

CERTIFICATE NUMBER

18-HG1762327-PDA

EFFECTIVE DATE

28-August-2018

EXPIRATION DATE

27-August-2023

ABS TECHNICAL OFFICE

Hamburg Engineering Department

CERTIFICATE OF

Product Design Assessment

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

WEIDMUELLER INTERFACE GMBH & CO KG

located at

Klingenbergstrasse 16, D-32758 Detmold, Germany

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 PLC, I/O Components and Communication Interfaces

Model UR20-FBC-xxx, UR20-xDO-xxx, UR20-xDI-xxx, UR20-xAO-xxx, UR20-xAI-xxx

This Product Design Assessment (PDA) Certificate remains valid until expiration date 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 PD Λ issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

U. NamigoRi

Ulf Numirski

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).

WEIDMUELLER INTERFACE GMBH & CO. KG

KLINGENBERGSTRASSE 16 D-32758 DETMOLD

Germany

Telephone: +49 5231 14 291484 Fax: +49 5231 14 251484

Email: stefanie.bicrc@weidmueller.de

Web: www.weidmueller.de

Tier: 2 - PDA Issued

Programmable Logic Controls, I/O Components and Communication

Product: Interfaces

UR20-FBC-xxx, UR20-xDO-xxx, UR20-xDI-xxx, UR20-xAO-xxx, UR20-xAI-xxx Model:

Intended Service:

I/O modules on AMS, ACC, ACCU and ABCU Classed vessels.

The modular u-remote systems supports common fieldbus system. Up to 64 active I/O modules can be combined in a u-remote station. For more details see attached sheets.

Rating:

Power Supply: 24 V DC

Ambient Temperature: -20° C to +60° C

Degree of Protection: IP20

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:

- The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- Each particular application/installation is to be specifically approved in conjunction with the relevant system in which the units are being used.

Notes/Drawing/Documentation:

```
Notes/Drawing/Documentation:

Drawing No. 1315190000, Data Sheet- Technical Data- UR20-8DI-P-3W-HD_en, Revision: -, Pages: -
Drawing No. 1315220000, Data Sheet- Technical Data- UR20-4DO-P_en, Revision: -, Pages: -
Drawing No. 1315390000, Data Sheet- Technical Data- UR20-16DI-N_en, Revision: -, Pages: -
Drawing No. 1315440000, Data Sheet- Technical Data- UR20-16DO-N_en, Revision: -, Pages: -
Drawing No. 1315750000, Data Sheet- Technical Data- UR20-1COM-232-485-422- en, Revision: -, Pages: -
Drawing No. 1334780000, Data Sheet- Technical Data- UR20-16AUX-O_en, Revision: -, Pages: -
Drawing No. 1334870000, Data Sheet- Technical Data- UR20-FBC-PB-DP_en, Revision: -, Pages: -
Drawing No. 1460140000, Data Sheet- Technical Data- UR20-2DI-P-TS_en, Revision: -, Pages: -
Drawing No. 1509830000, Data Sheet- Technical Data- UR20-8DO-P-2W-HD_en, Revision: -, Pages: -
Drawing No. 2009360000, Data Sheet- Technical Data- UR20-4DI-P-3W_en, Revision: -, Pages: -
Drawing No. LAB21507E, Laboratory Report- ON LO17-01311- Type_Release Measurement, Weidmueller, 14/02/2018, Revision: -, Pages: -
 14/02/2018, Revision: -, Pages: -
 Drawing No. LAB21546E, Laboratory Report- ON LO17-01346- Type_Release Measurement, Weidmueller,
 09/02/2018, Revision: -, Pages: -
Drawing No. LAB21552E, EMC Test Laboratory- Test Report No 2018010- Remote-IO SY, RS Schwarze,
 06/02/2018, Revision: -, Pages: -
Drawing No. UR20-16AUX-O, DWGs- UR20-16AUX-O_ Finished Part_ PCBA Documentation, Revision: -, Pages:
Drawing No. UR20-16DI-N, DWGs- UR20-16DI-N Finished Part PCBA Documentation, Revision: -, Pages: -Drawing No. UR20-16DO-N, DWGs- UR20-16DO-N Finished Part PCBA Documentation, Revision: -, Pages: -Drawing No. UR20-1COM-232-485-422, DWGs- UR20-1COM-232-485-422 Finished Part PCBA Documentation,
 Revision: -, Pages: -
Drawing No. UR20-2DI-P-TS, DWGs- UR20-2DI-P-TS Finished Part PCBA Documentation, Revision: -, Pages: -
 Drawing No. UR20-4DI-P, DWGs- UR20-4DI-P Finished Part PCBA Documentation, Revision: -, Pages: -
 Drawing No. UR20-4DI-P-3W, DWGs- UR20-4DI-P-3W_ Finished Part_ PCBA Documentation, Revision: -, Pages:
```

