



CERTIFICATE NUMBER	20-LD1944057-PDA
EFFECTIVE DATE	20-Feb-2020
EXPIRY DATE	19-Feb-2025
ABS TECHNICAL OFFICE	London Engineering Department

CERTIFICATE OF Product Design Assessment

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

PEPPERS CABLE GLANDS LTD

located at

STANHOPE ROAD, CAMBERLEY, United Kingdom, GU15 3BT

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 CR, CR-D, CR-O, E**F, D****F, C****E*, A*L**, A*LDS**, A*RDC**, A*RDF**, A*RDM**, A*LC***, A*LCH**, A*LCF**, A*LCM**, A*RC***, A8**, A8C***, A8RC**, E8X*F, E8XC**F, D8X*F, D8XC...**

This Product Design Assessment (PDA) Certificate remains valid until 19/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

Theodoros Chatzidakas, 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)

PEPPERS CABLE GLANDS LTD

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Web: www.cableglands.com

Tier: 2 - PDA Issued

Product: Cable, Glands and Accessories

Model: CR, CR-D, CR-O, E****F*, D****F, C****E*, A*L**, A*LDS**, A*RDC**, A*RDF**, A*RDM**, A*LC**, A*LCH**, A*LCF**, A*LCM**, A*RC**, A8**, A8C**, A8RC**, E8X*F, E8XC**F, D8X*F, D8XC*F, C**L**, E*****, A*L*
CR-C, CR-U, CR-S, CR-X, UL-C, UL-U, UL-X, LT-C, EC*C, EC*S*C, EC*S*M, EC*S*F, EC*U, EC*X
AR, ARFF, ARMM, ARMR, ARFR, AEMF, AEFF, ATMF, ATFF, RAFF, RAFF 90, RAMF, RAMF 90, RAMM, RAMM 90
SPA, SPB, SPMH, SPMH*NE, SPHH
ACDP, ACDP*NE

Intended Service:

ABS Classed Vessels and Offshore Facilities in accordance with the listed ABS Rules and International Standards

Description:

See attached "Description" file.

Rating:

CR, CR-D, CR-O, E****F*, D****F, C****E*, A*L**, A*LDS**, A*RDC**, A*RDF**, A*RDM**, A*LC**, A*LCH**, A*LCF**, A*LCM**, A*RC**, A8**, A8C**, A8RC**, E8X*F, E8XC**F, D8X*F, D8XC*F, C*****, E*****, A*L*

IP66, IP68 (CR-O, C***E* and C***** IP66 only)

Operating Temperature: Neoprene Seals -35°C to +90°C; Silicone Seals -60°C to +180°C

CR-C, CR-U, CR-S, CR-X, UL-C, UL-U, UL-X, LT-C, EC*C, EC*S*C, EC*S*M, EC*S*F, EC*U, EC*X

IP66, IP68, IP69 (IP69 - EC*C, EC*S*C, EC*S*M, EC*S*F, EC*U, EC*X only)

Operating Temperature: Peppers T1000 Compound -60°C to +135°C; Peppers T2000 Compound -60°C to +120°C

AR, ARFF, ARMM, ARMR, ARFR, AEMF, AEFF, ATMF, ATFF

IP66, IP68

Operating temperature: O-ring - None: -100°C to + 400°C; O-Ring - Nitrile -30°C to +100°C; O-Ring -Silicone -60°C to +200°C

RAFF, RAFF 90, RAMF, RAMF 90, RAMM, RAMM 90

IP66, IP68

Operating temperature: -60°C to +135°C

SPA, SPB, SPMH, SPHH, ACDP

IP66, IP68 (SPA, SPB, ACDP only IP66)

Operating temperature: O-ring - None: -100°C to + 400°C; O-Ring - Nitrile -30°C to +100°C; O-Ring -Silicone -60°C to +200°C

SPMH*NE ACDP*NE

IP66, IP68 (ACDP*NE only IP66)

Operating temperature: O-ring - None: -25°C to + 130°C; O-Ring - Nitrile -25°C to +100°C; O-Ring -Silicone -25°C

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to +130°C (ACDPN*E -10°C to +90°C)

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Installation and maintenance/repair procedures are to be strictly in accordance with manufacturer instructions.
3. The component marking is to include the Code 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.
4. ATEX certified equipment is not to be installed in hazardous areas on U.S. vessels unless it can be proven to have been tested to the applicable IEC 60079 series standards by an independent laboratory accepted by the U.S coast Guard. USCG MI Notice 01-12 (February 7, 2012) refers.

