



CERTIFICATE NUMBER
07-YO231764-PDA

DATE
28 March 2007

ABS TECHNICAL OFFICE
Yokohama

EXPIRE DATE
(Subject to the condition stated below)
28 March 2012

CERTIFICATE OF Design Assessment

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

IDEC CORPORATION

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. It will remain valid for five years from the date of issue or until the Rules or specifications used in the assessment are revised (whichever occurs first).

PRODUCT: Programmable Logic Cotnroller

MODEL: FC4A and FC5A Series
(See attachment)

ABS RULE: 2007 Steel Vessel Rules 1-1-4/7.7 and 4-9-7

OTHER STANDARD:

AMERICAN BUREAU OF SHIPPING

Tamiyoshi Hosoda
Principal Engineer - Yokohama Engineering Services



**Design Assessment (DA) Certificate
Attachment for Listing**

Refer to: YoH

File Ref.: GEN45021

DA Certificate No: 07-YO231764-PDA
Issue Date: 28 March 2007
Expire Date: 28 March 2012
(Subject to the condition stated on the DA Certificate)

Company: IDEC CORPORATION

Factory / Office:

Country: Japan

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Product/Equipment: Programmable Logic Cotnroller

Model: FC4A and FC5A Series

Description:

Intended Service: Installed on ACC, ACCU or ABCU

Rating: See Attached Sheet

Applicable ABS Rule: 2007 Steel Vessel Rules 1-1-4/7.7 and 4-9-7

Applicable Other Standard:

Service Restrictions: The above components are to be tested in accordance with 4-9-7/Table 10 of the Rules "Performance Tests" in the presence of the Surveyor after assembled as a sub-assembly unit, in the panel, or in the console. The performance tests are to be carried out preferably at the assembled plant before installation onboard. However, if it is impracticable, the performance tests may be carried out after installation onboard.

Comments:

Documents and Notes: ABS Survey Report No. KO800524 dated 21 February 2007
KO847388 dated 29 June 2007

Revision History

Revision No	Rev Description	ABS Letter Reference	ABS Letter Date
0	Initial Issue	YoH/231764	28 March 2007



***Design Assessment (DA) Certificate
Attachment for Listing***

Refer to: YoH

File Ref.: GEN45021

1	Model name has been changed to FC4A and FC5A. CPU Module Aii-In-One Type and CPU Module Slim Type for FC5A and Analog Module for FC4A have been added.	YoH/259619	18 July 2007
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Product Design Assessment (PDA) Certificate Attachment for Component Details

PDA Certificate No: 07-YO231764-PDA
Entry Date: 28 March 2007
Expire Date: 28 March 2012
Company: IDEC Corporation
Factory or Works:
Product/Equipment: Programmable Logic Controller
Model: FC4A and FC5A Series

PRODUCT COVERED :**CPU Module All-In-One Type**

FC4A-C10R2	AC Type, 6-point Input, 4-point Relay Output
FC4A-C16R2	AC Type, 9-point Input, 7-point Relay Output
FC4A-C24R2	AC Type, 14-point Input, 10-point Relay Output
FC4A-C10R2C	DC Type, 6-point Input, 4-point Relay Output
FC4A-C16R2C	DC Type, 9-point Input, 7-point Relay Output
FC4A-C24R2C	DC Type, 14-point Input, 10-point Relay Output
FC5A-C10R2	AC Type, 6-point Input, 4-point Relay Output
FC5A-C16R2	AC Type, 9-point Input, 7-point Relay Output
FC5A-C24R2	AC Type, 14-point Input, 10-point Relay Output
FC5A-C10R2C	DC Type, 6-point Input, 4-point Relay Output
FC5A-C16R2C	DC Type, 9-point Input, 7-point Relay Output
FC5A-C24R2C	DC Type, 14-point Input, 10-point Relay Output

CPU Module Slim Type

FC4A-D20RK1	DC Type, 12-point Input, 2-point Transistor Sink Output, 6-point Relay Output
FC4A-D20RS1	DC Type, 12-point Input, 2-point Transistor Source Output, 6-point Relay Output
FC4A-D20K3	DC Type, 12-point Input, 8-point Transistor Sink Output
FC4A-D20S3	DC Type, 12-point Input, 8-point Transistor Source Output
FC4A-D40K3	DC Type, 24-point Input, 16-point Transistor Sink Output
FC4A-D40S3	DC Type, 24-point Input, 16-point Transistor Source Output
FC5A-D16RK1	DC Type, 8-point Input, 2-point Transistor Sink Output, 6-point Relay Output.
FC5A-D16RS1	DC Type, 8-point Input, 2-point Transistor Source Output, 6-point Relay Output.
FC5A-D32K3	DC Type, 16-point Input, 16-point Transistor Sink Output.
FC5A-D32S3	DC Type, 16-point Input, 16-point Transistor Source Output.

