



# NIPPON KAIJI KYOKAI

## TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA13402M

**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:	<b>Danfoss A/S</b>
Place of Manufacturing:	<b>Nordborgvej 81, DK-6430 Nordborg, Denmark</b>
Product description:	<b>Temperature Sensor</b>
Model:	<b>MBT 5250, 5252, 5253, 5260</b>

Approval No.:	<b>96A130</b>
Valid until:	<b>22 August 2018</b>

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

Issued at Tokyo on 23 August 2013.

  
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.

**Specification & documents:**

## 1. Particulars:

Temperature Range: -50 ~ 200°C

## 2. Components and reference drawings:

Type	Data sheet (Standard Type)	Engineering Sheets (Customized Type)	Remarks
MBT 5250 Series	IC.PD.P30.13.02	130813-6, 110825-7, 090428-5, 101116-5	Interchangeable Measuring insert
MBT 5252	IC.PD.P30.13.02	-	Interchangeable Measuring insert With Connection Head
MBT 5260 Series	IC.PD.P30.13.02 Specification key: 084R2034 ver.05	100128-5	Fixed Measuring insert DIN 43650 Plug
MBT 5253	-	110119-5, 110119-6, 110119-7 Specification key: 084R2016 ver.05	Interchangeable Measuring insert

**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)		--
Dry heat test (Temperature 70°C × 22 hours)		X
Damp heat test		X
Vibration test (Acceleration ±4.0g × 1.5 hours)		X
Inclination test		--
Cold test (Temperature -50°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.