



CERTIFICATE NUMBER 24-2536413-PDA  
EFFECTIVE DATE 10-Apr-2024  
EXPIRATION DATE 09-Apr-2029  
ABS TECHNICAL OFFICE CN Shanghai ESD

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**MICRO SENSOR CO.,LTD**  
located at  
**NO.18 YINGDA ROAD,BAOJI,China,721006**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product Pressure and Temperature Transmitter**

**Model MDM7000,MPM489 Pressure Transmitter,  
MPM426W Series Level Transmitter  
MTM4831 Temperature Transmitter  
MFC608 Mass Flowmeter**

**Endorsement: 2 – PDA Issued**

This Product Design Assessment (PDA) Certificate remains valid until 09/April/2029 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the “Intended Service” details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau of Shipping

Yu, Geng, Principal Engineer

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer’s standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

**MICRO SENSOR CO.,LTD.**

NO.18 YINGDA ROAD,

BAOJI SHAANXI

China 721006

Telephone: 18591713553

Fax:

Email: qc@microsensor.cn

Web: www.microsensor.cn

**Tier: 2 - PDA Issued**

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**Product:** Pressure and Temperature Transmitter  
**Model:** MDM7000,MPM489 Pressure Transmitter,  
MPM426W Series Level Transmitter  
MTM4831 Temperature Transmitter  
MFC608 Mass Flowmeter

**Endorsements:**

**Intended Service:**

Marine and Offshore Application

**Description:**

MDM7000,MPM489 Pressure Transmitter,  
MPM426W Series Level Transmitter  
MTM4831 Temperature Transmitter  
MFC608 Mass Flowmeter

**Rating:**

Detail see attachment

**Service Restriction:**

1. Unit Certification is not required for this product.
2. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

**Comments:**

1. The Manufacturer has provided a declaration about the control of, or the lack of asbestos in this product.
2. Application and use are to be in accordance with the manufacturer's instructions.

**Notes/Drawing/Documentation:**

Drawing No. 01, Technical Specification, Revision: 0, Pages: 1  
Drawing No. 02, MPM489 Pressure Transmitter Assembly Drawing, Revision: 0, Pages: 1  
Drawing No. 03, MDM7000 Pressure Transmitter Assembly Drawing, Revision: 0, Pages: 1  
Drawing No. 04, MFC608 Mass Flow Meter Assembly Drawing, Revision: 0, Pages: 1  
Drawing No. 05, MTM4831 Temperature Transmitter Assembly Drawing, Revision: 0, Pages: 1  
Drawing No. 06, MFC608 Mass Flow Meter Type Test Report(Issued by GRG Metrology & Test Group Co.,Ltd dated 18 Jan. 2024), Revision: 0, Pages: 1  
Drawing No. 07, MPM426 Series Level Transmitter Type Test Report(Issued by GRG Metrology & Test Group Co.,Ltd dated 18 March 2024), Revision: 0, Pages: 1  
Drawing No. 08, MTM4831 Type Test Report(Issued by GRG Metrology & Test Group Co.,Ltd dated 22 Aug. 2023),, Revision: 0, Pages: 1  
Drawing No. 09, DNV Type Approval Certificate, Revision: 0, Pages: 1  
Drawing No. 10, CCS Type Approval Certificate, Revision: 0, Pages: 1

**Terms of Validity:**

This Product Design Assessment (PDA) Certificate remains valid until 09/Apr/2029 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

**MICRO SENSOR CO.,LTD.**

NO.18 YINGDA ROAD,

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**Tier: 2 - PDA Issued**

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This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

**STANDARDS**

**ABS Rules:**

2024 Rules for Conditions of Classification, Part 1A, 1A-1-4/7.7, 1A-1-A3, 1A-1-A4, which cover the following:  
2024 Marine Vessel Rules: 4-8-3/1.3, 4-8-3/1.7, 4-8-3/1.11, 4-8-3/1.17, 4-8-3/Table 2, 4-8-3/13, 4-8-4/27.5, 4-9-9/13, 4-9-9/15.7 Table 1

2024 Rules for Conditions of Classification, Part 1B - Offshore Units and Structures 1B-1-4/9.7, 1B-1-A2, 1B-1-A3, which cover the following:

2024 Mobile Offshore Units Rules: 4-3-1/11, 4-3-1/15, 4-3-1/17, 4-3-3/Table 1, 4-3-3/9, 4-3-4/5, 6-1-6/5.7, 6-1-7/Table 1

**National:**

NA

**International:**

NA

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA



**Design Assessment (DA) Certification  
Attachment for Drawings**

DA Cert. No.: 24-2536413-PDA

**DA Certificate No.:** 24-2536413-PDA  
**Entry Date:** 10 April 2024  
**Expire Date:** 09 April 2029  
(subject to the condition stated on the DA Certificate)

**Name of Manufacturer:** MICRO SENSOR CO.,LTD

*Address:* No.18 Yinda Road,

*City:* Baoji,Shaanxi

*Zip:* 721006

*Country:* China

*Telephone:* +86-18591713553

*Email:* qc@microsensor.cn

*Contact Person:* Ms.Yang Jun Qiao

**Product:** Pressure/Level and Temperature Transmitter and Mass Flowmeter

MDM7000, MPM489 Pressure Transmitter

MPM426W Series Level Transmitter

**Model:** MTM4831 Temperature Transmitter, MFC608 Mass Flowmeter

**Revision History**

Rev.	Description for Revision	Certificate No.	Task No.	Date
0	PDA Issued	24-2536413-PDA	T2536413	09 April 2024



**Design Assessment (DA) Certification  
Attachment for Drawings**

DA Cert. No.: 24-2536413-PDA

**Type Approval Product Technical Specification**

Product Name	Model	Accuracy	specifications	Range of Measurement	Degree of Protection	Power of Supply
Mass Flowmeter	MFC608	±0.15%、 ±0.2%、 ±0.5%	DN04~DN250	60~2300000 (kg/h)	IP65	24V DC

Product Name	Model	Accuracy	Range of Measurement	Degree of Protection	Power of Supply
Pressure Transmitters	MDM7000	DGP/GP: ±0.075%、 ±0.1%、±0.2% DAP/GP-T/AP-T: ±0.1%、 ±0.2% DP: ±0.05%、±0.075% LP/LT: ±0.2%	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	IP67	24V DC
	MPM489	±0.1%、±0.25%、±0.5%	-0.1~60MPa	IP65	10V~28V DC
Level Transmitter	MPM426W series	±0.1%、±0.25%、±0.5%	-0.1~35MPa /0~200mH <sub>2</sub> O	IP68	24V / 5V DC

Product Name	Model	Accuracy	Range of Measurement	Degree of Protection	Power of Supply
Temperature Transmitter	MTM4831	±0.25%FS、 ±0.5%FS、 ±1.0%FS	-200℃~500℃ -50℃~200℃ -40℃~1200℃	IP67	10V~30V DC