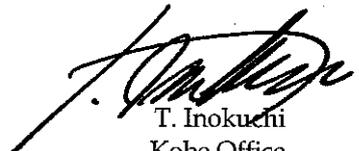


## Type Approval Certificate Extension

This is to certify that Certificate No. 02/10016(E3) and 04/10008(E1) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

|                            |   |
|----------------------------|---|
| <b>PRODUCER</b>            | IDEC CORPORATION<br>7-31 Nishimiyahara 1-Chome, Yodogawa-ku<br>Osaka 532-8550, JAPAN  |
| <b>PLACE OF PRODUCTION</b> | IDEC CORPORATION<br>Tsukuba Plant<br>1-9 Koyodai, Ryugasaki-Shi, Ibaragi-Ken 301-0852, JAPAN<br><br>IDEC IZUMI TAIWAN CORPORATION<br>No. 87 Swi Kuan Road, Chu Hou Village<br>Jen Wu Country, Kaohsiung Hsien 814 Taiwan  |
| <b>DESCRIPTION</b>         | Programmable Logic Controller   |
| <b>TYPE</b>                | FC4A and FC5A Series<br>FC4A Series comprising:-<br>CPU Module All-In-One Type:<br>FC4A-C10R2 AC Type, 6-point Input, 4-point Relay Output<br>FC4A-C16R2 AC Type, 9-point Input, 7-point Relay Output<br>FC4A-C24R2 AC Type, 14-point Input, 10-point Relay Output<br>FC4A-C10R2C DC Type, 6-point Input, 4-point Relay Output<br>FC4A-C16R2C DC Type, 9-point Input, 7-point Relay Output<br>FC4A-C24R2C DC Type, 14-point Input, 10-point Relay Output<br><br>CPU Module Slim Type:<br>FC4A-D20RK1 DC Type, 12-point Input, 2-point Transistor Sink Output, 6-point Relay Output<br>FC4A-D20RS1 DC Type, 12-point Input, 2-point Transistor Source Output, 6-point Relay Output<br>FC4A-D20K3 DC Type, 12-point Input, 8-point Transistor Sink Output<br>FC4A-D20S3 DC Type, 24-point Input, 8-point Transistor Source Output<br>FC4A-D40K3 DC Type, 24-point Input, 16-point Transistor Sink Output<br>FC4A-D40S3 DC Type, 24-point Input, 16-point Transistor Source Output |
| <b>Certificate No.</b>     | 02/10016(E4)  |
| <b>Issue Date</b>          | 30 July 2007  |
| <b>Expiry Date</b>         | 09 April 2012   |
| <b>Sheet</b>               | 1 of 8  |

  
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TYPE (Continued)

**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    |
| 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                        |

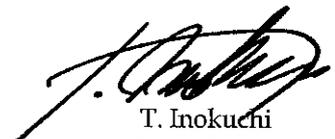
**Communication Module:**

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

**Option Module:**

|           |                                 |
|-----------|---------------------------------|
| FC4A-PC1  | RS485 with DIN Terminal Type    |
| FC4A-PC2  | RS485 with DIN Terminal Type    |
| FC4A-PC3  | RS232C 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       |

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**TYPE (Continued)**

**FC5A Series comprising:-**

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

|             |  |
|-------------|--|
| 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:**

|             |  |
|-------------|--|
| 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                     |

**APPLICATION**

Marine, offshore and industrial applications suitable for use in environmental categories ENV 1 and ENV2 in "General power Distribution Zones" as defined in LR's Test Specification No. 1-2002.

