



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA14458M

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

Applicant:	Danfoss A/S
Place of Applicant:	DK-6430, Nordborg, Denmark
Manufacturer:	Danfoss Sp. z o.o
Place of Manufacturing:	U1. Chrzanowska 5 05-825 Grodzisk Mazowiecki, Poland
Product description:	Pressure Controls
Model:	RT1, RT1A, RT5, RT5A, RT110, RT112, RT113, RT116, RT117, RT121, RT200
Approval No.:	84A105
Valid until:	8 April 2019

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

Issued at Tokyo on 9 April 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.

NIPPON KAIJI KYOKAI

Attached sheet -1/2 to the Certificate No. TA14458M

Specification & documents:

1. Particulars: Pressure Range : -0.8 ~ 30 bar
 Contact Load : AC 380V 10A (Ohmic), 4A (Inductive)
 DC 220V 12W

2. Components and reference drawings:

Components	Drawings
RT1, RT1A, RT5, RT5A, RT110, RT112, RT113, RT116, RT117, RT121, RT200	017R0450, 017R0452, 017R0455, 017R0459

3. Test Reports:

Danfoss Test Report dated 26/10/2011

Polish test laboratory Test Report No. 250/NZL/NBW/2011/O dated 12/1/2012

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		--
Power supply fluctuation test	Electric	--
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		X
Dry heat test (Temperature 55°C × 16 hours + 70°C × 2 hours)		X
Damp heat test		X
Vibration test (Acceleration ±4.0g × 1.5 hours) for RT1, RT5		X
Inclination test		X
Cold test (Temperature -25°C × 2 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		--
Radiated radio frequency immunity test		--
Conducted low frequency immunity test		--
Conducted high frequency immunity test		--
Burst / Fast transient immunity test		--
Surge immunity test		--
Radiated emission test		--
Conducted emission test		--
Flame retardant test		--

2. Approval condition:

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