



Marine & Offshore

Certificate number: 21109/D0 BV

File number: AP3911

Product code: 4501H

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

www.veristar.com

TYPE APPROVAL CERTIFICATE

This certificate is issued to

Intelligent Platforms, LLC

Charlottesville, VA - UNITED STATES OF AMERICA

for the type of product

PROGRAMMABLE LOGIC CONTROL UNITS

VersaMax PLCs

Requirements:

BUREAU VERITAS Rules for the Classification of Steel Ships.

EC Code: 31

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 is a renewal of certificate N° 21109/C2 BV expiring on 11/10/2023

This certificate will expire on: 11 Oct 2028

For Bureau Veritas Marine & Offshore,

At BV PORT EVERGLADES CENTRE, on 21 Aug 2023,

Flavio Rosas

This certificate was created electronically and is valid without signature



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.

The electronic version is available at: <http://www.veristarp.com/veristarnb/jsp/viewPublicPdfTypepec.jsp?id=yjw8cfpq2l>

BV Mod. Ad.E 530 June 2017

This certificate consists of 4 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

- Product model or type designation :

VersaMax® PLC

- Product description:

The **VersaMax® PLCs** include the following modules:

1.1 - Technical Specifications:

Part Number	Description	Firmware Versions
IC200ACC303	SHORTING BAR	NA
IC200ALG230	ANALOG INPUT 12 BIT VOLTAGE/CURRENT 4 CHANNEL	1.xx
IC200ALG240	ANALOG INPUT 16 BIT VOLTAGE/CURRENT 8 ISOLATED CHANNELS	1.xx
IC200ALG260	ANALOG INPUT 12 BIT VOLTAGE/CURRENT 8CH	1.xx
IC200ALG263	ANALOG INPUT 15 BIT 0-10V, VOLTAGE, 15 CH	1.xx
IC200ALG264	ANALOG INPUT 15 BIT CURRENT 15CH	1.xx
IC200ALG266	ANALOG INPUT 15 BIT 4-20mA, CURRENT, 15 CH TUV	1.xx
IC200ALG320	ANALOG OUTPUT 12 BIT CURRENT 4CH	1.xx
IC200ALG325	ANALOG OUTPUT MODULE, 13 BIT VOLTAGE, 8 CH	1.xx
IC200ALG326	ANALOG OUTPUT MODULE, 13 BIT CURRENT, 8 CH	1.xx
IC200ALG328	HIGH DENSITY 16 CH CURRENT OUTPUT	NA
IC200ALG331	ANALOG OUTPUT 4CH VOLTAGE/CURRENT	1.xx
IC200ALG430	ANALOG CURRENT MIXED 4CH IN/2CH OUT	1.xx
IC200ALG432	ANALOG VOLTAGE MIXED 4CH IN/2CH OUT	1.xx
IC200ALG620	ANALOG INPUT 16 BIT RTD, 4CH	1.xx
IC200ALG630	ANALOG INPUT 16 BIT THERMOCOUPLE 7CH	1.xx
IC200BEM002	PLC NETWORK COMMUNICATION PROFIBUS-DP SLAVE	1.xx
IC200CHS001	I/O CARRIER BARRIER STYLE	NA
IC200CHS002	I/O CARRIER BOX STYLE	NA
IC200CHS003	I/O CARRIER CONNECTOR STYLE	NA
IC200CHS006	COMMUNICATIONS CARRIER	NA
IC200CHS011	I/O CARRIER INTERPOSING BARRIER STYLE	NA
IC200CHS022	COMPACT I/O CARRIER BOX STYLE (screw style terminals)	NA
IC200CHS025	COMPACT I/O CARRIER SPRING STYLE (identical to IC200CHS022 except for the terminal block style)	NA
IC200CMM020	SERIAL COMMUNICATIONS EXPANSION MODULE	1.xx
IC200CPU001	CPU 12K USER PROG 1.80MSEC/K BOOLEAN	2.xx
IC200CPU002	CPU 20K USER PROG 1.80MSEC/K BOOLEAN	2.xx
IC200CPU005	CPU WITH CONFIGURABLE USER MEMORY 0.8 MSEC/K BOOLEAN	2.xx
IC200CPUE05	CPU WITH CONFIGURABLE USER MEMORY 0.8 MSEC/K BOOLEAN	3.xx
IC200EBI001	REMOTE I/O ETHERNET NETWORK INTERFACE UNIT	1.xx
IC200ERM001	EXPANSION RECEIVER ISOLATED	3.x
IC200ETM001	EXPANSION TRANSMITTER	NA
IC200GBI001	REMOTE I/O GENIUS NETWORK INTERFACE UNIT	NA
IC200MDD840	MIXED-OUTPUT 24VDC 20IN/12 RELAY OUT	NA
IC200MDD841	MIXED 24VDC POS LOG INPUT GROUP 20 POINT / OUTPUT 24VDC OUTPUT 12 POINT	NA
IC200MDD842	MIXED-24VDC 16IN/16OUT	NA
IC200MDD843	MIXED OUTPUT 24VDC 10IN/6 RELAY OUT	NA
IC200MDD844	MIXED 24VDC POS LOG INPUT GROUP 16 POINT / 24 VDC OUTPUT 16 POINT	NA

Part Number	Description	Firmware Versions
IC200MDL640	INPUT 24VDC POS/NEG LOGIC (2 GROUP OF 8) 16PT	NA
IC200MDL644	5/12VDC-INPUT 32 POINTS	NA
IC200MDL650	INPUT 24VDC POS/NEG LOGIC (4 GROUPS OF 8) 32PT	NA
IC200MDL740	OUTPUT 24VDC POS LOGIC 0.5A PER PT (1 GROUP OF 16) 16PT	NA
IC200MDL744	5/12/24VDC NEG LOGIC 32 POINTS	NA
IC200MDL750	OUTPUT 24VDC POS LOGIC 0.5A PER PT (2 GROUPS OF 16) 32PT	NA
IC200MDL940	OUTPUT RELAY 2.0A PER PT ISOLATED FORM A 16PT	NA
IC200PBI001	REMOTE I/O PROFIBUS DP NETWORK INTERFACE UNIT	2.xx
IC200PNS001CA	Profinet Scanner with two 10/100MBPS Copper Interfaces	2.xx
IC200PNS002CA	Profinet Scanner with two 100MBPS Multi Mode Fiber.	2.xx
IC200PWB001	POWER SUPPLY BOOSTER CARRIER	NA
IC200PWR002	POWER SUPPLY WITH EXPANDED 3.3VDC 24VDC INPUT **This is a non-isolated power supply that requires an isolated DC-DC converter for installation in marine applications.**	NA
IC200PWR011	ISOLATED 24VDC POWER SUPPLY	NA
IC200PWR012	ISOLATED 24VDC POWER SUPPLY EXPANDED 3.3VDC	NA
IC200PWR102	POWER SUPPLY WITH EXPANDED 3.3VDC 120/240VAC INPUT	NA
IC200TBM001	I/O AUXILIARY TERMINAL STRIP. BARRIER STYLE	NA

2. DOCUMENTS AND DRAWINGS:

Intelligent Platforms:

- CD ROM containing Manuals , Drawings and BOMs
- VersaMax PLC User's Manual GFK-1503D dated Jan. 2006
- VersaMax Modules, Power Supplies and Carriers User's Manual GFK-1504K dated Mar. 2003
- VersaMax Modules, Power Supplies and Carriers User's Manual GFK-1504K dated Feb. 2010
- Excel Sheet: Index II of product Documentation for BV.
- Firmware release IC200PNS001/2-AC Ref.: gfk2574B_VersaMax PNS, dated Dec 2013
- PACSystems, User Manual, No. GFK-1504P, dated Jan 2020.
- PACSystems , User Manual, No. GFK-1503F, dated Jan 2020.

3. TEST REPORTS:

Northrop Grumman Corp.:

- Thermal Test Report, Nr. 5002264 dated 26 Sept. 2008.

MET Laboratories:

- Marine Type Approval Test Report Nr. 24735-IACS Rev. 1dated November 21, 2008.

Curtis-Straus LLC:

- Test Report N°:EJ1320-1 Issue 3 dated 04 Aug. 2010.
- Test Report N°:EJ1320-3 Issue 2 dated 30 Jul. 2010.
- Test Report No. NL1393-1 dated 29 June 2012 and EL1393-1 dated 16 June 2012
- Test Report No. 3696ERM.001, dated 06-14-2022

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: 31.**
- 4.4 - The equipment fulfils the EMC requirements for installation in General power Distribution Zones.
- 4.5 - Sensors used in the system and required as per Rules are to be duly approved by the Society.
- 4.6 - Each application is to be submitted to the Society's consideration.
- 4.7 - The system is to be installed within a metallic cabinet.
- 4.8 - Versamax products are additionally approved for Bridge and Deck installations when IC200PWR011, IC200PWR012, and/or IC200PWR002 DC power supplies are used in conjunction with an Corcom DC line filtre #15DCB6F or equivalent.
- 4.9 - Where the system is used for machinery safeguards required by the Rules, the equipment is to be duplicated by another and different system.
- 4.10 - Only Hardware and Firmware / Software successfully tested together in compliance with the regulations as referred to in cover page, according to the declaration of the manufacturer are covered by this certificate.
- 4.11 - Any modification of the hardware, firmware or software having an impact on the product performance or functionality has to be validated with type testing.

4.12 - In accordance with IACS UR E22 and as applicable to programmable devices for computer based systems of Category II or III, for each ship application:

- Ship specific documentation is to be submitted including software documentation and categorization of the computer based system.

- Inspection and testing before installation onboard is to be performed under the surveillance of the Society.

4.13 - Equipment covered by this Type Approval certificate has been tested according to requirements of IACS UR E10 rev8.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above products are to be supplied by **Intelligent Platforms, LLC** 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 - **Intelligent Platforms, LLC** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products.

5.4 - For information, **Intelligent Platforms, LLC** has declared to Bureau Veritas the following production site(s):

JABIL CIRCUIT (GUANGZHOU) LTD
Guangzhou ECNMC & Tech Dev District,
128 Jun Cheng RD,
Guangzhou, Guangdong
CHINA

Intelligent Platforms, LLC
2500 Austin Drive
22911 Charlottesville, VA
UNITED STATES OF AMERICA

6. MARKING OF PRODUCT:

- Maker's name or trademark.
- Serial number of the units.
- Equipment type number or model identification under which it was type-tested.
- The title and version of each software element included in the installed software system shall be either marked or displayed on command on the equipment.

7. OTHERS:

7.1 - It is **Intelligent Platforms, LLC**'s responsibility 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.

7.2 - This Certificate supersedes the Type Approval Certificate No.: 21109/C2 BV issued on 29 July 2022 by the Society.

***** END OF CERTIFICATE *****