



Lloyd's
Register

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.

This certificate is issued to:

PRODUCER	Schneider Electric Automation GmbH Schneiderplatz 1 97828 Marktheidenfeld Germany
PLACE OF PRODUCTION	IDEC IZUMI TAIWAN CORPORATION No. 87, Swi Kuan Road, Chu Hou Village, Jen Wu Country, Kaohsiung, Hsien 814 Taiwan SHINKO INDUSTRY CO., LTD. 501-19 Fukushima, Sanda, Hyogo, 669-1313 Japan
DESCRIPTION	Programmable Controller
TYPE	TM221 Series and TM3 Series Comprising:- <u>CPU Modules</u> TM221M16R : DC Power Supply, 8-DC Input, 8-Relay Output TM221M16RG TM221ME16R TM221ME16RG TM221M16T : DC Power Supply, 8-DC Input, TM221M16TG 8-Transistor Source Output TM221ME16T TM221ME16TG TM221M32TK : DC Power Supply, 16-DC Input, TM221ME32TK 16-Transistor Source Output TM221C16R : AC Power Supply, 9-DC Input, TM221CE16R 7-Relay Output TM221C16T : DC Power Supply, 9-DC Input, TM221CE16T 7-Transistor Source Output TM221C24R : AC Power Supply, 14-DC Input, TM221CE24R 10-Relay Output

Certificate No.	15/10026
Issue Date	5 August 2015
Expiry Date	4 August 2020
Sheet	1 of 4

S. Fujii
Yokohama Technical Support Office
Lloyd's Register Group Limited

Lloyd's Register Group Limited
71 Fenchurch Street, London EC3M 4BS

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Lloyd's
Register

TYPE (Continued)

TM221C24T	: DC Power Supply, 14-DC Input,
TM221CE24T	10-Transistor Source Output
TM221C40R	: AC Power Supply, 24-DC Input,
TM221CE40R	16-Relay Output
TM221C40T	: DC Power Supply, 24-DC Input,
TM221CE40T	16-Transistor Source Output

Input Modules

TM3DI8	: DC Power Supply (Internal), 8-DC Input
TM3DI8G	
TM3DI16	: DC Power Supply (Internal), 16-DC Input
TM3DI16G	
TM3DI16K	
TM3DI32K	: DC Power Supply (Internal), 32-DC Input
TM3DI8A	: DC Power Supply (Internal), 8-AC Input
TM3DI8AG	

Output Modules

TM3DQ8R	: DC Power Supply (internal), 8-Relay Output
TM3DQ8RG	
TM3DQ16R	: DC Power Supply (internal), 16-Relay Output
TM3DQ16RG	
TM3DQ8T	: DC Power Supply (internal),
TM3DQ8TG	8-Transistor Source Output
TM3DQ16T	: DC Power Supply (internal),
TM3DQ16TG	16-Transistor Source Output
TM3DQ16TK	
TM3DQ32TK	: DC Power Supply (internal),
	32-Transistor Source Output
TM3DQ8U	: DC Power Supply (internal),
TM3DQ8UG	8-Transistor Sink Output
TM3DQ16U	: DC Power Supply (internal),
TM3DQ16UG	16-Transistor Sink Output
TM3DQ16UK	
TM3DQ32UK	: DC Power Supply (internal),
	32-Transistor Sink Output

Certificate No. 15/10026

Issue Date 5 August 2015

Expiry Date 4 August 2020

Sheet 2 of 4

S. Fujii
Yokohama Technical Support Office
Lloyd's Register Group Limited

Lloyd's Register Group Limited
71 Fenchurch Street, London EC3M 4BS

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Lloyd's
Register

TYPE (Continued)

I/O Mixture Modules

TM3DM8R	: DC Power Supply (internal), 4-DC Input,
TM3DM8RG	4-Relay Output
TM3DM24R	: DC Power Supply (internal), 16-DC Input,
TM3DM24RG	8-Relay Output
TM3XTYS4	: DC Power Supply (internal), 12-DC Input,
	8-Transistor Source Output

Analog Modules

TM3AI2H	: 2-Analog Input
TM3AI2HG	
TM3AI4	: 4-Analog Input
TM3AI4G	
TM3AI8	: 8-Analog Input
TM3AI8G	
TM3AQ2	: 2-Analog Output
TM3AQ2G	
TM3AQ4	: 4-Analog Output
TM3AQ4G	
TM3AM6	: 4-Analog Input, 2-Analog Output
TM3AM6G	
TM3TM3	: 2-Analog Input, 1-Analog Output
TM3TM3G	
TM3TI4	: 4-Analog Input
TM3TI4G	
TM3TI8T	: 8-Analog Input
TM3TI8TG	
TM3XPID2	: 2-Analog Input, 2-Analog Output or
	2-Transistor Output