Expansion Module

FC4A-N08B1	8-point Input
FC4A-N16B1	16-point Input
FC4A-N16B3	16-point Input
FC4A-N32B3	32-point Input
FC4A-R081	8-point Relay Output
FC4A-R161	16-point Relay Output
FC4A-M08BR1	4-point Input, 4-point Relay Output
FC4A-M24BR2	16-point Input, 8-point Relay Output
FC4A-T08K1	8-point Transistor Sink Output
FC4A-T08S1	8-point Transistor Source Output
FC4A-T16K3	16-point Transistor Sink Output
FC4A-T16S3	16-point Transistor Source Output

Product Design Assessment (PDA) Certificate Attachment for Component Details**PDA Certificate No:** 07-YO231764-PDA**Entry Date:** 28 March 2007**Expire Date:** 28 March 2012**Company:** IDEC Corporation**Factory or Works:****Product/Equipment:** Programmable Logic Controller**Model:** FC4A and FC5A Series

FC4A-T32K3	32-point Transistor Sink Output
FC4A-T32S3	32-point Transistor Source Output

Analog Module

FC4A-L03AP1	2-point Analog Input, 1-point Analog Output
FC4A-L03A1	2-point Analog Input, 1-point Analog Output
FC4A-J2A1	2-point Analog Input
FC4A-K1A1	1-point Analog Output
FC4A-K2C1	2-point Analog Output.
FC4A-J8C1	8-point Analog Input.
FC4A-J8AT1	8-point Analog Input.
FC4A-J4CN1	4-point Analog Input.

Communication Module

FC4A-HPC1	RS232C DIN Terminal Type
FC4A-HPC2	RS485 DIN Terminal Type
FC4A-HPC3	RS485 Terminal Block Type

Option Module

FC4A-PC1	RS232C with DIN Terminal Type
FC4A-PC2	RS485 with DIN Terminal Type
FC4A-PC3	RS485 with Terminal Block Type
FC4A-PT1	Clock
FC4A-PM32	Memory Cartridge
FC4A-PM64	Memory Cartridge
FC4A-PH1	Small Display
FC4A-HPH1	Adapter for Small Display

RATINGS:

	Power Supply	Input	Output	Auxiliary Output
FC4A-C10R2	100 - 240V ac, 50 / 60Hz, 30VA	24V dc, Input 0,1 : 11mA / pt others : 7mA / pt	240V ac, 2A (GEN / RES) 30V dc, 2A (GEN / RES)	24V dc, 250mA
FC4A-C16R2	100 - 240V ac, 50 / 60Hz, 31VA	24V dc, Input 0,1 : 11mA / pt others : 7mA / pt	240V ac, 2A (GEN / RES) 30V dc, 2A (GEN / RES)	24V dc, 250mA
FC4A-C24R2	100 - 240V ac, 50 / 60Hz, 40VA	24V dc, Input 0,1 : 11mA/pt others : 7mA/pt	240V ac, 2A (GEN / RES) 30V dc, 2A (GEN / RES)	24V dc, 250mA
FC4A-C10R2C	24V dc, 3.9W	24V dc, Input 0,1 : 11mA / pt others: 7mA / pt	240V ac, 2A (GEN / RES) 30V dc, 2A (GEN / RES)	
FC4A-C16R2C	24V dc, 4.6W	24V dc, Input 0,1 : 11mA / pt	240V ac, 2A (GEN / RES) 30V dc, 2A (GEN / RES)	

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Company: IDEC Corporation

Factory or Works:

