

United Kingdom

IECEx Certificate

of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No .:	IECEx BAS 09.0122U	Issue No: 4	Certificate history:			
Status:	Current		Issue No. 4 (2018-02-06) Issue No. 3 (2014-08-06)			
Date of Issue:	2018-02-06	Page 1 of 4	Issue No. 2 (2012-09-12) Issue No. 1 (2010-10-28)			
Applicant:	Crowcon Detection Instruments Limited 172 Brook Drive Milton Park Abingdon Oxfordshire OX14 4SD United Kingdom		Issue No. 0 (2009-12-08)			
Equipment: <i>Optional accessory:</i>	IREX Spigot Assembly					
Type of Protection:	Flameproof (Ex d)					
Marking:	Ex db I Mb and/or					
	Ex db IIC Gb					
Approved for issue on I Certification Body:	behalf of the IECEx	R S Sinclair				
Position:		Technical Manager				
Signature: (for printed version) Date:		Pp MPanney 6/2/18	MPOWNEY CERTIFICATION MANAGER			
 This certificate and schedule may only be reproduced in full. This certificate is not transferable and remains the property of the issuing body. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website. 						
Certificate issued by:	Certificate issued by:					
	SGS Baseefa Limited Rockhead Business Park Staden Lane ton, Derbyshire, SK17 9RZ	SGS (aseefa			



Certificate No:	IECEx BAS 09.0122U	Issue No: 4
Date of Issue:	2018-02-06	Page 2 of 4
Manufacturer:	Crowcon Detection Instruments Limited 172 Brook Drive Milton Park	
	Abingdon Oxfordshire OX14 4SD United Kingdom	

Additional Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the

Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR09.0160/00 GB/BAS/ExTR16.0247/00 GB/BAS/ExTR10.0244/00

GB/BAS/ExTR12.0224/00

Quality Assessment Report:

GB/BAS/QAR06.0070/06



 Certificate No:
 IECEx BAS 09.0122U

 Date of Issue:
 2018-02-06

Issue No: 4

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Type IREX/IRMAX Spigot Assembly, comprising a cylindrical stainless steel housing assembly with 3 or 5 insulated conductor wires of 0.28mm² cross sectional area, encapsulated in place with epoxy sealing compound. The maximum rating of the spigot assembly is 1.12A. The individual cables are each rated at up to 4.0A/mm² and are located and separated by the machined holes in the assembly. The interior wall is threaded to assist retention of the potting.

The bushing may be mounted by the external thread at the top or the bottom. The interface spigot thread may be sized M20 or ½" NPT and the connection spigot thread is M20.

Schedule of Limitations

1. When the spigot assembly is mounted in the wall of a IIC enclosure, using the interface spigot thread (end with locking ring), it must be subjected to an appropriate flame transmission test as part of the enclosure.

2. When the unit is used in the wall of a IIC enclosure with a volume \geq 2000 cm³, it must only be mounted using the connection spigot thread (end opposite locking ring).

- 3. The service temperature of the bushings must be between -40°C and +75°C.
- 4. The wires must be appropriately supported to prevent any tensile force.
- 5. The bushings must be protected from light.
- 6. For Group I use the bushings must be protected from chemical contamination.

SPECIFIC CONDITIONS OF USE: NO



Certificate No:

IECEx BAS 09.0122U

Date of Issue:

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2018-02-06

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 4.1

To confirm the equipment meets the updated requirements of IEC 60079-0 and IEC 60079-1 and associated marking changes.