WEIDMUELLER INTERFACE GMBH & CO. KG

KLINGENBERGSTRASSE 16 D-32758 DETMOLD

Germany

Telephone: +49 5231 14 291484

Fax: +49 5231 14 251484

Email: stefanie.biere@weidmueller.de

Web: www.weidmueller.de

Tier: 2 - PDA Issued

Drawing No. UR20-4DO-P, DWGs- UR20-4DO-P_ Finished Part_ PCBA Documentation, Revision: -, Pages: - Drawing No. UR20-8DI-P-3W-HD, DWGs- UR20-8DI-P-3W-HD_ Finished Part_ PCBA Documentation, Revision: -

Drawing No. UR20-8DO-P-2W-HD, DWGs- UR20-8DO-P-2W-HD_ Finished Part_ PCBA Documentation,

Revision: -, Pages: -

Drawing No. UR20-FBC-PB-DP, DWGs- UR20-FBC-PB-DP_ Finished Part_ PCBA Documentation, Revision: -,

Pages: -

Terms of Validity:

This Product Design Assessment (PDA) Certificate 18-HG1762327-PDA, dated 28/Aug/2018 remains valid until 27/Aug/2023 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:

2018 Steel Vessel Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-9-3/3.3, 4-9-8/Table 1

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA

Weidmueller Interface GmbH & Co KG PDA Certificate No. 18-HG1762327-PDA Issue date: 28.08.2018

Expiration date: 27.08.2023

The following modules are covered:

Fieldbus Coupler

Part Name	Part Number
UR20-FBC-PL	1334940000
UR20-FBC-CAN	1334890000
UR20-FBC-PN-IRT	1334880000
UR20-FBC-MOD-TCP-V2	2476450000
UR20-FBC-EIP	1334920000
UR20-FBC-EC	1334910000
UR20-FBC-PB-DP	1334870000

Auxiliary Module

Part Name	Part Number
UR20-16AUX-I	1334770000
UR20-16AUX-O	1334780000
UR20-16AUX-FE	1334790000
UR20-16AUX-GND-I	1334800000
UR20-16AUX-GND-O	1334810000

Digital Input

Part Name	Part Number
UR20-2DI-P-TS	1460140000
UR20-4DI-P	1315170000
UR20-4DI-P-TS	1460150000
UR20-4DI-P-3W	2009360000
UR20-8DI-P-2W	1315180000
UR20-8DI-P-3W	1394400000
UR20-8DI-P-3W-HD	1315190000
UR20-16DI-P	1315200000
UR20-16DI-P-PLC-INT	1315210000
UR20-4DI-N	1315350000
UR20-8DI-N-3W	1315370000
UR20-16DI-N	1315390000
UR20-16DI-N-PLC-INT	1315400000

Additional Product Details I/O Components UR20-xxx

Weidmueller Interface GmbH & Co KG PDA Certificate No. 18-HG1762327-PDA Issue date: 28.08.2018 Expiration date: 27.08.2023

Digital Output

Part Name	Part Number
UR20-4DO-P	1315220000
UR20-4DO-P-2A	1315230000
UR20-8DO-P	1315240000
UR20-8DO-P-2W-HD	1509830000
UR20-16DO-P	1315250000
UR20-16DO-P-PLC-INT	1315270000
UR20-4DO-N	1315410000
UR20-4DO-N-2A	1315420000
UR20-8DO-N	1315430000
UR20-16DO-N	1315440000
UR20-16DO-N-PLC-INT	1315450000
UR20-4DO-PN-2A	1394420000

230 V

Part Name	Part Number
UR20-4RO-SSR-255	1315540000
UR20-4RO-CO-255	1315550000
UR20-4DI-2W-230V-AC	1550070000
UR20-3EM-230V-AC	2007420000

Analog Input

Part Name	Part Number
UR20-4AI-UI-12	1394390000
UR20-4AI-UI-16	1315620000
UR20-4AI-UI-16-DIAG	1315690000
UR20-4AI-UI-DIF-16-DIAG	1993880000
UR20-4AI-RTD-DIAG	1315700000
UR20-4AI-TC-DIAG	1315710000
UR20-2AI-SG-24-DIAG	1990070000

Analog Output

Part Name	Part Number
UR20-4AO-UI-16-M	2453880000
UR20-4AO-UI-16-M-DIAG	2453870000

Additional Product Details

I/O Components UR20-xxx

Weidmueller Interface GmbH & Co KG PDA Certificate No. 18-HG1762327-PDA Issue date: 28.08.2018

Expiration date: 27.08.2023

Power Supply

Part Name	Part Number
UR20-PF-I	1334710000
UR20-PF-O	1334740000

Counter & Communication

Part Name	Part Number
UR20-2FCNT-100	1508080000
UR20-2CNT-100	1315590000
UR20-1CNT-100-1DO	1315570000
UR20-1CNT-500	1315580000
UR20-1COM-232-485-422	1315750000

Special Functions

Part Name	Part Number
UR20-1SSI	1508090000
UR20-ES	1315770000