

CERTIFICATE NUMBER 20-YO1951934-PDA

EFFECTIVE DATE

4-MAR-2020

EXPIRATION DATE

3-MAR-2025

ABS TECHNICAL OFFICE Yokohama Engineering Services

CERTIFICATE OF

Product Design Assessment

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

IDEC CORPORATION

located at

OSAKA CITY

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 Automation, Operator Interface

Model HGxG-V Series

This Product Design Assessment (PDA) Certificate 20-YO1951934-PDA, dated 4/March/2020 remains valid until 3/March/2025 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

Motohiro Tamura

Engineer/Consultant

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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)

IDEC CORPORATION

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Tier: 5 - Unit Certification Required

Product:

Automation, Operator Interface

Model:

HGxG-V Series

Intended Service:

Operator Interface Display for Controlling and Monitoring through PLC or other control equipment.

5.7", 8.4", 10.4", 12.1", 15" VGA/XGA TFT Color Display, Refer to the Attached List.

Rating:

Power Supply: DC 20.4V to 28.8V,

Protection Grade (Front part): IP66F, IP67F.

Protection Grade (Rear part): IP20, Ambient temperature: -20 to + 60 deg.C

Service Restriction:

(1)Unit Certification is required for this product. The tests in the presence of the Surveyor are required in accordance with 4-9-9/Table 2 of the ABS Marine Vessels Rules "Performance Tests"

where it is used for control, monitoring and safety systems of propulsion machinery, propulsion boilers, vital auxiliary pumps and electrical generating plants. The performance tests are to be carried out at the assembled plant before installation on-board or after installation on-board.

(2) Emissions within limits for General Power Distribution Zone.

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

(2) Unless specially directed by Administration, this approval is not to be construed as a substitute for flag Àdministration's approval.

Notes/Drawing/Documentation:

Dwg. No. Y1551-0L01D, Title: HG2G-V_Product specification, Date: 17 May 2019, Dwg. No. Y1546-0L01D, Title: HG3G-V_Product specification, Date: 17 May 2019, Dwg. No. Y1547-0L01D, Title: HG4G-V_Product specification, Date: 17 May 2019, Dwg. No. Y1548-0L01D, Title: HG5G-V_Product specification, Date: 17 May 2019, Dwg. No. Y1548-0L01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. PR204-F10062, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. PR204-F10062, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. PR204-F10062, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. PR204-F10062, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Title: HG5G-T_=t Portest (Product specification), Date: 17 May 2019, Dwg. No. Y1548-DL01D, Dwg. No. Y1548-DL01

Dwg. No. RR304-E19063, Title: IDEC Test Report(Environmantal Test etc.), Date: 18 December 2019 issued by IDEC CORPORATION.,

Dwg. No. KL80190517, Title: JQA Test Report(HG2G-V EMC), Date: 24 December 2019 issued by Japan Quality Assurance Organization.

Dwg. No. KL80190466, Title: JOA Test Report(HG5G-V), Date: 24 December 2019 issued by Japan Quality

Assurance Organization,
Dwg. No. 19-R&D-0934, Title: List of Drawings and Documents for HG-V, Date: 2 September 2019,
Dwg. No. 19-R&D-0931, Title: HG543G-V Test Program and Criteria in Type Tests, Date: 2 September 2019,
Dwg. No. 19-R&D-0930, Title: HG2G-V Test Program and Criteria in Type Tests, Date: 2 September 2019,

Dwg. No. 19-R&D-0929, Title: HG5G-V Configuration of Test, Date: 2 September 2019,

Dwg. No. 19-R&D-0928, Title: HG4G-V Configuration of Test, Date: 2 September 2019,

Dwg. No. 19-R&D-0928, Title: HG3G-VA Configuration of Test, Date: 2 September 2019, Dwg. No. 19-R&D-0927, Title: HG3G-VA Configuration of Test, Date: 2 September 2019, Dwg. No. 19-R&D-0926, Title: HG3G-V8 Configuration of Test, Date: 2 September 2019, Dwg. No. 19-R&D-0919, Title: HG543C-V Test specifications, Date: 20 November 2019, Dwg. No. 19-R&D-0919, Title: HG543C-V Test specifications, Date: 20 November 2019,

Dwg. No. 19-R&D-0913, Title: HG543G-V General Construction & Plastic Material List, Date: 2 September 2019. Dwg. No. 19-R&D-0912, Title: HG2G-V General Construction & Plastic Material List, Date: 2 September 2019,

Dwg. No. 19-R&D-0911, Title: HG543G-V Block Diagram, Date: 2 September 2019, Dwg. No. 19-R&D-0910, Title: HG2G-V Block Diagram, Date: 2 September 2019,



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Dwg. No. 19-R&D-0909, Title: HG5G-V External Configuration, Date: 2 September 2019, Dwg. No. 19-R&D-0908, Title: HG4G-V External Configuration Date: 2 September 2019, Dwg. No. 19-R&D-0907, Title: HG3G-VA External Configuration, Date: 2 September 2019, Dwg. No. 19-R&D-0906, Title: HG3G-V8 External Configuration, Date: 2 September 2019, Dwg. No. 19-R&D-0905, Title: HG2G-V External Configuration, Date: 2 September 2019, Dwg. No. 19-R&D-0905, Title: HG2G-V External Configuration, Date: 2 September 2019,

Dwg. No. 19-306-071, Title: HGxG-V_Test_Report, Date: 22 January 2020 issued by IDEC CORPORATION, Dwg. No. 19-306-068, Title: Test Curve for Vibration Test(HG5G-V ABS signed), Date: 25 November 2019 issued by LABOTECH.

