



## LR 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 LR Type Approval System.

This Certificate is issued to :

<b>PRODUCER</b>	Mitsubishi Electric Corporation
<b>PLACE OF PRODUCTION</b>	Nagoya Works, 5-1-14, Yada-Minami, Higashi-ku, Nagoya, Japan.
<b>DESCRIPTION</b>	Programmable Logic Controller MELSEC-QnA
<b>TYPE</b>	MELSEC-Q2A(-S1)/-Q3A/-Q4A/-Q4AR comprising: CPU module, Memory card, Power supply module, Digital I/O module and Special function module
<b>APPLICATION</b>	Marine, offshore and industrial applications suitable for use in environmental category ENV2 as specified in LR's Test Specification No.1-1996.
<b>DESIGN CODE</b>	Manufacturer's specification No.L(NA)-74108133-C(MEE)9903 Programmable Controllers MELSEC QnA

*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 LR of any modification or changes to the equipment in order to obtain a valid certificate.*

*The Design Appraisal Document No. 00/10005 attached to the original certificate forms a part of this certificate.*

<b>CERTIFICATE NO.</b>	00/10005
<b>ISSUE DATE</b>	25 February 2000
<b>EXPIRY DATE</b>	24 February 2005
<b>SHEET</b>	1 of 1



Lloyd's Register of Shipping  
71 Fenchurch Street, London EC3M 4BS

Lloyd's Register

M. Kaneda

## TERMS AND CONDITIONS

LR 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.

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

This LR Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations of Lloyd's Register of Shipping.

Lloyd's Register of Shipping (hereinafter referred to as 'LR') reserves the right to cancel or withdraw this LR Type Approval Certificate under Section 3.5.5 of the LR Type Approval System Procedure.

In providing services, information or advice, neither LR nor any of its officers, employees or agents warrants the accuracy of any information or advice supplied. Except as set out herein, neither LR nor any of its officers, employees or agents (on behalf of each of whom LR has agreed this clause) shall be liable for any loss, damage or expense whatever sustained by any person due to any act, omission or error of whatsoever nature and howsoever caused of LR, its officers, employees or agents or due to any inaccuracy of whatsoever nature and howsoever caused in any information or advice given in any way whatsoever by or on behalf of LR, even if held to amount to a breach of warranty. Nevertheless, if any person who is party to the agreement pursuant to which LR provides any service, uses LR's services or relies on any information or advice given by or on behalf of LR and suffers loss, damage or expense thereby which is proved to have been due to any negligent act, omission or error of LR, its officers, employees or agents or any negligent inaccuracy in information or advice given by or on behalf of LR, then LR will pay compensation to such person for his proved loss up to but not exceeding the amount of fee (if any) charged by LR for that particular service information or advice.

LR its officers, employees and agents (on behalf of each of whom this notice is given) shall be under no liability or responsibility in negligence or otherwise howsoever to any person who is not a party to the agreement with LR in respect of any information or advice expressly or impliedly given by LR or in respect of any act, omission or inaccuracy by LR.

LR shall in no circumstance be liable for indirect or consequential loss or damage (including but without limitation loss of profit loss of contracts or loss of user) suffered or incurred by any person resulting from any failure by LR in the performance of its obligations in an agreement.

**The supplier is responsible for ensuring that any computer software and hardware is capable of handling date changes without loss of performance or functionality. The capability of the computer software and hardware to handle date changes without loss of performance or functionality has not been demonstrated to LR.**



**Yokohama Plan Approval Services**

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Page	1 of 1
Document number	00/10004
Issue number	1

**DESIGN APPRAISAL DOCUMENT**

Date	25 February, 2000	Quote this reference on all future communications	EP(5331)00/T/MKN/9937071(E00-7)
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**LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 1996**  
**Issued to: MITSUBISHI ELECTRIC CORPORATION**  
**For: PROGRAMMABLE LOGIC CONTROLLER, MELSEC-QnAS**  
**TYPE APPROVAL CERTIFICATE NO. 00/10004**

The undernoted documents have been reviewed for compliance with the requirements of LR Type Approval System, 1996 and this Design Appraisal Document is a supplement to the Certificate.

Approval documentation

Programmable Logic Controller Type MELSEC-QnAS, BCN-87886 dated 20 August, 1999

Programmable Controllers MELSEC QnA, L(NA)-74108133-C(MEE)9903

User's Manual Model Q2AS(H)CPU(S1), SH(NA)3599-A(9609)MEE

Test report

Test Report MELSEC-QnA/QnAS Programmable Logic Controller BCN-80038-0515

Note: Software aspect is not examined nor tested.

For anti-vibration measure, manufacturer's Technical Bulletin issue No. T30-0004, Dec. '99 is to apply.