Option Modules

TMC2AI2	: 2-Analog Input
TMC2HOIS01	
TMC2PACK01	
TMC2AQ2V	: 2-Analog Output
TMC2AQ2C	: 2-Analog Output
TMC2TI2	: 2-Analog Input
TMC2SL1	: 2-Serial Communications (RS232C/RS485)
TMC2CONV01	: 2-Serial Communications (RS232C/RS485)

Certificate No. 15/10026

Issue Date 5 August 2015

Expiry Date 4 August 2020

Sheet 3 of 4

S. Fujii
Yokohama Technical Support Office
Lloyd's Register Group Limited

Lloyd's Register Group Limited
71 Fenchurch Street, London EC3M 4BS

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Lloyd's
Register

APPLICATION	Marine and offshore applications for use in environmental categories ENV2 & ENV3 in the "General Power Distribution Zones" as defined in LR Type Approval System Test Specification No. 1-2013 where the Test Specification is satisfactory for the intended operation.
DESIGN CODE STANDARD	Manufacture's specification - Identical with FC6A Series Programmable Controller in LR Type Approval Certificate No. 15/10025 issued to IDEC Corporation - Refer to the comparison List between FC6A series and TM221&TM3 series
RATINGS	Power Supply : 24 VDC, 100-240VAC 50/60Hz
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.

"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 Limited of any modification or changes to the equipment in order to obtain a valid certificate."

The Design Appraisal Document No. 15/10026 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

Certificate No.	15/10026
Issue Date	5 August 2015
Expiry Date	4 August 2020
Sheet	4 of 4


S. Fujii
Yokohama Technical Support Office
Lloyd's Register Group Limited

Lloyd's Register Group Limited
71 Fenchurch Street, London EC3M 4BS

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.



Marine Design Appraisal Document

Lloyd's Register Group Limited
Yokohama Technical Support Office
Queen's Tower A, 10th Floor
2-3-1 Minatomirai, Nishi-ku
Yokohama 220-6010
Japan

Date
05 August 2015

Please quote the document number on all future communications

THE LR TYPE APPROVAL SYSTEM, 2002.
Issued to: SCHNEIDER ELECTRIC AUTOMATION GMBH
for: PROGRAMMABLE CONTROLLER
TYPE APPROVAL CERTIFICATE No. 15/10026

The undernoted documents have been reviewed for compliance with the requirements of the LR Type Approval System, 2002 and this Design Appraisal Document forms part of the Certificate.

APPROVAL DOCUMENTATION

Application for Type Approval and /or Marine Equipment Directive Certification including Mutual Recognition Type Approval under EU RO Scheme from Lloyd's Register (LR)	Form 2571	25 July 2014
Request for Marine Services (Comparison List between FC6A (IDEC) series and TM221&TM3 (Schneider) series)	Form 2502	25 July 2014

TEST REPORTS

Also all the documentation listed on Design Appraisal Documents associated with Type Approval Certificate No. 15/10025 issued to IDEC Corporation.

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein has/have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with.

Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register Group Limited reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the LR Type Approval System Procedure.

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

Lloyd's Register Group Limited
Is a member of Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Document no: 15/10026

Issue number 0

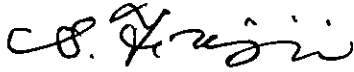
Page 2 of 2

Lloyd's Register Group Limited
Yokohama Technical Support Office
Queen's Tower A, 10th Floor
2-3-1 Minatomirai, Nishi-ku
Yokohama 220-6010
Japan

Date

05 August 2015

Please quote the document number on all future communications



S. Fujii
Senior Surveyor
Electrotechnical Systems Group
Yokohama Technical Support Office
Lloyd's Register Group Limited
Tel: +81 (0)45-682-5273, Fax: +81 (0)45-682-5279
Email: sachie.fujii@lr.org

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

Lloyd's Register Group Limited
Is a member of Lloyd's Register group

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

Control Units

Lloyd's Register Group Limited
 Lloyd's Register
AUG. - 5. 2015
Yokohama Technical Support Office

