



Marine & Offshore

Certificate number: 46990/A0 BV

File number: AP4768

Product code: 4501H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Weidmüller Interface GmbH & Co. KG

Detmold - GERMANY

for the type of product

PROGRAMMABLE LOGIC CONTROL UNITS

u-remote I/O-System

UR20-... series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

EC Code: 33B

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 30 May 2023

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 30 May 2018,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The modular **u-remote** I/O system supports common fieldbus systems. Interconnected **u-remote** stations with bus coupler and connected modules are intended for a decentralised control or monitoring systems.

The **UR20-** series are DIN rail mounted and comprises the following modules:

Module type	Order number	Model	Description	HVN
Fieldbus coupler	1334890000	UR20-FBC-CAN	CANopen, SVN: 01.01.xx	01.03.xx
	1334940000	UR20-FBC-PL	Ethernet POWERLINK, SVN: 01.00.xx	01.03.xx
	1334910000	UR20-FBC-EC	EtherCAT, SVN: 01.01.xx	02.02.xx
	2476450000	UR20-FBC-MOD-TCP-V2	Modbus TCP, SVN: 02.01.xx	01.03.xx
	1334920000	UR20-FBC-EIP	EtherNet/IP, SVN: 02.02.xx	02.01.xx
	1334880000	UR20-FBC-PN-IRT	PROFINET, SVN: 01.03.xx	01.05.xx
	1334870000	UR20-FBC-PB-DP	PROFIBUS, SVN: 01.03.xx	01.13.xx
Digital I/O	1460140000	UR20-2DI-P-TS	2 digital inputs, P-switching, time stamp function	01.01.xx
	1315350000	UR20-4DI-N	4 digital inputs, N-switching	01.10.xx
	1315170000	UR20-4DI-P	4 digital inputs, P-switching	01.10.xx
	1460150000	UR20-4DI-P-TS	4 digital inputs, P-switching, time stamp function	01.01.xx
	1550070000	UR20-4DI-2W-230V-AC	4 digital inputs, 230V	01.10.xx
	2009360000	UR20-4DI-P-3W	4 digital inputs, P-switching,	01.00.xx
	1315370000	UR20-8DI-N-3W	8 digital inputs, N-switching,	01.30.xx
	1315180000	UR20-8DI-P-2W	8 digital inputs, P-switching,	01.01.xx
	1394400000	UR20-8DI-P-3W	8 digital inputs, P-switching,	01.31.xx
	1315190000	UR20-8DI-P-3W-HD	8 digital inputs, P-switching,	01.00.xx
	1315210000	UR20-16DI-P-PLC-INT	16 digital inputs, P-switching, PLC connector	01.02.xx
	1315400000	UR20-16DI-N-PLC-INT	16 digital inputs, N-switching, PLC connector	01.11.xx
	1315200000	UR20-16DI-P	16 digital inputs, P-switching	01.01.xx
	1315390000	UR20-16DI-N	16 digital inputs, N-switching	01.01.xx
	1315410000	UR20-4DO-N	4 digital outputs, N-switching	01.00.xx
	1315420000	UR20-4DO-N-2A	4 digital outputs, N-switching	01.00.xx
	1315220000	UR20-4DO-P	4 digital outputs, P-switching	01.20.xx
	1315230000	UR20-4DO-P-2A	4 digital outputs, P-switching	01.11.xx
	1509830000	UR20-8DO-P-2W-HD	8 digital outputs, P-switching	01.00.xx
	1394420000	UR20-4DO-PN-2A	4 digital outputs, P or N-switching	01.02.xx
	1315430000	UR20-8DO-N	8 digital outputs, N-switching	01.00.xx
	1315240000	UR20-8DO-P	8 digital outputs, P-switching	01.01.xx
	1315250000	UR20-16DO-P	16 digital outputs, P-switching	01.03.xx
	1315440000	UR20-16DO-N	16 digital outputs, N-switching	01.10.xx
	1315270000	UR20-16DO-P-PLC-INT	16 digital outputs, P-switching, PLC connector	01.13.xx
	1315450000	UR20-16DO-N-PLC-INT	16 digital outputs, N-switching, PLC connector	01.01.xx
	Analogue I/O	1990070000	UR20-2AI-SG-24-DIAG	2 analogue inputs, 24 bit, diagnostic, SVN: 01.00.xx
1394390000		UR20-4AI-UI-12	4 analogue inputs, 12 bit, SVN: 01.00.xx	01.20.xx
1315620000		UR20-4AI-UI-16	4 analogue inputs, 16 bit, SVN: 01.00.xx	01.20.xx
1315690000		UR20-4AI-UI-16-DIAG	4 analogue inputs, 16 bit, diagnostic, SVN: 01.00.xx	01.20.xx
1993880000		UR20-4AI-UI-DIF-16-DIAG	4 analogue inputs, 16 bit, diagnostic, SVN: 01.02.xx	01.20.xx
1315700000		UR20-4AI-RTD-DIAG	4 temperatur sensors, 16 bit, diagnostic, SVN: 01.00.xx	01.02.xx
1315710000		UR20-4AI-TC-DIAG	4 temperatur sensors, 16 bit, diagnostic, SVN: 01.00.xx	01.02.xx
2453880000		UR20-4AO-UI-16-M	4 analogue outputs, 16 bit, SVN: 01.02.xx	01.00.xx
2453870000		UR20-4AO-UI-16-M-DIAG	4 analogue inputs, 16 bit, diagnostic, SVN: 01.02.xx	01.00.xx