Product/Equipment: Programmable Logic Controller

Model: FC4A and FC5A Series

		others: 7mA / pt		
FC4A-C24R2C	24V dc, 5.6W	24V dc, Input 0,1 : 11mA / pt others : 7mA / pt	240V ac, 2A (GEN / RES) 30V dc, 2A (GEN / RES)	
FC4A-D20RK1	24V dc, 120mA	24V dc Input 0,1,6,7: 5mA / pt others: 7mA / pt	Relay: 240 V ac, 2A (GEN / RES) 30 V dc, 2A (GEN / RES) Transistor: 24V dc, 0.3A / pt	
FC4A-D20RS1	24 V dc, 120mA	24 V dc Input 0,1,6,7: 5mA / pt others: 7mA / pt	Relay: 240 V ac, 2A (GEN / RES) 30 V dc, 2A (GEN / RES) Transistor: 24V dc, 0.3A / pt	
FC4A-D20K3	24 V dc, 80mA	24 V dc, Input 0,1,6,7: 5mA / pt others: 7 mA / pt	24 V dc, 0.3 A / pt	
FC4A-D20S3	24 V dc, 80 mA	24 V dc, input 0,1,6,7: 5mA / pt others: 7 mA / pt	24 V dc, 0.3 A / pt	
FC4A-D40K3	24 V dc, 120mA	24V dc, Input 0,1,6,7 : 5mA/pt others : 7mA/pt	24V dc, 0.3A/pt	
FC4A-D40S3	24 V dc, 120mA	24V dc, Input 0,1,6,7 : 5mA/pt others : 7mA/pt	24V dc, 0.3A/pt	
FC5A-C10R2	100-240V ac, 50/60Hz, 30VA	24V dc, Input 7mA/pt	240V ac, 2A (GEN/RES) 30V dc, 2A (GEN/RES)	24V dc, 250mA
FC5A-C16R2	100-240V ac, 50/60Hz, 31VA	24V dc, Input 7mA/pt	240V ac, 2A (GEN/RES) 30V dc, 2A (GEN/RES)	24V dc, 250mA
FC5A-C24R2	100-240V ac, 50/60Hz, 40VA	24V dc, Input 7mA/pt	240V ac, 2A (GEN/RES) 30V dc, 2A (GEN/RES)	24V dc, 250mA
FC5A-C10R2C	24V dc, 3.9W	24V dc, Input 7mA/pt	240V ac, 2A (GEN/RES) 30V dc, 2A (GEN/RES)	
FC5A-C16R2C	24V dc, 4.6W	24V dc, Input 7mA/pt	240V ac, 2A (GEN/RES) 30V dc, 2A (GEN/RES)	
FC5A-C24R2C	24V dc, 5.6W	24V dc, Input 7mA/pt	240V ac, 2A (GEN/RES) 30V dc, 2A (GEN/RES)	
FC5A-D16RK1	24 V dc, 125 mA	24 V dc 0,1,3,4,6,7: 5 mA others: 7 mA	0,1: 24 V dc, 0.3A/pt Others: 240 V ac, 2A (GEN/RES) 30 V dc, 2A (GEN/RES)	
FC5A-D16RS1	24 V dc, 125 mA	24 V dc 0,1,3,4,6,7: 5 mA others: 7 mA	0,1: 24 V dc, 0.3A/pt Others: 240 V ac, 2A (GEN/RES) 30 V dc, 2A (GEN/RES)	
FC5A-D32K3	24 V dc, 140 mA	24 V dc, 0,1,3,4,6,7: 5 mA others: 7 mA	24 V dc, 0.3 A/pt Total Max. 2 A	

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Company: IDEC Corporation

Factory or Works:

Product/Equipment: Programmable Logic Controller

Model: FC4A and FC5A Series

FC5A-D32S3	24 V dc, 140 mA	24 V dc, 0,1,3,4,6,7: 5 mA others: 7 mA	24 V dc, 0.3 A/pt Total Max. 2 A	
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	Power Supply	Input	Output
FC4A-N08B1	5 V dc, 25mA	24V dc, 7mA / pt	
FC4A-N16B1	5V dc, 40mA	24V dc, 7mA / pt	
FC4A-N16B3	5V dc, 35mA	24V dc, 5mA / pt	
FC4A-N32B3	5V dc, 65mA	24V dc, 5mA / pt	
FC4A-R081	24V dc, 40mA 5V dc, 30mA		240 V ac, 2A (GEN / RES) 30 V dc, 2A (GEN / RES)
FC4A-R161	24 V dc, 75mA 5V dc, 45mA		240 V ac, 2A (GEN / RES) 30 V dc, 2A (GEN / RES)
FC4A-M08BR1	24 V dc, 20mA 5V dc, 25mA	24V dc, 7mA/pt	240 V ac, 2A (GEN / RES) 30 V dc, 2A (GEN / RES)
FC4A-M24BR2	24 V dc, 40mA 5V dc, 70mA	24 V dc, 7mA/pt	240 V ac, 2A (GEN / RES) 30 V dc, 2A (GEN / RES)
FC4A-T08K1	24 V dc, 20mA 5V dc, 10mA		24V dc, 0.3A / pt
FC4A-T08S1	24 V dc, 20mA 5V dc, 10mA		24V dc, 0.3A / pt
FC4A-T16K3	24 V dc, 40mA 5V dc, 10mA		24V dc, 0.1A / pt
FC4A-T16S3	24 V dc, 40mA 5V dc, 10mA		24V dc, 0.1A / pt
FC4A-T32K3	24 V dc, 70mA 5V dc, 20mA		24V dc, 0.1A / pt
FC4A-T32S3	24 V dc, 70mA 5V dc, 20mA		24V dc, 0.1A / pt
FC4A-L03AP1	24V dc, 40mA 5V dc, 50mA (Internal)	Analog Input	Analog Output
FC4A-L03A1	24V dc, 40mA 5V dc, 50mA (Internal)	Analog Input	Analog Output
FC4A-J2A1	24V dc, 40mA 5V dc, 50mA (Internal)	Analog Input	
FC4A-K1A1	24V dc, 40mA 5V dc, 50mA (Internal)		Analog Output
FC4A-HPC1	5 V dc, 25mA		
FC4A-HPC2	5 V dc, 5mA		
FC4A-HPC3	5 V dc, 5mA		
FC4A-K2C1	24V dc, 85mA 5V dc, 60mA (Internal)		Analog Output
FC4A-J8C1	24V dc, 50mA 5V dc, 40mA (Internal)	Analog Input	

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Company: IDEC Corporation

Factory or Works:

Product/Equipment: Programmable Logic Controller

Model: FC4A and FC5A Series

FC4A-J8AT1	24V dc, 55mA	Analog Input	
	5V dc, 45mA (Internal)		
FC4A-J4CN1	24V dc, 55mA	Analog Input	
	5V dc, 50mA (Internal)		