



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 10ATEX2060X** Issue: **0**

4 Equipment: **AQ - Valve Position Monitor**

5 Applicant: **Imtex Controls Limited**

6 Address: **Unit 5a
Valley Industries
Hadlow Road
Tonbridge
Kent TN11 0AH
UK**

7 This equipment and any acceptable variation thereto is 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 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.

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 60079-0:2009

EN 60079-11:2007

10 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.

11 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.

12 The marking of the equipment shall include the following:



**II 2G
Ex ia IIC T4/T5/T6 Gb**

Note: the temperature class and ambient temperature range depends on the construction of the devices, see Equipment Description.

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13 DESCRIPTION OF EQUIPMENT

The AQ - Valve Position Monitor has a metallic housing with a mechanical shaft fitted with cams and an indicator that is usually fitted to a valve. Contained within the main enclosure is a terminal board and various combinations of voltage-free switches, certified sensors or transmitters that are activated by the cams. The indicator that is on top of the enclosure provides visual indication of the shaft position, which correlates with the valve position. The enclosure may be manufactured from either stainless steel or aluminium and fitted with a standard cover.

Various functions are available as specified in the Model number:

Function	Description	Notes
17	Up to 2 off SPDT Gold Contact Mechanical Switch	Up to 0.5A @ 30VDC
40	Up to 2 off SPST Reed Switches (passive)	Up to 0.15A @ 30VDC
42	Up to 2 off V3 Style Proximity Sensor	ATEX certified to Ex ia IIC T4/T5/T6
43	Up to 2 off non-V3 Style Proximity Sensor	ATEX certified to Ex ia IIC T4/T5/T6
52	Between 3 & 6 off V3 Style Proximity Sensor	ATEX certified to Ex ia IIC T4/T5/T6
53	Between 3 & 6 off non-V3 Style Proximity Sensor	ATEX certified to Ex ia IIC T4/T5/T6
56	Between 3 & 6 off SPDT Gold Contact Mechanical Switch	Up to 0.5A @ 30VDC
59	Between 3 & 6 off SPST Reed Switches (passive)	Up to 0.15A @ 30VDC
70	Position Transmitter - resistive	4-20mA @10 – 30VDC ATEX certified to Ex ia IIC T4/T5/T6 Monitor may include up to 4 additional switches/sensors from functions 17, 40, 42 or 43

Various options switches, sensors and transmitters are available as specified in the Model Number:

Option	Description	Notes
Z	Voltage free Contact switch	
Y	Certified Proximity Sensor Type 1	
W	Certified Proximity Sensor Type 2	
V	Certified Transmitter	With optional Type 2 sensor
U	Certified Proximity Sensor Low Temperature - Type 2	
T	Certified Proximity Sensor Low Temperature - Type 1	
J	Certified Transmitter	With optional volt free switches
H	Certified Transmitter – Non Contact	With optional Type 2 sensor
G	Certified Transmitter – Non Contact	With optional volt free switches
F	Certified Transmitter	With optional Type 2 Low temperature sensor
E	Certified Transmitter – Non Contact	With optional Type 2 Low temperature sensor

Option	Description	Device type	Certificate no.
Z	Voltage Free Contact Switch	Crouzet EF83161.8 Gold Plated Switch Stonel Corp SPST Maxx Guard 'J' Switch Stonel Corp SPDT Maxx Guard 'G' Switch	- -
Y	Proximity Sensor Type 1	Hans Turck GmbH, Bi2-G12-Y1	Kema 02ATEX1090X

