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Revision history		
Rev.	**Date.**	**Description**
001	23/05/2023	First Issue
002	18/09/2023	Updated according to comments
003	30/08/2024	Updated according to comments
004	15/11/2024	Updated following ATEX Register (K02-002)
005	19/03/2025	Updatad in accordance with Code 2 corrections

Document Title:	**BLPH Project - Equipment Hazardous Area Certificates & Schedule**
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Customer:	CrossWind C.V., Rotterdam, The Netherlands

Short Title	K02-001 - Equipment Hazardous Area Certificates and Schedule
Full Title	Certificates and documentation of equipment for hazardous area of 1MW hydrogen fuel cell container for Crosswind
Abstract	

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Revision Record

Rev #	Description	Revised By	Date [dd/mm/yyyy]
1.0	Initial Release	RBS	23/05/2023
2.0	Updated to address review comments	EZE	18/09/2023
3.0	Expanded to include components from H2 Pre-heating System	EZE	30/08/2024
4.0	Updated following ATEX Register (K02-002)	RBS	15/11/2024
5.0	Updated following ATEX Register	KHE	18/03/2025

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1.0 Purpose

The purpose of this document is to provide the ATEX certificates of the equipment for hazardous area of the 1MW fuel cell container (MEGABLOCK) provided by Ballard Power Systems Europe to CrossWind.

2.0 References

Table 1 – List of references.

Document ID	Document Title	Source
K559-2254-DM-PRO-001	Supplier Documentation Requirements Listing (SDRL) Definitions	KBR
K559-2254-CWIWP4202202-K02-002	ATEX Register	Ballard

3.0 List of ATEX Equipment

The ATEX Register lists the following ATEX equipment as shown in the table below. For more details, please refer to the ATEX Register.

Table 2 – List of ATEX equipment (extract from document K559-2254-CWIWP4202202-K02-002).

Location	Manufacturer	Model Type Catalogue Number	Serial Number	ATEX Certification Marking	Reference Document	ATEX Certificate Number	Installation Zone	Notes / Comments	P.O	Vendor	Skid /Package	Barrier Calculation ref.	Non-electrical Equipment	Special Conditions for Safe Use	
=HA01+DA02 - H2 Supply System	IFM Electronic AS	LM701A LMACE-E12E-Q9KG-1/US/3D/3G	10000160523	II 3G Ex nA IIC T4 Gc	K559-2254-CWIWP4202202-C03-001	8003330	Zone 2		8517643	IFM Electronic AS	A-80000	No	No	No	
=HA01+DA02 - H2 Supply System	IFM Electronic AS	EVC14A ADOGH040VAT0025H04/3G/2D	N/A	II 3G Ex ec IIC Gc	K559-2254-CWIWP4202202-E03-003	BVS 08ATEX E 109U	Zone 2		8520141	IFM Electronic AS	A-80000	No	No		
=HA01+DA02 - H2 Supply System	HUBA Controls AG	Pressure Transducer 520 Series	N/A	Ex II 1/2G Ex ia IIC T4 Ga/Gb	K559-2254-CWIWP4202202-C03-001	SEV 10 ATEX 0145	Zone 2		8516809	HUBA Controls AG	A-80000	K559-2254-CWIWP420220	No	No	
=LA01+UC42 - EX Barrier Box	IFM Electronic AS	EN C03A ADOGH040MSN0010H04/1G/1D	N/A	II 2(1) Ex ia IIC T6 Gb	K559-2254-CWIWP4202202-E03-008	BVS 11ATEX E 009X	Zone 2		8520269	IFM Electronic AS	A-80000	K559-2254-CWIWP420220	No	Yes	
=LA01+UC42 - EX Barrier Box	PR Electronics AS	9106-B1B	N/A	II (1) G [Ex ia Ga] IIC/IIB/IIA	K559-2254-CWIWP4202202-E03-008	DEKRA 11ATEX0244 X	No Zone		146113-1	PR Electronics AS	A-80000	K559-2254-CWIWP420220	No	Yes	
=HA01+DA02 - H2 Supply System	IFM Electronic AS	TT1050 TT-100KBBD10……/US/	100000113592	N/A	K559-2254-CWIWP4202202-C03-001	N/A	Zone 2	Simple apparatus acc	8516509	IFM Electronic AS	A-80000	K559-2254-CWIWP420220	No	No	
=LA01+UC42 - EX Barrier Box	IFM Electronic AS	EN C03A ADOGH040MSN0010H04/1G/1D	N/A	Ex ia IIC T6 Gb	K559-2254-CWIWP4202202-E03-008	BVS 11ATEX E 009X	Zone 2		8520269	IFM Electronic AS	A-80000	K559-2254-CWIWP420220	No	Yes	
=LA01+UC42 - EX Barrier Box	PR Electronics AS	9113B-U9	N/A	II (1) G [Ex ia Ga] IIC/IIB/IIA	K559-2254-CWIWP4202202-E03-008	IECEx 07ATEX0148 X	No Zone		8520371	PR Electronics AS	A-80000	K559-2254-CWIWP420220	No	Yes	
=HA01+DA02 - H2 Supply System	JEVI Heating Elements AS	D-8640	340386-1	Ex d IIC T4 Gb	K559-2254-CWIWP4202202-C03-001	ISSeP 08 ATEX 008X	Zone 2		8517682	JEVI Heating Elements AS	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Lapp Group	OLFLEX® CLASSIC 130H	N/A	N/A	K559-2254-CWIWP4202202-E03-003	N/A	Zone 2		N/A	Lapp Group	A-80000	No	No	No	
=HA01+DA02 - H2 Supply System	HAWKE	ICG 653 UNIV Os M20	N/A	EX db IIC Gb and EX eb IIC GB	K559-2254-CWIWP4202202-C03-001	IECEx_CML18.0131X	Zone 2		8517682	HAWKE	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	JEVI Heating Elements AS	D-8640	340386-2	Ex d IIC T4 Gb	K559-2254-CWIWP4202202-C03-001	ISSeP 08 ATEX 008X	Zone 2		8517682	JEVI Heating Elements AS	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Lapp Group	OLFLEX® CLASSIC 130H	N/A	N/A	K559-2254-CWIWP4202202-E03-003	N/A	Zone 2		N/A	Lapp Group	A-80000	No	No	No	
=HA01+DA02 - H2 Supply System	HAWKE	ICG 653 UNIV Os M20	N/A	EX db IIC Gb and EX eb IIC GB	K559-2254-CWIWP4202202-C03-001	IECEx_CML18.0131X	Zone 2		8517682	HAWKE	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP24068090	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8516694	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP23091327	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8514701	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP24068090	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8516694	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP23091327	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8514701	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP23091327	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8514701	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP23091327	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8514701	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP23091327	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8514701	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP23091327	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8514701	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP23091327	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8514701	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Emerson ASCO	NF X E210D488E 24/DC	ZP23091327	II 2 G D Ex db IIC T2...T6 Gb	K559-2254-CWIWP4202202-C03-001	LCIE 00 ATEX 6008 X	Zone 2		8514701	Emerson ASCO	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Eaton Corporation	ADU102904	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	ITS16ATEX101339X R.1	Zone 2		CD3034021	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Roxtec International AB	EXRSB0500002121	202439	II 2G EX e IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx NEM 12.0014X	Zone 2		8520214	Roxtec International AB	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Roxtec International AB	EXRSB0500002121	202439	II 2G EX e IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx NEM 12.0014X	Zone 2		8520214	Roxtec International AB	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Roxtec International AB	EXRSB0500002121	202439	II 2G EX e IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx NEM 12.0014X	Zone 2		8520214	Roxtec International AB	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Roxtec International AB	EXRSB0500002121	202439	II 2G EX e IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx NEM 12.0014X	Zone 2		8520214	Roxtec International AB	A-80000	No	No	Yes	
=HA01+DA02 - H2 Supply System	Roxtec International AB	EXRSB0500002121	202439	II 2G EX e IIC Gb	K559-2254-CWIWP4202202-C03-001	IECEx NEM 12.0014X	Zone 2		8520214	Roxtec International AB	A-80000	No	No	Yes	
=HA01+DA02 - Non EX Box	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-E03-002	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - Non EX Box	Eaton Corporation	RDU100604	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-E03-002	ITS16ATEX101339X R.1	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - Exterior location, hydroj	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-E03-002	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - Exterior location, hydroj	Eaton Corporation	RDU100604	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-E03-002	ITS16ATEX101339X R.1	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - Exterior location, hydroj	HAWKE	501/421/O M20 421OM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-E03-002	IECEx CML 19.0045X	Zone 2		CD3034005	Semcomaritime	A-80000	No	No	Yes	
=HA01+DA02 - Exterior location, hydroj	Eaton Corporation	RDU100604	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-E03-002	ITS16ATEX101339X R.1	Zone 2		CD3034005	Semcomaritime	A-80001	No	No	Yes	
=HA01+DA02 - Exterior location, hydroj	HAWKE	501/421/A M20 421AM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-C06-001	IECEx CML 19.0045X	Zone 2		CD3034021	Semcomaritime	A-80002	No	No	Yes	
=HA01+DA02 - Exterior location, hydroj	Eaton Corporation	RDU100704	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-C06-001	ITS16ATEX101339X R.1	Zone 2		CD3034005	Semcomaritime	A-80003	No	No	Yes	
=HA01+DA02 - Exterior location, hydroj	HAWKE	501/421/A M20 421AM20	N/A	Ex db IIC Gb Ex eb IIC Gb	K559-2254-CWIWP4202202-E03-002	IECEx CML 19.0045X	Zone 2		CD3034021	Semcomaritime	A-80004	No	No	Yes	
=HA01+DA02 - Exterior location, hydroj	Eaton Corporation	RDU100704	N/A	II 2G Ex db IIC Gb II 2G Ex eb IIC Gb	K559-2254-CWIWP4202202-E03-002	ITS16ATEX101339X R.1	Zone 2		CD3034005	Semcomaritime	A-80005	No	No	Yes	

4.0 ATEX Certificates

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4.1 BL01 – Electronic Level Sensor, LMT01A

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ifm electronic

EU – Konformitätserklärung

EU declaration of conformity

Déclaration de conformité UE

ifm electronic gmbh
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Germany

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Internet: www.ifm.com

Die EU-Konformitätserklärung gilt für folgende Geräte:	The EU declaration of conformity applies to the following units:	La déclaration de conformité UE s'applique aux appareils suivants:

Elektronische Füllstandssensoren der Produktfamilie
Electronic level sensors of the product family
Capteurs des niveau électroniques de la famille de produits

LMTxxA

Die alleinige Verantwortung für die Ausstellung dieser Konformitäts-erklärung trägt der Hersteller.	This declaration of conformity is issued under the sole responsibility of the manufacturer.	La présente déclaration de conformité est établie sous la seule responsabilité du fabricant.
Wir bestätigen die Übereinstimmung mit den wesentlichen Anforderungen der europäischen Richtlinie(n):	We confirm the conformity to the essential requirements of the European directive(s):	Nous confirmons la conformité aux exigences essentielles de la (des) directive(s) européenne(s):
2011/65/EU **2014/30/EU** **2014/34/EU**	**2011/65/EU** **2014/30/EU** **2014/34/EU**	**2011/65/UE** **2014/30/UE** **2014/34/UE**
Folgende Norm(en) wurde(n) angewandt:	The following standard(s) was (were) applied:	La (Les) norme(s) suivante(s) a (ont) été appliquée(s):

EN IEC 63000: 2018
EN 61000-6-3: 2007 +A: 2011 + AC: 2012
EN 61000-6-4: 2007 +A1: 2011
EN IEC 61000-6-2: 2019
EN 60079-15: 2010
EN 60079-31: 2014
EN IEC 60079-0: 2018

Kennzeichnung	Marking	Marquage
	Ex II 3D Ex tc IIIC T90°C Dc **Ex II 3G Ex nA IIC T4 Gc**	

Artikel - Nr.: 80304277

Tettnang, 20.07.2021
(Ort und Datum der Ausstellung)
(Place and date of issue)
(Lieu et date de l'établissement)

(Unterschrift) i.V. Alfred Wagner /
(Signature) Head of development
(Signature)

Dokument-Nr.: 8003330

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ifm electronic

Declaración UE de conformidad

Dichiarazione di conformità UE

EU – försäkran om överensstämmelse

ifm electronic gmbh
Friedrichstraße 1
45128 Essen
Germany

Telefon: +49 (0)201 / 24 22 - 0
Telefax: +49 (0)201 / 24 22 - 1200
Internet: www.ifm.com

La declaración UE de conformidad se aplica a los siguientes productos:	La dichiarazione di conformità UE si applica ai seguenti dispositivi:	EU-försäkran om överensstämmelse gäller för följande enheter:

Sensores electrónicos de nivel de la gama de productos
Sensori elettronici di livello della serie
Elektroniska nivågivare i produktfamiljen

LMTxxA

La presente declaración de conformidad se expide bajo la exclusiva responsabilidad del fabricante.	La presente dichiarazione di conformità è rilasciata sotto la responsabilità esclusiva del fabbricante.	Tillverkaren har ensam ansvar för utfärdandet av denna försäkran om överensstämmelse.
Certificamos la conformidad con los requisitos esenciales de la(s) directiva(s) europea(s):	Confermiamo la conformità con i requisiti essenziali della(e) direttiva(e) europea(e):	Vi intygar att alla väsentliga krav i den (de) europeiska direktivet (direktiven) är uppfyllda:
2011/65/UE **2014/30/UE** **2014/34/UE**	**2011/65/UE** **2014/30/UE** **2014/34/UE**	**2011/65/EU** **2014/30/EU** **2014/34/EU**
Se ha(n) aplicado la(s) siguiente(s) norma(s):	La(e) seguente(i) norma(e) è(sono) stata(e) applicata(e):	Följande standard(er) tillämpas:

EN IEC 63000: 2018
EN 61000-6-3: 2007 +A: 2011 + AC: 2012
EN 61000-6-4: 2007 +A1: 2011
EN IEC 61000-6-2: 2019
EN 60079-15: 2010
EN 60079-31: 2014
EN IEC 60079-0: 2018

Marcado	Contrassegno	Märkning
	Ⓔx II 3D Ex tc IIIC T90°C Dc Ⓔx II 3G Ex nA IIC T4 Gc	

N° de artículo: 80304277

Tettnang, 20.07.2021
(Lugar y fecha de expedición)
(Luogo e data del rilascio)
(Ort och datum för utfärdande)

(Firma) i.V. Alfred Wagner /
(Firma) Head of development
(Underskrift)

Nº de documento: 8003330

4.2 BL01-WG01 – Connecting Cable with Socket for Level Sensor, EVC14A

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DEKRA

1 # EU-Baumusterprüfbescheinigung

2 **Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014**

3 Nr. der EU-Baumusterprüfbescheinigung: **BVS 08 ATEX E 109 U** Ausgabe: **01**

4 Komponente: **Kabeldosen und -stecker Typ EVC** A**

5 Hersteller: **ifm electronic gmbh**

6 Anschrift: **Friedrichstraße 1, 45128 Essen, Deutschland**

7 Die Bauart dieses Produktes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Baumusterprüfbescheinigung festgelegt.

8 Die Zertifizierungsstelle der DEKRA Testing and Certification GmbH, benannte Stelle Nr. 0158 gemäß Artikel 17 der Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014, bescheinigt, dass das Produkt die wesentlichen Gesundheits- und Sicherheitsanforderungen für die Konzeption und den Bau von Produkten zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie erfüllt.
Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfprotokoll BVS PP 08.2137 EU niedergelegt.
Diese Ausgabe der EU-Baumusterprüfbescheinigung ersetzt die bisherige Ausgabe der EG-Baumusterprüfbescheinigung BVS 08 ATEX E 109 U inklusive der Nachträge 1 bis 2.

9 Die Einhaltung der Grundlegenden Sicherheits- und Gesundheitsanforderungen wurde überprüft durch Berücksichtigung von:

EN IEC 60079-0:2018	**Allgemeine Anforderungen**
EN IEC 60079-7:2015 + A1:2018	**Erhöhte Sicherheit „e“**
EN 60079-31:2014	**Schutz durch Gehäuse „t“**

10 Das Zeichen „U“ hinter der Zertifikatsnummer weist darauf hin, dass dieses Zertifikat nicht mit Zertifikaten für Geräte oder Schutzsysteme verwechselt werden darf. Diese Teilzertifizierung kann als Grundlage für die Zertifizierung eines Geräts oder Schutzsystems verwendet werden. Die „Einschränkungen für die Verwendung“ ist unter Punkt 17 dieser Bescheinigung aufgeführt.

11 Diese EU-Baumusterprüfbescheinigung bezieht sich nur auf den technischen Entwurf des angegebenen Produkts gemäß der Richtlinie 2014/34/EU.
Weitere Anforderungen der Richtlinie gelten für den Herstellungsprozess und die Bereitstellung dieses Produkts. Diese sind nicht Gegenstand der Zertifizierung.

