1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 01ATEX1221X** Issue: **17**

4 Equipment: **IQ Range of Electric Valve Actuators**

5 Applicant: **Rotork Controls Ltd** **Rotork Controls Inc.**

6 Address:

Brassmill Lane Bath England BA1 3JQ	675 Mile Crossing Blvd Rochester NY 14624 USA

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 60079-1:2007	EN 60079-7:2007
EN 61241-1:2004	EN 13463-1:2009	EN 13463-5:2003

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 2 G D c
Ex d • IIB T **,** Gb
Ex tb IIIC T120°C Db IP68 ***f***
(-**„**°C to +**...**°C)

- *"e" added on versions with increased safety terminal enclosure*

, *Temperature classification T4 or T5*

f *Only IP6X is endorsed by Sira on this certificate*

„ *Down to -50°C*

... *Up to 70°C*

Project Number 15000-068
C. Index 01

C Ellaby
Deputy Certification Manager

Form 9400 Issue 1

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13 **DESCRIPTION OF EQUIPMENT**

The IQ Electric Actuator comprises an oil-filled worm gearcase with handwheel and de-clutch mechanism which is attached to a motor enclosure, an electrical control enclosure and a terminal enclosure. All enclosures are designed to satisfy the requirements for flameproof equipment. In addition, the terminal enclosure is designed to satisfy the requirements for increased safety, providing an alternative method of protection for the field wiring facilities. The IQ Electric Actuator comprises a range of electric actuators based upon four gearcase sizes.

The motor cover connects to the gearcase by means of a spigoted flamepath joint and is secured by four M8 capscrews. The rotary output from the motor transfers to the gearcase by means of a shaft supported by rolling element bearings and a cylindrical brass bushing forming its flamepath. Electrical services to the motor are supplied from the electrical enclosure via a potted, motor loom transfer bush.

Thermal protection devices are installed within the motor windings. There is a facility to override these devices should the user find it necessary.

NOTE: The overriding of the temperature classification thermal protection devices is <u>not</u> covered by the scope of this certificate.

The electrical cover connects to the gearcase by means of a spigoted flamepath joint and is secured by four M8 capscrews. The electrical enclosure contains monitoring and control circuitry, which senses and controls the position of the output shaft; it also contains a type PP3 back-up battery (permitted battery types are: Ultralife PP3 type U9VL, SAFT 3 x AA cells type NPS 02-018, Tadiran/Sonneschein 3 x ½ AA cells type TL-5902), which is protected by an in-line fuse (permitted fuse types are Quick Blow Bussman TDS500, 100mA, Quick Blow Littlefuse 217, 100 mA). At one end of the electrical enclosure a window is provided to allow the observation of an internal LCD device. The window is manufactured from glass and potted into the electrical cover. An encoder shaft exits the electrical enclosure via a press fit cylindrical brass bushing, flamepaths being between the bushing and the gearcase and between the shaft and the bushing. The encoder shaft is held in place by means of a gear and circlip at one end and a magnet and a circlip at the other.

The terminal enclosure connects to the electrical enclosure via the gearcase, their volumes being separated by a terminal bung. The terminal bung comprises of moulded plastic main body through which passes a number of terminals which are sealed in place with a potting compound. The terminal bung is secured in position by means of a circlip. The terminal enclosure provides all electrical field wiring terminations at the terminal bung. Cable entry facilities are provided in the form of three or four threaded entries. The terminal enclosure is closed by means of a lid, which connects to the gearcase by means of a tapered spigot joint and is secured by four M8 capscrews.

The terminal compartment is common to all sizes.

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The following gearcase/motor options are covered:

IQ Gearcase/Motor Configurations 3 phase, up to 690 V rms

Size 1

Gearcase size 1

One motor enclosure, four pole motors, two stator lengths
Designated IQ10, 12 & 18.

Size 2

Gearcase size 2

One motor enclosure, with either two or four pole motors, six stator lengths
Designated IQ20 & 25.

Size 3

Gearcase size 3

One motor enclosure, with either two or four pole motors, one stator length
Designated IQ35.