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Sira Certification Service

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Option	Description	Device type	Certificate no.
		Hans Turck GmbH, Bi5-G18-Y1	Kema 02ATEX1090X
		Hans Turck GmbH, Ni10-G18-Y1	Kema 02ATEX1090X
		Hans Turck GmbH, Ni2-G12-Y1	Kema 02ATEX1090X
		Hans Turck GmbH, Bi2-Q10S-Y1X	Kema 02ATEX1090X
		Hans Turck GmbH, Bi2-G12-Y1X	Kema 02ATEX1090X
		Hans Turck GmbH, Bi5-G18-Y1X	Kema 02ATEX1090X
		Hans Turck GmbH, Ni10-G18-Y1X	Kema 02ATEX1090X
		Hans Turck GmbH, Ni2-G12-Y1X	Kema 02ATEX1090X
		Hans Turck GmbH, Bi2-G12-Y1/S100	Kema 02ATEX1090X
		Hans Turck GmbH, Bi5-G18-Y1/S100	Kema 02ATEX1090X
		Hans Turck GmbH, Ni10-G18-Y1/S100	Kema 02ATEX1090X
		Hans Turck GmbH, Ni2-G12-Y1/S100	Kema 02ATEX1090X
W	Proximity Sensor Type 2	Pepperl & Fuchs, NCB2-12GM...-NO	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ2-11-N-G	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ2-V3-N...	PTB 00ATEX2032X
		Pepperl & Fuchs, NJ4-14GK-N...	PTB 00ATEX2048X
		Pepperl & Fuchs, NCB2-V3-NO	PTB 00ATEX2032X
		Pepperl & Fuchs, NJ2-12GK-N...	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ3-18GK-S1N...	PTB 00ATEX2049X
		Pepperl & Fuchs, NJ5-11-N...	PTB 00ATEX2048X
		Pepperl & Fuchs, SJ3,5-...-N...	PTB 00ATEX2219X
		Pepperl & Fuchs, NCN4-12GM...-NO	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ2-12GM-N...	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ4-12GK-N...	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ5-18GK-N...	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ1.5-8GM-N...	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ2-14GM-N...	PTB 00ATEX2048X
		Pepperl & Fuchs, NJ4-12GM-N	PTB 00ATEX2048X
Pepperl & Fuchs, NJ5-18GM-N...	PTB 00ATEX2048X		
V	Transmitter	PR Electronics, 5333B	Kema 03ATEX1535X
		PR Electronics, 5333C	Kema 03ATEX1535X
		PR Electronics, 5333D	Kema 03ATEX1535X
		PR Electronics 5335B	Kema 03ATEX1537X
		PR Electronics 5335C	Kema 03ATEX1537X
		PR Electronics 5335D	Kema 03ATEX1537X
		PR Electronics 5350B	Kema 02ATEX1318
		Optional Proximity Sensor Type 2	Pepperl & Fuchs, NCB2-12GM...-NO
	Pepperl & Fuchs, NJ2-11-N-G...	PTB 00ATEX2048X	
	Pepperl & Fuchs, NJ2-V3-N...	PTB 00ATEX2032X	
	Pepperl & Fuchs, NJ4-14GK-N...	PTB 00ATEX2048X	
	Pepperl & Fuchs, NCB2-V3-NO...	PTB 00ATEX2032X	
	Pepperl & Fuchs, NJ2-12GK-N...	PTB 00ATEX2048X	
	Pepperl & Fuchs, NJ3-18GK-S1N...	PTB 00ATEX2049X	
	Pepperl & Fuchs, NJ5-11-N...	PTB 00ATEX2048X	
	Pepperl & Fuchs, SJ3,5-N...	PTB 00ATEX2219X	
	Pepperl & Fuchs, NCN4-12GM...-NO...	PTB 00ATEX2048X	
	Pepperl & Fuchs, NJ2-12GM-N...	PTB 00ATEX2048X	

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Option	Description	Device type	Certificate no.	
		Pepperl & Fuchs, NJ4-12GK-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ5-18GK-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, SJ3,5-S1N...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ1.5-8GM-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ2-14GM-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ4-12GM-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ5-18GM-N...	PTB 00ATEX2048X	
U	Proximity Sensor Temperature Type 2	Low	Pepperl & Fuchs, NJ2-11-SN-G...	PTB 00ATEX2049X
		Pepperl & Fuchs, NJ2-12GK-SN...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ4-12GK-SN...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ5-18GK-SN...	PTB 00ATEX2049X	
T	Proximity Sensor Temperature Type 1	Low	Pepperl & Fuchs, SJ3.5-SN...	PTB 00ATEX2049X
		Hans Turck GmbH, Bi2-P12-Y1X/S97	Kema 02ATEX1090X	
		Hans Turck GmbH, Bi5-P12-Y1X/S97	Kema 02ATEX1090X	
		Hans Turck GmbH, Ni10-P12-Y1X/S97	Kema 02ATEX1090X	
J	Transmitter	Hans Turck GmbH, Ni5-P12-Y1X/S97	Kema 02ATEX1090X	
		PR Electronics, 5333B	Kema 03ATEX1535X	
		PR Electronics, 5333C	Kema 03ATEX1535X	
		PR Electronics, 5333D	Kema 03ATEX1535X	
		PR Electronics 5335B	Kema 03ATEX1537X	
		PR Electronics 5335C	Kema 03ATEX1537X	
		PR Electronics 5335D	Kema 03ATEX1537X	
	PR Electronics 5350B	Kema 02ATEX1318		
Optional Volt Free Switches	Crouzet EF83161.8 Gold Plated Switch Stonel Corp SPST Maxx Guard 'J' Switch Stonel Corp SPDT Maxx Guard 'G' Switch	- - -		
G	Transmitter	Zettlex Printed Technologies Ltd, ST-1509-V1-A	FTZÚ 09ATEX0221X	
	Optional Volt Free Switches	Crouzet EF83161.8 Gold Plated Switch Stonel Corp SPST Maxx Guard 'J' Switch Stonel Corp SPDT Maxx Guard 'G' Switch	- - -	
H	Transmitter	Zettlex Printed Technologies Ltd, ST-1509-V1-A	FTZÚ 09ATEX0221X	
	Optional Proximity Sensor Type 2	Pepperl & Fuchs, NCB2-12GM...-NO	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ2-11-N-G...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ2-V3-N...	PTB 00ATEX2032X	
		Pepperl & Fuchs, NJ4-14GK-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NCB2-V3-NO...	PTB 00ATEX2032X	
		Pepperl & Fuchs, NJ2-12GK-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ3-18GK-S1N...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ5-11-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, SJ3,5-N...	PTB 00ATEX2219X	
		Pepperl & Fuchs, NCN4-12GM...-NO...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ2-12GM-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ4-12GK-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ5-18GK-N...	PTB 00ATEX2048X	
Pepperl & Fuchs, SJ3,5-S1N...	PTB 00ATEX2049X			

