


Report No.: 383368400

Notification No. DEKRA 24ATEXQ0021, issue 0

IECEX QAR No.: NL/DEK/QAR24.0003/00

Assessment in accordance with the requirements of:	ATEX <input checked="" type="checkbox"/> IECEX <input checked="" type="checkbox"/>	
Manufacturer:	Douglas Electrical Components 5 Middlebury Blvd Randolph, NJ 07869 USA	
Production site: (Audited)	Douglas Electrical Components 5 Middlebury Blvd Randolph, NJ 07869 USA	
Number of employees:	A total of 100 employees on site, 65 involved in production of Ex products.	
Type of audit:	Initial Assessment <input checked="" type="checkbox"/> Re-Assessment <input type="checkbox"/>	Surveillance Assessment <input type="checkbox"/> Special Audit <input type="checkbox"/>
Electrical equipment with type(s) of protection of:	d <input checked="" type="checkbox"/> e <input checked="" type="checkbox"/> i <input type="checkbox"/> m <input type="checkbox"/> n <input type="checkbox"/> o <input type="checkbox"/> op <input type="checkbox"/> p <input type="checkbox"/> q <input type="checkbox"/> t <input type="checkbox"/> 60079-30-1 <input type="checkbox"/> Protective system <input type="checkbox"/> Safety, controlling or regulating device <input type="checkbox"/>	
solely provided by the supplier:	d <input type="checkbox"/> e <input type="checkbox"/> i <input type="checkbox"/> m <input type="checkbox"/> n <input type="checkbox"/> o <input type="checkbox"/> op <input type="checkbox"/> p <input type="checkbox"/> q <input type="checkbox"/> t <input type="checkbox"/> 60079-30-1 <input type="checkbox"/>	
Non-electrical type(s) of protection:	h <input type="checkbox"/> (including b <input type="checkbox"/> c <input type="checkbox"/> k <input type="checkbox"/>)	
Lead Assessor: (name)	Z Fosse	
Lead Assessor: (Signature)		

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Contents:

1. Summary Report
2. Audit Data
3. Assessor's Report
4. Observations

1. Summary Report**Summary of observations:**

The manufacturer's production site operates an ISO 9001 : 2015 certified quality management system.

To fulfil the requirements of:

- the international standard ISO/IEC 80079-34 : 2018,
- the European standard EN ISO/IEC 80079-34 : 2020 and Directive 2014/34/EU– Annex IV and VII,

No items raised during the audit.

Non-Conformities

None.

Deviation from the audit plan and reasons:

None.

Significant issues impacting on the audit program:

None.

Significant changes that affect the management system since the last audit:

None.

Statement on the conformity and the effectiveness of the management system

Based on the results of internal audits and management reviews, the conformity and effectiveness of the Douglas Electrical Components management system is confirmed.

The certification scope is satisfactory to produce the Ex d line bushing and conduit seal products covered by this assessment.

The audit objectives have been fulfilled and are sufficiently covered by the quality management system. For details, see chapter 3 "Assessor's report".

The next audit is tentatively scheduled for August 2025.

Disclaimer

Auditing is based on a sampling process of the available information at the time of the assessment.

DEKRA Certification B.V. is not responsible nor can be held accountable for activities, conditions, operations, actions or failure of actions by facility staff that may occur or not occur after the auditor(s) leave the facility.

Audit Team Leader Recommendations

- **ATEX Notification**
- **IECEX 02 QAR**

- to be issued/maintained**

- to be issued/maintained** following receipt of satisfactory documentary evidence supporting effective corrective action. Corrective action to be verified at next audit.

- to be issued/maintained following a satisfactory follow-up visit** and verification that corrective actions have been effectively documented and implemented.

- to be refused/suspended** A further complete assessment to be conducted.

- to be refused/suspended** close the application/withdraw the notification/Report and inform other ATEX notified bodies/IECEX 02 Secretary.

Accepted by ATEX Notified Body / IECEX 02 ExCB:

DEKRA Certification B.V.

