



CERTIFICATE NUMBER

01-HS244925-5-PDA

DATE

11 May 2010

ABS TECHNICAL OFFICE

Houston SED - Ship Systems

CERTIFICATE OF DESIGN ASSESSMENT

This is to Certify that a representative of this Bureau did, at the request of
Turck Inc. - Plymouth

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: **Electrical outfitting Items**

MODEL: **RKM, RSM, RYM, WKM, WSM, WYM, RKF 30;
RKF 40, RKF 301;**


This Product Design Assessment (PDA) Certificate 01-HS244925-5-PDA, dated 11/May/2010 remains valid until 10/May/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING


Tim Kimble
Engineer

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 the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

Turck Inc.

5000 Fernbrook Lane North
Plymouth
Minnesota 55446
United States
Telephone: 763-553-7464, 1-800-328-0
Fax: 763-509-7855
Email: paul.harms@turck.com
Web: www.turck.com

MA Certificate No. 12-DUL2131118

Product: Electrical outfitting Items

Model: RKM, RSM, RYM, WKM, WSM, WYM, RKF 30;
RKF 40, RKF 301;
RKF, RSF, RYF;
RK(S)M-RK(S)M-X Tees Solid construction, RK(S)M X-x.x-K(S)M-X-x.x-RK(S)M-X-x.x
Splitters, Cable Ends molded on

Intended Service:

To be used on board marine vessels and offshore units, in electrical systems, for control, instrumentation and signal distribution, in all indoor/outdoor locations

Description:

Product Family: Model Number/Description/Variations/Ratings/Approvals Minifast Cordsets: RKM
*-/Straight body, female connector, female threads/2-6 pin construction, with stripped leads or other molded end/9
Amps, 600 volts/UL, CSA; RSM *-/Straight body, male connector, male threads/2-6 pin construction, with stripped
leads or other molded end/9 Amps, 600 volts/UL, CSA; RYM *-/Straight body, male connector, female threads/2-6
pin construction, with stripped leads or other molded end/9 Amps, 600 volts/UL, CSA; WKM *-/Right angle body,
female connector, female threads/2-6 pin construction, with stripped leads or other molded end/9 Amps, 600
volts/UL, CSA; WSM *-/Right angle body, male connector, male threads/2-6 pin construction, with stripped leads
or other molded end/9 Amps, 600 volts/UL, CSA; WYM *-/Right angle body, male connector, female threads/2-6
pin construction, with stripped leads or other molded end/9 Amps, 600 volts/UL, CSA. Minifast Junction Boxes: *
- RKF 30 - **/Female connector, female threads, 3-pin parallel wired/* = 4, 6, or 8 port junction box; ** = Cable
length, or connector type/9 Amp total; 250VAC or 300VDC/CSA; * - RKF 40 - **/Female connector, female
threads, 4-pin parallel wired/* = 4, 6, or 8 port junction box; ** = Cable length, or connector type/9 Amp total;
250VAC or 300VDC/CSA; * - RKF 301 - **/Female connector, female threads, 3-pin Series wired/* = 4, 6, or 8 port
junction box; ** = Cable length, or connector type/9 Amp total; 250VAC or 300VDC/CSA. Minifast
Receptacles: RKF *-/Female connector, female threads/2-6 pin construction, with stripped leads/9 Amps, 600
volts/UL, CSA; RSF *-/Male connector, male threads/2-6 pin construction, with stripped leads/9 Amps, 600
volts/UL, CSA; RYF *-/Male connector, female threads/2-6 pin construction, with stripped leads/9 Amps, 600
volts/UL, CSA. Minifast TEE's/Splitters: RK(S)M-RK(S)M-X Tees Solid construction/Varies/3-5 pin
construction/9 Amps, 600 volts/UL, CSA; RK(S)M X-x.x-RK(S)M-X-x.x-RK(S)M-X-x.x Splitters, Cable ends
molded on/Varies/3-5 pin construction/9 Amps, 600 volts/UL, CSA (X= number of pins, x.x= length of cable and
could be blank).

Ratings:

Voltage & Current: See description; Enclosure: NEMA 6P, IP67

Service Restrictions:

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.

1. The products are suitable for use in hazardous areas only in certified intrinsically safe circuits. 2. The products may also be used in Div.2 hazardous areas. However, each installation will be reviewed on per case basis for suitability. 3. The cables used as cords are to have voltage & current ratings no less than the value specified for the whole assembly. For MODU's, 4-3-3/3.1.1 of the MODU Rules are also to be complied with.