ExTR: GB/BAS/ExTR16.0247/00

File Reference: 16/0616



Certification Set	cheme for Explosiv	ve Atmospheres
IECEx BAS 09.0122	2U issue No :	3 Certificate history:
		Issue No. 3 (2014-8-6) Issue No. 2 (2012-9-12)
		Issue No. 1 (2010-10- 28)
2014-08-06	Page 1 of 4	Issue No. 0 (2009-12-8)
Crowcon Detectio 172 Brook Drive Milton Park Abingdon Oxfordshire OX14 4SD United Kingdom	n Instruments Limited	
IREX Spigot Assem	bly	
Flameproof (Ex d)		
Ex d I Mb and/or Ex	d IIC Gb	
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	General Manager	
	Manney	<u></u>
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nead Business Park Staden Lane Buxton Derbyshire SK17 9RZ	S	GS Baseefa
	Certification So for rules and detain IECEx BAS 09.0122 Current 2014-08-06 Crowcon Detection 172 Brook Drive Milton Park Abingdon Oxfordshire OX14 4SD United Kingdom IREX Spigot Assem Flameproof (Ex d) Ex d I Mb and/or Ex Dehalf of the IECEx Chedule may only be reputransferable and remain enticity of this certificate Baseefa Limited head Business Park Staden Lane Buxton Derbyshire	2014-08-06 Page 1 of 4 Crowcon Detection Instruments Limited 172 Brook Drive Milton Park Abingdon Oxfordshire OX14 4SD United Kingdom IREX Spigot Assembly Flameproof (Ex d) Ex d I Mb and/or Ex d IIC Gb Dehalf of the IECEx R S Sinclair General Manager Chedule may only be reproduced in full. transferable and remains the property of the issuing boc enticity of this certificate may be verified by visiting the C Baseefa Limited head Business Park Staden Lane Buxton Derbyshire SK17 9RZ

	IECEx BAS 09.0122U	
Date of Issue:	2014-08-06	Issue No.: 3
		Page 2 of 4
Manufacturer:	Crowcon Detection Instruments 172 Brook Drive Milton Park Abingdon Oxfordshire OX14 4SD United Kingdom	Limited
Additional Manufacturing Ic (s):	ocation	
covered by this certificate,	e verification that a sample(s), representative of C Standard list below and that the manufacture was assessed and found to comply with the IEC ct to the conditions as set out in IECEx Scheme	er's quality system, relating to the Ex products
STANDARDS: The electrical apparatus ar documents, was found to c	nd any acceptable variations to it specified in the comply with the following standards:	e schedule of this certificate and the identified
IEC 60079-0 : 2007-10	Explosive atmospheres - Part 0:Equipment -	General requirements
Edition: 5		
IEC 60079-1 : 2007-04	Explosive atmospheres - Part 1: Equipment	protection by flameproof enclosures "d"
Edition: 5 IEC 60079-1 : 2007-04 Edition: 6 This Certificate does no	Explosive atmospheres - Part 1: Equipment of indicate compliance with electrical safety and expressly included in the Standards list	performance requirements other than those
IEC 60079-1 : 2007-04 Edition: 6 This Certificate does no TEST & ASSESSMENT RI	of indicate compliance with electrical safety and expressly included in the Standards lis	performance requirements other than those sted above.
IEC 60079-1 : 2007-04 Edition: 6 This Certificate does no TEST & ASSESSMENT RI A sample(s) of the equipme Test Report:	of indicate compliance with electrical safety and expressly included in the Standards lis EPORTS:	performance requirements other than those sted above.
IEC 60079-1 : 2007-04 Edition: 6 <i>This Certificate does no</i> TEST & ASSESSMENT RI	of indicate compliance with electrical safety and expressly included in the Standards lis EPORTS: ent listed has successfully met the examination GB/BAS/ExTR10.0244/00	performance requirements other than those sted above. and test requirements as recorded in



Certificate No .:

IECEx BAS 09.0122U

Date of Issue:

2014-08-06

Issue No.: 3

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Type IREX/IRMAX Spigot Assembly, comprising a cylindrical stainless steel housing assembly with 3 or 5 insulated conductor wires of 0.28mm² cross sectional area, encapsulated in place with epoxy sealing compound. The maximum rating of the spigot assembly is 1.12A. The individual cables are each rated at up to 4.0A/mm² and are located and separated by the machined holes in the assembly. The interior wall is threaded to assist retention of the potting.

The bushing may be mounted by the external thread at the top or the bottom. The interface spigot thread may be sized M20 or $\frac{1}{2}$ " NPT and the connection spigot thread is M20.

Schedule of Limitations

1. When the spigot assembly is mounted in the wall of a IIC enclosure, using the interface spigot thread (end with locking ring), it must be subjected to an appropriate flame transmission test as part of the enclosure.

2. When the unit is used in the wall of a IIC enclosure with a volume \geq 2000 cm³, it must only be mounted using the connection spigot thread (end opposite locking ring).