Notes/Drawing/Documentation:

- Drawing No. CML 17ATEX3256X, SPMH*NE range of stopping plugs, Revision: 1, Pages: 1
- Drawing No. CML 19ATEX1089X, SPA, SPB, SPMH and SPHH ranges of Stopping Plugs, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1090X, AR, ARMM and ARFF ranges of Adaptors and Reducers, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1091U, ARMR and ARFR Range of 90° Adaptors and Reducers AEMF and AEF Range of 45° Adaptors and Reducers ATMF and ATFF Range of 30° Adaptors and Reducers, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1106X, Range of E****F*, D****F and C****E* Cable Glands, Revision: 1, Pages: 1
- Drawing No. CML 19ATEX1113X, EC**** Range of Barrier Cable Glands and Stopper Boxes, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1171X, LT-C* Range of Barrier Cable Glands, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1330X, RA** Range of Rotating Adaptors Reducers and Elbows, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1344X, CR**** Range of Barrier Cable Glands and Stopper Boxes, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1345X, Type A****, A*L**, A*LC*** and A*RC*** Range of Cable Glands, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1346X, A8**, A8C***, A8RC**, D8X**, D8XC***, E8X** and E8XC*** Range of Cable Glands, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1348X, Type CR-***, CR-D** & CR-O*** Cable Glands, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX1349X, UL-C, UL-U and UL-X Range of Barrier Cable Glands, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX3104X, ACDP*NE Breather Drains, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX3347X, ACDP Breather Drain, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX4092X, SPMH and SPHH ranges of Stopping Plugs AR, ARMM and ARFF ranges of Adaptors and Reducers, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX4093U, ARMR and ARFR Range of 90° Adaptors and Reducers AEMF and AEF Range of 45° Adaptors and Reducers ATMF and ATFF Range of 30° Adaptors and Reducers, Revision: 0, Pages: 1
- Drawing No. CML 19ATEX4109X, Range of E****F* and D****F, CR-*** and CR-D**, A8** A8C*** A8RC** D8X** D8XC*** E8X** E8XC***, A****, A*L**, A*LC***, A*RC*** Cable Glands, Revision: 1, Pages: 1
- Drawing No. CML 19ATEX4114X, Range of EC****, CR****, UL-* and LT-C* Cable Glands, Revision: 1, Pages: 1
- Drawing No. CML 19ATEX4331X, RA** Range of Rotating Adaptors Reducers and Elbows, Revision: 0, Pages: 1
- Drawing No. pcatx30, 30° ADAPTORS & REDUCERS, Revision: 2, Pages: 1
- Drawing No. pcatx45, 45° ADAPTORS & REDUCERS, Revision: 2, Pages: 1
- Drawing No. pcatx90, 90° ADAPTORS & REDUCERS, Revision: 3, Pages: 1
- Drawing No. pcatxa2l, ATEX Range Glands for unarmoured cable A2LF, A2LCMF, A2LCFF & A2LDSF Families, Revision: 11, Pages: 1
- Drawing No. pcatxacdp, ACDP BREATHER DRAINS, Revision: 4, Pages: 1
- Drawing No. pcatxacdpn, NYLON BREATHER DRAIN - ACDP*NE, Revision: 1, Pages: 1

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Drawing No. pcatxar, AR ADAPTORS & REDUCERS, Revision: 3, Pages: 1

Drawing No. pcatxarff, FEMALE X FEMALE ADAPTORS & REDUCERS, Revision: 2, Pages: 1

Drawing No. pcatxarm, MALE X MALE ADAPTORS & REDUCERS, Revision: 4, Pages: 1

Drawing No. pcatxbf, ATEX Instrument Range Flat Cable (Heat Trace) Armoured Types E8X**, E8XC***, D8XC*** & D8X** series – product code & cable range., Revision: 8, Pages: 1

Drawing No. pcatxce, ATEX range glands for armoured cable C****E* family, Revision: 3, Pages: 1

Drawing No. pcatxcr, ATEX Range gland – CR-*** for armoured/ unarmoured/braided/ screened cable, Revision: 10, Pages: 1

Drawing No. pcatxcr-c, Barrier Glands For Armoured And Unarmoured Cable, CR-C Family, Revision: 10, Pages: 1

Drawing No. pcatxcr-s, Conduit Stopper Box CR-S Family, Revision: 8, Pages: 1

Drawing No. pcatxcr-u, Barrier Glands For Unarmoured Cable, CR-U AND CR-X Families, Revision: 10, Pages: 1

Drawing No. pcatxcrd, ATEX Range gland – CRD*** for armoured/ unarmoured/braided/ screened cable, Revision: 7, Pages: 1