Size 5

Gearcase size 5

Motor Options
Three Motor enclosures:

One motor enclosure with either two or four pole motor, one stator length
Designated IQ40

One motor enclosure with either two or four pole motors, five stator lengths
Designated IQ70, 90 & 95.

One motor enclosure with a two pole motor, one stator length
Designated IQ91

Design Options

Single phase motor option – Actuator sizes 1, 2 and 3

Actuator	Motor type
IQS12	4 pole 110 to 240 Vrms ± 10%
IQS20	4 pole 110 to 240 Vrms ± 10%
IQS35	2/4 pole 110 to 240 Vrms ± 10%

Different motor options (as can be seen above) as well as the necessary alternative control equipment within the electrical enclosure.

Modulating motor control option for three phase motors – Actuator sizes 1, 2 and 3.
The reversing contactor has been replaced with a solid state starter module, utilising thyristor drives and their associated control electronics. The following three-phase modulating actuator types have been introduced:

IQM10, IQM12, IQM20, IQM25, IQM35

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Smith flow control interlock option – All actuator sizes
The installation of an interlocking device to the exterior of the electrical cover can be applied to all sizes.

Intumescent® coating option to the exterior of the actuators for fire proofing purposes.
The application of an outer, Intumescent® fire retardant coating can be applied to all sizes.

Short electrical cover option - Actuator sizes 1, 2 and 3.
Used when the internal equipment specified for the IQ Electric Valve Actuator allows a reduced size of electrical enclosure

DC motor options for actuator sizes 1 and 2.
Ambient temperature range -50°C to +70°C (Laurence Scott DC motor)
Ambient temperature range -20°C to +70°C (Leeson DC motor)

Actuator	Motor type
IQD10, IQD12, IQD18	Short Motor (Laurence Scott or Leeson motor)
IQD20	Short Motor (Laurence Scott or Leeson motor)
IQD25	Long Motor (Laurence Scott or Leeson motor)

Different motor options (as can be seen above) as well as the necessary alternative control equipment within the electrical enclosure.

Fibre optic coupler module option – All actuator sizes
Applies to the terminal enclosures that are marked 'Ex d' only; it involves altering the terminal lid to allow the inclusion of a fibre optic coupler module.

Lightning suppression module option – All actuator sizes
Applies to terminal enclosures that are marked 'Ex d' only; it allows the inclusion of a lightning suppression module secured to the inner face of the existing terminal lid.

Alternative AEG motors – All actuator sizes
The introduction of AEG motors and associated alternative motor covers.

IQH variant option – Ambient temperature range -20°C to +70°C
The following high speed actuator types have been introduced:

IQH20, IQH25, IQH35, IQH40

Deep terminal cover option – All actuator sizes
The deep terminal cover allows the installation of an assortment of equipment within the terminal enclosure on Ex d versions, typically a PCB for Profibus disconnect applications, a contactor, or a three phase mains filter. To allow the inclusion of additional circuitry, the deep cover is provided with threaded entry points to accommodate suitable, ATEX, Ex d cable entry devices that have been certified by a notified body.

Alternative Chinese manufactured flamepath components and motors – Actuator sizes 1 to 3
The use of Chinese manufactured flamepath components, enclosure castings and motors (fitted with Chinese manufactured thermostats).

Wireless network option – All actuator sizes
A wireless network fitted into a deep terminal cover and its associated aerial.

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Variation 1 - This variation introduced the following change:

i. The introduction of an alternative version of the equipment that has a T5 temperature classification and is marked accordingly.

Variation 2 - This variation introduced the following changes:

i. The introduction of short electrical covers as an option on gearcase sizes 1, 2 and 3; the shorter electrical cover is intended for fitting where the internal equipment specified for the IQ Electric Valve Actuator allows a reduced size electrical enclosure.

ii. The introduction of DC motor options on gearcase sizes 1 and 2; the DC motor is attached to the gearcase via a DC motor adaptor and motor cover. The DC motor versions include:

Size 1 gearcase, short motor	IQD10, IQD12, IQD18
Size 2 gearcase, short motor	IQD20
Size 2 gearcase, long motor	IQD25

iii. The introduction of a lithium thionyl chloride battery consisting of three LST 14500 3.6 V primary AA cells manufactured by SAFT; this is an alternative to the type PP3 9 V Lithium Manganese Dioxide battery manufactured by Ultralife ® Batteries Inc.