27 February 2024

E. ter Haar
EX Certification Manager**2. Audit Information****2.1 Scope of Audit:**

Products certified per IECEX Certificate of conformity and/or EU- or EC-Type examination certificates as listed in the online IECEX QAR or Schedule to ATEX notification, with the types of protection as detailed therein.

- **Type A** initial assessment/reassessment of manufacturer with a certified Quality Management System
- **Type B** initial assessment/reassessment of manufacturer without a certified Quality Management System
- **Type C** surveillance of manufacturer with a certified Quality Management System
- **Type D** surveillance of manufacturer without a certified Quality Management System
- **Type E** integrated (NBR) ISO 9001/ EN ISO/IEC 80079-34 / ISO/IEC 80079-34, reassessment or surveillance
- **Type F** special audit : Expanding scope / Short-notice audits

- Stage 1 audit findings report sent on 7 September 2023.
- Stage 1 assessment carried out and finalised with satisfactory results.

The (mis)use of marks and/or any other reference to certification is assessed. No discrepancy was found.

- The manufacturing does not operate in shifts.
- The manufacturing operates in shifts and each shift uses the same procedures, work instructions and qualified persons, therefore it is considered not necessary to audit each shift.

Report No.: 383368400**Notification No. DEKRA 24ATEXQ0021, issue 0****IECEX QAR No.: NL/DEK/QAR24.0003/00**

- The manufacturing operates in shifts and all shifts have been assessed during the audit.

2.2 Audit Criteria

To verify if the requirements of Directive 2014/34/EU Annex IV and/or VII and/or IECEx 02 rules in relation to existing (or shortly to be issued) ATEX, or IECEx 02 certificates are met, by using the following standard(s):

(EN) ISO/IEC 80079-34 : 2018 (2020)- Explosive atmospheres – part 34: Application of quality systems for equipment manufacture

Reference documents used:

EN ISO 9001 : 2015 - Quality management systems – Requirements

Objectives of the audits:

The following audit objectives are accomplished by the audit:

- determination of the conformity of the management system (including management system requirements supporting conformity of the product), or parts of it, with the audit criteria as stated;
- determination of the ability of the management system to ensure the applicable requirements in accordance with Directive(s), rules or regulations as defined in the Audit Criteria are met;
- determination of the effectiveness of the management system;
- as applicable, identification of areas for potential improvement of the management system;
- determination of the conformity of the product with the type described in the EC- or EU-Type Examination Certificate and/or IECEx Certificate of conformity and with the requirements of Directive(s), rules or regulations as defined in the Audit Criteria which apply to it;
- determination of the appropriate use of marks.

2.3 Date(s) of Audit:

Stage 1 audit: 7 September 2023 (remote)

Stage 2 audit: 14 February 2024

Number of man-days on-site:

1 man-day

2.4 Certified Quality System

ISO 9001 Certificate No	Certified by	Expiry date	Scope covers the manufactured ATEX/IECEx products	
49918/A/0001/UK/En	URS	2026-May-08	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>

A digital copy of the ISO 9001 certificate issued by a body accredited by an IAF signatory organization is stored as evidence.

If ISO 9001 certified, were non-conformities from the last ISO 9001 audit reviewed?

Yes

No

N/A (no NCs)

Comments to ISO 9001 non-conformities.

The audit report, including any nonconformity raised during the audit and corresponding corrective actions, has been evaluated during the audit.

