar 09	3400 Ex mb e ATEX/IEC Approval Drawing
MS-120802UK	1 to 2	A	24 Mar 09	3700 Ex mb e ATEX/IEC Approval Drawing
MS-120803UK	1 to 2	A	24 Mar 09	8400 Ex mb e ATEX/IEC Approval Drawing
MS-120804UK	1 to 2	A	24 Mar 09	8700 Ex mb e ATEX/IEC Approval Drawing
LB-120801UK	1 of 1	A	24 Mar 09	3400/3700, 8400/8700 Markings

Issue 1

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
MS-120802UK	1 to 2	A	31 July 09	3700 Ex mb e ATEX/IEC Approval Drawing
MS-120804UK	1 to 3	B	31 July 09	8700 Ex mb e ATEX/IEC Approval Drawing
LB-120801UK	1 of 1	B	31 July 09	3400/3700, 8400/8700 Markings

Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
MS-120803UK	1 to 3	B	11 May 12	8400 Ex mb e ATEX / IEC APPROVAL DRAWING
MS-120804UK	1 to 5	C	11 May 12	8700 Ex mb e ATEX / IEC APPROVAL DRAWING
LB-120801UK	1 to 2	C	11 May 12	WESTLOCK Ex mb e ATEX / IECEx Master Label Drawing

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