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Option	Description	Device type	Certificate no.	
		Pepperl & Fuchs, NJ1.5-8GM-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ2-14GM-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ4-12GM-N...	PTB 00ATEX2048X	
		Pepperl & Fuchs, NJ5-18GM-N...	PTB 00ATEX2048X	
F	Transmitter	PR Electronics, 5333B	Kema 03ATEX1535X	
		PR Electronics, 5333C	Kema 03ATEX1535X	
		PR Electronics, 5333D	Kema 03ATEX1535X	
		PR Electronics 5335B	Kema 03ATEX1537X	
		PR Electronics 5335C	Kema 03ATEX1537X	
		PR Electronics 5335D	Kema 03ATEX1537X	
		PR Electronics 5350B	Kema 02ATEX1318	
	Optional Proximity Sensor Type 2	Pepperl & Fuchs, NJ2-11-SN-G...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ2-12GK-SN...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ4-12GK-SN...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ5-18GK-SN...	PTB 00ATEX2049X	
		Pepperl & Fuchs, SJ3,5-SN...	PTB 00ATEX2049X	
	E	Transmitter	Zettlex Printed Technologies Ltd, ST-1509-V1-A	FTZÚ 09ATEX0221X
Optional Proximity Sensor Type 2		Pepperl & Fuchs, NJ2-11-SN-G...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ2-12GK-SN...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ4-12GK-SN...	PTB 00ATEX2049X	
		Pepperl & Fuchs, NJ5-18GK-SN...	PTB 00ATEX2049X	
	Pepperl & Fuchs, SJ3,5-SN...	PTB 00ATEX2049X		

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	24 March 2010	R21284A/00	The release of the prime certificate.

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

- 15.1 The user/installer shall ensure that versions of these Valve Monitors that use an enclosure that incorporates light metals are installed in a manner that minimises the risk of impact or friction with other metal surfaces.
- 15.2 Parts of these Valve Monitors are made of plastic. By virtue of its shape, design and position of use, it is assessed that this device is not considered to be an electrostatic risk; however, it shall not be installed in a position where it may be subjected to an excessive air/fluid flow or be subjected to rubbing that may cause an electrostatic build-up, it shall also be cleaned with a damp cloth.
- 15.3 The user/installer shall install these Valve Monitors taking into account any restrictions or special conditions for safe use that are applicable to the previously certified devices that are fitted in the devices.

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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 products covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform Sira of any modifications of the devices that may impinge upon the explosion safety design of their products.

17.4 The manufacturer shall take all reasonable steps to ensure that the user/installer complies with the special conditions for safe use associated with these Valve Monitors, in addition, the manufacturer shall provide the user/installer with an appropriate copy of the certificate for each certified device that is fitted in the device.

Certificate Annexe

Certificate Number: Sira 09ATEX2060X
Equipment: AQ - Valve Position Monitor
Applicant: Imtex Controls Ltd



Issue 0

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Title
A190228	1 of 1	-	26 Feb 10	Type AQ-IS-ATEX Master Model Description
AQ17S5SR-ZOO	1 of 2	A	26 Feb 10	AQ Monitor w/2 x V3 GP Mech – ATEX
AQ17S5SR-ZOO	2 of 2	A	26 Feb 10	AQ Monitor w/2 x V3 GP Mech – ATEX
AQ70S5SR-GPP	1 of 1	-	26 Feb 10	Type AQ with Non-Contact Trans & 4 x Mech
J100367	1 of 1	-	26 Feb 10	Type AQ Basic Arrangement
A190241	1 of 1	-	26 Feb 10	Type AQ Wiring diagram
A160175	1 of 1	A	26 Feb 10	Type AQ Title Plate ATEX Unit
A160155	1 of 1	A	26 Feb 10	Monitor Safety Label
A110009	1 of 1	A	26 Feb 10	MK3-6 Terminal Block
A160149A	1 of 1	-	26 Feb 10	Z Label
A160150A	1 of 1	-	26 Feb 10	Y Label
A160151A	1 of 1	-	26 Feb 10	W Label
A160152A	1 of 1	-	26 Feb 10	V Label
A160153A	1 of 1	-	26 Feb 10	U Label
A160154A	1 of 1	-	26 Feb 10	T Label
A160162A	1 of 1	-	26 Feb 10	J Label
A160171A	1 of 1	-	26 Feb 10	H Label
A160174	1 of 1	-	26 Feb 10	G Label
A160177	1 of 1	-	26 Feb 10	F Label
A160178	1 of 1	-	26 Feb 10	E Label

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