

CERTIFICATE NUMBER
EFFECTIVE DATE
EXPIRY DATE
ABS TECHNICAL OFFICE

20-1948801-1-PDA 23-Mar-2023 11-Feb-2025 Gdynia Engineering Department

CERTIFICATE OF

Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

CMP PRODUCTS LTD.

located at

36 NELSON WAY, NELSON PARK EAST, , CRAMLINGTON, United Kingdom, NE23 1WH

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: Cable, Glands and Accessories

Model: A2F, A2FFC, E**series, PX** series, SS2K, SS2K/PB, T3CDS, T3CDS/PB, TE1FU, TMC, TMCX

Endorsements:

Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 11/Feb/2025 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

Arkadiusz Pytkowski, Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

TERMS & CONDITIONS OF

ABS DESIGN ASSESSMENT

1. Agreement

Unless otherwise agreed in writing, all services rendered and certificates issued are governed by the terms and conditions of the "Request for Product Type Approval and Agreement" (the "Agreement") which are hereby incorporated by reference.

2. Representations as to Design Assessment

A certificate of design assessment represents that the product design meets the ABS, statutory, industrial or manufacturer's standard described on the reverse hereof and that the manufacturer has established a systematic quality monitoring system sufficient to show its capacity to consistently manufacture a product which meets the designated standards. ABS is not a substitute for the independent judgment of professional designers or engineers nor a substitute for the quality control procedures of constructors, steel makers, suppliers, manufacturers and vendors of marine structures, materials, machinery or equipment. ABS represents solely to the manufacturer or other client of ABS that it will use due diligence in developing Rules, Guides and standards and in surveying the plant as called for by ABS criteria for type approval.

3. Suspension of Certification

Any of the following events will cause immediate suspension of the certificate of design assessment unless the change is submitted to ABS for a new review and audit.

- a) Redesign of the product or products covered by this certificate;
- b) Change in production methods;
- c) Substantial change in management organization;
- d) Substantial change in frequency or curriculum for personnel training;
- e) Refusing access to ABS personnel for periodic or annual audits;
- f) Failure to correct a non-compliance identified during an audit or in service;
- g) Failure to pay ABS fees.

4. VALIDITY

The validity, applicability and interpretation of a certificate issued under the terms of or in contemplation of ABS Type Approval are governed by the Rules, Guides and standards of American Bureau of Shipping which shall remain the sole judge thereof. Nothing contained in this certificate or in

any report issued in contemplation of this certificate shall be deemed to relieve any designer, builder, owner, manufacturer, seller, supplier, repairer, operator or other entity of any warranty express or implied, nor create any interest, right, claim or benefit in any third party. It is understood and agreed that nothing expressed herein is intended or shall be construed to give any person, firm or corporation other than the parties hereto, any right, remedy, or claim hereunder or under any of the provisions herein contained; all of the provisions hereof are for the sole and exclusive benefit of the parties hereto.

5. LIMITATION

ABS makes no representations beyond those contained herein and in the provisions of the Agreement regarding its reports, statements, plan review, surveys, certificates or other services.

6. HOLD HARMLESS

The party to whom this certificate is issued, and his assignee and successor in interest, agree to indemnify and hold harmless ABS from and against any and all claims, demands, lawsuits, or actions for damages, including legal fees, to persons or other legal entities and property, tangible, intangible, or otherwise which may be brought against ABS incidental to, arising out of or in connection with the work done, services performed or material to be furnished under this certificate, except for those claims caused solely and completely by the negligence of ABS, its agents, employees, officers, directors or subcontractors.

7. Arbitration

Any and all differences and disputes of whatsoever nature arising out of this agreement shall be put to arbitration in the City of New York pursuant to the laws relating to the arbitration there in force, before a board of three persons, consisting of one arbitrator to be appointed by ABS, one by Client, and one by the two so chosen. The decision of any two of the three on any point or points shall be final. Until such time as the arbitrators finally close the hearings either party shall have the right by written notice served on the arbitrators and on an officer of the other party to specify further disputes or difference under this Agreement for hearing and determination. The arbitration is tobe conducted in accordance with the rules of the Society of Maritime Arbitrators, Inc. The arbitrators may grant any relief, other than punitive damages,

which they, or a majority of them, deem just and equitable and within the scope of the agreement of the parties, including, but not limited to, specific performance. Awards made in pursuance to this clause may include costs including a reasonable allowance for attorney's fees and judgment may be entered upon any award made hereunder in any court having jurisdiction. ABS and client hereby mutually waive any and all claims to punitive damages in any forum.

Client shall be required to notify ABS within thirty (30) days of the commencement of any arbitration between it and third parties which may concern ABS's work in connection with this Agreement and shall afford ABS an opportunity, at ABS's sole option, to participate in the arbitration.