12 Die Kennzeichnung des Produktes muss die folgenden Angaben enthalten:

Ex **II 2D Ex tb IIIC Db**
II 3G Ex ec IIC Gc

DEKRA Testing and Certification GmbH
Bochum, 17.02.2023

Geschäftsführer

DEKRA Testing and Certification GmbH, Handwerkstraße 15, 70565 Stuttgart
Zertifizierungsstelle: Dinnendahlstraße 9, 44809 Bochum
Telefon +49.234.3696-400, Fax +49.234.3696-401, DTC-Certification-body@dekra.com

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13 **Anlage zur**

14 **EU-Baumusterprüfbescheinigung**

BVS 08 ATEX E 109 U Ausgabe 01

15 **Beschreibung des Produktes**

15.1 **Gegenstand und Typ**

Kabeldosen und -stecker Typ EVC**A

** - Kabellänge (0,1 ...100 m)

15.2 **Beschreibung**

Die 90° abgewinkelten M12 Kabeldosen Typ EVC0*A haben 4 Kontakte und ein angespritztes 4-adriges Kabel. Sie sind mit einer Edelstahl-Überwurfmutter versehen, die zur mechanischen Befestigung des Kabels an den Betriebsmitteln verwendet wird. Die Fixierung wird über eine spezielle Befestigungstechnik sichergestellt, die über eine Rasterung ein ungewolltes Lösen der Mutter verhindert. Die Kabeldosen und -stecker Typ EVC**A sind in der Zündschutzart Erhöhte Sicherheit „ec" und Schutz durch Gehäuse „tb" ausgeführt.

Grund für diese Ausgabe

- Umstellung auf die Richtlinie 2014/34/EU
- Aktualisierung der Normen EN IEC 60079-0:2018 und EN 60079-31:2014, sowie Umstellung von EN 60079-15:2010 auf EN IEC 60079-7:2015+A1:2018.

15.3 **Kenngrößen**

Bemessungsspannung		AC/DC 60 V
Stromtragfähigkeit		2 A
Umgebungstemperaturbereich	-	20 °C ≤ T_a ≤ 60 °C
Anzugsdrehmoment der Überwurfmutter		1,2… 1,5 Nm

16 **Prüfprotokoll**

BVS PP 08.2137 EU, Stand 17.02.2023

17 **Einschränkungen für die Verwendung**

Die Kabeldosen und -stecker müssen an ein metallisches Gegenstück angeschlossen werden, das die IP-Anforderungen gemäß EN IEC 60079-7 und EN 60079-31 erfüllt und eine M12-Größe hat.

Die Kabeldosen und -stecker müssen gegen eine Schlagenergie > 4 J geschützt sein.

Die Kabeldosen und -stecker müssen gegen UV-Licht geschützt sein.

Die Kontermutter muss mit einem Anzugsmoment von 1,2...1,5 Nm angezogen werden.

Die Kabel sind fest zu verlegen und gegen mechanische Beschädigungen zu schützen.

DEKRA Testing and Certification GmbH, Handwerkstraße 15, 70565 Stuttgart
Zertifizierungsstelle: Dinnendahlstraße 9, 44809 Bochum
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18 **Wesentliche Gesundheits- und Sicherheitsanforderungen**

Erfüllt durch Einhaltung der unter Punkt 9 genannten Anforderungen.

19 **Zeichnungen und Unterlagen**

Die Zeichnungen und Unterlagen sind in dem vertraulichen Prüfprotokoll gelistet.

DEKRA Testing and Certification GmbH, Handwerkstraße 15, 70565 Stuttgart
Zertifizierungsstelle: Dinnendahlstraße 9, 44809 Bochum
Telefon +49.234.3696-400, Fax +49.234.3696-401, DTC-Certification-body@dekra.com

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Translation

1 # EU-Type Examination Certificate

2 **Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014**

3 EU-Type Examination Certificate Number: **BVS 08 ATEX E 109 U** Issue: **01**

4 Component: **Sockets and plugs type EVC**A**

5 Manufacturer: **ifm electronic gmbh**

6 Address: **Friedrichstraße 1, 45128 Essen, Germany**

7 This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 08.2137 EU.
This issue of the EU-Type Examination Certificate replaces the previous issue of the EC-Type Examination Certificate BVS 08 ATEX E 109 U including supplements 1 to 2.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018	**General requirements**
EN IEC 60079-7:2015 + A1:2018	**Increased Safety "e"**
EN 60079-31:2014	**Protection by Enclosure "t"**

10 The sign "U" placed behind the certificate number indicates that this certificate should not be confounded with certificates issued for equipment or protective systems. This partial certification may be used as a basis for certification of an equipment or protective systems. "Schedule of limitations" is listed under item 17 of this certificate.

11 This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

II 2D Ex tb IIIC Db
II 3G Ex ec IIIC Gc

DEKRA Testing and Certification GmbH
Bochum, 2023-02-17

Signed: Dr. Rolf Krökel

Managing Director

This certificate may only be reproduced in its entirety and without any change.

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 08 ATEX E 109 U issue 01

15 **Product description**

15.1 **Subject and type**

Sockets and plugs type EVC**A

**-length of cable (0.1 ...100 m)

15.2 **Description**

The 90° angled M12 sockets type EVC0*A have 4 pins and a potted 4-wire cable. They are equipped with a stainless steel lock nut to fasten the socket at the equipment. A special fastening technique protects against unintended loosening. The plugs and sockets type EVC**A are built in type of protection Increased Safety “ec” and Protection by Enclosure “tb”.

Reason for this issue

- Change to Directive 2014/34/EU
- The reason of the supplement is the updating to the standards EN IEC 60079-0:2018 and EN 60079-31:2014, as well as change from EN 60079-15:2010 to EN IEC 60079-7:2015+A1:2018.

15.3 **Parameters**

Rated voltage AC/DC	60 V
Current carrying capacity	2 A
Ambient temperature range	-20 °C ≤ T_a ≤ 60 °C
Tightening torque of lock nut	1.2… 1.5 Nm

16 **Report Number**

BVS PP 08.2137 EU, as of 2023-02-17

17 **Schedule of limitations**

The sockets have to be connected to a metallic counterpart which meets the IP requirements according to EN IEC 60079-7 and EN 60079-31 which has a M12 size.

The sockets have to be protected against an impact energy > 4 J.

The sockets have to be protected against UV emitting light.

The lock nut has to be fastened with a tightening torque of 1.2…1.5 Nm.

The cables have to be installed in a fixed manner and have to be protected against mechanical damage.

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18 **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

19 **Remarks and additional information**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2023-02-17
BVS-Pz/Mu A 20220792 / 342813900

Managing Director

DEKRA Testing and Certification GmbH, Handwerkstr. 15, 70565 Stuttgart, Germany
Certification body: Dinnendahlstr. 9, 44809 Bochum, Germany
Phone +49.234.3696-400, Fax +49.234.3696-401, e-mail DTC-Certification-body@dekra.com

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4.3 BP01 – Pressure Sensor, 520 Series

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EU-Type Examination Certificate

(1)

(2) Equipment or protective system intended for use in potentially explosive atmospheres **- Directive 2014/34/EU**

(3) Certificate number: **SEV 10 ATEX 0145**

(4) Product: Pressure transmitter, Types: 520.*, 522.*, 527.*, 528.*

(5) Manufacturer: Huba Control AG

(6) Address: Industriestrasse 17, 5436 Würenlos, Switzerland

(7) The equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) Eurofins, notified body No. 1258, in accordance with article 17 of Directive 2014/34/EU of the European parliament and of the council, dated 26 February 2014, certifies that this product has been found to comply with the essential health and safety requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report no 21CH-00562.X04

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

EN IEC 60079-0:2018
EN 60079-11:2012
EN 60079-26:2015

Except in respect of those requirements listed at item 18 of the schedule.

(10) If the sign «X» is placed after the certificate number, it indicates that the product is subjected to special conditions for safe use specified in the schedule to this certificate. The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

(11) This EU type examination certificate relates only to design and construction of the specified product. Further requirements of this directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II 1/2G Ex ia IIC T4 Ga/Gb
II 1/2D Ex ia IIIC T125 °C Da/Db

Eurofins Electric & Electronic Product Testing AG
Notified Body ATEX

Martin Plüss
Product Certification

www.eurofins.ch Fehraltorf, 2021-12-16 Issue: 4 Page 1 of 2

T8a_V01

eurofins | E&E

(13) # Appendix

(14) **EU-Type Examination Certificate no. SEV 10 ATEX 0145**

(15) **Description of product**

The pressure transmitter is used to measure relative and absolute pressure of gases, liquids and refrigerants (incl. ammonia). The pressure transmitter differ in the pressure measuring cell and the pressure range. For the measuring of the pressure the signal of a pressure measuring cell made of stainless steel (type 520.* / 522.*) or made of ceramic (type 527.* / 528.*) with a membrane is converted into a 4…20 mA output signal by the electronic.
The pressure transmitter can be installed in the partition which separates the area, which requires apparatus of category 1 from the area, which requires apparatus of category 2. The pressure measuring cell may be used only for flammable substances for which the membranes of cells are sufficiently chemically and corrosion resistant.
Effective internal inductance and capacitance for versions with plugs complying with EN 175301-80 A (IP65) or M12x1 (IP67)

Classification of installation and use:	stationary
Ingress protection:	IP65 with connector EN 175301-803A IP67 with connector M12x1
Rated ambient temperature range (°C):	-25 °C ≤ Tamb ≤ +85 °C
Rated medium temperature range (°C):	-30 °C … +120 °C
Rated ambient temperature range (°C) for Ex Components:	N/A

Ratings:
Connection to certified intrinsically safe resistive circuits with maximum values:

Ui ≤ 30 V
Ii ≤ 100 mA
Pi ≤ 750 mW
Ci = 0 nF
Li = 0 µH

Output:
4 … 20 mA

(16) **Report number** 21CH-00562.X04

(17) **"Special conditions for safe use" / "Schedule of limitations"**
None

(18) **Essential health and safety requirements**
In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item 9, the following are considered relevant to this product, and conformity is demonstrated in the report:

Clause **Subject**
None

(19) **Drawings and Documents**
See test report "Manufacturer's Documents"

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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

Certificate No.:	**IECEx SEV 16.0007**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2018-03-12) Issue 0 (2016-05-19)
Date of Issue:	2021-12-16		
Applicant:	**Huba Control AG** Industriestrasse 17 5436 Würenlos **Switzerland**		
Equipment:	**Pressure transmitter Type 520.*, 522.*, 527.*, 528.***		
Optional accessory:			
Type of Protection:	**ia**		
Marking:	Ex ia IIC T4 Ga/Gb Ex ia IIIC T125 °C Da/Db		

SWISS ACCREDITATION sas.admin.ch SCESp 0127

Approved for issue on behalf of the IECEx Certification Body: **Martin Plüss**

Position: **Manager Product Certification**

Signature: (for printed version)

Date: 2021-12-16

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:

Eurofins Electric & Electronic Product Testing AG
Luppmenstrasse 3
8320 FEHRALTORF .
Switzerland

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IECEx Certificate of Conformity

Certificate No.: **IECEx SEV 16.0007** Page 2 of 5

Date of issue: 2021-12-16 Issue No: 2

Manufacturer: **Huba Control AG**
Industriestrasse 17
5436 Würenlos
Switzerland

Additional manufacturing locations:

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 equipment 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11:2011 Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-26:2014-10 Edition:3.0	Explosive atmospheres – Part 26: Equipment with Equipment Protection Level (EPL) Ga

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 equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

CH/SEV/ExTR16.0008/02

Quality Assessment Report:

CH/SEV/QAR12.0006/06

IECEx Certificate of Conformity

Certificate No.: **IECEx SEV 16.0007** Page 3 of 5

Date of issue: 2021-12-16 Issue No: 2

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Pressure transmitter Type 520.*, 522.*, 527.*, 528.*

The pressure transmitter is used to measure relative and absolute pressure of gases, liquids and refrigerants (incl. ammonia). The pressure transmitter differ in the pressure measuring cell and the pressure range. For the measuring of the pressure the signal of a pressure measuring cell made of stainless steel (type 520.* / 522.*) or made of ceramic (type 527.* / 528.*) with a membrane is converted into a 4...20 mA output signal by the electronic.

The pressure transmitter can be installed in the partition which separates the area, which requires apparatus of category 1 from the area, which requires apparatus of category 2. The pressure measuring cell may be used only for flammable substances for which the membranes of cells are sufficiently chemically and corrosion resistant.

Effective internal inductance and capacitance for versions with plugs complying with EN 175301-80 A (IP65) or M12x1 (IP67)

SPECIFIC CONDITIONS OF USE: NO

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IECEx Certificate of Conformity

Certificate No.: **IECEx SEV 16.0007** Page 4 of 5

Date of issue: 2021-12-16 Issue No: 2

Equipment (continued):

Classification of installation and use ..... : stationary
Ingress protection ..... : IP65 with connector EN 175301-803A
IP67 with connector M12x1
Rated ambient temperature range (°C)..... : -25 °C ≤ Tamb ≤ +85 °C
Rated medium temperature range (°C) ..... : -30 °C ... +120 °C
Rated ambient temperature range (°C) for Ex Components ....: N/A

Rating:
Power Supply:

Connection to certified intrinsically safe resistive circuits with maximum values:

U_i ≤ 30 VDC
I_i ≤ 100 mA
P_i ≤ 0.75 W
L_i = 0 µH
C_i = 0 nF

Output:
4 ... 20 mA

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IECEx Certificate of Conformity

Certificate No.: **IECEx SEV 16.0007** Page 5 of 5

Date of issue: 2021-12-16 Issue No: 2

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
All previous addendums have been combined in a new file with current test reports and drawings.

SWISS ACCREDITATION
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SCESp 0236

4.4 BP01-WG01 – Connecting Cable with Socket for Pressure Sensor, ENC03A

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DEKRA

EU-Baumusterprüfbescheinigung

Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014

3 Nr. der EU-Baumusterprüfbescheinigung: **BVS 11 ATEX E 009 X** Ausgabe: **01**

4 Gerät: **Steckverbinder Typ ENC**A**

5 Hersteller: **ifm electronic gmbh**

6 Anschrift: **Friedrichstraße 1, 45128 Essen, Deutschland**

7 Die Bauart dieses Produktes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Baumusterprüfbescheinigung festgelegt.

8 Die Zertifizierungsstelle der DEKRA Testing and Certification GmbH, benannte Stelle Nr. 0158 gemäß Artikel 17 der Richtlinie 2014/34/EU des Europäischen Parlaments und des Rates vom 26. Februar 2014, bescheinigt, dass das Produkt die wesentlichen Gesundheits- und Sicherheitsanforderungen für die Konzeption und den Bau von Produkten zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie erfüllt.
Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfprotokoll BVS PP 11.2018 EU niedergelegt.
Diese Ausgabe der EU-Baumusterprüfbescheinigung ersetzt die bisherige Ausgabe der EG-Baumusterprüfbescheinigung BVS 11 ATEX E 009 X inklusive des Nachtrags 1.

9 Die Einhaltung der Grundlegenden Sicherheits- und Gesundheitsanforderungen wurde überprüft durch Berücksichtigung von:

EN IEC 60079-0:2018	**Allgemeine Anforderungen**
EN 60079-11:2012	**Eigensicherheit „i"**

10 Falls das Zeichen „X" hinter der Bescheinigungsnummer steht, bedeutet dies, dass das Produkt den unter Punkt 17 dieser Bescheinigung aufgeführten „Besondere Bedingungen für die Installation und den Betrieb" unterliegt.

11 Diese EU-Baumusterprüfbescheinigung bezieht sich nur auf den technischen Entwurf des angegebenen Produkts gemäß der Richtlinie 2014/34/EU.
Weitere Anforderungen der Richtlinie gelten für den Herstellungsprozess und die Bereitstellung dieses Produkts. Diese sind nicht Gegenstand der Zertifizierung.

12 Die Kennzeichnung des Produktes muss die folgenden Angaben:

II 1G Ex ia IIB T6 Ga	**II 1G Ex ia IIB T5 Ga**	**II 1D Ex ia IIIC T_{200}70°C Da**
II 2G Ex ia IIC T6 Gb	**II 2G Ex ia IIC T5 Gb**	**for -20 °C ≤ T_a ≤ +60 °C**
II 1D Ex ia IIIB T_{200}85°C Da	**II 1D Ex ia IIIB T_{200}95°C Da**	
for -25 °C ≤ T_a ≤ +75 °C	**for -25 °C ≤ T_a ≤ +85 °C**	

DEKRA Testing and Certification GmbH
Bochum, 06.09.2023

Geschäftsführer

DEKRA Testing and Certification GmbH, Handwerkstraße 15, 70565 Stuttgart
Zertifizierungsstelle: Dinnendahlstraße 9, 44809 Bochum
Telefon +49.234.3696-400, Fax +49.234.3696-401, DTC-Certification-body@dekra.com

DAkkS Deutsche Akkreditierungsstelle D-ZE-17438-02-00

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13 **Anlage zur**

14 **EU-Baumusterprüfbescheinigung**

BVS 11 ATEX E 009 X Ausgabe 01

15 **Beschreibung des Produktes**

15.1 **Gegenstand und Typ**

Steckverbinder Typ ENC**A

In der vollständigen Bezeichnung werden anstelle der ** Ziffern eingefügt, die Änderungen kennzeichnen wie: Art des Kabels, Länge des Kabels, Konstruktion gerade oder gebogen.

15.2 **Beschreibung**

Der Steckverbinder wird bei eigensicheren Geräten für den Anschluss der eigensicheren Stromkreise verwendet.
Die Steckdose ist ein einfaches elektrisches Betriebsmittel.
Der Steckverbinder hat ein fest angeschlossenes Kabel und ist konstruktionsbedingt in der Lage, zwei verschiedene eigensichere Stromkreise bis zu einer Summe von Spannungen von 30 V zu führen; in diesem Fall muss das Kabel wirksam gegen Beschädigung geschützt werden.

Grund für diese Ausgabe:

- Umstellung auf die Richtlinie 2014/34/EU
- Aktualisierung der Norm EN IEC 60079-0:2018
- Modifikation des Umgebungstemperaturbereichs
- Erweiterung der "Besondere Bedingungen für die Verwendung"

15.3 **Kenngrößen**

Spannung	U_i	DC	30	V
Strom	I_i		1	A
Leistung	P_i			
Für den Einsatz in Gruppe II			1	W
Für den Einsatz in Gruppe III			1	W
Umgebungstemperaturbereich (mit Ausnahme von IIIC)	T_a	-25 °C bis +75 °C / +85 °C		
Für Gruppe IIIC	T_a	-20 °C bis +60 °C		

Für Umgebungstemperaturen bis 75 °C sind die Sensoren als T6 bzw. T_{200} 85 °C klassifiziert (ausgenommen Gruppe IIIC).
Für Umgebungstemperaturen bis 85 °C sind die Sensoren als T5 bzw. T200 95 °C klassifiziert (ausgenommen Gruppe IIIC).

Der Steckverbinder darf zwei verschiedene eigensichere Stromkreise bis zu einer Summe der Spannungen von 30 V führen.

Die Werte der internen Kapazität und Induktivität hängen von der Länge des fest angeschlossenen Kabels ab und werden wie folgt berechnet:

Interne Kapazität	C_i	0,1 nF/m
Interne Induktivität	L_i	2 µH/m

DEKRA Testing and Certification GmbH, Handwerkstraße 15, 70565 Stuttgart
Zertifizierungsstelle: Dinnendahlstraße 9, 44809 Bochum
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16 **Prüfprotokoll**

BVS PP 11.2018 EU, Stand 06.09.2023

17 **Besondere Bedingungen für die Installation und den Betrieb**

17.1 Die Steckverbinder und das angeschlossene Kabel müssen so installiert werden, dass intensive elektrostatische Aufladung ausgeschlossen ist.

17.2 Aus Platzgründen kann die Kennzeichnung nicht vollständig auf dem Gerät angebracht werden. Die vollständige Kennzeichnung ist der Betriebsanleitung zu entnehmen.

17.3 Das Kabel und der Steckverbinder müssen fest verlegt und wirksam gegen mechanische Beschädigungen geschützt werden.

17.4 Für Gruppe IIIC:

- Der Betrieb des Steckverbinders ohne ein geeignetes M12-Gegenstück ist nicht zulässig. Das M12-Gegenstück muss die IP-Anforderungen nach IEC 60079-11 erfüllen.
- Beim Öffnen des Steckverbinders muss das Eindringen von Staub vermieden werden.
- Der Steckverbinder muss vor UV-Strahlung geschützt werden.
- Die Überwurfmutter muss mit einem Anzugsdrehmoment von 1,2...1,5 Nm angezogen werden.

18 **Wesentliche Gesundheits- und Sicherheitsanforderungen**

Erfüllt durch Einhaltung der unter Punkt 9 genannten Anforderungen.

19 **Zeichnungen und Unterlagen**

Die Zeichnungen und Unterlagen sind in dem vertraulichen Prüfprotokoll gelistet.

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Translation

1 # EU-Type Examination Certificate

2 **Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014**

3 EU-Type Examination Certificate Number: **BVS 11 ATEX E 009 X** Issue: **01**

4 Equipment: **Socket type ENC**A**

5 Manufacturer: **ifm electronic gmbh**

6 Address: **Friedrichstraße 1, 45128 Essen, Germany**

7 This product and any acceptable variations thereto are specified in the appendix to this certificate and the documents referred to therein.

8 DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in the confidential Report No. BVS PP 11.2018 EU.
This issue of the EU-Type Examination Certificate replaces the previous issue of the EC-Type Examination Certificate BVS 11 ATEX E 009 X including supplement 1.

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018	**General requirements**
EN 60079-11:2012	**Intrinsic Safety "i"**

10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 17 of this certificate.

11 This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance with the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of the product shall include the following:

II 1G Ex ia IIB T6 Ga **II 2G Ex ia IIC T6 Gb** **II 1D Ex ia IIIB T_{200}85°C Da** **for -25 °C ≤ T_a ≤ +75 °C**	**II 1G Ex ia IIB T5 Ga** **II 2G Ex ia IIC T5 Gb** **II 1D Ex ia IIIB T_{200}95°C Da** **for -25 °C ≤ T_a ≤ +85 °C**	**II 1D Ex ia IIIC T_{200}70°C Da** **for -20 °C ≤ T_a ≤ +60 °C**

DEKRA Testing and Certification GmbH
Bochum, 2023-09-06

Signed: Oliver Brumm

Managing Director

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DAkkS Deutsche Akkreditierungsstelle D-ZE-17438-02-00

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13 **Appendix**

14 **EU-Type Examination Certificate**

BVS 11 ATEX E 009 X issue 01

15 **Product description**

15.1 **Subject and type**

Steckverbinder type ENC**A

In the complete denomination instead of the ** numerals will be inserted which characterize modifications as: kind of cable, length of cable, construction straight or bent.

15.2 **Description**

The socket is used as intrinsically safe apparatus for the connection of the intrinsically safe circuits.
The socket is a simple apparatus.
The socket has a permanently connected cable and is due to construction able to carry two different intrinsically safe circuits up to a sum of voltages of 30 V; in this case the cable must be effectively protected against damage.

Reason for this issue:

- Change to Directive 2014/34/EU
- Standards update EN IEC 60079-0:2018
- Modification of the ambient temperature range
- Extension of the "Special conditions for use"

15.3 **Parameters**

Voltage	U_i	DC	30	V
Current	I_i		1	A
Power	P_i			
For use in Group II			1	W
For use in Group III			1	W
Ambient temperature range (except IIIC)	T_a	-25 °C up to +75 °C / +85 °C		
For Group IIIC	T_a	-20 °C up to 60 °C		

For ambient temperatures up to 75 °C, the sensors are classified as T6 resp. T_{200} 85 °C (except Group IIIC).
For ambient temperatures up to 85 °C, the sensors are classified as T5 resp. T_{200} 95 °C (except Group IIIC).

The socket may carry two different intrinsically safe circuits up to a sum of voltages of 30 V.

The values of internal capacitance and inductance depend on the length of the permanently connected cable and be calculated as:

Internal capacitance	C_i	0.1	nF/m
Internal inductance	L_i	2	µH/m

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16 **Report Number**

BVS PP 11.2018 EU, as of 2023-09-06

17 **Specific Conditions of Use**

17.1 The connectors and the connected cable must be installed in a way that an intensive electrostatic charge is excluded.

17.2 Due to space restriction the markings may not be applied completely to the unit. See operating instructions for the compete marking.

17.3 The cable and socket must be installed fixed and effectively protected against mechanical damage.

17.4 For Group IIIC:

- The operation of the sockets without a suitable M12 counterpart is not permissible.
  The M12 counterpart has to meet the IP requirements according to IEC 60079-11.
- When the socket is opened, the ingress of dust must be avoided.
- The sockets have to be protected against UV emitting light.
- The lock nut has to be fastened with a tightening torque of 1.2…1.5 Nm.

18 **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

19 **Remarks and additional information**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2023-09-06
BVS-Fro/Mu A 20220779 / 342812500

Managing Director

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4.5 TF01 – Pressure Sensor Ex Barrier, 9106B

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CERTIFICATE

EU-Type Examination

(1)

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **DEKRA 11ATEX0244 X** Issue Number: **4**

(4) Product: **HART-Transparent Repeater, Types 9106B1A, 9106B1B, 9106B2A , 9106B2B and Types 9106A1A, 9106A1B, 9106A2A , 9106A2B**

(5) Manufacturer: **PR electronics A/S**

(6) Address: **Lerbakken 10, 8410 Rønde, Denmark**

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

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number NL/DEK/ExTR11.0097/04.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018 **EN 60079-11 : 2012**

EN 60079-15 : 2019 **EN 60079-7 : 2015 + A1 : 2018**

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:

II (1) G [Ex ia Ga] IIC/IIB/IIA
II (1) D [Ex ia Da] IIIC
I (M1) [Ex ia Ma] I

Date of certification: 23 June 2020

DEKRA Certification B.V.

R. Schuller
Certification Manager

Page 1/4

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T +31 88 96 83000 F +31 88 96 83100 www.dekra-product-safety.com Registered Arnhem 09085396

DEKRA

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 11ATEX0244 X** Issue No. **4**

(15) **Description**

HART-Transparent Repeater, Types 9106B1A, 9106B1B, 9106B2A, 9106B2B and Types 9106A1A, 9106A1B, 9106A2A, 9106A2B for rail mounting, are 24 V powered isolating barriers that serve as a repeater.
The repeater transfers the intrinsically safe 4 - 20 mA current signal (with HART communication) of either a loop powered transmitter or an active current source to a non-intrinsically safe 4 - 20 mA output signal (with HART communication).
The Repeater is supplied via terminals at the front of the module, or via Power Rail Type 9400.
Removable display module 4501 can be used for programming of the Repeater.

The HART-Transparent Repeater, Types 9106B*A, 9106A*A are one channel version and Types 9106B*B, 9106A*B are two channel version.

Ambient temperature range -20 °C to +60 °C.

Marking

The equipment marking may additionally include the code II 3 G Ex ec nC IIC T4 Gc.

Electrical data

All Repeater Types

Supply (terminals 31, 32 and rear contacts): U = 19,2 ... 31,2 Vdc.

Status-Relay output (terminals 33, 34):
U ≤ 32 Vac or 32 Vdc, I ≤ 0,5 Aac or I ≤ 1 Adc respectively.
If the Repeater is installed outside the hazardous area, the following data for the relay contacts apply: U ≤ 110 Vdc or 125 Vac, I ≤ 0,3 Adc or I ≤ 0,5 Aac respectively.

Outputs (terminals 11, 12 resp. 13, 14): I = 4 ... 20 mA.

For all circuits above: U_m = 253 Vac (max. frequency 400 Hz).

Repeater Types 9106B1A, 9106B1B, 9106B2A, 9106B2B

Loop current input (terminals 43, 44 resp. terminals 53, 54):
in type of protection intrinsic safety Ex ia IIC/IIB/IIA/IIIC/I, with following maximum values:
for Type 9106B1A and Type 9106B1B:
U_o = 27,5 V; I_o = 92,6 mA; P_o = 0,64 W;
C_o = 0,084 µF (IIC) or 0,67 µF (IIB) or 2,23 µF (IIA) or 3,94 µF (I) ;
L_o = 4,15 mH (IIC) or 16,59 mH (IIB) or 33,17 mH (IIA) or 54,42 mH (I);
L_o/R_o = 223 µH/Ω (IIB) or 447 µH/Ω (IIA) or 733 µH/Ω (I)

for Type 9106B2A and Type 9106B2B:
U_o = 25,3 V; I_o = 96 mA; P_o = 0,61 W;
C_o = 0,104 µF (IIC) or 0,818 µF (IIB) or 2,85 µF (IIA) or 4,74 µF (I);
L_o = 3,86 mH (IIC) or 15,43 mH (IIB) or 30,86 mH (IIA) or 50,64 mH (I).
L_o/R_o = 234 µH/Ω (IIB) or 468 µH/Ω (IIA) or 769 µH/Ω (I)
For group IIIC, the parameters of group IIB apply.

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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 11ATEX0244 X** Issue No. **4**

Current input (terminals 41, 42 resp. terminals 51, 52):
in type of protection intrinsic safety Ex ia IIC/IIB/IIA/IIIC/I, for connection to a certified intrinsically safe circuit, with following maximum values:
U_i = 30 V; I_i = 120 mA; P_i = 0,85 W; $_{Ci}$ = 2 nF; L_i = 0 µH;
U_o = 0 V; I_o = 0 mA; P_o = 0 mW.

Current input and Loop current input of one channel are not applied simultaneously.

Both channels (terminals 41...44 and terminals 51...54) are infallibly galvanically isolated from each other and from the non-intrinsically safe supply and output circuits

Combination of Loop current input of channel 1 (terminals 43, 44) and Current input of channel 2 (terminals 51, 52) in series, where terminal 43 is connected to terminal 51:
Loop current circuit (terminals 44 and 52) is in type of protection intrinsic safety Ex ia IIC/IIB/IIA/IIIC/I, with following maximum values:
for Type 9106B1A and Type 9106B1B:
U_o = 27,5 V; I_o = 92,6 mA; P_o = 0,64 W;
C_o = 0,084 µF (IIC) or 0,67 µF (IIB) or 2,23 µF (IIA) or 3,94 µF (I) ;
L_o = 4,15 mH (IIC) or 16,59 mH (IIB) or 33,17 mH (IIA) or 54,42 mH (I);
L_o/R_o = 223 µH/Ω (IIB) or 447 µH/Ω (IIA) or 733 µH/Ω (I)

for Type 9106B2A and Type 9106B2B:
U_o = 25,3 V; I_o = 96 mA; P_o = 0,61 W;
C_o = 0,104 µF (IIC) or 0,818 µF (IIB) or 2,85 µF (IIA) or 4,74 µF (I);
L_o = 3,86 mH (IIC) or 15,43 mH (IIB) or 30,86 mH (IIA) or 50,64 mH (I).
L_o/R_o = 234 µH/Ω (IIB) or 468 µH/Ω (IIA) or 769 µH/Ω (I)
For group IIIC, the parameters of group IIB apply.

Combination of both Current inputs (terminals 41, 42 resp. 51, 52) in series, where terminal 41 is connected to terminal 52:
Current input (terminals 42 and 51) is in type of protection intrinsic safety Ex ia IIC/IIB/IIA/IIIC/I, for connection to a certified intrinsically safe circuit, with following maximum values:
U_i = 30 V; Ii = 120 mA; Pi = 0,85 W; C_i = 4 nF; L_i = 0 µH;
U_o = 0 V; I_o = 0 mA; P_o = 0 mW.

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. NL/DEK/ExTR11.0097/04.

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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 11ATEX0244 X** Issue No. **4**

(17) **Specific conditions of use**

The HART Transparent Repeater shall be installed in a controlled environment with suitably reduced pollution, limited to pollution degree 2 or better.

The non intrinsically safe circuits shall be limited to overvoltage category I/II as defined in EN 60664-1.

If the HART-Transparent Repeater is installed in an explosive atmosphere where the use of apparatus of equipment category 3 G is required, the following specific conditions of use apply:

The HART Transparent Repeater shall be installed in an enclosure in type of protection Ex n or Ex e, providing a degree of protection of at least IP54. Cable entry devices and blanking elements shall fulfil the same requirements.

Removable Display Module 4501, when connected to the Repeater, may not be damaged and shall be free of dust and moisture.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9)

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR11.0097/04.

(20) **Certificate history**

Issue 1 -	214940700	initial certificate
Issue 2 -	215635200	changes to the construction and standards update
Issue 3 -	219950900	changes to the electrical data
Issue 4 -	224396500	assesed per latest edition of the standards addition of 9106Axx models

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Form 227A
Version 1 (2016-04)

4.6 BT01 – Temperature Sensor, TT1050

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ifm electronic

EU – Konformitätserklärung

EU declaration of conformity

Déclaration de conformité UE

ifm electronic gmbh
Friedrichstraße 1
45128 Essen
Germany

Telefon: +49 (0)201 / 24 22 - 0
Telefax: +49 (0)201 / 24 22 - 1200
Internet: www.ifm.com

Die EU-Konformitätserklärung gilt für folgende Geräte:	The EU declaration of conformity applies to the following units:	La déclaration de conformité UE s'applique aux appareils suivants:

Temperatursensoren der Produktfamilie
Temperature sensors of the product family
Capteurs de température de la famille de produits

TTxxxx/ TMxxxx/ TSxxxx/ TXxx81/ TX4511/ TX9920/ TY9159

Wir bestätigen die Übereinstimmung mit den grundlegenden Anforderungen der europäischen Richtlinie(n):	We confirm the conformity to the essential requirements of the European directive(s):	Nous confirmons la conformité aux exigences essentielles de la (des) directive(s) européenne(s):
2011/65/EU	**2011/65/EU**	**2011/65/UE**

Folgende Norm(en) wurde(n) angewandt:	The following standard(s) was (were) applied:	La (Les) norme(s) suivante(s) a (ont) été appliquée(s):

EN IEC 63000: 2018

Malvern, July 22nd , 2021
(Ort und Datum der Ausstellung)
(Place and date of issue)
(Lieu et date de l'établissement)

(Unterschrift) i.V. Peter Breh
(Signature) Director of Technology
(Signature)

Dokument-Nr.: 8003349

4.7 BT02-WG01 – Connecting Cable with Socket for Temperature Sensor, ENC03A

[Please refer to certificate from Section 4.4.]

4.8 TF01 – Temperature Sensor Ex Barrier, 9113B-U9

[Please refer to certificate from Section 4.5.]

4.9 EA01..02 – Immersion Heater, D-8640

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http://www.issep.be

(1) EC TYPE EXAMINATION CERTIFICATE

(2) **Equipment or protective system intended for use in potentially explosive atmospheres**
Directive 94/9/EC

(3) EC type examination certificate number: **ISSeP08ATEX008X**

(4) Equipment or protective system: housing for electrical heating apparatus
Type: D-8640

(5) Applicant – Manufacturer :
Sinus Jevi Electric Heating B.V.