Dwg. No. 19-306-067, Title: Test Curve for Vibration Test(HG4G-V ABS signed), Date: 22 November 2019 issued by LABOTECH.

ABS Survey Report No. 4018620-A dated 26 November 2019.

Terms of Validity:

This Product Design Assessment (PDA) Certificate remains valid until 03/Mar/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.

STANDARDS

ABS Rules:

2020 Marine Vessels Rules 1-1-4/7.7, 1-1-A3, 1-1-A4, 4-9-9/13 2020 High Speed Craft Rules 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-7-9/15 2020 Mobile Offshore Units Rules 1-1-4/9.7, 1-1-A2, 1-1-A3

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA

Design Assessment (DA) Certificate Attachment for Component Details

DA Certificate No:

20-YO1951934-PDA

Issue Date:

4 March 2020

Expire Date:

3 March 2025

Company:

IDEC Corporation Product/Equipment: Operator Interface

Model:

HG2G-V, HG3G-V8, HG3G-VA, HG4G-V and HG5G-V

Model Name

HG2G-V Series: 5.7" VGA TFT Color Display, HG3G-V8 Series: 8.4 XGA TFT Color Display, HG3G-VA Series: 10.4 XGA TFT Color Display, HG4G-V Series: 12.1" XGA TFT Color Display, HG5G-V Series: 15" XGA TFT Color Display.

HG MAIN UNIT

Type No.	Display	Interface
HG2G-V5FT22TF-%-*****	5.7"VGA TFT Color	Serial x2, Ethernet, USB Host, USB Device, SD
HG2G-V5FT22TG-%-*****		
HG2G-V5FT22TH-%-*****		
HG2G-V5FT22TJ-%-*****		
HG3G-V8XT22MF-%-*****	8.4"XGA TFT Color	Serial x2, Ethernet, USB Host, USB Device, SD, Audio Out, Video IN x2
HG3G-V8XT22MG-%-*****		
HG3G-V8XT22MH-%-*****		
HG3G-V8XT22MJ-%-*****		
HG3G-VAXT22MF-%-*****	10.4"XGA TFT Color	
HG3G-VAXT22MG-%-*****		
HG3G-VAXT22MH-%-*****		
HG3G-VAXT22MJ-%-*****		
HG4G-VCXT22MF-%-*****	12.1"XGA TFT Color	
HG4G-VCXT22MG-%-*****		
HG4G-VCXT22MH-%-*****		
HG4G-VCXT22MJ-%-*****		
HG5G-VFXT22MF-%-*****	15"XGA TFT Color	
HG5G-VFXT22MG-%-*****		
HG5G-VFXT22MH-%-*****		
HG5G-VFXT22MJ-%-*****		

%: Bezel color

Manufacturer Control No.

Additional letter(s) and/or number(s)

That may employ hyphen(s) in various location(s)



Design Assessment (DA) Certificate Attachment for Component Details

DA Certificate No:

20-YO1951934-PDA

Issue Date:

4 March 2020 3 March 2025

Expire Date:

IDEC Corporation

Company: **Product/Equipment:** Operator Interface

Model:

HG2G-V, HG3G-V8, HG3G-VA, HG4G-V and HG5G-V

OPTIONS

Type No.	Description	
HG9Z-2E2PN03	Protective Cover for HG2G-V.	
HG9Z-2D5PN05	Protective Sheet for HG2G-V.	
HG9Z-3D8PN02	Protective Sheet for HG3G-V8.	
HG9Z-3DAPN02	Protective Sheet for HG3G-VA.	7.1
HG9Z-4DCPN02	Protective Sheet for HG4G-V.	
HG9Z-5DFPN01	Protective Sheet for HG5G-V.	
HG9Z-XJ3PN05	Expansion Module Clamp.	
HG9Z-XJ4PN05	Expansion Module Clamp.	
HG9Z-XJ5PN05	Expansion Module Clamp.	

CABLES

Type No.	Description	
HG9Z-XCM42	USB Maintenance Cable(2m)	
HG9Z-XC295	PLC Connection Cable for IDEC MicroSmart(5m)	
HG9Z-XC305	PLC Connection Cable for Mitsubishi FX Series(5m)	
HG9Z-XC315	PLC Connection Cable for Mitsubishi Q Series(5m)	
HG9Z-XC275	PLC Connection Cable for IDEC MicroSmart(5m)	
HG9Z-KP1C	PLC Connection Cable for IDEC MicroSmart(2.4m)	
HG9Z-KC1C	PLC Connection Cable for IDEC MicroSmart(5m)	
HG9Z-KC2C	PLC Connection Cable for IDEC MicroSmart(5m)	
HG9Z-XCE11	Panel-mount extension cable(1m) for USB-A Port.	
HG9Z-XCE21	Panel-mount extension cable(1m) for USB-miniB Port.	