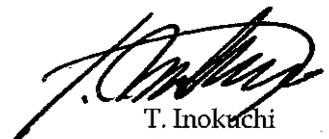
**ADDITIONAL TEST**

Low temperature test at 0 °C

**DESIGN CODE STANDARD**

Manufacturer's specification (User's Manual); EM342-1 and FC9Y-B927

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## RATINGS

### CPU Module

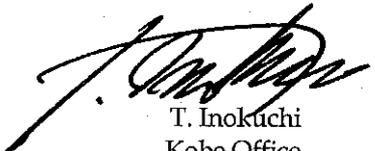
| Module      | Power Supply                        | Input   | Output   | Auxiliary Output   |
|-------------|-------------------------------------|---|--|--------------------|
| FC4A-C10R2  | 100-240 V ac,<br>50/60 Hz,<br>30 VA | 24V dc,<br>Input 0,1: 11 mA/pt<br>Others: 7 mA/pt     | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)  | 24 V dc,<br>250 mA |
| FC4A-C16R2  | 100-240 V ac,<br>50/60 Hz,<br>31 VA | 24V dc,<br>Input 0,1: 11 mA/pt<br>Others: 7 mA/pt     | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)  | 24 V dc,<br>250 mA |
| FC4A-C24R2  | 100-240 V ac,<br>50/60 Hz,<br>40 VA | 24V dc,<br>Input 0,1: 11 mA/pt<br>Others: 7 mA/pt     | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)  | 24 V dc,<br>250 mA |
| FC4A-C10R2C | 24 V dc,<br>160 mA                  | 24V dc,<br>Input 0,1: 11 mA/pt<br>Others: 7 mA/pt     | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)  |                    |
| FC4A-C16R2C | 24 V dc,<br>190 mA                  | 24V dc,<br>Input 0,1: 11 mA/pt<br>Others: 7 mA/pt     | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)  |                    |
| FC4A-C24R2C | 24 V dc,<br>230 mA                  | 24V dc,<br>Input 0,1: 11 mA/pt<br>Others: 7 mA/pt     | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)  |                    |
| FC4A-D20RK1 | 24 V dc,<br>120 mA                  | 24 V dc,<br>Input 0,1,6,7: 5 mA/pt<br>Others: 7 mA/pt | Relay: 240 V ac, 2A<br>(GEN/RES)<br>30 V dc, 2A (GEN/RES)<br>Transistor: 24 V dc, 0.3 A/pt |                    |
| FC4A-D20RS1 | 24 V dc,<br>120 mA                  | 24 V dc,<br>Input 0,1,6,7: 5 mA/pt<br>Others: 7 mA/pt | Relay: 240 V ac, 2A<br>(GEN/RES)<br>30 V dc, 2A (GEN/RES)<br>Transistor: 24 V dc, 0.3 A/pt |                    |
| FC4A-D20K3  | 24 V dc,<br>80 mA                   | 24 V dc,<br>Input 0,1,6,7: 5 mA/pt<br>Others: 7 mA/pt | 24V dc, 0.3 A/pt   |                    |
| FC4A-D20S3  | 24 V dc,<br>80 mA                   | 24 V dc,<br>Input 0,1,6,7: 5 mA/pt<br>Others: 7 mA/pt | 24V dc, 0.3 A/pt   |                    |
| FC4A-D40K3  | 24 V dc,<br>120 mA                  | 24 V dc,<br>Input 0,1,6,7: 5 mA/pt<br>Others: 7 mA/pt | 24V dc, 0.3 A/pt   |                    |
| FC4A-D40S3  | 24 V dc,<br>120 mA                  | 24 V dc,<br>Input 0,1,6,7: 5 mA/pt<br>Others: 7 mA/pt | 24V dc, 0.3 A/pt   |                    |

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RATINGS (Continued)

CPU Module (Continued)

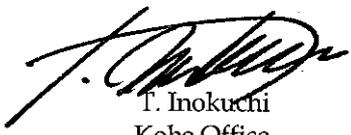
|             |                                     |   |   |                    |
|-------------|-------------------------------------|---|---|--------------------|
| FC5A-C10R2  | 100-240 V ac,<br>50/60 Hz,<br>30 VA | 24V dc,<br>Input : 7 mA/pt                                  | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)                                   | 24 V dc,<br>250 mA |
| FC5A-C16R2  | 100-240 V ac,<br>50/60 Hz,<br>31 VA | 24V dc,<br>Input : 7 mA/pt                                  | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)                                   | 24 V dc,<br>250 mA |
| FC5A-C24R2  | 100-240 V ac,<br>50/60 Hz,<br>40 VA | 24V dc,<br>Input : 7 mA/pt                                  | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)                                   | 24 V dc,<br>250 mA |
| FC5A-C10R2C | 24 V dc,<br>3.9 W                   | 24V dc,<br>Input : 7 mA/pt                                  | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)                                   |                    |
| FC5A-C16R2C | 24 V dc,<br>4.6 W                   | 24V dc,<br>Input : 7 mA/pt                                  | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)                                   |                    |
| FC5A-C24R2C | 24 V dc,<br>5.6 W                   | 24V dc,<br>Input : 7 mA/pt                                  | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES)                                   |                    |
| FC5A-D16RK1 | 24 V dc,<br>125 mA                  | 24 V dc,<br>Input 0, 1, 3, 4, 6, 7:<br>5 mA<br>Others: 7 mA | 0, 1: 24v DC, 0.3A/pt<br>Others:<br>240 V ac, 2A (GEN/RES)<br>30 V dc, 2A (GEN/RES) |                    |
| FC5A-D16RS1 | 24 V dc,<br>125 mA                  | 24 V dc,<br>Input 0, 1, 3, 4, 6, 7:<br>5 mA<br>Others: 7 mA | 0, 1: 24v DC, 0.3A/pt<br>Others:<br>240 V ac, 2A (GEN/RES)<br>30 V dc, 2A (GEN/RES) |                    |
| FC5A-D32K3  | 24 V dc,<br>140 mA                  | 24 V dc,<br>Input 0, 1, 3, 4, 6, 7:<br>5 mA<br>Others: 7 mA | 24v DC, 0.3A/pt<br>Total Max. 2A  |                    |
| FC5A-D32S3  | 24 V dc,<br>140 mA                  | 24 V dc,<br>Input 0, 1, 3, 4, 6, 7:<br>5 mA<br>Others: 7 mA | 24v DC, 0.3A/pt<br>Total Max. 2A  |                    |