- 3. The service temperature of the bushings must be between -40°C and +75°C.
- 4. The wires must be appropriately supported to prevent any tensile force.
- 5. The bushings must be protected from light.
- 6. For Group I use the bushings must be protected from chemical contamination.

CONDITIONS OF CERTIFICATION: NO



Certificate No .:

IECEx BAS 09.0122U

Date of Issue:

2014-08-06

Issue No.: 3

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 3.1

This issue permits existing information (for example on Schedule Drawings) to be replaced by the revised certificate holders address. No other changes may be made to the certified design

File Reference: 14/0639



	ertification Sch	CTROTECHNICAL C eme for Explosive At f the IECEx Scheme visit www.iecex	tmospheres
Certificate No.:	IECEx BAS 09.0122U	issue No.:2	Certificate history:
Status:	Current		Issue No. 2 (2012-9-12) Issue No. 1 (2010-10- 28)
Date of Issue:	2012-09-12	Page 1 of 4	Issue No. 0 (2009-12-8)
Applicant:	Crowcon Detection In 2 Blacklands Way Abingdon Business Park Abingdon Oxfordshire OX14 1DY United Kingdom		а. —
Electrical Apparatus: Optional accessory:	IREX Spigot Assembly		
Type of Protection:	Flameproof (Ex d)		
Marking:	Ex d I Mb and/or Ex d I		
Approved for issue on b Certification Body:	ehalf of the IECEx	pRSSinclair MPOWNEY	
Position:		General Manager	
Signature: (for printed version)		Wonney	
Date:		12/9/12	
2. This certificate is not	hedule may only be reprod transferable and remains th nticity of this certificate may	luced in full. he property of the issuing body. y be verified by visiting the Official I	ECEx Website.
Certificate issued by: Rot	Baseefa ckhead Business Park Staden Lane Buxton Derbyshire SK17 9RZ United Kingdom		Baseefa



IEC IECEX IECEX Certificate			
	Of C	onformity	
Certificate No.:	IECEx BAS 09.0122U		
Date of Issue:	2012-09-12	Issue No.: 2	
		Page 3 of 4	
	Schedule	N	
EQUIPMENT:	vered by this certificate are as follows:		
conductor wires of 0.28mm ² of the spigot assembly is 1. he machined holes in the a	² cross sectional area, encapsulated in p 12A. The individual cables are each rated ssembly. The interior wall is threaded to	ss steel housing assembly with 3 or 5 insulated lace with epoxy sealing compound. The maximum rating d at up to 4.0A/mm ² and are located and separated by assist retention of the potting. e bottom. The interface spigot thread may be sized M20	
or ½" NPT and the connecti	on spigot thread is M20.		
Schedule of Limitations			
	ly is mounted in the wall of a IIC enclosu o an appropriate flame transmission test	rre, using the interface spigot thread (end with locking as part of the enclosure.	
When the unit is used in connection spigot thread (er	the wall of a IIC enclosure with a volume nd opposite locking ring).	$e \ge 2000 \text{ cm}^3$, it must only be mounted using the	
3. The service temperature	of the bushings must be between -40°C	and +75°C.	
The wires must be approx	priately supported to prevent any tensile	force.	
5. The bushings must be p	rotected from light.		
For Group I use the bush	nings must be protected from chemical co	ontamination.	
CONDITIONS OF CERTIF	ICATION: NO		
L			

		of Cont	onnity	
Certificate No.: Date of Issue:	IECEx BAS 09.012 2012-09-12	2U	Issue No.: 2 Page 4 of 4	
ariation 2.1	E CHANGES (for issues 1		Assembly	
ExTR: GB/BAS/12.0224		File Reference	1508	



INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres for rules and details of the IECEx Scheme visit www.iecex.com