Comments:

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

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Plymouth
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United States
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MA Certificate No. 12-DUL2131118

1. All cords with connectors are prewired and have premolded strain relief.
2. All connections in the junction boxes, receptacles and connectors are encapsulated in epoxy.
3. For products with cords attached, a numerical or alpha numerical designator consisting of 3 to 6 digits is used in the product description showing that a cable approved in accordance with UL1309, for marine shipboard use, will be attached to the product as a cord.
4. If the letter 'M' in the catalog number of a product, indicating product to be of nickel plated brass, is changed to 'V', it would indicate product to be of stainless steel material.
5. For product with prefix "P-" it would indicate the product is intended for Process Automation/ Network applications.

Notes / Drawings / Documentation:

Supporting Documentation:

ABS Survey Report No. SB1820927 dated 28 Apr. 2010

Term of Validity:

This Product Design Assessment (PDA) Certificate 01-HS244925-5-PDA, dated 11/May/2010 remains valid until 10/May/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

STANDARDS**ABS Rules:**

2013 Steel Vessels Rules 1-1-4/7.7, 1-1-A3, 4-8-3/1.7, 4-8-3/1.11, 4-8-3/9.1, 4-8-3/9.5 & 4-8-3/9.21;
2012 MODU Rules 4-3-1/11, 4-3-1/15, 4-3-3/3.1.1, 4-3-4/11.7, 4-3-4/13.1.1, , 4-3-4/13.1.2

National:

UL Std 2238

International:

CSA Std C22.2 No. 182.3-M1987.*

Government Authority:

NA

EUMED:

NA

Others:

NA



CERTIFICATE NUMBER
01-HS244925-6-PDA-DUP

DATE
11 May 2010

ABS TECHNICAL OFFICE
Houston SED – Ship Systems

CERTIFICATE OF DESIGN ASSESSMENT

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

TURCK MEXICO S. DE R.L. DE C.V. - SALTILLO

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: **Electrical Outfitting Items**

MODEL: **RKM, RSM, RYM, WKM, WSM, WYM, RKF 30;
RKF 40, RKF 301; RKF, RSF, RYF; RK(S)M-RK(S)M-X Tees Solid construction,
RK(S)M X-x.x-K(S)M-X-x.x-RK(S)M-X-x.x Splitters, Cable Ends molded on**

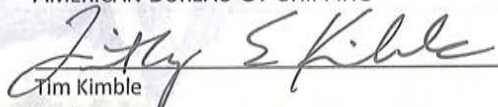
This Product Design Assessment (PDA) Certificate 01-HS244925-6-PDA-DUP, dated 11/May/2010 remains valid until 10/May/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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AMERICAN BUREAU OF SHIPPING


Tim Kimble
Engineer

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TURCK MEXICO S. DE R.L. DE C.V.
CARR. SALTILLO-ZACATECAS KM 4.5
PARQUE INDUSTRIAL LA ANGOSTURA
SALTILLO
COAHUILA 25315
Mexico
Telephone: 844 411 66 39
Email: roy.salinas@turck.com

Tier: 3

Product: Electrical outfitting Items
Model: RKM, RSM, RYM, WKM, WSM, WYM, RKF 30;
RKF 40, RKF 301;
RKF, RSF, RYF;
RK(S)M-RK(S)M-X Tees Solid construction, RK(S)M X-x.x-K(S)M-X-x.x-RK(S)M-X-x.x
Splitters, Cable Ends molded on

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Ratings:

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Comments:

PDA resides with Turck Inc. - PLYMOUTH;

TURCK MEXICO S. DE R.L. DE C.V.
CARR. SALTILLO-ZACATECAS KM 4.5
PARQUE INDUSTRIAL LA ANGOSTURA
SALTILLO
COAHUILA 25315
Mexico
Telephone: 844 411 66 39
Email: roy.salinas@turck.com

Tier: 3

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

1. All cords with connectors are prewired and have premolded strain relief.
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Notes / Drawings / Documentation:

Supporting Documentation:

ABS Survey Report No. SB1820927 dated 28 Apr. 2010

Term of Validity:

This Product Design Assessment (PDA) Certificate 01-HS244925-6-PDA-DUP, dated 30/Dec/2013 remains valid until 10/May/2015 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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STANDARDS

BS Rules:

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2012 MODU Rules 4-3-1/11, 4-3-1/15, 4-3-3/3.1.1, 4-3-4/11.7, 4-3-4/13.1.1, , 4-3-4/13.1.2

National:

UL Std 2238, UL 2237

International:

CSA Std C22.2 No. 182.3-M1987.*

Government Authority:

NA

EUMED:

NA

Others:

NA