Variation 3 - This variation introduced the following changes:

i. The introduction of a Current Position Transmitter (CPT) circuit board into the equipment; this circuit enables the connection of an intrinsically safe circuit to terminals of the termination 'bun' and has the following input parameters:
Ui = 30 V, Ii = 660 mA, Pi = 2 W, Ci = 0, Li = 0
The terminal numbers for the intrinsically safe circuit can vary from one actuator model to another and are specified on the wiring diagram that accompanies each actuator.

Variation 4 - This variation introduced the following changes:

i. The introduction of the following Modules:

Fibre Optic Coupler Module This modification applies to terminal enclosures that are marked 'EEx d' only; it involves altering the terminal lid to allow the inclusion of a fibre optic coupler module within the terminal compartment.

Lightning Suppression Module This modification applies to terminal enclosures that are marked 'EEx d' only; it allows the inclusion of a lightning suppression module secured to the inner face of the existing terminal lid.

Variation 5 - This variation introduced the following changes:

i. The introduction of an alternative external earth stud arrangement – All actuator sizes.
ii. The introduction of an additional alternative battery – All actuator sizes.
iii. The introduction of an alternative high-pressure die cast motor cover – Actuator sizes 1 and 2 only (Brook and AEG Motors).
iv. The introduction of AEG motors and associated alternative motor covers – All actuator sizes.
v. The introduction of the IQH variant – Actuator Size 2, Size 3 and Size 5 (IQ40); ambient temperature range of –20°C to +70°C.
vi. The introduction of an alternative motor cover - Actuator Size 3 (W90 Brook motors).

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Variation 6 - This variation introduced the following changes:

i. The introduction of an alternative DC motor option (Leeson Motor) on gearcase sizes 1 and 2. (IIB gas group only). Ambient Temperature Range -20°C to +70°C, Leeson motors have been introduced as alternatives in the following actuator types:
Size 1 gearcase, short motor cover IQD10, IQD12, IQD18
Size 2 gearcase, short motor cover IQD20
Sise 2 gearcase, long motor cover IQD25

Variation 7 - This variation introduced the following changes:

i. The introduction of the deep terminal cover that allows the installation of an assortment of equipment within the terminal enclosure on Ex d versions, typically a PCB for Profibus applications, a contactor or a three-phase mains filter. To allow for the inclusion of additional circuitry, the deep cover is provided with threaded entry points to accommodate suitable, ATEX, Ex d cable entry devices that have been certified by a notified body.

Variation 8 - This variation introduced the following changes:

i. The use of an alternative window material and sealing cement was allowed, a special condition for safe use was introduced with this change, therefore, an 'X' suffix was added to the certificate number.

Variation 9 - This variation introduced the following changes:

i. The addition of a Terminal Cover, Part No 48870, as an alternative component.

Variation 10 - This variation introduced the following changes:

ii. The introduction of an alternative battery pocket plug; the alternative battery pocket plug material is Ryton ® R-4-200BL (f1), manufactured by Chevron Phillips Chemical Co LP.

Variation 11 - This variation introduced the following changes:

i. The use of Chinese manufactured flamepath components (IQ and IQT all sizes) and enclosure castings (IQ sizes 1 to 3 only and IQT all sizes) was endorsed.
ii. The use of Chinese manufactured motors (fitted with Chinese manufactured thermostats) IQ (sizes 1 to 3) was endorsed.
iii. The use of an SLX Polycarbonate over- moulded window cove was allowed.
iv. The drawing package was amended thereby clarifying previous modifications.