(6) Address: Nijverheidsweg 2
1671 GC Medemblik

(7) This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) ISSeP, notified body n^{r} 492 in accordance with article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in annex II to the Directive.

The examination and test results are recorded in confidential report no 06090

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0: 2006 (IEC 60079-0: 2004) EN 60079-1: 2007 (IEC 60079-1: 2007)
EN 60079-7: 2007 (IEC 60079-7:2006)
EN 61241-0: 2006 (IEC 61241-0: 2004) EN 61241-1: 2004 (IEC 61241-1: 2004)

(10) If the symbol "X" is placed after the certificate number, it indicates that the equipment or protective system 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, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. Further requirements of this Directive may apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

(12) The marking of the equipment or protective system shall include the following indications:
Ex II 2 G D Ex de IIC T6 to T1 Ex tD A21 IP66 T110°C

Colfontaine, the 07.03.2008

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Zoning A. Schweitzer - B7340 Colfontaine (Wasmes)
Tél: ++ 32 65 610811 – Fax: ++ 32 65 610808

Marcel Lambert,
Manager.

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1/3

RÉGION WALLONNE

ISSeP
Institut scientifique de service public
Métrologie environnementale Recherche - Analyses Essais - Expertises

(13) SCHEDULE

(14) **EC TYPE EXAMINATION CERTIFICATE No ISSeP08ATEX008X**

(15) Description of the equipment :
Electrical heating apparatus allotted to the heating of inert liquids and gases. This apparatus bears the type designation D-8640 and consists of:

- a certified flameproof connection box
- certified electrical heating elements
- a manually rearmed protective device

The length "H" (to see drawing 953.D8640-01) required to not exceed the temperature limit of 80°C inside the connection box in accordance with the different temperature classes is listed in the here-below table

Temperature class	Length "H" (mm)
T6	50
T5	75
T4	100
T3	150
T2	200
T1	250

Remark :
When the heating elements are fitted on the bottom plate of the housing, the temperature is limited by a safety thermostat and an additional marking is foreseen for the cables (to see drawing 953.D8521-04)

Temperature classes

TEMPERATURE CLASS	TEMPERATURE SETTING OF THE THERMOSTAT (°C)					
	Inert liquids	Gases				
	Power dissipated by the heating element (W/cm^2)	Power dissipated by the heating element (W/cm^2)				
	7,5	2	1,5	1	0,5	0,2
T6	90	-----	-----	-----	-----	-----
T5	110	-----	-----	-----	-----	65
T4	145	-----	-----	-----	70	85
T3	210	-----	-----	90	110	130
T2	310	130	135	150	190	250
T1	-------	230	250	300	-----	-----

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ISSeP
Institut scientifique de service public
Métrologie environnementale Recherche - Analyses Essais - Expertises

SCHEDULE

EC TYPE EXAMINATION CERTIFICATE No ISSeP08ATEX008X

Electrical parameters
Voltage supply: 110 up to 690 V
Eventual prescriptions
The ambient temperature range: -30 °C to + 50°C
Routine tests
The manufacturer shall make the routine verifications and tests to ensure that the electrical apparatus produced complies with the specification submitted to the testing station together with the prototype.
Each empty enclosure shall be submitted to a routine test under the pressure of 10.5 bar maintained during at least 10 seconds (maximum 60 seconds)

(16) Report n° 06090 of 5.03.2008 composed of 29 pages
The descriptive and technical note from the manufacturer dated of 25.05.2007 related to heating apparatus – size 6" (6 and 3 pages)
The additional descriptive note dated 1.08.2007 (2 pages)
The notices of instruction (8 pages)
A data sheet related to the sealing gasket dated 1.09.2006
The drawings
953.D6150-10 of 19.11.2002 Rev.1 of 28.01.2008
953.D8521-04 of 14.08.2006
953.D8615-20 of 18.02.2008
953.D8640-01 of 29.08.2002
953.D8640-03 of 9.12.2002
953.D8640-05 of 10.01.2005
953.D8640-11 of 11.05.2000
953.D8640-12 of 24.10.2000 – Rev.1 of 21.01.2008
953.D8640-13 of 20.05.2005
953.D8640-20 of 8.12.2003
953.D8640-22 of 7.05.2007 – Rev.1 of 18.02.2008
953.D8640-23 of 7.05.2007 – Rev.1 of 18.02.2008

(17) Special conditions for safe use: symbol X
- The layer of dust accumulated on the housing shall not exceed 5 mm.
- The ignition temperature of the dust shall be higher than 185°C
- The setting of the protective device to the limit temperature ensuring the temperature class shall be realised for each apparatus under the responsibility of the manufacturer. Furthermore this device shall be sealed and its setting shall not be modified later.
- The temperature sensor of the protective device shall be placed as nearest as possible to the tube containing the heating elements.
- When the apparatus is energised the tube containing the heating elements shall be completely immersed in the liquid – the depth of immersion above the tube is at least 50 mm.
- The values of the power dissipated by the heating elements mentioned in the table (page 2) cannot be exceeded

(18) Essential Health and Safety Requirements: covered by the standards listed at 9 and by the descriptive documents of the manufacturer

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VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP08ATEX008X/1

(14) Equipment: housing for electrical heating apparatus type D-8640

(15) Subject to the variation:
To allow the manufacturing of this equipment under the name of the mother company JEVI A/S located at Godthaabsvej 7 – 7100 Vejle – Denmark

Marking : Unchanged except the addition of the name and address of the mother company

Eventual Prescriptions :
Ambient temperature range: -30°C ≤ Tamb ≤ +50°C

(16) Report n°09103 of 5.10.2009 (5 pages) completed by the descriptive documents below:
The drawings
953.D8615-11 of 10.09.2009
953.D8640-22 of 7.05.2007 – Rev.2 of 2.10.2009
953.D8640-23 of 7.05.2007 – Rev.2 of 2.10.2009

(17) Special conditions for safe use: unchanged

(18) Essential Health and Safety Requirements: covered by the standards listed at point 9 of the initial certificate and by the descriptive documents of the manufacturer.

Colfontaine, 07.10.2009

Marcel Lambert,
Manager.

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Zoning A. Schweitzer - B 7340 Colfontaine (Wasmes)
Tél: ++ 32 65 610811 – Fax: ++ 32 65 610808

This document may not be used without the original certificate

1/1

ISSeP
Institut scientifique de service public
Métrologie environnementale Recherche - Analyses Essais - Expertises

VARIATION

EC TYPE EXAMINATION CERTIFICATE N° ISSeP08ATEX008X/2

(14) Apparatus: Housing for electrical heating apparatus type D-8640.

(15) Subject of the variation

- To permit the extension of the ambient temperature range. This one becomes: -50 °C ≤ Ta ≤ +50 °C.
- To permit the updating of the certificate according to the latest edition of the standards in force. (IEC 60079-0: 2011 – EN 60079-1: 2007 – EN 60079-7: 2007 – EN 60079-31: 2009)

Marking: Unchanged, except the code « Ex de IIC T6 to T1 / Ex tD A21 IP66 T110°C » which is now « Ex d IIC T6…T1 Gb / Ex tb IIIC T110°C Db ».

Eventual prescriptions: Unchanged.

(16) Report N° 12032 completed by 10 documents.

(17) Special conditions for safe use: Unchanged.

(18) Essential Health and Safety Requirements

- Covered by the standards listed at point 9 of the initial certificate.

Colfontaine, 27.08.2012.

INSTITUT SCIENTIFIQUE DE SERVICE PUBLIC
Zoning A. Schweitzer, rue de la Platinerie
B-7340 COLFONTAINE (Wasmes)
Tél: ++ 32 65 610811 – Fax: ++ 32 65 610808
colfontaine@issep.be

Marcel LAMBERT,
Director.

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4.10 EA01-WD01 and EA02-WD01 – Control Cable for Immersion Heater, CLASSIC 135 CH

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LAPP

LEISTUNGSERKLÄRUNG
Gemäß Anhang III der Verordnung (EU) Nr. 305/2011

Declaration of Performance
According to Annex III of Regulation (EU) no. 305/2011

Dokument-Nr.
Document-no.

UILCPRDoP17_1123460-1_C

1. Eindeutiger Kenncode des Produkttyps
Unique identification code of the product type

OELFLEX_CLASSIC_135_CH_BK-1

2. Verwendungszweck
Usage
Kabel und Leitungen für allgemeine Anwendungen in Bauwerken in Bezug auf die Anforderungen an das Brandverhalten
Cables for general applications in construction works subject to reaction to fire requirements

3. Hersteller
Manufacturer

U.I. Lapp GmbH
Schulze-Delitzsch-Straße 25
D-70565 Stuttgart

4. System zur Bewertung und Überprüfung der Leistungsbeständigkeit
System of assessment and verification of constancy of performance

System 3

5. Harmonisierte Norm
Harmonised standard

EN 50575:2014 + A1:2016

6. Produktzertifizierungsstelle
Product certification body

No. 0366

7. Erklärte Leistung
Declared Performance

Wesentliche Merkmale *Essential characteristics*	Leistung *Performance*	Harmonisierte technische Spezifikation *Harmonized technical standard*
Brandverhalten *Reaction to fire*	**Dca-s3-d2-a3**	**EN 50575:2014 + A1:2016**
Gefährliche Stoffe *Hazardous substances*	**NPD**	

8. Die Leistung des in Nummer 1 genannten Produkts ist in Übereinstimmung mit der erklärten Leistung in Punkt 7.
The performance of the referred product in paragraphs 1 is in conformity with the declared performance in Section 7.

Diese Leistungserklärung ist ausgestellt unter der allgemeinen Verantwortung des unter Punkt 3 genannten Herstellers.
This declaration of performance is issued under the general responsibilities listed in section 3. Manufacturer.

Unterzeichnet für und im Namen des Herstellers von:
Signed for and in name of the manufacturer by:

Stuttgart, 12.05.2021
U.I.Lapp GmbH
Leiter Kabelentwicklung
Head of Cable Development

i.V. Alexander Terpe

U.I. Lapp GmbH
Schulze-Delitzsch-Straße 25
70565 Stuttgart
Tel.: +49 (0)7 11/78 38-01
Fax: +49 (0)7 11/78 38-26 40
E-Mail: info@lappkabel.de
www.lappkabel.de

Registergericht
Stuttgart HRB 12720

Geschäftsführer
Matthias Lapp, Dr. Matthias Kirchherr,
Boris Katic, Lutz Grotebrune

Vorsitzende des Aufsichtsrats
Andreas Lapp

Niederlassung
Hannover

Ein Unternehmen der Lapp Gruppe

Lapp Insulator ist kein
Unternehmen der Lapp Gruppe

FM PD 0802/02_04.21

Seite 1 von 1

4.11 EA01..02 – Cable Gland for Immersion Heater, ICG 653 UNIV Os M20

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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

Certificate No.:	**IECEx CML 18.0131X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 4	Issue 3 (2021-09-29) Issue 2 (2020-04-20) Issue 1 (2020-02-11) Issue 0 (2019-05-10)
Date of Issue:	2024-03-26		

Applicant: **Hawke International (A Division of Hubbell Limited) (A Member of the Hubbell group of companies)**
Oxford Street West
Ashton under Lyne
OL7 0NA
United Kingdom

Equipment: **Ranges of Barrier and Diaphragm Seal Hybrid Cable Glands**

Optional accessory:

Type of Protection: **Flameproof "db", Increased Safety "eb", Restricted Breathing "nR", Dust Ignition "tb"**

Marking: Ex db IIC Gb
Ex eb IIC Gb
Ex tb IIIC Db

-60°C to +80°C

Approved for issue on behalf of the IECEx Certification Body: **H M Amos**

Position: **Technical Specialist**

Signature: (for printed version)

Date: (for printed version) March, 26, 2024

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:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

IECEx Certificate of Conformity

Certificate No.: **IECEx CML 18.0131X** Page 2 of 4

Date of issue: 2024-03-26 Issue No: 4

Manufacturer: **Hawke International (A Division of Hubbell Limited) (A Member of the Hubbell group of companies)**
Oxford Street West
Ashton under Lyne
OL7 0NA
United Kingdom

Manufacturing locations:

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 equipment 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1:2014 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31:2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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 equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/CML/ExTR18.0186/00
GB/CML/ExTR19.0255/00
GB/CML/ExTR20.0050/00
GB/CML/ExTR21.0018/00
GB/CML/ExTR23.0028/00

Quality Assessment Report:

GB/BAS/QAR06.0061/10

IECEx Certificate of Conformity

Certificate No.: **IECEx CML 18.0131X** Page 3 of 4

Date of issue: 2024-03-26 Issue No: 4

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Refer to Annex for full description and conditions of manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Refer to Annex for specific conditions of use.

IECEx Certificate of Conformity

Certificate No.: **IECEx CML 18.0131X** Page 4 of 4

Date of issue: 2024-03-26 Issue No: 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Refer to certificate annex for details of changes.

Annex:

Certificate Annex IECEx CML 18.0131X Issue 4.pdf

eurofins cml

Annexe to:	IECEx CML 18.0131X Issue 4
Applicant:	Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of companies)
Apparatus:	Ranges of Barrier and Diaphragm Seal Hybrid Cable Glands

Description

The ranges of cable glands are designed in two versions: barrier and diaphragm seal. Hybrid configurations of these glands are also described.

All cable glands within the ranges are manufactured in brass, nickel plated brass, stainless steel, or aluminium.

Both barrier and diaphragm seal type glands internal parts marked with an asterisk (*) in the description below are interchangeable with respect to the type of application. When parts are interchanged, these assemblies may be dual marked with both product types on the stamp band. The "Deluge Boot" colour indicates the internal component that is used, the ICG/653/UNIV being indicated by a red deluge boot. This does not apply to the ICG 653 UNIV J-Size.

Cable glands may be fitted with an optional external clamp or a Hawke Gland Mounted Clamp (GMC) accessory. When fitted, no additional clamping is required on the barrier or diaphragm sealed glands.

Items in *italic* are optional and may be omitted from the cable gland dependent on the application.

Hybrid cable glands are available for the gland types ICG/653/UNIV and 501/453/UNIV. These types are fitted with the middle nut and back nut components of any smaller trade size compared to the entry. Glands may combine entries and seals with small armour clamping rings and back nut seals. Hybrid gland marking to include second size reference with no spaces e.g. for example C2 to C hybrid size reference would be C2C.

The use of Hawke IP sealing washers may be considered a suitable sealing method to maintain IP rating to the enclosure (see conditions of use) and will maintain the service temperature.

Where marked IIC or IIIC, the equipment can also be marked for gas groups IIA or IIB and for dust groups IIIA or IIIB.

Unit 1, Newport Business Park
New Port Road
Ellesmere Port
CH65 4LZ

T +44 (0) 151 559 1160
E info@cmlex.com

www.cmlex.com

Company Reg No. 8554022 VAT No. GB163023642

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Type 501/453/UNIV Cable Gland

501/453/UNIV cable gland is a diaphragm seal cable gland the glands are fitted with a diaphragm silicone rubber seal and are designed for effectively filled type cable when used for flameproof applications. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. This cable gland is available in sizes Os (M16) up to and including F(M75). The entry thread form can either be metric or NPT equivalent. They are used with cables that are circular and armoured, un-armoured or braided cables. The cable gland comprises the following components:

a) Entry
b) Deluge boot *
c) Diaphragm seal *
d) Spigot *
e) Armour clamping ring
f) Middle nut
g) Back nut
h) Back nut clamp
i) Back nut seal

Type ICG/653/UNIV Cable Gland

The ICG/653/UNIV Cable Gland is a barrier seal type gland designed for sealing around individual cores and are for use with circular cables of armoured, un-armoured or corrugated cables. This cable gland is available in sizes Os (M16) up to and including J (M100). The entry thread form is either metric or NPT equivalent. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. Trade size J is IP66 only.
The cable gland comprises the following components:

a) Entry
b) Deluge boot*
c) Compound chamber*
*d) Resin dam **
e) Spigot*
*f) VBL Clip **
g) Armour/braid clamping ring
h) Middle nut
i) Back nut
j) Back nut clamp
k) Back nut seal

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Type 710 Cable Gland

The 710 Cable gland is a barrier cable gland designed for sealing around individual cores and are for use with circular cables of armoured, un-armoured or corrugated cables. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. This cable gland is available in sizes Os (M16) up to and including F (M75). The entry thread form is either metric or NPT equivalent. The cable gland comprises the following components:

a) Entry
b) Deluge boot
c) Compound chamber
d) Resin dam
e) Spigot
f) Middle nut
g) Back nut
h) Back nut clamp
i) Back nut seal

Type 711 Cable Gland

711 Cable gland is a barrier cable gland designed for sealing around individual cores and are for use with circular cables of armoured, un-armoured or corrugated cables. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. This cable gland is available in sizes A (M20) up to and including F (M75). The entry thread form is either metric or NPT equivalent. The cable gland comprises the following components:

a) Entry
b) Deluge boot
c) Compound chamber
d) Resin dam
e) Front diablo support
f) Diablo cage
g) Rear diablo support
h) Middle nut
i) Back nut
j) Back nut clamp
k) Back nut seal

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TEMPLATE FRM5100236 0H

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Type 753 Cable Gland

753 cable gland Cable gland is a barrier cable gland designed for sealing around individual cores and are for use with circular cables of armoured, un-armoured or braided cables. This gland type is rated for ingress protection IP66, 67, 69 and IPX8 size Os to C only at 10m for 24 hours. This cable gland is available in sizes Os (M16) up to and including F(M75). The entry thread form is either metric or NPT equivalent. The cable gland comprises the following components:

a) Entry
b) Deluge boot
c) Compound chamber
d) Resin dam
e) Spigot
f) Middle nut
g) Back nut
h) Back nut clamp
i) Back nut seal

Cable glands types ICG/653/UNIV, 710, 711 and 753, in trade sizes Os to F, have been subjected to overpressure test up to 62bar/900 Psi.

