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Certificate No: LR2141319TA Issue Date: 12/02/2021 Expiry Date: 18/03/2024

## **Type Approval Certificate**

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer IDEC Corporation

**Address** 2-6-64, Nishimiyahara, Osaka-shi, 532-0004, Japan

**Place of Production** SHINKO TECHNOS CO., LTD. SANDA FACTORY

501-19 Fukushima, Sanda, Hyogo, 669-1313, Japan

**Place of Production** KAYBRIGHT ELECTRICITY (HUIZHOU) CO., LTD.

Shunju Village, Chayuan Village, Qiuchang Road, Huiyang District, Huizhou

City, Guangdong, 516221, China

**Type** Control Units

**Description** Programmable Logic Controller, FT1A Series

**Trade Name** (See Appendix for details)

**Application** Marine and offshore applications for use in environmental categories ENV 2

and ENV 3 for Touch and Lite, ENV 2 for Pro on/in the following Zone as defined in LR Type Approval System Test Specification No. 1-2020 where the

Test Specification is satisfactory for the intended operation.

- on the "Bridge and Deck Zone": Touch

- in the "General Power Distribution Zones": Lite and Pro

**Toshihiro Shigeno** 

Innovation / Type Approval Coordinator and Senior Surveyor to Lloyd's Register Group Ltd A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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## **Type Approval Certificate**

**Ratings** Power Supply: 24VDC or 100-240VAC

Additional Tests IACS Unified Requirement E10 Rev.7

**Other Conditions** The certificate attests to the hardware's suitability for the environmental

categories stated.

Suitability of the software and system configuration is subject to a separate plan appraisal according to the Lloyd's Register Rules and Regulations when

placed on Lloyd's Register classed vessels.

The following ferrite cores have been used to pass the tests:-Type: ZCAT3035 and/or ZCAT1730-0730, Manufacture: TDK

Accordingly, the above or equivalent ones are to be provided for installations

on board.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register Group Ltd of any modification or changes to the equipment in order to obtain a valid Certificate.

**Previous Version:** 16/10005 & 14/10011(E1)

The Design Appraisal Document LR2141319TA and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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## **Appendix**

## **TRADE NAME**

FT1A Series

Touch (Display Type) Rated voltage 24VDC STN Monochrome

FT1A-M14KA-W : 6-Tr. Source Input, 2-Analog Input FT1A-M14KA-B 4-Tr. Sink Output, 2-Analog Output

FT1A-M14KA-S

FT1A-M14SA-W : 6-Tr. Sink Input, 2-Analog Input FT1A-M14SA-B 4-Tr. Source Output, 2-Analog Output

FT1A-M14SA-S

FT1A-M12RA-W : 8 inputs (6 Digital, 2 Analog)

FT1A-M12RA-B 4 outputs (Relay)

FT1A-M12RA-S

**TFT Color** 

FT1A-C14KA-W : 6-Tr. Source Input, 2-Analog Input FT1A-C14KA-B 4-Tr. Sink Output, 2-Analog Output

FT1A-C14KA-S

FT1A-C14SA-W : 6-Tr. Sink Input, 2-Analog Input FT1A-C14SA-B 4-Tr. Source Output, 2-Analog Output

FT1A-C14SA-S

FT1A-C12RA-W : 8 inputs (6 Digital, 2 Analog)

FT1A-C12RA-B 4 outputs (Relay)

FT1A-C12RA-S

Pro (LCD Models)
Rated voltage 24VDC

FT1A-H12RA : 8 inputs (6 Digital, 2 Analog)

4 outputs (Relay)

FT1A-H24RA : 16 inputs (12 Digital, 4 Analog)

8 outputs (Relay)

FT1A-H40RKA : 24 inputs (18 Digital, 6 Analog)

16 outputs (12 Relay, 4 Tr. Sink)

FT1A-H40RSA : 24 inputs (18 Digital, 6 Analog)

16 outputs (12 Relay, 4 Tr. Source)

FT1A-H48KA : 30 inputs (22 Digital, 8 Analog)

18 outputs (Tr. Sink)

FT1A-H48SA : 30 inputs (22 Digital, 8 Analog)

18 outputs (Tr. Source)

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Rated Voltage 100-240VAC

FT1A-H12RC : 8 inputs (Digital)

4 outputs (Relay)

FT1A-H24RC : 16 inputs (Digital)

8 outputs (Relay)

FT1A-H40RC : 24 inputs (Digital)

16 outputs (Relay)

FT1A-H48KC : 30 inputs (Digital)

18 outputs (Tr. Sink)

FT1A-H48SC : 30 inputs (Digital)

18 outputs (Tr. Source)

<u>Lite (No LCD Models)</u> Rated voltage 24VDC

FT1A-B12RA : 8 inputs (6 Digital, 2 Analog)

4 outputs (Relay)

FT1A-B24RA : 16 inputs (12 Digital, 4 Analog)

8 outputs (Relay)

FT1A-B40RKA : 24 inputs (18 Digital, 6 Analog)

16 outputs (12 Relay, 4 Tr. Sink)

FT1A-B40RSA : 24 inputs (18 Digital, 6 Analog)

16 outputs (12 Relay, 4 Tr. Source)

FT1A-B48KA : 30 inputs (22 Digital, 8 Analog)

18 outputs (Tr. Sink)

FT1A-B48SA : 30 inputs (22 Digital, 8 Analog)

18 outputs (Tr. Source)

Rated Voltage 100-240VAC

FT1A-B12RC : 8 inputs (Digital)

4 outputs (Relay)

FT1A-B24RC : 16 inputs (Digital)

8 outputs (Relay)

FT1A-B40RC : 24 inputs (Digital)

16 outputs (Relay)

FT1A-B48KC : 30 inputs (Digital)

18 outputs (Tr. Sink)

FT1A-B48SC : 30 inputs (Digital)

18 outputs (Tr. Source)

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Option;

**Extended Analog Cartridge** 

FC6A-PJ2A : 2-Analog Input FC6A-PK2AV : 2-Analog Output FC6A-PK2AW : 2-Analog Output FC6A-PJ2CP : 2-Analog Input

**Extended Communication Cartridge** 

FT1A-PC1 : RS232C, mini DIN connector type FT1A-PC2 : RS485, mini DIN connector type

FT1A-PC3 : RS485, terminal type

**Memory Cartridge** 

FT1A-PM1

T. Shigeno Innovation/Type Approval Coordinator and Senior Surveyor to Lloyd's Register Group Limited

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