2.5 Composition of Audit Team:

Name	Position	Role in Audit (Sole Auditor, Team Leader, Auditor, Technical Specialist, etc)
Z Fosse	Lead Assessor	Sole Auditor / Team Leader

2.6 Interviewed representatives of manufacturer (auditees):

Name	Position	Opening meeting	Closing meeting
Fernando Zambrano	Quality Manager	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Jose Barreto	Director of Engineering	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

2.7 External Providers: *(List critical suppliers reviewed during audit of supplier evaluation)*

Name	Item or Service	QMS Certificate(s)
Elsworth Adhesives	Epoxy	ISO 9001
Allied Wire	Electrical wire	
Admiral Metals	Machined housing	Inspection
I.C. Machine	Machined housing	Inspection
CDS Precision	Machined housing	Inspection
Fox Valley	Calibration	ISO 17025
Trescal	Calibration	ISO 17025

2.8 Manufacturers Documentation: *(List manufactures documentation related to this Quality Audit Report)*

	Document No.	Document Name	Rev.	Date
<input type="checkbox"/>	QM 01	Quality Manual	Z	7/30/2023
<input type="checkbox"/>	OP01	Document and Data Control	F	6/15/2023
<input type="checkbox"/>	OP02	Control of Records	I	6/15/2023
<input type="checkbox"/>	OP03	Job Specifications	H	6/15/2023
<input type="checkbox"/>	OP05	Training and Employee Development	I	6/15/2023
<input type="checkbox"/>	OP06	Application Engineering	P	6/15/2023
<input checked="" type="checkbox"/>	OP07	Sales	V	6/15/2023
<input type="checkbox"/>	OP09	Purchasing	R	6/15/2023
<input type="checkbox"/>	OP10	Supplier Selection and Evaluation	L	6/15/2023
<input type="checkbox"/>	OP11	Receiving Inspection	T	6/15/2023
<input type="checkbox"/>	OP12	Production	V	6/15/2023
<input checked="" type="checkbox"/>	OP13	Recall	OR	3/3/2012
<input checked="" type="checkbox"/>	OP14	Production Inspections	O	6/15/2023
<input type="checkbox"/>	OP17	Handling & Housekeeping	J	6/15/2023
<input type="checkbox"/>	OP18	Stockroom	Q	6/15/2023
<input checked="" type="checkbox"/>	OP19	Shipping and Receiving	Y	6/15/2023
<input type="checkbox"/>	OP20	Calibration	L	6/15/2023
<input type="checkbox"/>	OP21	Internal Audit	H	6/15/2023
<input type="checkbox"/>	OP22	Corrective Actions	G	6/15/2023

Report No.: 383368400

Notification No. DEKRA 24ATEXQ0021, issue 0

IECEX QAR No.: NL/DEK/QAR24.0003/00

	Document No.	Document Name	Rev.	Date
<input type="checkbox"/>	OP23	Design Control	D	6/15/2023
<input type="checkbox"/>	OP25	Employee Development	H	6/15/2023
<input type="checkbox"/>	OP26	RMA Process	A	6/15/2023
<input checked="" type="checkbox"/>	OP27	Restricted Materials	B	2/14/2024
<input checked="" type="checkbox"/>	OP28	DEC Quality Assurance T&C (Suppliers)		
<input type="checkbox"/>	OP33	Manufacturing Control	D	6/15/2023
<input type="checkbox"/>	OP34	Risk and Opportunity Management	B	6/15/2023
<input checked="" type="checkbox"/>	OP35	Production Preventative Maintenance	OR	
<input type="checkbox"/>	OP37	Ex Manufacturing Control	A	6/15/2023
<input type="checkbox"/>	WI105	Pressure test		
<input type="checkbox"/>	WI301	Epoxy Handling	M	
<input type="checkbox"/>	WI346	Standard Potting	B	

 Note: An is included before the title of documents that are new or revised at an up- issue of the report.

2.9 Manufacturers Ex Certificates of Conformity:

Ex Certificate No.	Short description of Ex equipment	Ex protection	Routine test required	Certificate checked
DEKRA 23ATEX0024X IECEX DEK 23.0020X	Line Bushings, Type 57754-***-1-**-**	Ex d	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

2.9.1 Certificates as Critical Supplier

Ex Certificate No.	Short description of Ex equipment	Ex protection	Routine test required	Certificate checked
CSANe 20ATEX3176U IECEX CSA 19.0036U	Dual Process Seals Models G-00052040 and G-000520401 (ACMTC)	Ex e	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	<input checked="" type="checkbox"/>
FM 16ATEX0068X IECEX 16.0033X	Feedthru 280835-2 (ATEMETK Tempesonic)	Ex d	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

3. Assessor's Report

(EN) ISO/IEC 80079-34 requirements:

Note: Possible audit verdicts (V): P = Pass, NA = Not applicable, NC = Non-Conformity, the Non-conformity number against a clause where a Non-conformity has been issued is added.