8. Time Bar to Legal Action

Any statutes of limitation notwithstanding, Client expressly agrees for itself and its affiliated companies that its right to bring or to assert against ABS any and all claims, demands or proceedings whether in arbitration or otherwise shall be waived unless (a) notice is received by ABS within thirty (30) days after Client or its affiliates had notice of or should reasonably have been expected to have had notice of the basis for such claims; and (b) arbitration or legal proceedings, if any, based on such claims or demands of whatever nature are commenced within one (1) year of the date of such notice to ABS.

9. Limitation of Liability

The combined liability of American Bureau of Shipping, its officers, employees, agents or subcontractors for any loss, claim, or damage arising from negligent performance or non-performance of any services under this Agreement, of from breach of any implied or express warranty of workmanlike performance in connection with the services, or from any other reason, to any person, corporation, partnership, business entity, sovereign, country or nation, shall be limited to the greater of a) \$100,000 or b) an amount equal to ten times the sum actually paid for the services alleged to be deficient.

The limitation of liability may be increased up to an amount twenty-five times that sum paid for services upon receipt of Client's written request at or before the time of performance of service and upon payment by Client of an additional fee of \$10.00 for every \$1,000.00 increase in the limitation.

CMP PRODUCTS LTD.

36 NELSON WAY

NELSON PARK EAST

CRAMLINGTON

United Kingdom NE23 1WH Telephone: +44 191 265 7411

Fax: +44 1670 715 646

Email: Jonathan.hichens@cmp-products.com

Web: www.cmp-products.com

Tier: 3 - Type Approved, unit certification not required

Product: Cable, Glands and Accessories

Model: A2F, A2FFC, E**series, PX** series, SS2K, SS2K/PB, T3CDS, T3CDS/PB, TE1FU, TMC,

TMCX

Endorsements:

Intended Service:

ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International/National standards.

Description:

A2F series products are globally certified, explosive atmosphere cable glands, for all types of braided and unarmored cable.

A2FFC series products are globally certified, explosive atmosphere cable glands, for all types of braided and unarmored cable using flexible metallic conduit.

E** series products (for example E1FU, E1FW, E1FX, E2FU, E2FW, E2FX) are globally certified, explosive atmosphere cable glands, for all types of braided and armored cable notably where the inner bedding of the cable could be susceptible to cold flow.

PX** series (for example PX2K, PX2KW, PX2KX, PX2KPB, PX2KWPB, PX2KXPB, PXRC, PXSS2K, PXSS2KPB) products are globally certified, explosive atmosphere barrier cable glands, for all types of braided, armored, and unarmored cable.

SS2K and SS2K/PB series products are globally certified, explosive atmosphere cable glands, for all types of braided and unarmored cable.

T3CDS, T3CDSPB, and TE1FU series are globally certified, explosive atmosphere cable glands, which utilize an elastomeric Compensating Displacement Seal (CDS) system for all types of braided and armored cable, notably where the inner bedding of the cable could be susceptible to cold flow.

TMC and TMCX series products are globally certified, explosive atmosphere cable glands, for use with metal clad, interlocked, and Teck armored cable.

Rating:

A2F and A2FFC

Product ratings as per ATEX/IECEx/CSA certificates: CML 18ATEX1321X, CML 18ATEX4313X, IECEx CML 18.0179X, and CSA 1211841.

E** Series

Product ratings as per ATEX/IECEx/CSA certificates: CML 18ATEX1324X, CML 18ATEX4316X, IECEx CML 18.0181X, and CSA 1310517.

PX** Series

Product ratings as per ATEX/IECEx/CSA certificates: CML 18ATEX1325X, CML 18ATEX4317X, IECEx CML 18.0182X, and CSA 2288626.

SS2K and SS2K/PB

Product ratings as per ATEX/IECEx/CSA certificates: CML 18ATEX1322X, CML 18ATEX4314X, IECEx CML 18.0178X, and CSA 1211841.

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T3CDS and TE1FU

Product ratings as per ATEX/IECEx/CSA certificates: CML 18ATEX1326X, CML 18ATEX4318X, IECEx CML 18.0183X, and CSA 1310517.

TMC and TMCX

Product ratings as per ATEX/IECEx/CSA certificates: CML 18ATEX1337X, IECEx CML 18.0184X, and CSA 1129339.

Service Restriction:

Unit Certification is not required for this product.

The component marking is to include the Code such as Ex db IIC, Ex eb IIC or Ex eb II as applicable. The gland is to be assembled strictly in accordance with the fitting instructions supplied with each gland. Applicable class of the hazardous location is to be in accordance with the Certificate to cover the gland. For NEC installations, marine shipboard cable may be used instead of rigid conduit, if installed fittings are approved for the specific hazardous location and cable type.

Explosion Proof and Flameproof equipment - Explosion Proof equipment must be approved as meeting UL 2225. Flameproof equipment must be approved as meeting IEC 60079-1.

All electrical equipment intended for installation in hazardous areas are to be of a certified safe type based on the class of the hazardous area at its location of installation. Certificates in this regard are to be presented to the ABS Surveyor for verification and any specific instructions regarding installation are to be adhered to.