Variation 12 - This variation introduced the following changes:

i. The introduction of a wireless network into the terminal enclosure and associated aerial.
ii. The introduction of an alternative terminal bung material

Variation 13 - This variation introduced the following changes:

i. Following appropriate re-assessment to review the product design (Note: certain modifications that listed in Variations were omitted for commercial reasons) and to demonstrate compliance with the requirements of the latest series of standards, the documents originally listed in section 9, EN 50014:1997 (amendments A1 and A2), EN 50018:2000, EN 50019:2000, EN 50281-1-1:1998, EN 13463-1:2001 and prEN 13463-5:October 2000 were replaced by those currently listed and a new Description of Equipment that encompasses previous, relevant Variations was introduced. This re-assessment also included updating the markings in section 12, reviewing the certificate conditions and generating a new, definitive list of supporting documents that replaced all preceding versions.

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Variation 14 - This variation introduced the following change:

i. To recognise the amendment to the routine testing requirements regarding the terminal covers.

Variation 15 - This variation introduced the following change:

i. Introduction of the absolute encoder driveshaft.

Variation 16 - This variation introduced the following change:

i. The introduction of the Part N° 46754, heat treated, gravity die cast terminal covers was recognised.

Variation 17 - This variation introduced the following change:

i. The introduction of a vandal proof cover option for all actuator sizes.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	File/Report no.	Comment
0	21 January 2002	R53A7563D	The release of the prime certificate; this document was re-issued 1 November 2002 to correct the description of equipment and to allow report number R53A7563F to replace R53A7563D (File 53V9460 refers).
1	3 March 2003	R53A7563G	The introduction of Variation 1.
2	11 March 2004	R53A7563N	The introduction of Variation 2.
3	22 December 2004	R53A11394A	The introduction of Variation 3 (Note: For commercial reasons, this Variation was not included in the re-assessment done in Issue 13 but could be reinstated if required, therefore, the standards listed in section 9 do not cover this Variation).
4	6 January 2005	R53A7563Q	The introduction of Variation 4.
5	14 February 2006	R53A7563X	The introduction of Variation 5.
6	30 May 2006	R51A15000-002A	The introduction of Variation 6.
7	10 September 2007	R51A15000 006A	The introduction of Variation 7.
8	10 October 2007	R51A15000 004A	The introduction of Variation 8 (Note: as a result of this Variation, an 'X' suffix was added to the certificate number).
9	12 December 2007	R51A15000–018A	The introduction of Variation 9.
10	8 April 2008	R51A15000 008A	The introduction of Variation 10.
11	20 January 2009	R51A15000 019A	The introduction of Variation 11.
12	23 April 2009	R51A15000-030A	The introduction of Variation 12.
13	1 March 2010	R15000-005A/00	This Issue covers the following changes: • All previously issued certification was rationalised into a single certificate, Issue 14, Issues 0 to 13 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format. • The introduction of Variation 13.

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Issue	Date	File/Report no.	Comment
14	10 June 2010	R15000-036A/00	The introduction of Variation 14
15	21 July 2010	R15000-035A/00	The introduction of Variation 15
16	22 November 2010	R15000-045A/00	The introduction of Variation 16
17	18 October 2013	R15000-068A/00	The introduction of Variation 17

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

15.1 When this equipment is fitted with a Makrolon® 6717 viewing window, it shall be positioned such that risk of impact to the window is low.

15.2 In accordance with clause 5.1 of EN 60079-1, the critical dimensions of the flamepaths are:

IQ All Sizes

Threaded flamepaths	Thread Size	Thread Length (mm)
Battery Cover	M40 x 1.5p	10.00
Conduit Entries	1½" NPT	28.50 (L1 + 2 Turn)
	1" NPT	35.00 (L1 + 2 Turn)
Motor Stator Locking Screw (Sizes 1 to 3, if fitted)	M8 x 1.25p	6.50
Motor Stator Locking Screw (Size 5 only)	M12 x 1.75p	12.50