Drawing No. pcatxcro, ATEX Range gland – CRO*** for armoured cable, Revision: 5, Pages: 1

Drawing No. pcatxelw, ATEX range glands for armoured cable E1W & D1W family, Revision: 9, Pages: 1

Drawing No. pcatxec-c, Barrier Glands For Armoured And Unarmoured Cable, EC-C Family, Revision: 1, Pages: 1

Drawing No. pcatxec-s, Conduit Stopper Box EC-S Family, Revision: 1, Pages: 1

Drawing No. pcatxec-u, Barrier Glands For Unarmoured Cable, EC-U AND EC-X Families, Revision: 1, Pages: 1

Drawing No. pcatxltc, Barrier Gland Range for Liquid Tight Flexible Conduit LT-C Cable Gland, Revision: 4, Pages: 1

Drawing No. pcatxraff, RA - SERIES ROTATING ADAPTORS & REDUCERS FEMALE - FEMALE OPTIONS, Revision: 1, Pages: 1

Drawing No. pcatxraff 90, RA 90 - SERIES ROTATING ADAPTORS & REDUCERS FEMALE - FEMALE OPTIONS, Revision: 1, Pages: 1

Drawing No. pcatxramf, RA - SERIES ROTATING ADAPTORS & REDUCERS MALE - FEMALE OPTIONS, Revision: 1, Pages: 1

Drawing No. pcatxramf 90, RA 90 - SERIES ROTATING ADAPTORS & REDUCERS MALE - FEMALE OPTIONS, Revision: 1, Pages: 1

Drawing No. pcatxramm, RA - SERIES ROTATING ADAPTORS & REDUCERS MALE - MALE OPTIONS, Revision: 1, Pages: 1

Drawing No. pcatxramm90, RA 90 - SERIES ROTATING ADAPTORS & REDUCERS MALE - MALE OPTIONS, Revision: 1, Pages: 1

Drawing No. pcatxspa, ATEX Range Accessories Stopping Plug – Type A, Revision: 4, Pages: 1

Drawing No. pcatxspb, ATEX Range Accessories Stopping Plug – Type B, Revision: 4, Pages: 1

Drawing No. pcatxsphh, ATEX Range Accessories Stopping Plug – Hexagon Head, Revision: 4, Pages: 1

Drawing No. pcatxspmh, ATEX Range Accessories Stopping Plug – Mushroom Head, Revision: 4, Pages: 1

Drawing No. pcatxspmhn, NYLON STOPPING PLUG - SPMH*NE MUSHROOM HEAD, Revision: 1, Pages: 1

Drawing No. pcatxuf, ATEX Instrument Range Flat Cable (Heat Trace) Unarmoured Type A8**, A8C*** & A8RC** series – product code & cable range., Revision: 11, Pages: 1

Drawing No. pcatxulc, UL- C** Barrier Gland General Arrangement, Revision: 5, Pages: 1

Drawing No. pcatxulu, UL-X* and UL-U* Barrier Gland General Arrangement, Revision: 5, Pages: 1

Terms of Validity:

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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;
- Mobile Offshore Units Rules (2020): 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-1-1/7.9, 4-3-1/11, 4-3-3/9.;
- Facilities on Offshore Installations Rules (2020): 1-1-4/9.7, 1-1-A2, 1-1-A3;
- Steel Vessels for Service on Rivers and Intracoastal Waterways Rules (2020): 1-1-4/7.7, 1-1-A3, 1-1-A4;
- High-Speed Crafts Rules (2020): 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-6-1/11, 4-7-9/7, 4-7-9/15, 4-7-9/Table 9;
- Steel Barge Rules (2020): 1-1-4/7.9, 1-1-A3, 1-1-A4;

National:

- EN 60079-0:2018;
- EN 60079-1:2014 (excluding CR-O, C***E*, ACDP, ACDP*NE, SPMH*NE);
- EN 60079-7:2015+A1:2018;
- EN 60079-15:2019 (excluding CR-O, C***E*, ACDP, ACDP*NE, SPMH*NE, SPA & SPB);
- EN 60079-31:2014;
- EN 60529:1992+A2:2013;

International:

- IEC 60079-0:2017;
- IEC 60079-1:2014 (excluding CR-O, C***E*, ACDP, ACDP*NE, SPMH*NE);
- IEC 60079-7:2015;
- IEC 60079-15:2017 (excluding CR-O, C***E*, ACDP, ACDP*NE, SPMH*NE, SPA & SPB);
- IEC 60079-31:2013;
- IEC 60529:1989/AMD2:2013/COR1:2019;

Government:

NA

EUMED:

NA

OTHERS:

NA