



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA14647M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use” and the relevant Society's Rules.

This certificate is issued to

Manufacturer: **Heinzmann GmbH & Co. KG**
Place of Manufacturing: **Am Haselbach 1, 79677 Schönau, Germany**
Product description: **Digital Injection Valve Control for multiple engine installations**
Model: **MVC 01**

Approval No.: **14A041**
Valid until: **3 December 2019**

This certificate is subject to the conditions specified in the attached sheet(s).

Issued at Tokyo on 4 December 2014.



Y. Shibata
General Manager
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

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Attached sheet -1/2 to the Certificate No. TA14647M

Specification & documents:

1. Particulars: Power supply: 24V DC

2. Components and reference drawings:

620-00-147-00, 6200-00-147-10, 6200-00-147-11, 6200-00-147-20

3. Documentation and Test Reports:

Test report No. 110446_01_G, 110522_01_B, 110522_02_H, DE145551926,
110446_02_G, 008146_01_G,

Test items & approval conditions:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		--
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ±4.0g)		X
Inclination test		--
Cold test (Temperature -25°C × 16 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test		--

2. Approval condition:

The product is not allowed to be installed in the bridge and on open decks.