Clause 4 - Context of the organization

Clause	Description	Reference documents	Audit findings	V
4.1	Understanding the organization and its context	QM01 OP37	The context of the organization is to ensure that any Ex Product is in accordance with its certificate and technical documentation.	P
4.2	Understanding the needs and expectations of interested parties		Manufacturers ISO 9001 QMS complies.	P
4.3	Determining the scope of the quality management system		Manufacturers ISO 9001 QMS complies.	P
4.4	Quality management system and its processes	QM01 49918/A/0001/UK/En ISO 9001 49918/B/0001/UK/En ISO 14001 GB/SIR/QAR20.0003 GB/FME/QAR14.0005	The quality management system ensures that the Ex Product conforms to the type described in the certificate and the technical documentation. Compliance to the requirements of ISO/IEC 80079-34 is defined. Douglas has previously been audited by CSA and FM as a critical supplier for other manufacturers.	P

Clause 5 - Leadership

Clause	Description	Reference documents	Audit findings	V
5.1	Leadership and commitment		Manufacturers ISO 9001 QMS complies.	P
5.1.1	General		Manufacturers ISO 9001 QMS complies.	P
5.1.2	Customer focus		Manufacturers ISO 9001 QMS complies.	P
5.2	Policy			P
5.2.1	Establishing the quality policy		Manufacturers ISO 9001 QMS complies.	P
5.2.2	Communicating the quality policy		Manufacturers ISO 9001 QMS complies.	P
5.3	Organizational roles, responsibilities, and authorities	QM01 Org Chart	The Ex-authorized person are Quality Manager (Fernando Zambrano) and Director of Engineering (Jose Barreto). The responsibilities and authority for a), b), c), d), e), f), and g) are sufficiently defined.	P

Clause 6 - Planning

Clause	Description	Reference documents	Audit findings	V
6.1	Actions to address risks and opportunities		Manufacturers ISO 9001 QMS complies.	P

Clause	Description	Reference documents	Audit findings	V
6.2	Quality objectives and planning to achieve them		Manufacturers ISO 9001 QMS complies.	P
6.3	Planning of changes		Manufacturers ISO 9001 QMS complies.	P

Clause 7 - Support

Clause	Description	Reference documents	Audit findings	
7.1	Resources			P
7.1.1	General		Manufacturers ISO 9001 QMS complies.	P
7.1.2	People		Manufacturers ISO 9001 QMS complies.	P
7.1.3	Infrastructure		Manufacturers ISO 9001 QMS complies.	P
7.1.4	Environment for the operation of processes		Manufacturers ISO 9001 QMS complies.	P
7.1.5	Monitoring and measuring resources	QM01 OP20 Fox Valley 17025 cert Trescal 17025 cert Cal certs: 945, 00021, C00092	The calibration certificates have been verified with satisfactory results. The calibration certificates bear the accreditation logo issued by an accredited calibration laboratory.	P
7.1.6	Organizational knowledge		Manufacturers ISO 9001 QMS complies.	P
7.2	Competence	QM01 OP05 OP25 DataEase system Training Matrix Ex awareness training 2023	All persons having an impact on Ex compliance received appropriate training. Annual awareness training is given for 9001, 140001 & 80079-34. OP25 is focused on production personnel, OP05 has general applicability.	P
7.3	Awareness		Manufacturers ISO 9001 QMS complies.	P
7.4	Communication	QM01 OP37	Internal and external communication relating to Ex Products is controlled.	P
7.5	Documented information			P
7.5.1	General	OP01 OP02 OP06 OP23	Appropriate means (e.g. manuals, policies, procedures, instructions) ensure compliance, of Ex Products with their certificates and technical documentation.	P
7.5.2	Creating and updating		Manufacturers ISO 9001 QMS complies.	P