Variation 1

1. To update the certification drawing with minor dimensional corrections.
2. To include the type of protection “Ex nR” Restricted Breathing.
3. To include an additional specific condition of use for braided cables.

Variation 2

1. Introduction of undersize compound pot for gland size Os, O, D, E and F.
2. Introduction of thread size M16 for size Os and O, except from gland type 711.
3. Adding NPT thread size: 1½”, 2”, 2½” for gland size D, E and F respectively.

Variation 3

1. To amend the specific conditions of safe use.
2. Update GA drawings.
3. Add accessory optional item GMC 'Gland Mounted Clamp'.
4. Clarify the Ingress Protections IP ratings.
5. To review and update the cable glands against the latest standard.
6. Hybrid Gland Combinations to permit flexibility.
7. Update the marking.
8. To revise the equipment title.
9. To revise the product description.

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Variation 4

1. To introduce and update the certification product description to include type ICG 653 oversize cable gland J-Size.
2. Removal of Ex nR from IECEx CML 18.0131X.
3. To review and assess the ICG 653 Oversize cable glands J-Size against the latest technical knowledge IEC 60079-0:2017 Ed.7.
4. To review the ICG 653 Oversize cable gland J-Size against the latest Increase Safety requirements "Ex eb".
5. To amend the specific condition of safe use.
6. To remove the condition of manufacture.
7. Introduction of new set of certification drawings.

Conditions of Manufacture

None

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

i. 501/453/UNIV when used with unarmoured or braided cables are only suitable for fixed installations, the cable for which shall be effectively clamped to prevent pulling and twisting (does not apply when fitted with rear clamping device or Hawke Gland Mounted Clamp (GMC)).

ii. Barrier glands of sizes C2, D, E and F and containing (Express) XO99-41-2 resin when used with unarmoured or braided cables are only suitable for fixed installations, the cable for which must be effectively clamped to prevent pulling and twisting. No clamping is required on barrier cable glands sizes Os-C2, or if containing 2122 Hawkeseal or 2132 QSP compound.

iii. The entry thread shall be suitably sealed (in accordance with IEC 60079-14) to maintain the ingress protection rating of the associated enclosure. This condition does not apply if the Hawke International nylon sealing washer is installed as part of the gland assembly.

Components covered by Ex Certificates issued to older editions of Standards

None

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TEMPLATE FRM5100236 0H

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Printed on: Wednesday, March 19, 2025

4.12 QM1.1..1.6 and QM2.1..2.6 – Solenoid Valve, NF X E210D488E 24/DC

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ATTESTATION D'EXAMEN UE DE TYPE
EU TYPE EXAMINATION CERTIFICATE

1 **Version : 15** — **LCIE 00 ATEX 6008 X** — **Issue : 15**

	Directive 2014/34/UE	**Directive 2014/34/EU**
2	Appareil ou Système de Protection destiné à être utilisé en Atmosphères Explosibles	Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
3	Produit : Tête magnétique	Product : Magnetic head
	Type: *NF-*	
4	Fabricant :	Manufacturer :
	ASCO SAS	
5	Adresse :	Address :
	53 rue de Beauce 28110 Lucé FRANCE	
6	Ce produit et ses variantes éventuelles acceptées sont décrits dans l'annexe de la présente attestation et dans les documents descriptifs cités en référence.	This product and any acceptable variations thereto are specified in the schedule to this certificate and the documents therein referred to.
7	Le LCIE, Organisme Notifié sous la référence 0081 conformément à l'article 17 de la directive 2014/34/UE du Parlement européen et du Conseil du 26 février 2014, certifie que ce produit est conforme aux Exigences Essentielles de Sécurité et de Santé pour la conception et la construction de produits destinés à être utilisés en atmosphères explosibles, données dans l'annexe II de la Directive.	LCIE, Notified Body number 0081 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014 certifies that product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.
	Les résultats des vérifications et essais figurent dans le(s) rapport(s) confidentiel(s) N° :	The examination and test results are recorded in confidential report(s) N°:
	19 547 010 ; 36439010 ; 43226010 ; 60014591-507770 ; 60054967-555404/01 ; 84176-574816 ; 90110-581349 ; 96896-592747 ; 99828-598318 ; 106456-611161 ; 117816-635598-01 ; 120216-640042 ; 140308-682225 ; 143136-689151 – CR22/05/17 ; 158525-730110	
8	Le respect des Exigences Essentielles de Sécurité et de Santé est assuré par la conformité à :	Compliance with the Essential Health and Safety Requirements has been assured by compliance with :
	EN 60079-0:2012 + A11:2013 ; EN 60079-1:2014 ; EN 60079-31:2014	
9	Le signe « X » lorsqu'il est placé à la suite du numéro de l'attestation, indique que cet appareil est soumis aux conditions particulières d'utilisation, mentionnées dans l'annexe de cette attestation.	If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
10	Cette Attestation d'Examen UE de Type concerne uniquement la conception et la construction du produit spécifié. Des exigences supplémentaires de la directive sont applicables pour la fabrication et la fourniture du produit. Ces dernières ne sont pas couvertes par la présente attestation.	This EU Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
11	Le marquage du produit est mentionné dans l'annexe de cette attestation.	The marking of the product is specified in the schedule to this certificate.

Fontenay-aux-Roses, le 31 janvier 2019

Responsable de Certification
Certification Officer
Julien Gauthier

LABORATOIRE CENTRAL DES INDUSTRIES ELECTRIQUES
S.A.S au capital de 15.745.984 €
RCS Nanterre B 408 363 174
33 avenue du Général Leclerc
F - 92266 FONTENAY AUX ROSES

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LCIE
Laboratoire Central des Industries Electriques
Une société de Bureau Veritas

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92260 Fontenay-aux-Roses
FRANCE

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ATTESTATION D'EXAMEN UE DE TYPE - ANNEXE
EU TYPE EXAMINATION CERTIFICATE - SCHEDULE

1 **Version : 15** — **LCIE 00 ATEX 6008 X** — **Issue : 15**

12 **DESCRIPTION DU PRODUIT**

Le produit est constitué d'une enveloppe en aluminium ou en acier inoxydable contenant une bobine et deux bornes de connexions.

Il fonctionne sur différentes puissances (AC-DC). Il est conçu pour être utilisé avec des vannes avec 2, 3, 4 ou 5 voies.

Les types de protection sont « d » (enveloppe antidéflagrante) et « t » (protection contre l'inflammation des poussières).

Il y a également 2 versions spéciales où les caractéristiques électriques sont différentes, à la demande de clients.

DESCRIPTION OF PRODUCT

The product is made of an aluminium or stainless steel enclosure including a coil and two connections terminals.

It operates on different wattage (AC-DC). It is designed to be used in conjunction with valves with 2, 3, 4 or 5 channels.

The types of protection are "d" (flameproof enclosure) and "t" (dust ignition protection).

There is also 2 specific version where the electrical ratings are different, at customer's request.

DETAIL DE LA GAMME

* | NF | - | *

Modèle de la bobine
MXX
M12-I
M12-II

Matière de l'enveloppe
WS = Acier inoxydable
Vide = Aluminium

Note : les bobines se distinguent par leurs dimensions.

Pour la version spéciale NF 14462403.24/DC :

* | NF | - | M12-II

Modèle de la bobine
M12-II

Matière de l'enveloppe
WS = Acier inoxydable
Vide = Aluminium

Pour la version spéciale X263429069235F1:

* | NF | - | MXX

Modèle de la bobine
MXX

Matière de l'enveloppe
WS = Acier inoxydable
Vide = Aluminium

RANGE DETAILS

* | NF | - | *

Model of coil
MXX
M12-I
M12-II

Material enclosure
WS = Stainless steel
Blank = Aluminium

Note: the coils are distinguished by their dimension.

For the specific version NF 14462403.24/DC :

* | NF | - | M12-II

Model of coil
M12-II

Material enclosure
WS = Stainless steel
Blank = Aluminium

For the specific version X263429069235F1:

* | NF | - | MXX

Model of coil
MXX

Material enclosure
WS = Stainless steel
Blank = Aluminium

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FRANCE

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ATTESTATION D'EXAMEN UE DE TYPE - ANNEXE
EU TYPE EXAMINATION CERTIFICATE - SCHEDULE

1 **Version : 15** **LCIE 00 ATEX 6008 X** **Issue : 15**

CARACTERISTIQUES

Tension d'alimentation :
6 à 250 V DC / rectifié ou 6 à 380 V AC.

Pour la version spéciale NF 14462403.24/DC :

Tension d'alimentation : 24 V DC
Puissance maximale : 36.2 W
Fonctionnement électrique intermittent :
- Temps de fonctionnement = 2 minutes
- Temps à l'arrêt = 5 minutes
Température maximale du fluide : 55°C.

Pour la version spéciale X263429069235F1 :

Tension d'alimentation : 24 V DC
Puissance maximale : 11.2 W
Fonctionnement électrique intermittent :
- Temps de fonctionnement = 2 minutes
- Temps à l'arrêt = 15 minutes
Température maximale du fluide : 70°C.

RATINGS

Supply voltage :
6 to 250 V DC / rectified or 6 to 380 V AC.

For the specific version NF 14462403.24/DC :

Supply voltage : 24 V DC
Maximum power : 36.2W
Electric operation intermittent :
- Time on = 2 minutes
- Time off = 5 minutes.
Maximum fluid temperature: 55°C.

For the specific version X263429069235F1 :

Supply voltage : 24 V DC
Maximum power : 11.2W
Electric operation intermittent :
- Time on = 2 minutes
- Time off = 15 minutes.
Maximum fluid temperature: 70°C.

MARQUAGE

Le marquage du produit doit comprendre :

ASCO SAS ou ASCO™
Adresse : …
Type : *NF-* (1)
N° de fabrication : …
Année de fabrication : …
Ⓔx II 2 G D
Ex db IIC T6…220°C (T2) Gb (2)
Ex tb IIIC T85°C…T220°C Db (2)
LCIE 00 ATEX 6008 X
-60°C ≤ Tamb ≤ +…°C (2)
AVERTISSEMENTS –
NE PAS OUVRIR SOUS TENSION.
APRES MISE HORS TENSION, ATTENDRE 35 MINUTES AVANT L'OUVERTURE.
Sur la plaque de marquage :
T câble : …°C (2)
U = ….V ; I = …. A ; P = …. W (3)

(1) : complété par la désignation du type.
(2) : voir les tableaux des températures.
(3) : complété par les paramètres électriques.

MARKING

The marking of the product shall include the following :

ASCO SAS or ASCO™
Address: …
Type : *NF-* (1)
Serial number: …
Year of construction: …
Ⓔx II 2 G D
Ex db IIC T6…220°C (T2) Gb (2)
Ex tb IIIC T85°C…T220°C Db (2)
LCIE 00 ATEX 6008 X
-60°C ≤ Tamb ≤ +…°C (2)
WARNINGS –
DO NOT OPEN WHEN ENERGIZED.
AFTER DE-ENERGIZING, DELAY 35 MINUTES BEFORE OPENING.
On the marking plate :
T cable : …°C (2)
U = ….V; I = …. A; P = …. W (3)

(1): completed with type designation.
(2): see temperatures tables.
(3): completed by electrical parameters.

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ATTESTATION D'EXAMEN UE DE TYPE - ANNEXE
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1 **Version : 15** **LCIE 00 ATEX 6008 X** **Issue : 15**

MARQUAGE (suite)

Tables des températures :

- Pour une température de fluide plus basse que la température ambiante :

Classe de température *Temperature class* (Gaz / *Gas*)	Température de surface *Surface temperature* (Poussière / *Dust*)	Température ambiante max. *Max. Amb. Temp.* (°C)	Puissance maximale / *Maximum power* (W)	
			Courant alternatif *Alternating current (AC) supply*	Courant continu ou rectifié *Direct current (DC) supply or rectified*
T6	T85°C	25	17	31,5
		40	11,5	20
		60	5,5	8,5
		75	1	2,5
T5	T100°C	25	21	40,5
		40	15	32,5
		60	10,5	18
		75	6	10
T4	T135°C	25	28,5	40,5
		40	22,5	37,5
		60	19,5	32,5
		75	16,5	31
		80	15,4	25
		100	10,5	20

- Pour une température de fluide plus haute que la température ambiante :

Température ambiante max. *Max. Amb. Temp.* (°C)	Puissance maximale / *Maximum power* (W)		Température maximale du fluide *Maximum fluid temperature* (°C)			
	Courant alternatif *Alternating current (AC) supply*	Courant continu ou rectifié *Direct current (DC) supply or rectified*				
25	17	31,5	40	75	140	-
40	11,5	20	55	90	155	-
60	5,5	8,5	75	110	175	-
75	1	2,5	90	125	180	-
25	21	40,5	-	60	125	-
40	15	32,5	-	75	140	-
60	10,5	18	-	95	160	-
75	6	10	-	110	175	-
25	28,5	40,5	-	-	90	-
40	22,5	37,5	-	-	105	-
60	19,5	32,5	-	-	125	-
75	16,5	31	-	-	140	-
80	15,4	25	-	-	145	160
100	10,5	20	-	-	165	-
Classe de température / *Temperature class* (G)			T5	T4	T3	220°C
Température de surface / *Surface temperature* (D)			T100°C	T125°C	T200°C	T220°C

MARKING (continued)

Temperatures tables :

- For a fluid temperature lower than ambient temperature :

- For a fluid temperature higher than ambient temperature :

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ATTESTATION D'EXAMEN UE DE TYPE - ANNEXE
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1 **Version : 15** **LCIE 00 ATEX 6008 X** **Issue : 15**

MARQUAGE (suite)

- Table de température pour le choix des câbles :

Température ambiante max. *Max. Amb. Temp.* (°C)	Température du câble *Cable temperature* (°C)	Puissance maximale / *Maximum power* (W)	
		Courant alternatif *Alternating current (AC)* supply	Courant continu ou rectifié *Direct current (DC) supply or rectified*
25	70	26	40,5
	80	30	-
40	70	16	23
	80	22,5	37,5
60	70	4	6
	80	10	14
	90	17	27
	100	25	40,5
75	80	1,5	4
	90	7,5	13
	100	14	24
	105	18	32
80	120	15,4	25
100	105	3	5
	110	6,5	10
	120	13,5	23,5

Pour la version spéciale NF 14462403.24/DC :

ASCO SAS ou ASCO™
Adresse : …
Type : *NF-M12-II (1)
N° de fabrication : …
Année de fabrication : …
Ⓔx II 2 G D
Ex db IIC T6 Gb
Ex tb IIIC T85°C Db
LCIE 00 ATEX 6008 X

-60°C ≤ Tamb ≤ +55°C

AVERTISSEMENTS –
NE PAS OUVRIR SOUS TENSION.
APRES MISE HORS TENSION, ATTENDRE 35 MINUTES AVANT L'OUVERTURE.

U = ….V ; I = …. A ; P = …. W (2)

(1) : complété par la désignation du type.
(2) : complété par les paramètres électriques.

MARKING (continued)

- Temperature table for choosing cable :

For the specific version NF 14462403.24/DC :

ASCO SAS or ASCO™
Address: …
Type : *NF-M12-II (1)
Serial number: …
Year of construction: …
Ⓔx II 2 G D
Ex db IIC T6 Gb
Ex tb IIIC T85°C Db
LCIE 00 ATEX 6008 X

-60°C ≤ Tamb ≤ +55°C

WARNINGS –
DO NOT OPEN WHEN ENERGIZED.
AFTER DE-ENERGIZING, DELAY 35 MINUTES BEFORE OPENING.

U = ….V; I = …. A; P = …. W (2)

(1): completed with type designation.
(2): completed by electrical parameters.

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ATTESTATION D'EXAMEN UE DE TYPE - ANNEXE
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1 **Version : 15** — **LCIE 00 ATEX 6008 X** — **Issue : 15**

MARQUAGE (suite)

Pour la version spéciale X263429069235F1 :

ASCO SAS ou ASCO™
Adresse : …
Type : *NF-MXX (1)
N° de fabrication : …
Année de fabrication : …
Ⓔx II 2 G D
Ex db IIC T6 Gb
Ex tb IIIC T85°C Db
LCIE 00 ATEX 6008 X
-60°C ≤ Tamb ≤ +70°C

AVERTISSEMENTS –
NE PAS OUVRIR SOUS TENSION.
APRES MISE HORS TENSION, ATTENDRE 35 MINUTES AVANT L'OUVERTURE.
U = ….V ; I = …. A ; P = …. W (2)

(1) : complété par la désignation du type.
(2) : complété par les paramètres électriques.

L'appareil doit également comporter le marquage normalement prévu par les normes de construction qui le concernent sous la responsabilité du fabricant.