The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:

Drawing No. GB CML ExTR18.0255, Cable Gland Types E** Certification, Revision:-, Pages: -

Drawing No. GB_CML_ExTR19.0038_00, Evaluation Report Type, PX** Cable Glands, Revision:-, Pages: -

Drawing No. GB CML ExTR19.0052, Transfer of Cable Glands, Thread Adaptors and Breathing/Draining Devices, Revision: -, Pages:

Drawing No. GB_SIR_EXTR07.0105_00, TMC Range of Cable Glands, Revision:-, Pages: Drawing No. GB_SIR_EXTR07.0115, IECEx Ex TEST REPORT COVER, Revision:-, Pages: Drawing No. GB_SIR_EXTR14.0162_00, Variation to IECx and ATEX certificate numbers, Revision:-, Pages: Drawing No. GB_SIR_EXTR14.0282.00, Variation to IECx and ATEX certificate numbers, Revision:-, Pages: Drawing No. GB_SIR_EXTR14.0307_00, Variation to IECx and ATEX certificate numbers, Revision:-, Pages: -

Drawing No. GB SIR ExTR16.0025, Variation to certificate numbers IECEx SIR 07.0083X and SIRA

07ATEX1122X, Revision:-, Pages:

Drawing No. GB SIR ExTR16.0018, IECEx and ATEX Certification, Revision:-, Pages: -

A2F and A2FFC: CML 18ATEX1321X, CML 18ATEX4313X, IECEx CML 18.0179X, and CSA 1211841; E** Series: CML 18ATEX1324X, CML 18ATEX4316X, IECEx CML 18.0181X, and CSA 1310517; PX** Series: CML 18ATEX1325X, CML 18ATEX4317X, IECEx CML 18.0182X, and CSA 2288626; SS2K and SS2K/PB: CML 18ATEX1322X, CML 18ATEX4314X, IECEx CML 18.0178X, and CSA 1211841; T3CDS and TE1FU: CML 18ATEX1326X, CML 18ATEX4318X, IECEx CML 18.0183X, and CSA 1310517; TMC and TMCX: CML 18ATEX1337X, IECEx CML 18.0184X, and CSA 1129339.

The following documentation is valid from the previous iteration of the PDA Certificate:

Certificates:

A2F and A2FFC: IECEx SIR 13.0023X, CSA 1211841;

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E**: IECEX SIR 13.0026X, CSA 1310517; PX**: IECEX SIR 13.0027X, CSA 2288626; SS2K: IECEX SIR 13.0024X, CSA 1211841; T3CDS: IECEX SIR 13.0028X, CSA 1310517;

TMCX: IECEx SIR 07.0083X, Sira 07ATEX1122X, CSA 1129339.

Test Reports:

IEC 61914 Test Reports, CMP, 1-Mar-2016;

IECEx test report: GB_SIR_EXTR 13.0066/00, Sira, Date: April 2013; CSA 1211841- Ed 10, CSA, Date: 6-Jun-2013;

CSA 121184Î- Ed 10, CSA, Date: 6-Jun-2013; CSA 1310517- Ed 9, CSA, Date: 3-Jun-2013; CSA 2288626- Ed 4, CSA, Date: 3-Jun-2013; CSA 1129339 -Ed 9, CSA, Date: 21-Jul-2006.

Terms of Validity:

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Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

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STANDARDS

ABS Rules:

- Marine Vessels Rules (2020): 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-8-3/1.7, 4-8-3/13, 4-8-4/27.5
- Facilities on Offshore Installations (2020): 1-1-4/9.7, 1-1-A2, 1-1-A3
- Mobile Offshore Units (2020): 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-1-1/7.9, 4-3-1/11, 6-1-1/9, 6-1-1/13;
- Steel Vessels for Service on Rivers and Intracoastal Waterways (2020): 1-1-4/7.7, 1-1-A3, 1-1-A4
- High Speed Crafts (2020): 1-1-4/11.9, 1-1-A2, 1-1-A3
- Steel Barge Rules (2020): 1-1-4/7.9, 1-1-A3, 1-1-&A4

National:

BS 6121.

BS EN 62444:2013,

BS EN 60079-0:2017,

BS EN 60079-1:2014,

BS EN 60079-7:2015 (except TMC, TMCX),

C22.2 (except PXRC);

UL 2225 (PX2K, PX2KPB, PX2KWPB, PX2KX, PX2KXPB, PX2KW, PXSS2K, TMCX)

International:

IEC 60079-0:2017,

IEC 60079-1:2014,

IEC 60079-7:2015,

IEC 60079-15:2017,

Electronically published by ABS Gdynia Engineering. Reference T2382718, dated 23-MAR-2023.

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IEC 60079-31:2013, IEC 61914:2015, IEEE Std 45:2015 Sec 33

Government:

NA

EUMED:

NA

OTHERS:

NA