IQ Sizes 1, 2 and 3

Flamepath	Flamepath Dimension	
	Gap (mm)	Length (mm)
Gearcase/Motor Cover	0.15	12.50
Gearcase/Wormshaft Shroud	0.05	17.05
Wormshaft Shroud/Wormshaft	0.24	12.75
Gearcase/Terminal Bung IIB	0.20	25.95
Gearcase/Terminal Cover	0.15	26.70
Gearcase/Electrical Cover	0.15	26.20
Resolver Shaft Bush/Resolver Shaft	0.10	43.75
Gearcase/Resolver Shaft Bush	Interference	40.70
Gearcase/Motor Loom Transfer Bush	0.15	28.75
Motor Cover/Stator Pin (Size 1)	Interference	5.0
Motor Cover/Stator Pin (Size 2 and 3)	Interference	6.0
Encoder Shaft Bush/Encoder Shaft	0.15	26.89
Gearcase/Encoder Shaft Bush	0.13	26.39

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IQ Size 5

Flamepath	Flamepath Dimension	
	Gap (mm)	Length (mm)
Gearcase/Motor Cover	0.15	26.20
Gearcase/Wormshaft shroud	Interference	40.75
Wormshaft shroud/Wormshaft	0.22	49.75
Gearcase/Terminal Bung IIB	0.20	25.95
Gearcase/Terminal Lid	0.15	26.70
Gearcase/Electrical Cover	0.15	26.20
Resolver Shaft Bush/Resolver Shaft	0.10	43.75
Gearcase/Resolver Shaft Bush	Interference	40.70
Gearcase/Motor Loom Transfer Bush	0.15	33.25

IQD (all sizes) As per the IQ size 1 and 2 except where indicated below.

Flamepath	Flamepath Dimension	
	Gap (mm)	Length (mm)
Motor Cover/Motor Adaptor	0.15	12.50
Motor Adaptor/Gearcase	0.15	12.50

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 **Dielectric strength tests**

When the termination facility is to be designed as 'Ex e', the following electrical strength tests shall be applied to the termination facilities for at least 60 s and no more than 63 s as required by clause 6.1 of EN 60079-7:2007.

Test Voltage Applied Between	Test Voltage
Three phase terminations/case	2500 V RMS
Three phase terminations and low voltage terminations	2500 V RMS
Low voltage terminations and case	1500 V RMS

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17.4 Routine overpressure tests

Each enclosure shall be subjected to a routine overpressure test in accordance with the tables below for the design option and ambient temperature range stated. In all cases the pressure shall be maintained for at least 10 s as required by clause 16 of EN 60079-1:2007. There shall be no permanent deformation or damage to the enclosure.

Routine overpressure tests IQ -20°C to +70°C

Equipment	Test Pressure		Comments
	bar	lbf/in^2	
Terminal Bung	19.0	275.5	Sizes 2 and 5
Motor Loom Transfer Bush*	19.0	275.5	Size 2 only

* the motor loom transfer bushes can be tested from either side.

Routine overpressure tests IQ (below -20°C to -50°C) to +70°C

Equipment	Test Pressure	
	bar	lbf/in^2
Size 1		
Gearcase electrical compartment	16.8	243
Electrical cover (gravity)	17.4	252
Electrical Cover (high pressure)	17.4	252
Terminal bung	16.8	243
Motor loom transfer bush	16.8	243
Gearcase terminal compartment	16.5	239
Size 2		
Gearcase electrical compartment	29.3	425
Electrical cover (gravity)	17.0	247
Electrical Cover (high pressure)	17.0	247
Terminal bung	29.3	425
Motor loom transfer bush	29.3	425
Gearcase terminal compartment	16.5	239
Gearcase motor compartment	20.3	294
Motor Cover	20.3	294
Size 3		
Gearcase electrical compartment	15.5	225
Electrical cover (gravity)	17.9	260
Electrical Cover (high pressure)	17.9	260
Gearcase terminal compartment	16.5	239
Size 5		
Gearcase electrical compartment	27.4	398
Electrical cover (gravity)	19.3	280
Electrical Cover (high pressure)	19.3	280
Terminal bung	27.4	398
Motor loom transfer bush	27.4	398