MARKING (continued)

For the specific version X263429069235F1 :

ASCO SAS or ASCO™
Address: …
Type : *NF-MXX (1)
Serial number: …
Year of construction: …
Ⓔx II 2 G D
Ex db IIC T6 Gb
Ex tb IIIC T85°C Db
LCIE 00 ATEX 6008 X
-60°C ≤ Tamb ≤ +70°C

WARNINGS –
DO NOT OPEN WHEN ENERGIZED.
AFTER DE-ENERGIZING, DELAY 35 MINUTES BEFORE OPENING.
U = ….V; I = …. A; P = …. W (2)

(1): completed with type designation.
(2): completed by electrical parameters.

The equipment shall also bear the usual marking required by the product standards applying to such equipment under the manufacturer responsibility.

13 **CONDITIONS PARTICULIERES D'UTILISATION**

a. Les joints antidéflagrants ne sont pas destinés à être réparés.

b. Les fermetures spéciales du couvercle sont des vis hexagonales à six pans creux conformes à l'ISO 4762. La classe de propriété minimale des vis doit être A4-70. Le cas échéant, les vis du couvercle doivent être remplacées par des vis identiques.

c. Le classement en température dépend de la température ambiante. Voir tableaux des températures.

SPECIFIC CONDITIONS OF USE

The flameproof joints are not intended to be repaired.

The special fasteners of the cover are hexagon socket head cap screws conforming to ISO 4762. The minimum grade of screws must be A4-70. If any, the screws shall only be replaced with identical ones.

The temperature class depend on ambient temperature. See temperature tables.

14 **EXIGENCES ESSENTIELLES DE SANTE ET DE SECURITE**

Couvertes par les normes listées au point 8.

ESSENTIAL HEALTH AND SAFETY REQUIREMENTS

Covered by standards listed at 8.

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ATTESTATION D'EXAMEN UE DE TYPE - ANNEXE
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15 **DOCUMENTS DESCRIPTIFS** / **DESCRIPTIVE DOCUMENTS**

N°	Description	Reference	Rev.	Date	Page(s)
1.	Dossier technique, tête magnétique type (WS)NF. *Technical file, magnetic solenoid (WS)NF type.*	293584	M	2018/11/22	37
2.	Notice d'instruction ((WS)NF – MXX) *Installation and maintenance instruction, Flameproof solenoid operator ((WS)NF – MXX)*	AJN 123620-794	--	--	--
3.	Notice d'instruction ((WS)NF – M12 – II) *Installation and maintenance instruction, Flameproof solenoid operator ((WS)NF – M12 – II)*	AJN 123620-793	--	--	--
4.	Notice d'instruction ((WS)NF – M12 – I) *Installation and maintenance instruction, Flameproof solenoid operator ((WS)NF – M12 – I)*	AJN 123620-795	--	--	--
5.	Notice d'instruction NF/WSNF – MXX (Version X263429069235F1) *Installation and maintenance instruction, Flameproof solenoid operator NF/WSNF – MXX (Version X263429069235F1)*	536657-001	--	--	--

16 **INFORMATIONS COMPLEMENTAIRES** / **ADDITIONAL INFORMATIONS**

Essais individuels

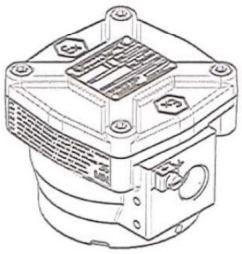
N/A

Routine tests

N/A

Vue générale

Apparatus overview



Sites de fabrication additionnels

ASCO SAS
53 rue de Beauce
28110 LUCE, FRANCE

ASCO JOUCOMATIC Ltd
2 Pit Hey Place
West Pimbo
SKELMERSDALE Lancashire WN8 9PG,
ROYAUME-UNI

ASCO CONTROLS B.V.
Neonstraat 3
6718 WX Ede, PAYS-BAS

Additional manufacturing locations

ASCO SAS
53 rue de Beauce
28110 LUCE, France

ASCO JOUCOMATIC Ltd
2 Pit Hey Place
West Pimbo
SKELMERSDALE Lancashire WN8 9PG,
UNITED KINGDOM

ASCO CONTROLS B.V.
Neonstraat 3
6718 WX Ede, The NETHERLANDS

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CERT-ATEX-FORM 04 Rev. 05

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ATTESTATION D'EXAMEN UE DE TYPE - ANNEXE
EU TYPE EXAMINATION CERTIFICATE - SCHEDULE

1 **Version : 15** **LCIE 00 ATEX 6008 X** **Issue : 15**

INFORMATIONS COMPLEMENTAIRES (suite)

Sites de fabrication additionnels (suite)

ASCO NUMATICS SP .Z.O.O
Kurczaki 132
93331 Lodz, POLOGNE

ASCO L.P.
160 Park Avenue, Florham Park
New Jersey 07932, USA

ASCO L.P.
1561 Colombia Highway
Aiken, South Carolina 29801, USA

ASCOTECH, SA de C.V
Circuito del progresso, #27
Parque Industrial Progresso, Mexicali
Baja California 21190 MEXIQUE

ASCO NUMATICS (India) Pvt.Ltd,
57, Kundrathur Main Road,
Gerugambakkam,Porur
Chennai. 600128, Tamilnadu, INDE

ASCO VALVE (Shanghai) Co. Limited
No. 480, Xin Miao N°.3 Road, Xia Qiao Town,
Song Jiang District
Shanghai 201612, P.R. CHINE

ASCO Japan Co, Ltd
1-20 Takahata-cho, Nishinomiya, Hyogo
663-8202, JAPON

ASCO ASIA
Block 4008, Ang Mo Kio Avenue 10
#04- 08/10/17/22, Techplace 1
569625, SINGAPOUR

Conditions de certification

Les détenteurs d'attestations d'examen UE de type doivent également satisfaire les exigences de contrôle de production telles que définies à l'article 13 de la Directive 2014/34/UE.

En accord avec l'Article 41 de la Directive 2014/34/UE, les attestations d'examen CE de type mentionnant la Directive 94/9/CE émises avant la date d'application de la Directive 2014/34/UE (20 avril 2016) peuvent être considérées comme émises en accord avec la Directive 2014/34/UE. Les nouvelles versions de ces attestations peuvent conserver le numéro de l'attestation d'origine émise avant le 20 avril 2016.

ADDITIONAL INFORMATIONS (continued)

Additional manufacturing locations (continued)

ASCO NUMATICS SP .Z.O.O
Kurczaki 132
93331 Lodz, POLAND

ASCO L.P.
160 Park Avenue, Florham Park
New Jersey 07932, USA

ASCO L.P.
1561 Colombia Highway
Aiken, South Carolina 29801, USA

ASCOTECH, SA de C.V
Circuito del progresso, #27
Parque Industrial Progresso, Mexicali
Baja California 21190 MEXICO

ASCO NUMATICS (India) Pvt.Ltd,
57, Kundrathur Main Road,
Gerugambakkam,Porur
Chennai. 600128, Tamilnadu, INDIA

ASCO VALVE (Shanghai) Co. Limited
No. 480, Xin Miao N°.3 Road, Xia Qiao Town,
Song Jiang District
Shanghai 201612, P.R. CHINA

ASCO Japan Co, Ltd
1-20 Takahata-cho, Nishinomiya, Hyogo
663-8202, JAPAN

ASCO ASIA
Block 4008, Ang Mo Kio Avenue 10
#04- 08/10/17/22, Techplace 1
569625, SINGAPORE

Conditions of certification

Holders of EU type examination certificates are also required to comply with the production control requirements defined in article 13 of Directive 2014/34/EU.

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to Directive 94/9/EC that were in existence prior to the date of application of Directive 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. New issues of such certificates may continue to bear the original certificate number issued prior to 20 April 2016.

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17 **DETAILS DES MODIFICATIONS DE L'ATTESTATION**

Version 00 : 02/03/2001	Version initiale selon les normes suivantes : - EN 50014:1997, - EN 50018:1994.
Version 01 : 18/01/2002	Possibilité d'utiliser l'équipement en atmosphère poussières.
Version 02 : 10/09/2002	Modification du dossier technique.
Version 03 : 28/11/2003	Diminution de la température ambiante minimale à -60°C.
Version 04 : 10/09/2007	Mise à jour normative suivant les normes suivantes : - EN 60079-0:2006, - EN 60079-1:2004, - EN 61241-0:2006, - EN 61241-1:2004. Mise à jour des classements en température.
Version 05 : 23/10/2008	Ajout de sites de production.
Version 06 : 05/03/2009	Ajout d'un site de production.
Version 07 : 25/02/2010	Ajout d'un site de production. Modification du dossier technique.
Version 08 : 12/10/2010	Mise à jour normative suivant les normes suivantes : - EN 60079-0:2009, - EN 60079-1:2007, - EN 61241-1:2004. Mise à jour des classements en température.
Version 09 : 27/12/2011	Mise à jour normative suivant la norme EN 60079-31:2009.
Version 10 : 08/03/2013	Mise à jour de la liste des sites de production.
Version 11 : 25/04/2013	Ajout d'un nouveau site de production.
Version 12 : 25/02/2016	Changement du nom de la société. Mise à jour normative suivant les normes suivantes : - EN 60079-0:2012 + A11:2013, - EN 60079-31:2014. Ajout d'un nouveau site de production.
Version 13 : 25/10/2016	Ajout d'une version spéciale codifiée NF 14462403.24/DC, pour le type *NF-M12-II. Mise à jour suivant la norme EN 60079-1:2014.

DETAILS OF CERTIFICATE CHANGES

Issue 00 : 2003/03/02	Initial issue according to following standards: - EN 50014:1997, - EN 50018:1994.
Issue 01 : 2002/01/18	Possibility to use the equipment in dust atmosphere.
Issue 02 : 2002/09/10	Technical file modification.
Issue 03 : 2003/11/28	Decrease of minimal ambient operating temperature to -60°C.
Issue 04 : 2007/09/10	Normative update according to following standards : - EN 60079-0:2006, - EN 60079-1:2004, - EN 61241-0:2006, - EN 61241-1:2004. Update of temperature classes.
Issue 05 : 2008/10/23	Addition of manufacturing locations.
Issue 06 : 2009/03/05	Addition of a manufacturing location.
Issue 07 : 2010/02/25	Addition of a new manufacturing location. Technical file modification.
Issue 08 : 2010/10/12	Normative update according to following standards : - EN 60079-0:2009, - EN 60079-1:2007, - EN 61241-1:2004. Update of temperature tables.
Issue 09 : 2011/12/27	Normative update according to standard EN 60079-31:2009.
Issue 10 : 2013/03/08	Update of manufacturing locations list.
Issue 10 : 2013/04/25	Addition of a new manufacturing location.
Issue 12 : 2016/02/25	Change of company name. Normative update according to following standards : - EN 60079-0:2012 + A11:2013, - EN 60079-31:2014. Addition of a new manufacturing location.
Issue 13 : 2016/10/25	Addition of a specific version, codified NF 14462403.24/DC for type *NF-M12-II. Normative update according to standard EN 60079-1:2014.

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Une société de Bureau Veritas
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ATTESTATION D'EXAMEN UE DE TYPE - ANNEXE
EU TYPE EXAMINATION CERTIFICATE - SCHEDULE

1 **Version : 15** **LCIE 00 ATEX 6008 X** **Issue : 15**

DETAILS DES MODIFICATIONS DE L'ATTESTATION (suite)

Version 14 : 26/07/2017	Correction de la version 13 (mise à jour du marquage et de la description du produit). Nouvelle détermination de la pression d'explosion. Mise à jour des conditions particulières d'utilisation. Mise à jour de la liste des sites de production.
Version 15 :	Ajout d'une version spéciale codifiée X263429069235F1, pour le type *NF-MXX. Mise à jour de la liste des sites de production. Clarification sur la définition du type.

DETAILS OF CERTIFICATE CHANGES (continued)

Issue 14 : 2017/07/26	Correction of the issue 13 (update marking and description of product). New determination of explosion pressure. Update of specific conditions of use. Update of manufacturing locations list.
Issue 15 :	Addition of a specific version, codified X263429069235F1, for type *NF-MXX. Update list of manufacturing locations. Clarification of type definition.

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4.13 QM1.1..1.6 and QM2.1..2.6 – 1/2" NPT to M20 Adaptor, ADU102904

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EU TYPE-EXAMINATION CERTIFICATE

1. **EU type-examination Certificate (Module B)**
2. **Equipment or Protective System intended for use in potentially explosive atmospheres (Directive 2014/34/EU)**
3. **EU type examination certificate Nr** **ITS16ATEX101339X R.1**
4. **Product:** AD-U, AM-D/AM-U, AF-U, AD-E4 Thread Adapters, RD-U, RD-E4 Reducers and AE-E Earthlead Adapters, Reducers, UN-D / UN-U, UF-D / UF-U, FB and FL Unions
5. **Manufacturer:** EATON ELECTRICAL SYSTEMS Ltd Trading as Eaton, Raxton, Redapt or Capri
   Applicant: EATON ELECTRICAL SYSTEMS Ltd Trading as Eaton, Raxton, Redapt or Capri
6. **Address:** Kingsway South Westgate, Aldridge West Midlands WS9 8FS
   Address: Kingsway South Westgate, Aldridge West Midlands WS9 8FS
7. This product and any acceptable variation thereto are specified in the schedule to this certificate and therein referred to.
8. INTERTEK ITALIA S.p.A., Notified Body n° 2575 in accordance with article 17 of the Directive 2014/34/EU of the European Parliament and Council of the 26 February 2014, certifies that the equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective system intended for use in potentially explosive atmosphere, given in Annex II of the Directive.

   The examination and tests results are recorded in confidential technical evaluation Intertek Report Nr. 105332195LHD-001 dated 31st August 2023.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018, EN 60079-1:2014, EN IEC 60079-7:2015+A1:2018 and EN 60079-31:2014 except in respect of those requirements referred to at item 16 of the Schedule.
10. If the sign X is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.
11. This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.
12. The marking of the product shall include the following:

Types AD-U, AM-D/AM-U, AF-U Thread Adapters, RD-U Reducers and UN-D / UN-U, UF-D / UF-U, FB and FL Unions (Mining not applicable to Aluminium version)

I M2 Ex db I Mb
II 2 G Ex db IIC Gb
I M2 Ex eb I Mb
II 2 G Ex eb IIC Gb
II 2D Ex tb IIIC Db

Type AE-E earth lead Adapters, Reducers (Mining not applicable to Aluminium version)

I M2 Ex eb I Mb,
II 2G Ex eb IIC Gb,
II 2D Ex tb IIIC Db

Type AD-E 4 Thread Adapters or RD-E4 Reducers

II 2G Ex eb IIC Gb,
II 2D Ex tb IIIC Db

Certificate issue date

1st September 2023

Mark Newman
Certification Officer
Intertek Italia S.p.A. (NB 2575)

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

PDR N° 277B

Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC

Signatory of EA, IAF and ILAC Mutual Recognition Agreements

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SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS16ATEX101339X R.1

13. **DESCRIPTION OF THE EQUIPMENT OR PROTECTIVE SYSTEM**

Adaptors and Reducers
The ranges of thread adaptors and reducers each comprise a hollow body with an external male thread and an internal female thread. The devices are used to convert an existing cable entry aperture thread to a different thread form and / or size. The adaptors and reducers may optionally be machined with a groove to fit an 'o' ring seal. An increase of up to two step thread sizes is permitted on the AD-U series.

AD-U and RD-U Series – Metallic hexagonal or round bodied adaptors (AD-U) or reducers (RD-U)
Coded: Ex db I/IIC Mb/Gb, Ex eb I/IIC Mb/ Gb Ex tb IIIC Db
M12 TO M120 (or equivalent thread forms)

The **AM-D / AM-U** range of Male to Male thread adaptors each comprises a hexagon body with a male thread form at each end. The devices are used to convert an existing cable entry aperture thread to a different thread form and/or size. Coded: Ex db I/IIC Mb/Gb, Ex eb I/IIC Mb/ Gb Ex tb IIIC Db
M16 TO M90 (or equivalent thread forms)

The **AF-U** range of Female to Female thread adaptors each comprises a hexagon body with a female thread form at each end. The devices are used to convert an existing cable entry aperture thread to a different thread form and/or size. Coded: Ex db I/IIC Mb/Gb, Ex eb I/IIC Mb/ Gb Ex tb IIIC Db
M16 TO M120 (or equivalent thread forms)

Types **AD-E4** Adaptors and Types **RD-E4** Reducers are glass fibre nylon versions, 30% Glass filled Nylon is the standard material type and 40% Glass filed Nylon is a specific type. They are designed to convert an existing cable entry aperture in the associated apparatus to a different thread form and/or size. Each device comprises a hollow body with a male thread at one end and a female thread at the other. The AD-E4 is a hexagon type adaptor. The RD-E4 is a hexagon type reducer.
Coded: Ex eb IIC Gb, Ex tb IIIC Db

The **AE-E** Series range of earth lead adaptors and reducers each comprise a hexagon body with a male thread at one end and a female thread machined into the other. The devices are designed to provide a connection from a cable gland or termination to earth via a 300mm long earth lead cable riveted and soldered to the body and additionally may be used to convert an existing cable entry aperture thread to a different thread form and/or size. Coded Ex eb I/IIC Mb/Gb Ex tb IIIC Db IP6X
M16 TO M75 (or equivalent thread forms)

Type **UN-D / UN-U and FB** Male to Female Unions and **UF-D / UF-U and FL** Female to Female Unions each comprise a hexagon body, an internally threaded cone and an external nut. The devices are designed for connection when a conventional adaptor is impractical. Additionally, they may be used to convert an existing cable entry to a different thread form and/or size.
Coded: Ex db I/IIC Mb/Gb, Ex eb I/IIC Mb/Gb Ex tb IIIC Db IP6X
M16 TO M75 for FB-FL (or equivalent thread forms)
UN-D / UN-U and **UF-D / UF-U** are between M20 and M75 (or equivalent thread forms)

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SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS16ATEX101339X R.1

Thread forms Options:

ISO Metric (to BS3463), PG to DIN40430, NPT (ANSI/ASME B1.20.1), NPS (ANSI/ASME B1.20.1), ISO Pipe Thread (BS21) BSPP/BSPT, Imperial conduit ET BS31 BSP to BS21 or thread forms complying with standard EN 60079-1.