Clause	Description	Reference documents	Audit findings	
7.5.3	Control of documented Information	<p>QM01 OP37 See 7.5.1</p> <p>DWG: 57754, rev OR DWG: 57758, rev OR</p> <p>WI 130, rev OR line bushing user installation manual</p>	<p>It is correctly defined that any changes to Ex-related drawings require the approval of the Ex-authorized person prior to release.</p> <p>Ex DWG's are for series 577*** only, items are as listed on DWG 57754. Related assembly DWGs will be made for each order. Identification of Ex parts will be in M2M system description or drawing stamp (yet to be determined).</p> <p>The annual check of the validity of all Ex related certificates, standards, regulations, and other external specifications is correctly defined, the initial check is planned for 2025; QM01 7.5.3 refers to OP31, which has not yet been updated to include Ex regulations.</p> <p>All required quality records will be retained for at least 10 years after each Ex Product (batch) has been placed on the market.</p>	P

Clause 8 - Operation

Clause	Description	Reference documents	Audit findings	V
8.1	General	Sample work orders	Control and acceptance of processes for Ex Products ensure compliance with the requirements of the certificate, see Annex A.	P
8.2	Requirements for products and services			P
8.2.1	Customer communication	<p>QM01 OP26</p> <p>RMA log in M2M system</p> <p>CAR1293, harness leak; RMA6750</p> <p>Management review minutes, Sept 19, 2023</p>	<p>There is a suitable customer complaints procedure in place, which is sufficiently covered by the ISO 9001 assessment.</p> <p>RMA's are tracked in the Made 2 Manage ERP system. Tracking is done with meetings every 2 weeks.</p>	P
8.2.2	Determining the requirements for products and services		Manufacturers ISO 9001 QMS complies.	P

Clause	Description	Reference documents	Audit findings	V
8.2.3	Review of the requirements for products and services	QM01 OP07 OP23 QF45 Sample work orders and purchase orders	The product category, marking and ambient temperature range are included in the order confirmation. The Ex-certificate is planned to be available online.	P
8.2.4	Changes to requirements for products and services	QM01 OP37 OP06 GB/SIR/QAR20.0003 GB/FME/QAR14.0005	The Ex authorized person(s) is/are involved in any changes (e.g. changes to the manufacturer's documentation, quality management system or marketing documents) that could affect Ex Product compliance.	P
8.3	Design and development of products and services			P
8.3.1	General		8.3.1 - 8.3.5 of ISO 9001:2015 are not within the scope of this document.	NA
8.3.2	Design and development planning			NA
8.3.3	Design and development Inputs			NA
8.3.4	Design and development controls			NA
8.3.5	Design and development outputs			NA
8.3.6	Design and development changes	QM01 OP37 OP06 GB/SIR/QAR20.0003 GB/FME/QAR14.0005	The Ex authorized person(s) is/are involved in the approval process of any substantial modification or change (e.g. changes to the manufacturer's documentation, quality management system or marketing documents) that could affect Ex Product compliance.	P
8.4	Control of externally provided processes, products and services			P
8.4.1	General	OP09 OP10 OP37 Vendor questionnaire M2M ERP system Allied Wire Fox Valley CDS Precision	All Ex-relevant parts are verified for compliance at incoming inspections per DWG specifications. Supplier selection criteria are correctly defined. Ex-suppliers not used for more than one year are considered as new supplier. The ongoing ability of the suppliers to provide conforming products is performed.	P

Clause	Description	Reference documents	Audit findings	V
8.4.2	Type and extent of control	OP11 OP19 PO: 107734 PO: 116843 Vendor CoC P/N: 7113 Lot: 0X3J008738 Exp: 2/28/2025	All Ex-relevant parts are verified for compliance at incoming inspections per DWG specifications. Each batch is accompanied by a declaration of conformity which refers to the correct drawing number including release date. Lot, batch, and expiration dates are recorded.	P
8.4.3	Information for external providers	P/N: 1481 Lot: 0X3J008778 Exp: 3/13/2025 P/N: 413485 Mill cert, insp report	The purchase documents clearly describe the specific requirements.	P
8.5	Production and service provision			P
8.5.1	Control of production and service provision	OP14 OP37 WI301, epoxy handling WI105, pressure testing WI106, hi-pit testing JO: 45268 JO: 46002 P/N: 56636	Procedures, production equipment, working environments and inspection/testing facilities are sufficiently in place and together assurance with respect to the compliance of the Ex Product with its technical documentation is provided. Job orders taken as representative of future Ex production.	P
8.5.2	Identification and traceability		Product identification during all production stages until placing on the market is sufficient. FIFO process is used for materials with shelf-life.	P
8.5.3	Property belonging to customers or external providers	GB/SIR/QAR20.0003 GB/FME/QAR14.0005	Manufacturers ISO 9001 QMS complies. Processes are in place for Douglas Electrical to accept property of customers as critical supplier of parts of their Ex products.	P
8.5.4	Preservation		Manufacturers ISO 9001 QMS complies.	P
8.5.5	Post-delivery activities		Manufacturers ISO 9001 QMS complies.	P
8.5.6	Control of changes	QM01 OP37 OP06 GB/SIR/QAR20.0003 GB/FME/QAR14.0005	The Ex authorized person(s) are involved in any changes that could affect Ex Product compliance.	P

Clause	Description	Reference documents	Audit findings	V
8.6	Release of products and services	OP37 OP14 User manual: WI130	The installation instructions are verified with satisfactory results, all Ex relevant items are correctly addressed. EU declaration of conformity has not been drawn up at time of audit, final certificate issuance pending results of this audit. Douglas is aware the EU DoC is required when starting production.	P
8.7	Control of nonconforming outputs	QM01 OP13 OP14 OP26	All required actions are documented, and all records will be retained for at least 10 years. DMR process in place and segregation of material waiting for disposition observed. No notifications for recalls or unsafe products.	P

Clause 9 - Performance evaluation

Clause	Description	Reference documents	Audit findings	V
9.1	Monitoring, measurement, analysis and evaluation			P
9.1.1	General	See Annex A	Manufacturers ISO 9001 QMS complies.	P
9.1.2	Customer satisfaction		Manufacturers ISO 9001 QMS complies.	P
9.1.3	Analysis and evaluation		Manufacturers ISO 9001 QMS complies.	P
9.2	Internal audit	QM01 OP21 QF26, rev E: Internal Audit Schedule: 2023/2024 2023 internal audit of: Final inspections, Document control	Internal audits are carried out on an annual basis with an interval not exceeding 14 months, process audits are planned from Feb to Nov annually. Checklists per process will be used. The content of the latest internal audit has been verified with satisfactory results. Customers also perform periodic vertical audits of product. The internal auditors are rotated for which process is assigned annually.	P
9.3	Management review			P

Clause	Description	Reference documents	Audit findings	V
9.3.1	General	QM01 Management review minutes, Sept 19, 2023	It is correctly defined that the management review will be held on an annual basis and that the Ex-authorized person shall participate. The interval between the management reviews does not exceed 14 months, typically twice a year. Results of internal and external audits and the overall effectiveness of the quality management system with respect to equipment intended for use in explosive atmospheres are included in the review. Evidence of the effectiveness of the quality management system has been provided.	P
9.3.2	Management review inputs		Manufacturers ISO 9001 QMS complies.	P
9.3.3	Management review outputs		Manufacturers ISO 9001 QMS complies.	P