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Equipment	Test Pressure	
	bar	lbf/in^2
Gearcase terminal compartment	20.5	298
Motor cover IQ 40	11.6	168
Motor cover IQ 70/90/95	16.8	244
Motor cover IQ 91	14.4	209

17.5 **Routine overpressure tests IQD fitted with Laurence Scott DC motors -20°C to +70°C**

Equipment	Test Pressure	
	bar	lbf/in^2
Motor Enclosure and Adaptor. Long Motor	15.60	226.50

17.6 **Routine overpressure tests IQD fitted with Laurence Scott DC motors (below –20°C to -50°C) to +70°C**

Equipment	Test pressure	
	bar	lbf/in^2
Terminal Compartment (gearcase gravity diecast)	16.59	241.00
Terminal bung	16.59	241.00

17.7 **Routine overpressure tests IQ fitted with short electrical covers (below–20°C to -50°C) to +70°C**

Equipment	Test Pressure	
	bar	lbf/in^2
Gearcase electrical compartment size 3	19.97	289.50
Short electrical cover size 2	17.75	257.38
Short electrical cover size 3	19.97	289.57
Terminal Bung size 1	16.89	244.90
Terminal Bung size 2	17.75	257.38
Terminal Bung size 3	19.97	289.57
Electrical cover window size 3	19.97	289.57
Motor loom transfer bush size 3	19.97	289.57

17.8 **Routine overpressure tests IQ 'Ex d' only fitted with fibre optic coupler module (below -20°C to -50°C) to +70°C**

Equipment	Test pressure	
	bar	lbf/in^2
Terminal Compartment (gearcase gravity diecast)	18.58	270.00
Terminal Bung	18.58	270.00
Deep Cover (sand cast)	18.58	270.00

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17.9 **Routine overpressure tests IQ 'Ex d' only fitted with a lightning suppression module (below –20°C to -50°C) to +70°C**

Equipment	Test pressure	
	bar	lbf/in^2
Terminal Compartment (gearcase gravity diecast)	16.59	241.00
Terminal bung	16.59	241.00
Terminal Cover (Pressure die cast)	16.59	241.00
Terminal Cover (Gravity die cast)	16.59	241.00

17.10 **Routine overpressure tests IQ 'Ex d' only fitted with deep terminal cover (below –20°C to -50°C) to +70°C**

Equipment	Test Pressure	
	bar	lbf/in^2
Deep terminal cover - sand cast	16.56	240.12
Terminal compartment (Gearcase, All Sizes)	16.56	240.12
Terminal bung	16.56	240.12

17.11 **Routine overpressure tests IQ fitted with Makrolon® 6717 window and Loctite® 5699 (below –20°C to -50°C to +70°C)**

Equipment - Makrolon® 6717 window with Loctite® 5699 installed in the following electrical covers	Test Pressure	
	bar	lbf/in^2
Size 1 Long Cover	17.25	251
Size 1 Short Cover	16.89	245
Size 2 Long Cover	16.95	246
Size 2 Short Cover	17.75	258
Size 3 Long Cover	17.85	259
Size 3 Short Cover	19.97	290
Size 5 Long Cover	19.26	280

17.12 The manufacturer shall take all reasonable steps to ensure that the user/installer complies with the Special Conditions for Safe Use and if the viewing window is made from Makrolon® 6717, this shall be clearly defined.

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Certificate Annexe

Certificate Number: **Sira 01ATEX1221X**

Equipment: **IQ Range of Electric Valve Actuators**

Applicant: **Rotork Controls Ltd**
Rotork Controls Inc.

Issue 0 to 12 (The drawings listed with these Issues were rationalised and have been superseded by those detailed in Issue 13.)