Module type	Order number	Model	Description	HVN
AUX modules	1334770000	UR20-16AUX-I	Potential distribution, 16 connections, input path	01.02.xx
	1334780000	UR20-16AUX-O	Potential distribution, 16 connections, output path	01.01.xx
	1334800000	UR20-16AUX-GND-I	Potential distribution, 16 connections, input path	01.02.xx
	1334810000	UR20-16AUX-GND-O	Potential distribution, 16 connections, output path	01.02.xx
	1334790000	UR20-16AUX-FE	Pot. distribution, 16 connections, functional earth	01.02.xx
Digital modules	1315550000	UR20-4RO-CO-255	4 digital relay outputs	01.03.xx
	1315540000	UR20-4RO-SSR-255	4 digital outputs, semiconductor	01.10.xx
	1315570000	UR20-1CNT-100-1DO	1 channel, counter, 100kHz	00.91.xx
	1315580000	UR20-1CNT-500	1 channel, counter, 500kHz	01.00.xx
	1315590000	UR20-2CNT-100	2 channel, counter, 100kHz	00.90.xx
	1508080000	UR20-2FCNT-100	2 channel, frequency counter, 100kHz	00.91.xx
Interface modules	1315750000	UR20-1COM-232-485-422	1 serial interface, 115200 bps, SVN: 01.00.xx	01.06.xx
	1508090000	UR20-1SSI	1 SSI encoder	01.00.xx
Power measurement module	2007420000	UR20-3EM-230V-AC	6 channels for 3 phase measurements, SVN: 01.00.xx	01.40.xx
Power-feed modules	1334710000	UR20-PF-I	For input current path	01.01.xx
	1334740000	UR20-PF-O	For output current path	01.01.xx
Empty slot	1315770000	UR20-ES	Empty slot as reserve module	01.00.xx

HVN: Hardware Version Number

SVN: Software Version Number

Main characteristics:

Power supply: 24VDC nominal voltage

Degree of protection: IP20

2. DOCUMENTS AND DRAWINGS:

- Manual: 1432790000 dated 12/December 2017

3. TEST REPORTS:

Weidmüller:

- LAB20808E dated 2017-01-04; LAB20807E dated 2017-01-04; LAB20772E dated 2016-12-21
 - LAB21033E dated 2017-05-09; LAB20841E dated 2017-04-06; LAB21232E dated 2017-07-12
 - LAB21221E dated 2017-08-22; LAB21222E dated 2017-08-22; LAB21507E dated 2018-02-14
 - LAB21546E dated 2018-02-09

RS Schwarze:

- 2016142a dated 10.11.2016 (LAB20776E); 2016142c dated 14.11.2016 (LAB20778E)
 - 2017013 dated 31.01.2017 (LAB20987E); 2017074 dated 08.06.2017 (LAB21109E)
 - 2018010 dated 06.02.2018 (LAB21552E)

4. APPLICATION / LIMITATION:

4.1 - Bureau Veritas Rules for the Classification of Steel Ships.

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS**, **AUT-CCS**, **AUT-PORT** and **AUT-IMS**.

4.3 - Bureau Veritas Environmental Category, **EC Code: 33B**

4.4 - System suppliers using above equipment are required to submit project related documentation for information or approval in dependance of the system category of the application prior fitting on board.

4.5 - Factory acceptance, simulation, integration, final integration and on-board tests are to be performed for Category II or III systems in which the equipment is used to approved test programs.

4.6 - Data processing system used for machinery protection is to be independent from the control and monitoring system.

4.7 - Only Hardware and Software successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer is covered by this certificate.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **Weidmüller Interface GmbH & Co. KG** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Weidmüller Interface GmbH & Co. KG** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products :

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 16
32758 Detmold
GERMANY

5.4 - Each equipment is to be supplied with manual (s) for installation, use and maintenance.

6. MARKING OF PRODUCT:

- Maker's name or trademark.
- Date of manufacture and/or serial number.
- Equipment type or model identification under which it was type-tested.
- For each application title and version of each software element included in the installed software system shall be either marked on the equipment or displayed on a panel on command.

7. OTHERS:

7.1 - It is the responsibility of **Weidmüller Interface GmbH & Co. KG** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

*** END OF CERTIFICATE ***