Clause 10 - Improvement

Clause	Description	Reference documents	Audit findings	V
10.1	General		Manufacturers ISO 9001 QMS complies.	P
10.2	Nonconformity and corrective action		Manufacturers ISO 9001 QMS complies.	P
10.3	Continual improvement	QM01 Management review minutes, Sept 19, 2023 Internal audit schedule 2023, 2024 QF30, CAR log CAR1293, harness leak	The process for Continual improvement is sufficiently covered by the ISO 9001 assessment. Improvements and corrective actions are logged in the QF30 form. CARs are left open until effectiveness is verified. 8D process used for most items.	P

Annex A: Information relevant to particular types of protection and specific products

Clause	Description	Reference documents	Audit findings	V
A.2	Enclosures – General remark	P/N: 413485 Mill cert, insp report	Bushing and conduit seal enclosures are machined and received with material certificates and measurement reports. Douglas will perform sample inspections at receiving.	P

A.3 / B.3.1 Ex d - flameproof enclosures covered by IEC 60079-1

Clause	Description	Reference documents	Audit findings	V
A.3.1	Verification	DWG: 57754	Bushing and conduit seal enclosures are machined and received with material certificates and measurement reports. Douglas will perform sample inspections at receiving.	P
A.3.2	Castings		No castings	NA
ExTAG DS 2012/004	Verification Requirements for Flameproof Castings		No castings.	NA
A.3.3	Machining	DWG: 57754	Bushing and conduit seal enclosures are machined and received with material certificates and measurement reports. Douglas will perform sample inspections at receiving.	P
A.3.4	Cemented joints and potted assemblies	OP37 W1301, epoxy handling W1105, pressure testing JO: 45268 JO: 46002 P/N: 56636	Shelf life and storage of the material, mixing, surface preparation, application, curing and after curing inspections are sufficiently defined. Material is handled by FIFO and inventory management by cement vendor.	P
A.3.5	Routine pressure testing			
A.3.5.1	General	W1105, pressure testing	Pressure testing is performed 100% when required.	P
A.3.5.2	Batch testing			NA
A.3.5.3	Welded construction		No welded construction.	NA
A.3.6	Flanged joints		No flange joints	NA
ExTAG DS 2015/018	Verification requirements for Spigot joints/Conical joint		No spigot or conical joints	NA
A.3.7	Elements, with non-measurable paths, of breathing and draining devices		No elements with non-measurable paths.	NA

A.5 Ex e – increased safety covered by IEC 60079-7

Clause	Description	Reference documents	Audit findings	V
A.5.1	Ingress protection (IP)	OP37 OP14 WI301, epoxy handling P/N: 7113 Lot: 0X3J008738 Exp: 2/28/2025 P/N: 1481 Lot: 0X3J008778 Exp: 3/13/2025	The documented procedures ensure suitable verifications of the following: a) solder joints; b) application of cements including a visual inspection after curing.	P
A.5.2	Internal wiring and contact integrity	OP37 OP14 WI106, hi-pit testing JO: 45268 JO: 46002 P/N: 56636	The documented procedures ensure suitable verifications satisfactorily of the following: a) wiring is terminated as specified in the schedule drawings; b) wires are as specified in the schedule drawings; d) creepage distances and clearances are as specified in the schedule drawings and have not been compromised.	P
A.5.3	Rotating machines		No rotating machines.	NA
A.5.4	Windings		No windings.	NA
A.5.5	Terminal boxes		No terminal boxes.	NA
A.5.6	Cable glands, terminals and other accessories		The dimensions specified in the schedule drawings are confirmed on a statistical basis.	P
A.5.7	Routine verifications and tests	IECEx CSA 19.0036U	No specific routine tests required per certification documents.	NA

4. Observations

Obs.	Standard and clause	Description of Observation
1.	GB/SIR/QAR20.0003	CSA Ex audit for Atlas Copco Mafi-Trench. No findings.
2.	GB/FME/QAR14.0005	FM Approvals Ex audit AMETEK Tempesonic. 1 NC raised.
3.	General	Some Ex products made for other manufacturers which have not had 3 rd party audits (Rosemount, Advanced Micro).
4.	80079-34 cl 8.6 2014/34/EU Annex X	EU DoC to be drawn up when production commences.