1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Component intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 10ATEX1068U** Issue: **4**

4 Component: **Flexible Fitting, Series EKJ, ECF and EKJSS**

5 Applicant: **Killark, A Div. of Hubbell (Delaware)**

6 Address: 3940 Martin Luther King Drive
St. Louis
Missouri 63113
USA

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

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component 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 60079-0:2012/A11:2013 EN 60079-1:2014 EN 60079-31:2014

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when orporated into equipment. Any limitations of use are listed in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the component shall include the following:

II 2 GD
Ex db IIC Gb
Ex tb IIIC Db IP66

Project Number 1177

Signed:

Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechseweg 310,
6812 AR, Arnhem,
Netherlands

SCHEDULE

EU-TYPE EXAMINATION CERTIFICATE **Sira 10ATEX1068U**
Issue 4

13 **DESCRIPTION OF COMPONENT**

The Flexible Fitting Series EKJ, ECF or EKJSS are ranges of conduit assemblies intended for the passage of cabling between flameproof enclosures. Each assembly consists of a length of flexible, metal tubing supplied in variable lengths. This tubing is fabricated into a helical, convoluted form with an outer wire braid and a non-metallic inner liner, the metallic parts being bronze or stainless steel. A threaded connection is attached to each end of the conduit tubing, these connection fittings have either a male or female NPT thread form, are manufactured from brass or stainless steel and are attached by soldering or braze welding; see table below.

Series	Conduit tubing			End fitting		
	Size	Material	Method of attachment	Thread Size	Thread form	Material
ECF	½"	Bronze	Solder	½" - NPT-14	Female	Brass
ECF	¾"	Bronze	Solder	¾" - NPT-14	Female	Brass
ECF	1"	Bronze	Solder	1" - NPT-11.5	Female	Brass
EKJ	1¼"	Bronze	Solder	1¼" - NPT-11.5	Female	Brass
EKJ	1½"	Bronze	Solder	1½" - NPT-11.5	Female	Brass
EKJ	2"	Bronze	Solder	2" - NPT-11.5	Female	Brass
EKJSS	½"	Stainless steel	Braze weld	½" - NPT-14	Male	Stainless steel
EKJSS	¾"	Stainless steel	Braze weld	¾" - NPT-14	Male	Stainless steel
EKJSS	1"	Stainless steel	Braze weld	1" - NPT-11.5	Male	Stainless steel
EKJSS	1¼"	Stainless steel	Braze weld	1¼" - NPT-11.5	Male	Stainless steel
EKJSS	1½"	Stainless steel	Braze weld	1½" - NPT-11.5	Male	Stainless steel
EKJSS	2"	Stainless steel	Braze weld	2" - NPT-11.5	Male	Stainless steel

Typical nomenclature

EKJ # ## SS Ex
Where:
EKJ = Series designation (ECF or EKJ)
# = Conduit size (1 - ½", 2 - ¾", 3 - 1", 4 - 1¼", 5 - 1½" or 6 - 2")
= Length of conduit in hes (variable lengths)
SS = Stainless steel construction
Ex = ATEX certification

Variation 1 - This variation introduced the following changes:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2009, EN 60079-1:2007 and IEC 60079-31:2008 were replaced by EN 60079-0:2012/A11:2013, EN 60079-1:2014 and EN 60079-31:2014, the markings were updated accordingly.
ii. Minor administrative drawing amendments were recognised, none of which affect compliance with the standards listed.

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Variation 2 - This variation introduced the following changes:

i. To allow a change in the metal tubing supplied in lengths ranging from 4" minimum to 36" maximum [101.6 mm to 914.4 mm], to being supplied in variable lengths was recognised, the product description was amended accordingly.
ii. The recognition that the company name has changed from "Killark Electric Manufacturing Co." to "Killark, A Div. of Hubbell (Delaware)".

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	29 March 2010	R21963A/00	The release of the prime certificate.
1	11 March 2016	R70059730A	The introduction of Variation 1.
2	15 June 2016	R70080340A	This Issue covers the following changes: • EC-Type Examination Certificate in accordance with 94/9/EC updated to EU-Type Examination Certificate in accordance with Directive 2014/34/EU. *(In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC-Type Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)*
3	22 September 2016	R70091716A	The introduction of Variation 2.
4	29th 15th October 2019	1177	Transfer of certificate Sira 10ATEX1068U from Sira Certification Service to CSA Group Netherlands B.V..

15 SCHEDULE OF LIMITATIONS

15.1 Each Flexible Fitting Series EKJ, ECF and EKJSS conduit assembly shall be provided with a suitable ATEX certified conduit sealing device at the point where it connects to the associated flameproof equipment.

15.2 Each Flexible Fitting Series EKJ, ECF and EKJSS conduit assembly is capable of meeting a degree of ingress protection of IP66. This condition will only be met when each end is fitted in the appropriate manner to the associated suitably certified conduit sealing device having an ingress protection rating of IP66.

15.3 The temperature range in which the conduit assembly shall be used is limited to -40°C to +150°C.

15.4 The user shall ensure that appropriate earthing arrangements are provided for the conduit assembly.

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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Certificate Annexe

Certificate Number: **Sira 10ATEX1068U**

Component: **Flexible Fitting, Series EKJ, ECF and EKJSS**

Applicant: **Killark, A Div. of Hubbell (Delaware)**

Issue 0

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
B-22561	1 of 1	2	26 Mar 10	½" Fitting - S/S
B-22562	1 of 1	2	26 Mar 10	¾" Fitting - S/S
B-22563	1 of 1	2	26 Mar 10	1" Fitting - S/S
B-22564	1 of 1	2	26 Mar 10	1¼" Fitting - S/S
B-22565	1 of 1	2	26 Mar 10	1½" Fitting - S/S
B-22566	1 of 1	2	26 Mar 10	2" Fitting - S/S
B-22567	1 of 1	3	26 Mar 10	½" Fitting - Brass
B-22568	1 of 1	3	26 Mar 10	¾" Fitting - Brass
B-22569	1 of 1	3	26 Mar 10	1" Fitting - Brass
B-22570	1 of 1	2	26 Mar 10	1¼" Fitting - Brass
B-22571	1 of 1	2	26 Mar 10	1½" Fitting - Brass
B-22572	1 of 1	2	26 Mar 10	2" Fitting - Brass
C-22573	1 of 1	3	26 Mar 10	S/S Flexible Coupling Layout
C-22574	1 of 1	3	26 Mar 10	Sizes 1 - 3 (½",¾",1") Brass Flexible Coupling Layout
C-22575	1 of 1	3	26 Mar 10	Size 4 - 6 (1¼", 1½", 2") Brass Flexible Coupling Layout
C-22587	1 of 1	A	26 Mar 10	Nameplate

Issue 1

Drawing	Sheets	Rev.	Date (Sira stamp)	Description
B-22561	1 of 1	B	22 Feb 16	½" Fitting - S/S
B-22562	1 of 1	B	22 Feb 16	¾" Fitting - S/S
B-22563	1 of 1	B	22 Feb 16	1" Fitting - S/S
B-22564	1 of 1	B	22 Feb 16	1¼" Fitting - S/S
B-22565	1 of 1	B	22 Feb 16	1½" Fitting - S/S
B-22566	1 of 1	B	22 Feb 16	2" Fitting - S/S
B-22567	1 of 1	A	22 Feb 16	½" Fitting - Brass
B-22568	1 of 1	A	22 Feb 16	¾" Fitting - Brass
B-22569	1 of 1	A	22 Feb 16	1" Fitting - Brass
B-22570	1 of 1	A	22 Feb 16	1¼" Fitting - Brass
B-22571	1 of 1	A	22 Feb 16	1½" Fitting - Brass
B-22572	1 of 1	A	22 Feb 16	2" Fitting - Brass
C-22573	1 of 1	C	22 Feb 16	S/S Flexible Coupling Layout
C-22574	1 of 1	A	22 Feb 16	Sizes 1 - 3 (½",¾",1") Brass Flexible Coupling Layout
C-22575	1 of 1	A	22 Feb 16	4 - 6 (1¼", 1½", 2") Brass Flexible Coupling Layout
C-22587	1 of 1	C	22 Feb 16	Nameplate

Issue 2 No new drawings were introduced.

Issue 3 No new drawings were introduced.

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