



### NIPPON KAIJI KYOKAI

# Certificate

Certificate No.TA11045M

## OF APPROVAL FOR AUTOMATIC DEVICES AND EQUIPMENT

Manufacturer: Tamagawa Seiki Co., Ltd.

Place of Manufacturing: 1879 Ooyasumi Iida City Nagano Pref. 395-8515 Japan

**Product description:** Rotary Encoder

**Model:** TS5875N50

Approval No.: 11A006

**Specification & documents:** As shown on the attached sheet (-1/2)

**Testing items & approval conditions:** As shown on the attached sheet (-2/2)

THIS IS TO CERTIFY that the above mentioned model of the product has been type 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 relevant Society's Rules.

This certificate is valid until 30 January 2016.

Issued at Tokyo on 31 January 2011.

T. Narisawa General Manager Machinery Department

## NIPPON KAIJI KYOKAI

Attached sheet - 1/2 to Certificate No. TA11045M

#### Specification & reference documents:

1. Ratings:

Power supply: d.c. 24V

2. Documentation:

SPC010196Y00, OTD007625Y00,

GAD007336Y00, CRD002079Y00

3. Test report etc.:

Tamagawa Seiki Test report No. RPD000420W00

Iida Shimoina Local Industry Promotion Center Iida EMC Center Test Report No. 201001, 201002, 201003, 201004, 201005, 201006,

201007-1, 201007-2, 201008,

-- To be continued --

#### Testing items & approval conditions:

1. Testing 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
Electric power supply fluctuation test	X
Power supply fluctuation test	
Insulation resistance test	X
High voltage test	X
Pressure test	
Dry heat test (Temperature 70°C×2hours)	X
Damp heat test	X
Vibration test	X
Inclination test	X
Cold test (Temperature 5°C×2hours)	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	X
Conducted emission	X
Flame retardant test	

#### 2. Approval conditions:

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