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Certificate No.:	IECEx BAS 09.0122U	J	issue No.:1	Certificate history: Issue No. 1 (2010-10-
Status:	Current			28) Issue No. 0 (2009-12-8)
Date of Issue:	2010-10-28		Page 1 of 4	
Applicant:	Crowcon Detection 2 Blacklands Way Abingdon Business Pa Abingdon Oxfordshire OX14 1DY United Kingdom		imited	
Electrical Apparatus: Optional accessory:	IREX Spigot Assemb	bly		
Type of Protection:	Flameproof (Ex d)			
Marking:	Ex d I Mb and/or Ex	d IIC Gb		
Approved for issue on be Certification Body:	ehalf of the IECEx	R S Sinclair	MADIZINEY	
Position:		Managing Di	rector	
Signature: (for printed version)			Manay	
Date:			28 10 10	
 This certificate and so This certificate is not t The Status and authe 	ransferable and remains	s the property of th	e issuing body. visiting the Official IE	CEx Website.
Certificate issued by:	D			
Ro	Baseefa ckhead Business Park Staden Lane Buxton Derbyshire SK17 9RZ United Kingdom		E	aseefa



Certificate No.:	IECEx BAS 09.0122U	
Date of Issue:	2010-10-28	Issue No.: 1
		Page 2 of 4
Manufacturer:	Crowcon Detection Instru 2 Blacklands Way Abingdon Business Park Abingdon Oxfordshire OX14 1DY United Kingdom	ments Limited

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

 IEC 60079-0: 2007-10
 Explosive atmospheres - Part 0:Equipment - General requirements

 Edition: 5
 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

 Edition: 6
 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

GB/BAS/ExTR09.0160/00 GB/BAS/ExTR10.0244/00

Quality Assessment Report: GB/BAS/QAR06.0070/01



Certificate No.:

IECEx BAS 09.0122U

Date of Issue:

2010-10-28

Issue No.: 1

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Type IREX/IRMAX Spigot Assembly, comprising a cylindrical stainless steel housing assembly with 3 or 5 insulated conductor wires of 0.28mm² cross sectional area, encapsulated in place with epoxy sealing compound. The maximum rating of the spigot assembly is 1.12A. The individual cables are each rated at up to 4.0A/mm² and are located and separated by the machined holes in the assembly. The interior wall is threaded to assist retention of the potting.

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4. The wires must be appropriately supported to prevent any tensile force.

5. The bushings must be protected from light.

6. For Group I use the bushings must be protected from chemical contamination.

CONDITIONS OF CERTIFICATION: NO



Certificate No.:

IECEx BAS 09,0122U

Date of Issue:

2010-10-28

Issue No.: 1

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1.1

To permit the reformatting, and therefore up-issue, of the certification drawings. The physical design of the IREX/IRMAX Spigot Gland Assembly is not altered in any way.

ExTR: GB/BAS/ExTR10.0244/00

File Reference: 10/0789



INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx BAS 09.0122U	issue No.:0	Certificate hist	ory:
Status:	Current		*	
Date of Issue:	2009-12-08	Page 1 of 3		
Applicant:	Crowcon Detection Ir 2 Blacklands Way Abingdon Business Park Abingdon Oxfordshire OX14 1DY United Kingdom		,	
Electrical Apparatus: Optional accessory:	IREX Spigot Assembly			
Type of Protection:	Flameproof (Ex d)			
Marking:	Ex d I Mb and/or Ex d II	C Gb		
Approved for issue on I Certification Body:	behalf of the IECEx	R S Sinclair		
Position:		Managing Director		
Signature: (for printed version)		RSS-	2an-	
Date:		8-12-	09	
1. This certificate and s	chedule may only be reprod	uced in full.	0	+

This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

Baseefa **Rockhead Business Park** Staden Lane Buxton Derbyshire SK17 9RZ United Kingdom





Certificate No.: IECEx BAS 09.0122U
Date of Issue: 2009-12-08 Issue No.: 0
Page 2 of 3
Manufacturer: Crowcon Detection Instruments Limited
2 Blacklands Way
Abingdon Business Park
Abingdon
Oxfordshire
OX14 1DY
United Kingdom

Manufacturing location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

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 Edition: 5
 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

 Edition: 6
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TEST & ASSESSMENT REPORTS:

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Test Report:

GB/BAS/ExTR09.0160/00

Quality Assessment Report: GB/BAS/QAR06.0070/01



Certificate No.:

IECEx BAS 09.0122U

Date of Issue:

2009-12-08

Issue No.: 0

Page 3 of 3

Schedule

EQUIPMENT:

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4. The wires must be appropriately supported to prevent any tensile force.

5. The bushings must be protected from light.

6. For Group I use the bushings must be protected from chemical contamination.

CONDITIONS OF CERTIFICATION: NO