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**RATINGS (Continued)**

**Expansion Module**

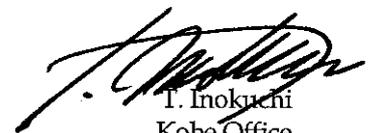
| Module      | Input Power (Internal)          | Input            | Output  |
|-------------|---------------------------------|------------------|---|
| FC4A-N08B1  | 5V dc, 25 mA                    | 24V dc, 7 mA/pt  |   |
| FC4A-N16B1  | 5 V dc, 40 mA                   | 24 V dc, 7 mA/pt |   |
| FC4A-N16B3  | 5 V dc, 35 mA                   | 24 V dc, 5 mA/pt |   |
| FC4A-N32B3  | 5 V dc, 65 mA                   | 24 V dc, 5 mA/pt |   |
| FC4A-R081   | 24 V dc, 40 mA<br>5 V dc, 30 mA |                  | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES) |
| FC4A-R161   | 24 V dc, 75 mA<br>5 V dc, 45 mA |                  | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES) |
| FC4A-M08BR1 | 24 V dc, 20 mA<br>5 V dc, 25 mA | 24 V dc, 7 mA/pt | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES) |
| FC4A-M24BR2 | 24 V dc, 45 mA<br>5 V dc, 65 mA | 24 V dc, 7 mA/pt | 240 V ac, 2 A (GEN/RES)<br>30 V dc, 2 A (GEN/RES) |
| FC4A-T08K1  | 24 V dc, 20 mA<br>5 V dc, 10 mA |                  | 24V dc, 0.3 A/pt                                  |
| FC4A-T08S1  | 24 V dc, 20 mA<br>5 V dc, 10 mA |                  | 24 V dc, 0.3 A/pt                                 |
| FC4A-T16K3  | 24 V dc, 40 mA<br>5 V dc, 10mA  |                  | 24 V dc, 0.1 A/pt                                 |
| FC4A-T16S3  | 24 V dc, 40 mA<br>5 V dc, 10 mA |                  | 24 V dc, 0.1 A/pt                                 |
| FC4A-T32K3  | 24 V dc, 70 mA<br>5V dc, 20 mA  |                  | 24 V dc, 0.1 A/pt                                 |
| FC4A-T32S3  | 24 V dc, 70 mA<br>5 V dc, 20 mA |                  | 24 V dc, 0.1 A/pt                                 |

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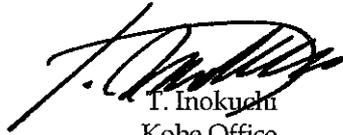
**RATINGS (Continued)**  
**Analog Module**

| Module      | Power Supply                                | Input        | Output        |
|-------------|---|--------------|---------------|
| FC4A-L03AP1 | 24Vdc, 40 mA<br>5 V dc, 50 mA<br>(Internal) | Analog Input | Analog Output |
| FC3A-L03A1  | 24Vdc, 40 mA<br>5 V dc, 50 mA<br>(Internal) | Analog Input | Analog Output |
| FC4A-J2A1   | 24Vdc, 40 mA<br>5 V dc, 50 mA<br>(Internal) | Analog Input |               |
| FC4A-K1A1   | 24Vdc, 40 mA<br>5 V dc, 50 mA<br>(Internal) |              | Analog Output |
| FC4A-K2C1   | 24Vdc, 85 mA<br>5 V dc, 60 mA<br>(Internal) |              | Analog Output |
| FC4A-J8C1   | 24Vdc, 50 mA<br>5 V dc, 40 mA<br>(Internal) | Analog Input |               |
| FC4A-J8AT1  | 24Vdc, 55 mA<br>5 V dc, 45 mA<br>(Internal) | Analog Input |               |
| FC4A-J4CN1  | 24Vdc, 55 mA<br>5 V dc, 50 mA<br>(Internal) | Analog Input |               |

**Communication Module**

| Module    | Power Supply  | Input | Output |
|-----------|---------------|-------|--------|
| FC4A-HPC1 | 5 V dc, 25 mA |       |        |
| FC4A-HPC2 | 5 V dc, 5 mA  |       |        |
| FC4A-HPC3 | 5 V dc, 5 mA  |       |        |

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*The attached Design Appraisal Document No. 02/10016(E4) and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

All other details remain as the previous Certificate No. 02/10016(E3) and 04/10008(E1) to which this extension should be attached.

|                 |               |
|-----------------|---------------|
| Certificate No. | 02/10016(E4)  |
| Issue Date      | 30 July 2007  |
| Expiry Date     | 09 April 2012 |
| Sheet           | 8 of 8        |

  
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