



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEX SIR 11.0152U**

Page 1 of 4

Certificate history:

Status: **Current**

Issue No: 5

Issue 4 (2017-11-21)

Issue 3 (2013-07-08)

Issue 2 (2012-12-10)

Issue 1 (2012-08-28)

Issue 0 (2012-01-16)

Date of Issue: 2024-03-25

Applicant: **Hawke International**
A Division of Hubbell Limited
A Member of the Hubbell Group of Companies
Oxford Street West
Ashton-Under-Lyne
Lancashire OL7 0NA
United Kingdom

Ex Component: Swivel Couplings

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Flameproof, Increased Safety and Dust**

Marking: Ex db I Mb
Ex eb I Mb
Ex db IIC Gb
Ex eb IIC Gb
Ex tb IIIC Db
IP66

Approved for issue on behalf of the IECEx
Certification Body:

Michelle Halliwell

Position:

Director Operations, UK & Industrial Europe

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





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Page 2 of 4

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Manufacturing locations: **Hawke International**
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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 component 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 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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

TEST & ASSESSMENT REPORTS:

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

Test Reports:

[GB/SIR/ExTR12.0001/00](#)
[GB/SIR/ExTR13.0161/00](#)

[GB/SIR/ExTR12.0215/00](#)
[GB/SIR/ExTR17.0211/00](#)

[GB/SIR/ExTR12.0314/00](#)
[GB/SIR/ExTR24.0037/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0061/10](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX SIR 11.0152U**

Page 3 of 4

Date of issue: 2024-03-25

Issue No: 5

Ex Component(s) covered by this certificate is described below:

These metallic swivel unions are available as either inline or 90° elbow thread union fittings. They have a male thread on the front entry body and a female thread on the rear sleeve, sealing, in the form of a silicone O-ring, is provided between the two parts. Each union can be fitted with an anti-rotation device, lockstop, this retains the position of the union once it is installed.

Design options

- Type 490: Male to Female inline swivel union with lockstop
- Type 491: Male to Female inline swivel union
- Type 492: Male to Female elbow swivel union with lockstop
- Type 493: Male to Female elbow swivel union

Thread specifications

Standard thread forms

- M16, M20, M25, M32, M40, M50, M63, M7
- ½"NPT, ¾"NPT, 1"NPT, 1 ¼"NPT, 1 ½"NPT, 2"NPT, 2 ½"NPT, 3"NPT

Alternative thread forms

- NPSM ANSI/ASME B1.20.1:1983
- BSPT BS 21:1985
- BSPP BS EN ISO 228-1:2003; BS EN ISO 228-2:2003 'full form only'
- PG DIN 40430:1971
- ET BS 31:1940 Table 'A'

Materials

Aluminium, brass, steel or stainless steel (the unions may be plated)

SCHEDULE OF LIMITATIONS:

1. These swivel unions shall not be used where the service temperature is outside the temperature range -60°C to +100°C.
2. Blanking elements shall not be used with these swivel unions.
3. The M16 size swivel unions shall only be for Group I applications where there is a low risk of impact.
4. These swivel unions shall not be used for the direct inter-connection of enclosures.
5. These swivel unions shall not be used with conduit in Group I installations.
6. Only one swivel union shall be used with any single cable entry on the associated equipment.
7. When required, the front and rear threads of these unions shall be suitably sealed to maintain the ingress protection rating of the associated equipment to which they are attached e.g. if a union is fitted into (Ex tb) protection by enclosure equipment for use in explosive dust atmospheres and the front thread is not sealed using a washer, then, to maintain the required IP6X rating, the enclosure shall offer a minimum of 5 full threads of contact, in accordance with IEC 60079-31:2013 clause 5.1.2.



IECEX Certificate of Conformity

Certificate No.: **IECEX SIR 11.0152U**

Page 4 of 4

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 5, recognises the following changes; refer to the certificate annex to view a comprehensive history:

1. To allow an extension to the combinations of male and female thread sizes as covered by the drawings 492 and 493 only.
2. Update to the notes section of the drawings 490, 491, 492 and 493.
3. Following appropriate assessment to demonstrate compliance with the latest technical knowledge,
4. IEC 60079-0:2011 Ed 6 was replaced by IEC 60079-0:2017 Ed 7 and IEC 60079-7:2015 Ed 5 was replaced by IEC 60079-7:2017 Ed 5.1.

Annex:

[IECEX SIR 11.0152U Annexe lss 5.pdf](#)

Annexe to: IECEx SIR 11.0152U Issue 5

Applicant: Hawke International

Apparatus: Type 49* Swivel Couplings



Thread combinations.

The following male and female thread combination for the Type 492 (90° Elbow swivel lockstop) and the Type 493 (90° Elbow swivel) are permitted as indicated by 'X'

		FEMALE THREAD (metric)							
		M16	M20	M25	M32	M40	M50	M63	M75
MALE THREAD (metric)	M16	X	X						
	M20	X	X	X					
	M25	X	X	X	X				
	M32	X	X	X	X	X			
	M40	X	X	X	X	X	X		
	M50	X	X	X	X	X	X		
	M63	X	X	X	X	X	X	X	
	M75	X	X	X	X	X	X	X	X

		FEMALE THREAD (NPT)							
		1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
MALE THREAD (NPT)	1/2"	X	X						
	3/4"	X	X	X					
	1"	X	X	X	X				
	1 1/4"	X	X	X	X	X			
	1 1/2"	X	X	X	X	X	X		
	2"	X	X	X	X	X	X		
	2 1/2"	X	X	X	X	X	X	X	
	3"	X	X	X	X	X	X	X	X

Conditions of Manufacture

1. Aluminium devices shall not be marked with any information indicating that they are suitable for Group I use.

Full certificate change history

Issue 1 – this Issue introduced the following change:

- To allow the Type 49* Swivel Couplings entry bore to be modified.

Issue 2 – this Issue introduced the following changes:

- Replacement of 'clamping ring' elastomeric component part with a metallic 'clamping olive'.
- Minor modification to the internal leading edge of the bore on the non-threaded end of the rear sleeve of the main body.

Issue 3 – this Issue introduced the following change.

- The correction of drawing detail relating to maximum bore dimension of male component part sizes 1/2", 3/4", 1", 1 1/4" 1 1/2" 2" and 2 1/2" NPT.

Issue 4 – this Issue introduced the following changes.

- To permit the use of alternate grades of brass and stainless steel as materials of manufacture.
- The recognition of minor drawing modifications; these amendments are administrative or involve changes to components and design that do not affect the aspects of the product that are relevant to explosion safety.
- Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-1:2007 Ed.6, IEC 60079-7:2006 Ed.4 and IEC 60079-31:2008 Ed.1, were replaced by IEC 60079-1:2014 Ed.7, IEC 60079-7:2015 Ed.5 and IEC 60079-31:2013 Ed.2, the Schedule of Limitations and the markings were amended to recognise the new standards.
- The product description was amended to clarify the specification of the alternative types of thread forms that are available.

Annexe to: IECEx SIR 11.0152U Issue 5

Applicant: Hawke International

Apparatus: Type 49* Swivel Couplings



Issue 5 – this Issue introduced the following changes.

- i. To allow an extension to the combinations of male and female thread sizes as covered by the drawings 492 and 493 only.
- ii. Update to the notes section of the drawings 490, 491, 492 and 493.
- iii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Ed 6 was replaced by IEC 60079-0:2017 Ed 7 and IEC 60079-7:2015 Ed 5 was replaced by IEC 60079-7:2017 Ed 5.1.