Control Units

Producer / Licence No.	Item Description	Technical Details	Category / Additional Tests	Remarks	Cert. No.
	TM3DQ8T TM3DQ8TG TM3DQ16T TM3DQ16TG TM3DQ16TK TM3DQ32TK TM3DQ8U TM3DQ8UG TM3DQ16U TM3DQ16UG TM3DQ16UK TM3DQ32UK <u>I/O Mixture Modules</u> TM3DM8R TM3DM8RG TM3DM24R TM3DM24RG TM3XTYS4 <u>Analog Modules</u> TM3AI2H TM3AI2HG TM3AI4 TM3AI4G TM3AI8 TM3AI8G TM3AQ2 TM3AQ2G TM3AQ4 TM3AQ4G TM3AM6 TM3AM6G TM3TM3 TM3TM3G TM3TI4 TM3TI4G TM3TI8T TM3TI8TG TM3XPID2	: DC Power Supply (internal), 8-Transistor Source Output : DC Power Supply (internal), 16-Transistor Source Output : DC Power Supply (internal), 32-Transistor Source Output : DC Power Supply (internal), 8-Transistor Sink Output : DC Power Supply (internal), 16-Transistor Sink Output : DC Power Supply (internal), 32-Transistor Sink Output : DC Power Supply (internal), 4 DC Input, 4-Relay Output : DC Power Supply (internal), 16-DC Input, 8-Relay Output : DC Power Supply (internal), 12-DC Input, 8-Transistor Source Output : 2-Analog Input : 4-Analog Input : 8-Analog Input : 2-Analog Output : 4-Analog Output : 4-Analog Input, 2-Analog Output : 2-Analog Input, 1-Analog Output : 4-Analog Input : 8-Analog Input : 2-Analog Input, 2-Analog Output or 2-Transistor Output		 Lloyd's Register Group Limited AUG. - 5. 2015 Yokohama Technical Support Office	

Control Units

Producer /Licence No.	Item Description	Technical Details	Category / Additional Tests	Remarks	Cert. No.
	Option Modules TMC2AI2 TMC2HOIS01 TMC2PACK01 TMC2AQ2V TMC2AQ2C TMC2TI2 TMC2SL1 TMC2CONV01	: 2-Analog Input : 2-Analog Output : 2-Analog Output : 2-Analog Input : 2-Serial Communications (RS232C/RS485) : 2-Serial Communications (RS232C/RS485)			

Lloyd's Register Group Limited
AUG. - 5. 2016
Yokohama Technical Support Office


Lloyd's Register



CPU modules (Book)

Module(Schneider)	Module(IDEA)
TM221M16R	FC6A-M16R1
TM221M16RG	FC6A-M16R4
TM221ME16R	FC6A-M16R1E
TM221ME16RG	FC6A-M16R4E
TM221M16T	FC6A-M16P1
TM221M16TG	FC6A-M16P4
TM221ME16T	FC6A-M16P1E
TM221ME16TG	FC6A-M16P4E
TM221M32TK	FC6A-M32P3
TM221ME32TK	FC6A-M32P3E

Expansion modules (DIO)

Module(Schneider)	Module(IDEA)
TM3DI8	FC6A-N08B1
TM3DI8G	FC6A-N08B4
TM3DI16	FC6A-N16B1
TM3DI16G	FC6A-N16B4
TM3DI16K	FC6A-N16B3
TM3DI32K	FC6A-N32B3
TM3DI8A	FC6A-N08A11
TM3DI8AG	FC6A-N08A14
TM3DQ8R	FC6A-R081
TM3DQ8RG	FC6A-R084
TM3DQ16R	FC6A-R161
TM3DQ16RG	FC6A-R164
TM3DQ8T	FC6A-T08P1
TM3DQ8TG	FC6A-T08P4
TM3DQ16T	FC6A-T16P1
TM3DQ16TG	FC6A-T16P4
TM3DQ16TK	FC6A-T16P3
TM3DQ32TK	FC6A-T32P3
TM3DQ8U	FC6A-T08K1
TM3DQ8UG	FC6A-T08K4
TM3DQ16U	FC6A-T16K1
TM3DQ16UG	FC6A-T16K4
TM3DQ16UK	FC6A-T16K3
TM3DQ32UK	FC6A-T32K3
TM3DM8R	FC6A-M08BR1
TM3DM8RG	FC6A-M08BR4
TM3DM24R	FC6A-M24BR1
TM3DM24RG	FC6A-M24BR4
TM3XTYS4	FC6A-TYS4

CPU modules (Brick)

Module(Schneider)	Module(IDEA)
TM221C16R	FC6A-C16R1A
TM221CE16R	FC6A-C16R1AE
TM221C16T	FC6A-C16P1C
TM221CE16T	FC6A-C16P1CE
TM221C24R	FC6A-C24R1A

TYPE APPROVAL SYSTEM



Lloyd's Register Group Limited
Yokohama Technical Support Office

Reviewed for compliance with the Lloyd's Register
Type Approval System, see certificate numbered as
shown below:

Cert. number : 15 / 1 00 26

Date : AUG. - 5. 2015

Initials: