

# NIPPON KAIJI KYOKAI

# TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA24376M

**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:

MICRO SENSOR CO.,LTD

Place of Manufacturing:

7 Biyuan 2nd Road, Xi'an 710118, Shaanxi, P.R.China

Product description:

**Pressure Transmitters** 

Model:

**MDM7000** 

Approval No.:

24A016

Valid until:

11 July 2029

The details are described in the attached sheet(s).

Issued at Tokyo on 12 July 2024.

S. Oishi 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. TA24376M

#### **Specification & documents:**

#### 1. Particulars:

Accuracy	DGP/GP: ±0.075%, ±0.1%, ±0.2% DAP/AP/GP-T/AP-T: ±0.1%, ±0.2% DP: ±0.05%, ±0.075% LP/LT: ±0.2%	
Range of Measurement	DP: 6kPa~3MPa GP: 40kPa~40MPa AP: 40kPa~10MPa DGP: 6kPa~40MPa DAP: 40kPa~10MPa GP-T: 40kPa~10MPa AP-T: 40kPa~1MPa LT/LP: 40kPa~250kPa	
Degree of Protection	IP67	
Power of Supply	24V DC	

## 2. Components and reference drawings:

- ANNEX1 Product Technical Specifications
- ANNEX2 Drawings
- ANNEX3 Operation Manual

#### 3. Documentation and Test Reports:

- Test report (No. S088A-2024)
- Test report EMC Test (No. S088A-DC-2024)

- To be continued -

#### NIPPON KAIJI KYOKAI

Attached sheet -2/2 to the Certificate No. TA24376M

## Test items & approval conditions:

#### 1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS (IACS UR E10 Rev.8 basis)		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
rower suppry fluctuation test	Pneumatic and Hydraulic	
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		
Dry heat test (Temperature $70^{\circ}\text{C} \times 16 \text{ hours}$ )		X
Damp heat test		X
Vibration test (Acceleration $\pm 0.7 \text{g} \times 1.5 \text{ hours}$ )		X
Inclination test		
Cold test (Temperature $-25^{\circ}C \times 16$ 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:

<sup>1)</sup> The product is to be placed inside the metal cabinet.