  
M. Kaneda  
Senior Surveyor  
Engineering Services Group

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In providing services, information or advice, neither Lloyd's Register of Shipping (hereinafter referred to as LR) nor any of its officers, employees or agents warrants the accuracy of any information or advice supplied. Except as set out herein, neither LR nor any of its officers, employees or agents (on behalf of each of whom LR has agreed this clause) shall be liable for any loss, damage or expense whatever sustained by any person due to any act, omission or error of whatsoever nature and howsoever caused of LR, its officers, employees or agents or due to any inaccuracy of whatsoever nature and howsoever caused in any information or advice given in any way whatsoever by or on behalf of LR, even if held to amount to a breach of warranty. Nevertheless, if any person, who is a party to the agreement pursuant to which LR provides any service, uses LR's services or relies on any information or advice given by or on behalf of LR and suffers loss, damage or expense thereby which is proved to have been due to any negligent act, omission or error of LR, its officers, employees or agents or any negligent inaccuracy in information or advice given by or on behalf of LR, then LR will pay compensation to such person for his proved loss up to but not exceeding the amount of fee (if any) charged by LR for that particular service information or advice.

LR, its officers, employees or agents (on behalf of each of whom this notice is given) shall be under no liability or responsibility in negligence or otherwise howsoever to any person who is not a party to the agreement with LR pursuant to which any certificate, statement, data or report is issued in respect of any information or advice expressly or impliedly given by LR or in respect of any omission or inaccuracy therein or in respect of any act or omission which has caused or contributed to any certificate, statement, data or report being issued with the information and advice it contains (if any).

The services provided by LR do not include any checks or tests whatsoever to establish whether any computer hardware and/or software, embedded microchips or data storage or information technology equipment or system is capable of handling changes in date and/or time data or information without loss of performance or functionality, unless otherwise stated expressly in writing by LR. For the avoidance of doubt, the classification or certification of any vessel, structure, engine, machine, equipment, installation or device by LR does not warrant or imply that any system embedded therein and/or attached and/or related thereto is capable of handling changes in date and/or time data or information without loss of performance or functionality, unless otherwise stated expressly in writing by LR.

Any dispute concerning the provision of LR's services and/or the contract under which such services are provided is subject to the exclusive jurisdiction of the English courts and will be governed by English law.

### **The following terms and conditions apply only to classification services and documents:**

Continuance of class is subject to compliance with the requirements of LR's Rules and Regulations for Classification and attention is drawn, in particular, to the following extracts from the Rules, Part 1, Chapter 2:

Any damage, defect, breakdown or grounding which could invalidate the conditions for which a class has been assigned, is to be reported to LR without delay.

All repairs to hull, equipment and machinery which may be required in order that class may be retained are to be carried out to the satisfaction of LR's Surveyors. When repairs are effected at a port, terminal or location where the services of a Surveyor to LR are not available, the repairs are to be surveyed by one of LR's Surveyors at the earliest opportunity thereafter.

If a ship which is classed with LR is to leave harbour limits or protected waters under tow, the Owner is to advise LR of the circumstances before her departure.

If a ship which is classed with LR is taken in tow while at sea, the Owner is to advise LR of the circumstances at the first practicable opportunity.

Plans and particulars of any proposed alterations to the approved scantlings and arrangements of hull, equipment, or machinery are to be submitted to LR for approval, and such alterations are to be carried out to the satisfaction of LR's Surveyors.

It is the responsibility of the Owner to ensure that all surveys necessary for the maintenance of class are carried out at the proper time and in accordance with the instructions of the Committee.

LR will give timely notice to an Owner about forthcoming surveys by means of a letter or a quarterly computer print-out. The omission of such notice, however, does not absolve the Owner from responsibility to comply with LR's survey requirements for maintenance of class.

When the Regulations with regard to surveys on the hull, equipment or machinery have not been complied with and retention of class may be in jeopardy, the class will be suspended or withdrawn, at LR's discretion, and a corresponding notation will be assigned.

When reported defects in the hull, equipment or machinery are found and the Owner fails to repair such defects in accordance with LR's requirements, the class will be suspended or withdrawn, at LR's discretion, and a corresponding notation indicating that class has been suspended or withdrawn because of reported defects will be assigned in the Register Book.

LR has the power to withhold or, if already granted, to suspend or withdraw any class (or to withhold any certificate or report in any other case), in the event of non-payment of any fee – the Rules Part 1, Chapter 1 refer.

Part 3

Control Units

Producer/Licence No.	Item Description	Technical Details	Category/Additional Tests	Remarks	Cert. No.
Mitsubishi Electric Corporation Nagoya Works, 5-1-14, Yada-Minami, Higashi-ku, Nagoya, Japan.	Programmable Logic Controller, MELSEC-QnA Type: MELSEC-Q2A(-S1)/-Q3A/-Q4A /-Q4AR comprising:- CPU module Memory card Power supply module Digital I/O module Special function module	Power supply(V ac): 100 to 240 Input(V dc): 24 Program capacity: 124k steps max. I/O points: 8192 max. Memory 4M Bytes max.	ENV2 (1996)	Expires: 24 February 2005 See Man Spec. No. L(N/A)-74I08133- C(MEE)9903	00/10005