



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA16099M

This is to certify that the undernoted product has 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:	Danfoss A/S
Place of Manufacturing:	Nordborgvej 81, Dk-6430 Nordborg, Denmark
Product description:	Temperature Transmitter
Model:	MBT9110

Approval No.:	98A105
Valid until:	13 July 2020

This certificate is subject to the conditions specified in the attached sheets.

Issued at Tokyo on 14 July 2015.


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: Power supply: DC 8-35V
 Output Signal: DC 4-20 mA current loop

2. Documentation and Test Reports:

084Z9626PR

227DK

FM30658

98D.123821

98D.123937

IC.PD.P40.O2.02

Proof for flammability (Technical Data sheet: Cycoloy C2800)

Application for intrinsically safe design for MBT9110 084V7443, 084Z7441;

EEx ia IIC T4/T6 is confirmed by the certificate No. 98D.123821 & 98D.123937 of DEMKO.

Test items & approval condition:

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		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 70°C × 2 hours)		X
Damp heat test		X
Vibration test (Acceleration ±4.4g × 2 hours)		X
Inclination test		--
Cold test (Temperature -25°C × 2 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 products are not allowed to be installed on open deck.