Issue 13

Drawing	Sheets	Rev.	Date	Title
PLAD 1165	1 to 8	09	11 Jan 10	Parts List For IQ10, IQ12 and IQ18 Actuators ATEX Certification Group IIB
AD1165	1 to 6	07	17 Dec 09	IQ10, 12 & 18 Actuators - ATEX Approval, Group IIB
PLAD 1166	1 to 9	09	11 Jan 10	Parts List For IQ20 and IQ25 Actuators - ATEX Certification Group IIB
AD1166	1 to 7	07	18 Dec 09	IQ20,25 Actuators – ATEX Approval, Group. IIB
PLAD 1167	1 to 8	08	11 Jan 10	Parts List For IQ35 Actuators ATEX Certification Group IIB
AD1167	1 to 5	06	18 Dec 09	IQ35 Actuators – ATEX Approval, Group. IIB
PLAD 1168	1 to 8	08	11 Jan 10	Parts List For IQ40, IQ70, IQ90, and IQ91 Actuators ATEX Certification Group IIB
AD1168	1 to 3	04	22 Dec 09	IQ40, 70, 90, 95 & 91 Actuators – ATEX Approval, Group. IIB
AD 1173	1 of 1	03	18 Dec 09	Terminal Bung & Main Labels – IQ Range ATEX Group. IIB
AD1144	1 of 1	01	15 May 01	IQ2 with Smith Flow Control Interlock
AD1145	1 of 1	01	18 May 01	IQ2 7-95 Intumescent® Coated Actuators for Cenelec Approval Group IIB and IIC
AD1260	1 of 1	01	04 Oct 04	IQ/IQT Fibre Optic & Lightning Suppression Modules For ATEX Approval Group IIB and IIC
AD1297	1 to 2	04	01 Feb 10	Deep Cover Housing For IQ And IQT Actuator Ranges ATEX & IECEx Group IIB And IIC

Issue 14

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
AD1165	1 to 6	8	21 May 10	IQ 10, 12 & 18 Actuators - ATEX Approval GP, IIB
AD1166	1 to 7	8	21 May 10	IQ 20, 25 Actuators - ATEX Approval Group, IIB
AD1167	1 to 5	7	21 May 10	IQ 35 Actuator - ATEX Group IIB
AD1168	1 to 3	5	21 May 10	IQ 40, 70, 90, 95 & 91 Actuators – ATEX APP GP, IIB
AD1260	1	2	21 May 10	IQ/IQT Fiber Optic & Lightning Suppression Modules for ATEX Approval Groups IIB and IIC.

Issue 15

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
AD1165	1 to 6	9	12 Jul 10	IQ 10, 12 & 18 Actuator ATEX Approval GP IIB
PLAD 1165	1 to 8	10	12 Jul 10	Parts List For IQ10, IQ12 and IQ18 Actuators ATEX Certification Group IIB
AD1166	1 to 7	9	12 Jul 10	IQ 20, 25 Actuator ATEX Approval GP IIB
PLAD 1166	1 to 9	10	12 Jul 10	Parts List For IQ20 and IQ25 Actuators ATEX Certification Group IIB
AD1167	1 to 5	8	12 Jul 10	IQ 35 Actuator ATEX Approval GP IIB
PLAD 1167	1 to 8	9	12 Jul 10	Parts List For IQ35 Actuators ATEX Certification Group IIB

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Certificate Annexe

Certificate Number: **Sira 01ATEX1221X**

Equipment: **IQ Range of Electric Valve Actuators**

Applicant: **Rotork Controls Ltd**
Rotork Controls Inc.

Issue 16

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
PLAD 1165	1 to 8	11	26 Oct 10	Parts list for IQ10, IQ12 & IQ 18 Actuators ATEX Certification Group IIB
PLAD 1166	1 to 9	11	26 Oct 10	Parts list for IQ20 & IQ25 Actuators ATEX Group IIB
PLAD 1167	1 to 8	10	26 Oct 10	Parts list for IQ35 Actuators ATEX Group IIB
PLAD 1168	1 to 8	09	26 Oct 10	Parts List for IQ40, IQ70, IQ90, IQ95 & IQ91 Actuators ATEX Group IIB

Issue 17

Drawing	Sheets	Rev	Date (Sira stamp)	Title
AD1425	1 to 2	1	09 Oct 13	Vandal Proof Cover IQ2 & IQT All Sizes, ATEX,& IECEx IIB & IIC

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