As an option for AD-E4 & ADU adaptors (Ex eb or tb application only), male threads can be drilled with holes to drain the water (when assembled with a breather drain for instance).

Material options:

Brass to BS 2874:1985
Brass to BS 2872:1989
Lead-free brass: CW724R Stainless
steel to BS 970: part4 Mild steel to
BS 970: Part 1: 1983 Aluminium
(Not for Group I) 30 % Glass filled
Nylon
40% Glass filled Nylon

CE Marking shall be accompanied by the identification number of the Notified Body responsible for surveillance of production.

14. **DRAWINGS AND DOCUMENTS**

TITLE	DOCUMENT Nr	LEVEL	DATE
*Ex d I&IIC AND Exe I&II ADAPTORS	AD-U	2	24-05-2021
*Ex accessories Safety Instructions	CAP184267	2022-03b	-
*Technical Specification	SPEC-ADAPT-RD-Rev-I-0.docx	0	2023/03/09
*Ex Accessories – Adaptors & Reducers – ATEX & IECEx (2 Pages)	MARK-ADAPT-RD-Rev-I-0.docx	0	2023/03/09
Ex e II CERTIFIED G.F.N ADAPTORS & REDUCERS	AD / RD-E4	2	09-07-2019
Ex e II CERTIFIED EARTH LEAD ADAPTORS	AE-E Adaptor	1	09-03-2016
Ex e II CERTIFIED EARTH LEAD REDUCER	AE-E Reducer	1	09-03-2016
Ex d I&IIC & Ex e I&II F x F ADAPTOR/ REDUCER	AF-U	1	08-03-2016
MALE x MALE ADAPTOR / REDUCER	AM-U	1	08-03-2016
Ex d I&IIC & Exe I &II REDUCERS	RD-U	1	08-03-2016
Exd/ Exe IIC UNIONS	UN-U/ UF-U	1	08-03-2016
FB-FL SERIES UNIONS	FB-FL	1	05-04-2016
Marking Drawing	IECExITS16.0013X ITS16ATEX101339X	1	15-11-2016

Documents marked with a '*' have been modified or added as part of the revision. Copies of the above listed documents are kept at Intertek Italia S.p.A. archive.

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15. **SPECIFIC CONDITIONS OF USE**

1. When used in flameproof applications. only one adaptor or reducer is to be used with any single cable entry on the associated equipment.
2. The interfaces between these devices and the associated enclosure cannot be defined; therefore, it is the user's responsibility to ensure that the appropriate ingress protection level is maintained at these interfaces.
3. Aluminum variants are not permitted for Group I applications
4. At their point of mounting, these devices are suitable for use at the following temperatures dependent on the type of 'o'-ring:

O-ring Service temp

Material	Service Temperature
None fitted	-60°C to 200°C*
EPDM	-50°C to +100°C
Nitrile	-30°C to +80°C
Neoprene	-40°C to +80°C
Viton	-20°C to +180°C*
Silicone	-60°C to +180°C *
Fluorosilicone	-60°C to +130°C
30% Glass Filled Nylon	-30°C to +90°C
40% Glass Filled Nylon	-20°C to +45°C

Note:. The limiting temperatures specified above are de-rated by 20K according to Clause 7.2.2 'Material Selection' of EN 60079-0

Note: The maximum temperature is limited to 150°C in Group I application (Coal dust, Mining) O-ring materials affect marked with '*' above.

Note: Unless fitted with an interface sealing O-ring with lower properties, temperatures shall then be limited as per the manufacturer's instructions.

Conditions specific to type:

AD-U Adaptors and RD-U Reducers

1. When installed in Group I applications, the ADU M12 (M) to M20 (F) adaptor manufactured in brass shall be installed where the risk of impact is low

AE-E Earth Lead Adaptors and Reducer

2. At their point of mounting, these devices are suitable for use at -20°C to +40°C.

AD-E4, RD-E4

3. The adaptors/reducers, made from non-metallic material, are only suitable for installation in areas considered to be a low risk from mechanical impact.
4. The adaptors/reducers, made from non-metallic material 40% Glass Filled Nylon, shall be adequately protected from direct exposure to sunlight.

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SCHEDULE

EU TYPE EXAMINATION CERTIFICATE NUMBER: ITS16ATEX101339X R.1

16. **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS**

The relevant essential Health and Safety Requirements have been identified and assessed in Intertek Report Nr. 105332195LHD-001 dated 31st August 2023.

17. **ROUTINE (FACTORY) TESTS**

None.

18. **DETAIL OF CERTIFICATE CHANGES**

R.1 (?? August 2023):

- Add holes into threads for the Adaptors & Reducers AD-U / AD-E4 in order to drain moisture when associated with a breather.
- Update of some drawings.
- Update to EN IEC 60079-0:2018.

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4.14 QM1.1..QM1.6 and QM2.1..QM2.6 – Cable Gland for Solenoid Valve, 501/421 O M20 Brass

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cml B.V. certification management

EU Type Examination Certificate CML 19ATEX1167X Issue 3

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **A Range of Cable Glands with Compression Seals**

501/421; 501/421 "Size 2K"; 501/423; 501/453 RAC; PSG 553 RAC; 501/414; SB474

3 Manufacturer **Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of Companies)**

4 Address **Oxford Street West, Ashton-under-Lyne, Lancashire, OL7 0NA United Kingdom**

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-31:2014

EN IEC 60079-7:2015+A1:2018

10 The equipment shall be marked with the following:

Ex II 2 G D

Ex db IIC Gb

Ex eb IIC Gb

Ex tb IIIC Db
IP 66/67/X8 – 10m/24h
See conditions of use for service temperature range

RvA C 640 PRODUCTS

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L A Brisk
Assistant Certification Manager

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CML 19ATEX1167X
Issue 3

11 Description

Each of the following gland types may be manufactured in brass, nickel plated brass, stainless steel or aluminium and may be supplied with agreed alternative entry thread forms.

The Type 501/421 Cable Gland is intended for use with an effectively filled and circular unarmoured cables and comprises the following components: -

a) An entry component in the size range Os to J
b) A compressible sealing ring
c) A compression spigot
d) A back nut
e) An optional earth continuity device for use with metallic sheathed cables

The Type 501/421 'Size 2K' Gland comprises the following components only: -

a) A dedicated entry component
b) A compressible sealing ring
c) A nylon skid washer
d) A threaded compression spigot

The Type 501/423 Cable Gland is intended for use with effectively filled and circular unarmoured cables and comprises the following components: -

a) An entry component, in the size range Os to J
b) Two compressible sealing rings
c) Two compression spigots
d) A middle nut
e) A back nut
f) An optional earth continuity device for use with metallic sheathed cables

The Type 501/453 RAC Cable Gland is intended for use with armoured, unarmoured, or braided cable and comprises the following components:

a. An entry component, in the size range Os to J
b. A compressible sealing ring.
c. A combined compression spigot and armour clamping cone.
d. A reversible armour clamping ring.
e. A middle nut
f. An outer seal assembly (sleeve seal and support cage)
g. A back nut
h. An optional earth continuity device for use with metallic inner sheathed cables

The Type PSG 553 RAC Cable Gland is intended for use with armoured, unarmoured, or braided cables of unspecified construction and comprises the following components: -

a) An entry component in the size range Os to C
b) A compressible seal designed to accept a number of individual conductors
c) A combined compression spigot and armour clamping cone
d) A reversible armour clamping ring.
e) A middle nut
f) An outer seal assembly (sleeve seal and support cage)
g) A back nut

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Issue 3

The Type 501/414 Conduit Stopping Gland is intended for use with an effectively filled and circular unarmoured cable enclosed within a conduit and comprises the following components: -

a) An entry component in the size range Os to F
b) A compressible sealing ring
c) A compression assembly comprising a compression spigot with a female thread at the rear and integral back nut

The Type SB474 Conduit Stopping Gland is intended for use with a number of circular conductors enclosed within a conduit and comprises the following components: -

a) An entry component in the size range O to C
b) A compressible seal designed to accept a number of individual conductors
c) A compression assembly comprising a compression spigot with a female thread at the rear and integral back nut.

Design option

1. The use of a 3M cold Shrink tubing to be fitted to the outer sheath of specific non-circular cables as specified in the drawing 320000, and fitted into 'Os', 'O' and 'A' sizes of the 501/453 cable glands. To ensure that the IP sealing arrangement utilizing the cable shrink tube assembly does not affect the assigned IP rating of the glands. The selection of the relevant cable gland to meet the protection concept for the cable and the enclosure it is fitted on to as detailed in EN 60079-14 remain un-affected.
2. The gland assemblies as described above are rated for ingress protection IP66 and 67.
3. Cable glands may be fitted with an optional external clamp or a second accessory option type Hawke Gland Mounted Clamp (GMC).
4. Where marked IIC or IIIC, the equipment can also be marked for gas groups IIA or IIB and for dust groups IIIA or IIIB.

Variation 1

This variation introduces the following modifications:

i. Update GA drawings.
ii. Add accessory optional item GMC 'Gland Mounted Clamp'.
iii. Clarify the ingress protection, IP ratings.
iv. To review and update the cable glands against the latest standard.
v. To include the 501/453 RAC type cable Gland.
vi. To permit the update to gland sizes.
vii. Update the marking.
viii. To revise the equipment title.
ix. To revise the product description.
x. To revise the specific conditions of use.

Variation 2

This variation introduces the following modifications, and it is is applicable to Type PSG 553 RAC Cable Gland and Type SB474 Conduit Stopping Gland.

i. To introduce a new seal design for PSG/553/RAC, sizes Os to C and SB 474, sizes O to C; as a result the product description was amended.

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CML 19ATEX1167X
Issue 3

ii. To introduce a new compressible seal which has an increased service temperature of -60°C to +100°C; to reflect this modification the product description and Specific Conditions of Use were updated.
iii. To permit minor editorial updates to the Product Description.
iv. To permit changes to the Specific Conditions of Use.
v. To remove cable gland types 501/452 RAC and PSG 421; as a result, the product description was amended.

Variation 3
This variation introduces the following modifications:

i. To modify the core diameter range on sizes O/A/B/C and B-ALT of the PSG 553 RAC and SB474 gland types and modify certification documentation.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	04 June 2019	R11908A/00	The issue of the prime certification.
1	28 Sept 2021	R13593A/00	The introduction of variation 1. (UKEX)
2	31 Mar 2022	R14930A/00	The introduction of variation 2
3	23 Aug 2023	R16380A/00	The introduction of variation 3

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

None

14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

i. The PSG/553/RAC and SB 474 cables glands are limited to an operating temperature range of -60°C to +80°C, unless marked “P PSG/553/RAC” and “P SB 474” respectively. In these cases, they are suitable for use with an operating temperature range of -60°C to +100°C. All other cable gland types are suitable for use with an operating temperature range of -60°C to +100°C.

ii. When the glands are used for increased safety or dust protection the entry thread shall be suitably sealed (in accordance with IEC 60079-14) to maintain the ingress protection rating of the associated enclosure. Not applicable when Hawke IP 66/67 seal is used.

iii. Glands for use with conduit, unarmoured or braided cables are only suitable for fixed installations, the cable for which must be effectively clamped to prevent pulling and twisting (does not apply when fitted with rear clamping device or Hawke Gland Mounted Clamp (GMC)).

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Certificate Annex

Certificate Number	**CML 19ATEX1167X**
Equipment	**A Range of Cable Glands with Compression Seals** **501/421; 501/421 "Size 2K"; 501/423; 501/453 RAC; PSG 553 RAC; 501/414; SB474**
Manufacturer	**Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of Companies)**

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
501 421	1 to 2	L	04 June 2019	General Arrangement for Unarmoured 501 421 Gland
501 421 Oversized	1 of 1	H	04 June 2019	General Arrangement for Unarmoured 501 421 Oversized Gland
501 423	1 of 1	L	04 June 2019	General Arrangement for 501/423 Gland
501 423 Oversized	1 of 1	H	04 June 2019	General Arrangement for 501/423 Oversized Gland
501 414	1 of 1	L	04 June 2019	General Arrangement for 501/414 Conduit Stopper Box (using Compression Seal)
501 452 RAC X	1 of 1	A	04 June 2019	General Arrangement of Gland Type 501/452/RAC-X
501 453 RAC X	1 of 1	A	04 June 2019	General Arrangement of Gland Type 501/453/RAC-X
PSG 553 RAC X	1 of 1	A	04 June 2019	General Arrangement for PSG 553 Gland
PSG 421	1 of 1	B	04 June 2019	General Arrangement for Unarmoured PSG 421 Glan
SB 474	1 of 1	L	04 June 2019	General Arrangement for SB 474 Gland

Issue 1

Drawing No.	Sheets	Rev	Approved date	Title
320016*	1 of 1	A	28 Sept 2021	501/453/RAC
320021*	1 of 1	A	28 Sept 2021	501/421 schedule drawing
320026*	1 of 1	A	28 Sept 2021	501/423 schedule drawing
320028*	1 of 1	A	28 Sept 2021	501/452/RAC schedule drawing
320035*	1 of 1	A	28 Sept 2021	PSG/421 schedule drawing
320037*	1 of 1	A	28 Sept 2021	PSG/553/RAC schedule drawing
320038*	1 of 1	A	28 Sept 2021	501/414 schedule drawing
320040*	1 of 1	A	28 Sept 2021	SB 474 schedule drawing

The following component drawings are common to each of the cable gland as indicated.

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Certificate Annex

Certificate Number CML 19ATEX1167X

Equipment A Range of Cable Glands with Compression Seals

501/421; 501/421 "Size 2K"; 501/423; 501/453 RAC; PSG 553 RAC; 501/414; SB474

Manufacturer Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of Companies)

	Drawing No.	Sheets	Rev	Approved /issued date	Title	501/421	501/423	501/452/RAC	PSG/421	PSG/553/RAC	501/414	SB 474	CSB 656N	501/453/RAC
a	320002	1 of 1	A	28-09-2021	Armour clamping ring			x		x				x
b	320009	1 of 1	A	28-09-2021	Middle nut			x		x				x
c	320003	1 of 1	A	28-09-2021	Back nut seal					x				x
d	320010	1 of 1	A	28-09-2021	Back nut					x				x
e	320011	1 of 1	A	28-09-2021	Thread forms		x	x	x	x	x	x	x	x
f	320012	1 of 1	A	28-09-2021	External clamp	x				x				x
g	320082	1 of 1	A	28-09-2021	GMC	x	x			x				x
h	320031	1 of 1	A	28-09-2021	ALT Compound Chamber Entry								x	
i	320032	1 of 1	A	28-09-2021	ALT Compound Chamber								x	
j	320017	1 of 1	A	28-09-2021	Compression seal entry	x	x	x	x	x	x	x		x
k	320018	1 of 1	A	28-09-2021	Compression seal	x	x	x			x			x
l	320022	1 of 1	A	28-09-2021	Compression spigot	x	x		x					
m	320023	1 of 1	A	28-09-2021	Tail nut	x	x		x		x	x	x	
n	3027 2k	1 of 1	A	28-09-2021	Nylon skid washer	x								
o	3077 Os-2K	1 of 1	A	28-09-2021	Spigot 411/321/421 2K Gland	x								
p	320027	1 of 1	A	28-09-2021	Body nut		x							
q	320036	1 of 1	A	28-09-2021	PSG Seal				x	x		x		
r	320039	1 of 1	A	28-09-2021	Conduit gland body						x	x	x	

Issue 2

	Drawing No.	Sheets	Rev	Approved date	Title
01	320036	1 of 1	B	31 Mar 2022	PSG Seal Schedule Drawing
02	320037	1 of 1	B	31 Mar 2022	PSG/553/RAC Schedule Drawing
03	320040	1 of 1	B	31 Mar 2022	SBS474 Schedule Drawing
04	320091	1 of 1	A	31 Mar 2022	PPSG Seal Schedule Drawing

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Certificate Annex

Certificate Number	**CML 19ATEX1167X**
Equipment	**A Range of Cable Glands with Compression Seals** **501/421; 501/421 "Size 2K"; 501/423; 501/453 RAC; PSG 553 RAC; 501/414; SB474**
Manufacturer	**Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of Companies)**

Issue 3

Drawing No	Sheets	Rev	Approved date	Title
320091	1 of 1	B	23 Aug 2023	PPSG Seal Schedule Drawing

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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

Certificate No.:	**IECEx CML 19.0045X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 3	Issue 2 (2022-03-31) Issue 1 (2021-09-28) Issue 0 (2019-06-04)
Date of Issue:	2023-08-23		

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

Equipment: **A Range of Cable Glands with Compression Seals 501/421; 501/421 "Size 2K"; 501/423; 501/453 RAC; PSG 553 RAC; 501/414; SB474**

Optional accessory:

Type of Protection: **Flameproof Ex "db", Increased Safety Ex "eb" and Dust Protection by Enclosure Ex "tb"**

Marking: Ex db IIC Gb

Ex eb IIC Gb

Ex tb IIIC Db

IP 66/67/X8-10m/24h

See conditions of use for service temperature range

Approved for issue on behalf of the IECEx Certification Body: **L A Brisk**

Position: **Assistant Certification Manager**

Signature: (for printed version)

Date: (for printed version) 23 Aug 2023

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Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

IECEx Certificate of Conformity

Certificate No.: **IECEx CML 19.0045X** Page 2 of 4

Date of issue: 2023-08-23 Issue No: 3

Manufacturer: **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

Manufacturing locations: **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

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 equipment 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1:2014 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31:2022 Edition:3.0	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7:2017 Edition:5.1	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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 equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/CML/ExTR19.0096/00 GB/CML/ExTR21.0018/00 GB/CML/ExTR21.0314/00
GB/CML/ExTR23.0191/00

Quality Assessment Report:

GB/BAS/QAR06.0061/10

IECEx Certificate of Conformity

Certificate No.: **IECEx CML 19.0045X** Page 3 of 4

Date of issue: 2023-08-23 Issue No: 3

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Each of the gland types may be manufactured in brass, stainless steel or aluminium and may be supplied with agreed alternative entry thread forms.

