



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **CSANe 24ATEX1178X** Issue: **0**

4 Equipment: **MDM7000 Series Smart Pressure Transmitter**

5 Applicant: **MICRO SENSOR CO., LTD.**

6 Address: No.18 Yingda Road  
Weibin District  
Baoji City  
Shaanxi Province  
China

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-11:2012

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 1G  
Ex ia IIC T4 Ga  
Tamb: -40°C to +70°C

Signed: M Halliwell

Title: Director of Operations



Project Number 80156533

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## SCHEDULE

### EU-TYPE EXAMINATION CERTIFICATE

CSANe 24ATEX1178X  
Issue 0

#### 13 DESCRIPTION OF EQUIPMENT

MDM7000 Series Smart Pressure Transmitter is a stationary intrinsically safe apparatus rated for process temperature up to 70°C and used for level, density, pressure and flow measurement by means of a pressure sensor in hazardous area. It is intended to be powered by an approved IS safety barrier and use 4-20mA or HART protocol for communication.

The housing and cover of apparatus is constructed from aluminium alloy or stainless steel with an optional display window and it houses printed circuit boards and terminals inside. The sensing electronics is enclosed in a stainless steel enclosure of varying shape and size depending on the models.

#### Model configuration code as follows:

#### MDM7000-aaa-12345678

Configurator code	Description
aaa -	DP: Differential pressure DGP: Double clamp seals-Gauge pressure DAP: Double clamp seals-Absolute pressure
1 -	Output signal H: 4mA~20mA, HART
2 -	Case S: Stainless steel, M20×1.5 U: Stainless steel, 1/2NPT P: Aluminium alloy, M20×1.5 N: Aluminium alloy, 1/2NPT
3 -	Display N: Without display R: Low temperature display
4 -	range
5 -	Wetted parts material
6 -	Process connection
7 -	Filling oil
8 -	Clamp flange fastener

#### MDM7000-aa-123456789

Configurator code	Description
aa -	GP: Gauge pressure AP: Absolute pressure
1 -	Flange type
2 -	Output signal H: 4mA~20mA, HART
3 -	Case S: Stainless steel, M20×1.5 U: Stainless steel, 1/2NPT P: Aluminium alloy, M20×1.5 N: Aluminium alloy, 1/2NPT

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## SCHEDULE

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Issue 0

Configurator code	Description
4 -	Display N: Without display R: Low temperature display
5 -	Range
6 -	Sensor structure
7 -	Wetted parts material
8 -	Process connection
9 -	Filling oil

### MDM7000-aa-12345678910

Configurator code	Description
aa -	LT: Single flange LP: Double flange
1 -	Output signal H: 4mA~20mA, HART
2 -	Case S: Stainless steel, M20×1.5 U: Stainless steel, 1/2NPT P: Aluminium alloy, M20×1.5 N: Aluminium alloy, 1/2NPT
3 -	Display N: Without display R: Low temperature display
4 -	Range
5 -	Wetted parts material
6 -	Clamp flange process connection
7 -	Filling oil
8 -	Clamp flange fastener
9 -	Diaphragm system
10 -	LT: Single flange LP: Double flange

The entity parameters are as follows:

Terminal +, -: Entity Parameters	
Ui: 30VDC, Ii: 100mA, Pi: 0.7W, Ci: 0µF, Li: 14.52µH	

## 14 DESCRIPTIVE DOCUMENTS

### 14.1 Drawings

Refer to Certificate Annexe.

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## SCHEDULE

### EU-TYPE EXAMINATION CERTIFICATE

**CSANe 24ATEX1178X**  
**Issue 0**

#### 14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	10 September 2024	R80156532A	The release of the prime certificate.

#### 15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

15.1 The enclosure of some models may be manufactured from aluminium alloy and used at the accessible surface of the equipment. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered when the equipment is being installed in Zone 0 locations for group II level of protection Ga.

#### 16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

#### 17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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# Certificate Annexe



**Certificate Number:** CSANe 24ATEX1178X  
**Equipment:** MDM7000 Series Smart Pressure Transmitter  
**Applicant:** MICRO SENSOR CO., LTD.

## Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
MDM7000-0000	1 of 1	1.0	23 Aug 24	MPM7000 Smart pressure transmitter assembly drawing
MDM7000-S-1000	1 to 6	1.0	23 Aug 24	Sensor assembly drawing
MS7.820.651	1 of 1	1.0	23 Aug 24	POTTING DRAWING EX
MS8.807.437	1 of 1	1.0	23 Aug 24	Nameplate Drawing
MS2.580.497DL	1 of 1	1.0	23 Aug 24	Functional Block Diagram
MS7.820.487DL-1	1 of 1	1.0	23 Aug 24	DMP305X-EMC BOM
MS7.820.487DL	1 of 1	1.0	23 Aug 24	DMP305X-EMC SCH
MS7.820.487	1 to 5	1.0	23 Aug 24	DMP305X-EMC PCB
MS7.820.584DL-1	1 of 1	1.0	23 Aug 24	MDM7000-HART-1200T BOM
MS7.820.584DL	1 of 1	1.0	23 Aug 24	MDM7000-HART-1200T SCH
MS7.820.584	1 to 7	1.0	23 Aug 24	MDM7000-HART-1200T PCB
MS7.820.486DL-1	1 of 1	1.0	23 Aug 24	DMP305-HART-2017B BOM
MS7.820.486DL	1 of 1	1.0	23 Aug 24	DMP305-HART-2017B SCH
MS7.820.486	1 to 7	1.0	23 Aug 24	DMP305-HART-2017B PCB
MS2.820.582DL-1	1 of 1	1.0	23 Aug 24	DMP305-HART-2057B BOM
MS2.820.582DL	1 of 1	1.0	23 Aug 24	DMP305-HART-2057B SCH
MS2.820.582	1 to 7	1.0	23 Aug 24	DMP305-HART-2057B PCB
MS7.820.492DL-1	1 of 1	1.0	23 Aug 24	DMP305X-Key&PWRCON BOM
MS7.820.492DL	1 of 1	1.0	23 Aug 24	DMP305X-Key&PWRCON SCH
MS7.820.492	1 of 1	1.0	23 Aug 24	DMP305X-Key&PWRCON PCB
MS2.820.650DL-1	1 of 1	1.0	23 Aug 24	MDM7000-LCD-MDS-19296-14-FCWA-B-G-A BOM
MS2.820.650DL	1 of 1	1.0	23 Aug 24	MDM7000-LCD-MDS-19296-14-FCWA-B-G-A SCH
MS2.820.650	1 to 5	1.0	23 Aug 24	MDM7000-LCD-MDS-19296-14-FCWA-B-G-A PCB
MS7.820.610DL-1	1 of 1	1.0	23 Aug 24	MDM7000-MCU-5962 BOM
MS7.820.610DL	1 of 1	1.0	23 Aug 24	MDM7000-MCU-5962 SCH
MS7.820.610	1 to 7	1.0	23 Aug 24	MDM7000-MCU-5962 PCB
MS7.820.489DL-1	1 of 1	1.0	23 Aug 24	DMP305X-PWR&LOOP BOM
MS7.820.489DL	1 of 1	1.0	23 Aug 24	DMP305X-PWR&LOOP SCH
MS7.820.489	1 to 7	1.0	23 Aug 24	DMP305X-PWR&LOOP PCB
MS7.820.611DL-1	1 of 1	1.0	23 Aug 24	DMP305X-SB-SP26 BOM
MS7.820.611DL	1 of 1	1.0	23 Aug 24	DMP305X-SB-SP26 SCH
MS7.820.611	1 to 7	1.0	23 Aug 24	DMP305X-SB-SP26 PCB
MS7.820.490DL-1	1 of 1	1.0	23 Aug 24	DMP305X-SB BOM
MS7.820.490DL	1 of 1	1.0	23 Aug 24	DMP305X-SB SCH
MS7.820.490	1 to 7	1.0	23 Aug 24	DMP305X-SB PCB

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