Refer to Certificate Annex for full product description.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Refer to Certificate Annex for list of specific conditions of use.

IECEx Certificate of Conformity

Certificate No.: **IECEx CML 19.0045X** Page 4 of 4

Date of issue: 2023-08-23 Issue No: 3

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Issue 1
This issue introduces the following changes:

1. Update GA drawings.
2. Add accessory optional item GMC 'Gland Mounted Clamp'.
3. Clarify the ingress protection, IP
4. To review and update the cable glands against the latest standard.
5. To include the 501/453 RAC type cable Gland.
6. To permit the update to gland sizes.
7. Update the marking.
8. To revise the equipment title.
9. To revise the product description.
10. To revise the specific conditions of use.

Issue 2
This issue introduces the following changes and it is applicable to Type PSG 553 RAC Cable Gland and Type SB474 Conduit Stopping Gland.

1. To introduce a new seal design for PSG/553/RAC, sizes Os to C and SB 474, sizes O to C; as a result the product description was amended.
2. To introduce a new compressible seal which has an increased service temperature of -60°C to +100°C; to reflect this modification the product description and Specific Conditions of Use were updated.
3. To permit minor editorial updates to the Product Description.
4. To permit changes to the Specific Conditions of Use.
5. To remove cable gland types 501/452 RAC and PSG 421; as a result, the product description was amended.

Issue 3
This issue introduces the following changes:

1. To modify the core diameter range on sizes O/A/B/C and B-ALT of the PSG 553 RAC and SB474 gland types and modify certification documentation.
2. To review and update the equipment against the latest requirement of IEC 60079-31:2022 Ed.3.

Annex:

Certificate Annex IECEx CML 19.0045X Iss 3.pdf

Annexe to:	IECEx CML 19.0045X, Issue 3
Apparatus:	A Range of Cable Glands with Compression Seals 501/421; 501/421 "Size 2K"; 501/423; 501/453 RAC; PSG 553 RAC; 501/414; SB474
Applicant:	Hawke International (A Division of Hubbell Limited) (A member of the Hubbell group of Companies)

Description

Each of the following gland types may be manufactured in brass, nickel plated brass, stainless steel or aluminium and may be supplied with agreed alternative entry thread forms.

The Type 501/421 Cable Gland is intended for use with an effectively filled and circular unarmoured cables and comprises the following components: -

a) An entry component in the size range Os to J
b) A compressible sealing ring
c) A compression spigot
d) A back nut
e) An optional earth continuity device for use with metallic sheathed cables

The Type 501/421 'Size 2K' Gland comprises the following components only: -

a) A dedicated entry component
b) A compressible sealing ring
c) A nylon skid washer
d) A threaded compression spigot

The Type 501/423 Cable Gland is intended for use with effectively filled and circular unarmoured cables and comprises the following components: -

a) An entry component, in the size range Os to J
b) Two compressible sealing rings
c) Two compression spigots
d) A middle nut
e) A back nut
f) An optional earth continuity device for use with metallic sheathed cables

The Type 501/453 RAC Cable Gland is intended for use with armoured, unarmoured, or braided cable and comprises the following components:

a. An entry component, in the size range Os to J
b. A compressible sealing ring.
c. A combined compression spigot and armour clamping cone.
d. A reversible armour clamping ring.
e. A middle nut
f. An outer seal assembly (sleeve seal and support cage)
g. A back nut
h. An optional earth continuity device for use with metallic inner sheathed cables

Eurofins E&E CML Limited
Newport Business Park, New Port Road
Ellesmere Port, CH65 4LZ, UK

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TEMPLATE FRM5100236 0H

Ballard Confidential

Printed on: Wednesday, March 19, 2025

The Type PSG 553 RAC Cable Gland is intended for use with armoured, unarmoured, or braided cables of unspecified construction and comprises the following components: -

a) An entry component in the size range Os to C
b) A compressible seal designed to accept a number of individual conductors
c) A combined compression spigot and armour clamping cone
d) A reversible armour clamping ring.
e) A middle nut
f) An outer seal assembly (sleeve seal and support cage)
g) A back nut

The Type 501/414 Conduit Stopping Gland is intended for use with an effectively filled and circular unarmoured cable enclosed within a conduit and comprises the following components: -

a) An entry component in the size range Os to F
b) A compressible sealing ring
c) A compression assembly comprising a compression spigot with a female thread at the rear and integral back nut

The Type SB474 Conduit Stopping Gland is intended for use with a number of circular conductors enclosed within a conduit and comprises the following components: -

a) An entry component in the size range O to C
b) A compressible seal designed to accept a number of individual conductors
c) A compression assembly comprising a compression spigot with a female thread at the rear and integral back nut.

Design option

1. The use of a 3M cold Shrink tubing to be fitted to the outer sheath of specific non-circular cables as specified in the drawing 320000, and fitted into 'Os', 'O' and 'A' sizes of the 501/453 cable glands. To ensure that the IP sealing arrangement utilizing the cable shrink tube assembly does not affect the assigned IP rating of the glands. The selection of the relevant cable gland to meet the protection concept for the cable and the enclosure it is fitted on to as detailed in EN 60079-14 remain un-affected.
2. The gland assemblies as described above are rated for ingress protection IP66 and 67.
3. Cable glands may be fitted with an optional external clamp or a second accessory option type Hawke Gland Mounted Clamp (GMC).
4. Where marked IIC or IIIC, the equipment can also be marked for gas groups IIA or IIB and for dust groups IIIA or IIIB

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Conditions of Manufacture

None

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

i. The PSG/553/RAC and SB 474 cables glands are limited to an operating temperature range of -60°C to +80°C, unless marked "P PSG/553/RAC" and "P SB 474" respectively. In these cases, they are suitable for use with an operating temperature range of -60°C to +100°C. All other cable gland types are suitable for use with an operating temperature range of -60°C to +100°C.

ii. When the glands are used for increased safety or dust protection the entry thread shall be suitably sealed (in accordance with IEC 60079-14) to maintain the ingress protection rating of the associated enclosure. Not applicable when Hawke IP 66/67 seal is used.

iii. Glands for use with conduit, unarmoured or braided cables are only suitable for fixed installations, the cable for which must be effectively clamped to prevent pulling and twisting (does not apply when fitted with rear clamping device or Hawke Gland Mounted Clamp (GMC)).

Components used which are covered by Ex Certificates issued to older editions of Standards

None

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4.15 XT01..06 – Compression Seal for Wall Penetration, Roxtec RS 50 B Ex-kit

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Attestation of Conformity for Components

We, Roxtec International AB, declare under sole responsibility that the products to which this declaration relates is in accordance with the provisions of the Directive 2014/34/EU
The products complies following harmonized stancards:

EN IEC 60079-0:2018, EN IEC 60079-7:2015/A1:2018 and EN 60079-31:2014

The standards listed in the EC-Type Examination Certificate are no longer harmonized, the revised (now harmonized) standards have been compared to the standards used for certification purposes and no changes in the "state of the art" apply to the equipment.

Cable Transit Device:
G...W Ex, S Ex, S...S0...Ex, SRC Ex, SK Ex, S BTB Ex, S...WM Ex,
SF...W Ex, R...W Ex, RO...W Ex, RS...W Ex and B...C Ex

Certificate:
No.12ATEX1279U issued by Nemko (id.no. 0470), based on EC-type Examination performed by them.
No. SP03ATEX7102 issued by RISE - Research Institutes of Sweden
(id.no 0402), based on assessment of the quality system performed by them.

Characteristics and how the components shall be incorporated into equipment:
Stated in EC-type Examination certificate and the instructions which accompany the components.

Marking:
CE 0402 Ex II 2G Ex e IIC Gb
CE 0402 Ex II 2D Ex tb IIIC Db

Karlskrona 2021-02-11

Roxtec International AB
Box 540
S-371 23 Karlskrona
SWEDEN

Jörgen Åkesson
Explosion Protection Manager

EU Declaration of Conformity

We, Roxtec International AB, declare under sole responsibility that the products to which this declaration relates is in accordance with the provisions of the Directive 2014/34/EU.
The products complies with following harmonized standards:

EN IEC 60079-0:2018, EN IEC 60079-7:2015/A1:2018 and EN 60079-31:2014
The standards listed in the EC-Type Examination Certificate are no longer harmonized, the revised (now harmonized) standards have been compared to the standards used for certification purposes and no changes in the "state of the art" apply to the equipment.

Cable Transit Device:
CF 16 Ex, CF 8/32 Ex, G Ex, G BG Ex, SF Ex, SF BG Ex, SFX...B Ex, R...B Ex, RO...B Ex, RS...B Ex, B...B Ex and C RS T- Ex

Certificate:
No.12ATEX1278X issued by Nemko (id.no. 0470), based on EC-Type Examination performed by them.
No. SP03ATEX7102 issued by RISE - Research Institutes of Sweden
(id.no 0402), based on assessment of the quality system performed by them.

Marking:
CE 0402 Ex II 2G Ex e IIC Gb
CE 0402 Ex II 2D Ex tb IIIC Db

Karlskrona 2021-02-11
Roxtec International AB
Box 540
SE-371 23 Karlskrona
SWEDEN

Jörgen Åkesson
Explosion Protection Manager

EU Declaration of Conformity

Document number: DOC-000575 revision F

We, Roxtec International AB, declare under sole responsibility that the products to which this declaration relates is in accordance with the provisions of the Directive 2014/34/EU.
The products complies with following harmonized standards:

EN IEC 60079-0:2018, EN IEC 60079-7:2015/A1:2018 and EN 60079-31:2014

The standard EN 60079-7:2015 listed in the EC-Type Examination Certificate are no longer harmonized. The revised (now harmonized) EN IEC 60079-7:2015/A1:2018 have been compared to the standard used for certification purposes and no changes in the "state of the art" apply to the equipment.

Cable Transit Device:
HD 16 Ex, HD 24 Ex, HD 32 Ex, HDLC Ex

Certificate:
No.15 ATEX6419X issued by Presafe (id. No 2460), based on EC-Type Examination performed by them.
No. SP03ATEX7102 issued by RISE - Research Institutes of Sweden (id.no 0402), based on assessment of the quality system performed by them.

Marking:
CE 0402 Ex II 2G Ex eb IIC Gb
CE 0402 Ex II 2D Ex tb IIIC Db

Karlskrona 2021-02-11
Roxtec International AB
Box 540
SE-371 23 Karlskrona
SWEDEN

Jörgen Åkesson
Explosion Protection Manager

Roxtec

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IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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Certificate No.:	IECEx NEM 12.0014X	Issue No: 4	Certificate history:
Status:	**Current**	Page 1 of 5	Issue No. 4 (2015-11-04) Issue No. 3 (2015-07-08) Issue No. 2 (2015-05-07) Issue No. 1 (2015-01-27) Issue No. 0 (2013-03-15)
Date of Issue:	**2015-11-04**		

Applicant: **Roxtec International AB**
Rombvägen 2
Box 540
SE-371 23 Karlskrona
Sweden

Equipment: **Cable Transit Device**
Optional accessory:

Type of Protection: **Ex e IIC Ex tb IIIC**

Marking:

Ex e IIC Gb, Ta -40°C To +80°C for CF 8 and CF 32.
Ex e IIC Gb, Ta -60°C To +80°C for all other variants.
Ex tb IIIC Db, Ta -40°C To +80°C for CF 8 and CF 32.
Ex tb IIIC Db, Ta -60°C To +80°C for all other variants.

Approved for issue on behalf of the IECEx Certification Body: Bjørn Spongsveen

Position: Certification Manager, Ex-products

Signature:
(for printed version)

Date:

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Certificate issued by:

NEMKO
Gaustadelleen 30
Oslo N-0314
Norway

IECEx Certificate of Conformity

Certificate No:	IECEx NEM 12.0014X	Issue No: 4
Date of Issue:	**2015-11-04**	Page 2 of 5
Manufacturer:	**Roxtec International AB** Rombvägen 2 Box 540 SE-371 23 Karlskrona **Sweden**	
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 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*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:

NO/NEM/ExTR12.0016/00 NO/NEM/ExTR12.0016/01 NO/NEM/ExTR12.0016/02
NO/NEM/ExTR12.0016/03 NO/NEM/ExTR12.0016/04

Quality Assessment Report:

SE/SP/QAR09.0001/04 SE/SP/QAR09.0001/03

IECEx Certificate of Conformity

Certificate No: IECEx NEM 12.0014X Issue No: 4

Date of Issue: **2015-11-04** Page 3 of 5

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Cable Transit Devices 'CTDs'(see Type Designation below), for use with circular cables both armoured and non-armoured or corrugated cables (see Corrugated cables below) of non-interrupted and non-metallic outer jacket type or conduits. The CTDs consists of multi diameter sealing modules (type RM Ex and CM Ex as standard or with EMC properties) that depending on each individual size, accepts a limited number of cable diameters in applicable types of frames or sleeves and shall be marked with the Ex symbol.

The modules are made of mirrored rubber profiles and each part has a number of thin rubber layers that are ending up with a solid rubber core. The layers are made with two different colours to make the adaption to a cable exactly same on both halves and are allowed to differ one layer at most. To achieve appropriate sealing and mechanical properties to prevent the cables from slippage there shall always be a visible separation between the sealing module halves.

The modules made of EPDM are available with layers and core, but some greater sizes are also available without the core. In addition there are also single diameter- and solid modules.

The correct sizes and procedure of assembling the cables to the modules are described in detail in the enclosed installation instructions. Ex Compression devices are used to achieve appropriate compression of the modules and solids some CTDs uses compression units that expands inside the CTDs and some others have incorporated solid rubber profiles that achieve the expansion.

There are also two types of CTDs that incorporates both the compression device and multi diameter modules as a single unit, but still with two halves. The method to assemble the compression devices etc. and to achieve sealing of the CTDs is described in detail in the enclosed installation instructions.

Most CTDs that has a rectangular opening with or without rounded corners with modules of type RM Ex are all available for different combinations with several openings in width and/or in high. CTDs for use with rectangular openings with CM Ex modules (one type with dual opening) and round sleeves are only available with single openings.

The CTDs installation instructions listed in this report will define each variant in detail and all applicable parts that are approved for use within that variant.

CONDITIONS OF CERTIFICATION: YES as shown below:

Conditions for safe use

1. For maintaining the explosion protection, the installation instructions that accompany the products shall be considered.
2. Only cable for fixed installation is permitted for the cable transit device.
3. For optimum reliability wait 24 hours or longer after installation before exposing the cables/pipes to strain or pressure.

IECEx Certificate of Conformity

Certificate No: IECEx NEM 12.0014X Issue No: 4

Date of Issue: **2015-11-04** Page 4 of 5

EQUIPMENT (continued):

Type Designations:
CF 8 Ex, CF 32 Ex, CF 16 Ex, C RS T… Ex, RS…B Ex, G… Ex, SF… Ex, SFX...B Ex, B…B Ex, R…B Ex and RO…B Ex
Temperature Range:
CF 8 Ex and CF 32 Ex , -40°C to +80°C
CF 16, C RS T…, RS…B, G…, SF…, SFX...B, B…B, R…B and RO…B, -60°C to +80°C
Corrugated cables for use with: CF 8, CF 32, SF… and G…
ACIC (Armoured Control and Instrumentation Cable) according to C22.1-06 CEC,
ACWU (Armoured Cable for Wet locations) according to UL4,
TECK90 according to C22.2 No. 131-07
MC (Metal Clad) according to UL1569

IECEx Certificate of Conformity

Certificate No:	IECEx NEM 12.0014X	Issue No: 4
Date of Issue:	2015-11-04	Page 5 of 5

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

New revisions added and corrections to mistyping in previous descriptive document list, issue No. 4.0.

4.16 XT07..09 – Cable Gland for Wall Penetration, 501/421 O M20 Brass

[Please refer to certificate from Section 4.14.]

4.17 XT07..09 – M32 to M20 Reducer, RDU100604

[Please refer to certificate from Section 4.13.]

4.18 XT10..11 – Cable Gland for Wall Penetration, 501/421 A M20 Brass

[Please refer to certificate from Section 4.14.]

4.19 XT10..11 – M40 to M20 Reducer, RDU100704

[Please refer to certificate from Section 4.13.]