



1 **TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **CSANe 23 ATEX1194X** Issue: **0**

4 Equipment: **Pressure Transmitter, model MPM458GUHP.**

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., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category **2 3** 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 IEC 60079-7:2015+A1:2018 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 Type Examination Certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured. 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 3G  
Ex ec ic IIC T6...T4 Gc  
T4: -20°C to +85°C  
T5: -20°C to +70°C  
T6: -20°C to +50°C

Signed: Michelle Halliwell

Title: Director of Operations



Project Number 80176873

This certificate and its schedules may only be reproduced in its entirety and without change  
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands



## SCHEDULE

### TYPE EXAMINATION CERTIFICATE

CSANe 23 ATEX1194X  
Issue 0

#### 13 DESCRIPTION OF EQUIPMENT

MPM458GUHP series Pressure Transmitter is a pressure monitoring and measurement apparatus for use in Zone 2 hazardous area. Pressure sensor and subsequent electronics are used to convert the physical pressure into an electrical signal.

The housing of apparatus is constructed from stainless steel housing provided with an Aviation connector for external connection and it houses printed circuits boards and a pressure sensor inside.

The apparatus provides two types of circuits and output signal corresponding circuits are defined by the model configuration code as follows:

MPM458GUHP	a	b	c	d	e	f
Pressure transmitter	Measurement range	Pressure type	Accuracy	Output signal	Structural material	Process connection

The following configurator options are relevant to the certifications:

Configuration code 'd' represents output signal.

Configurator code	Option	Description
d – Output signal	E	4mA to 20mA DC
	V	0V to 10V DC

Configuration code 'e' represents structural material.

Configurator code	Option	Description
e - structural material	28	Stainless steel 316L

Entity parameters:

Type	Power supply	Output signal
Current (2-wire)	11V to 28V DC	4mA to 20mA DC
Voltage (3-wire)	15V to 28V DC	0V to 10V DC

Temperature class depends on the ambient temperature range as follow:

Temperature class	Ambient temperature
T4	-20°C to +85°C
T5	-20°C to +70°C
T6	-20°C to +50°C

#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	07 December 2023	R80176872A	The release of the prime certificate.

Project Number80176873

This certificate and its schedules may only be reproduced in its entirety and without change  
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands



## SCHEDULE

### TYPE EXAMINATION CERTIFICATE

CSANe 23 ATEX1194X  
Issue 0

- 15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)
- 15.1 The pressure transmitter shall be connected in compliance with IEC 60079-14 requirements, providing and maintaining degree of protection at least IP54 according to IEC 60079-0 requirements when the mating connector is supplied by the end user.
- 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 Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 The pressure transmitter shall be subjected to a dielectric strength test at 500 Vac at least 60 s without dielectric breakdown occurring between circuit and metal enclosure according to IEC 60079-7:2017, Clause 6.1. Alternatively, the test may be carried out at 600Vac for at least 100ms.

Project Number80176873

This certificate and its schedules may only be reproduced in its entirety and without change  
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands

# Certificate Annexe



Certificate Number: CSANe 23 ATEX1194X  
Equipment: Pressure Transmitter, model MPM458GUHP.  
Applicant: MICRO SENSOR CO., LTD.

## Issue 0

Drawing	Sheets	Rev.	Date (Stamp)	Title
MS2.580.475	1 to 2	1.0	30 Nov 23	MPM458GUHP Pressure Transmitter Assembly Drawing
MS7.755.016	1 of 1	1.0	30 Nov 23	Cable
MS8.032.908	1 of 1	1.0	30 Nov 23	Pressure adapter base
MS8.034.420	1 of 1	1.0	30 Nov 23	Housing
MS8.034.421	1 of 1	1.0	30 Nov 23	Housing cap
MS8.233.063	1 of 1	1.0	30 Nov 23	O-ring
MS8.233.064	1 of 1	1.0	30 Nov 23	O-ring
MS8.653.127	1 of 1	1.0	30 Nov 23	Pressure adapter
MS8.653.128	1 of 1	1.0	30 Nov 23	VCR Welding intubation
MS8.807.438	1 of 1	1.0	30 Nov 23	Label
MS2.803.378	1 of 1	1.0	30 Nov 23	Current Output Upper Board PCBA
MS2.803.378DL	1 of 1	1.0	30 Nov 23	Current Output Upper Board Circuit Schematic
MS2.803.378DL-1	1 of 1	1.0	30 Nov 23	Current Output Upper Board BOM
MS2.803.379	1 of 1	1.0	30 Nov 23	Current Output Lower Board PCBA
MS2.803.379DL	1 of 1	1.0	30 Nov 23	Current Output Lower Board Circuit Schematic
MS2.803.379DL-1	1 to 2	1.0	30 Nov 23	Current Output Lower Board BOM
MS2.803.381	1 of 1	1.0	30 Nov 23	Voltage Output Upper Board PCBA
MS2.803.381DL	1 of 1	1.0	30 Nov 23	Voltage Output Upper Board Circuit Schematic
MS2.803.381DL-1	1 of 1	1.0	30 Nov 23	Voltage Output Upper Board BOM
MS2.803.382	1 of 1	1.0	30 Nov 23	Voltage Output Lower Board PCBA
MS2.803.382DL	1 of 1	1.0	30 Nov 23	Voltage Output Lower Board Circuit Schematic
MS2.803.382DL-1	1 to 2	1.0	30 Nov 23	Voltage Output Lower Board BOM
MS7.820.543	1 of 1	1.0	30 Nov 23	Current Output Upper Board PCB
MS7.820.544	1 of 1	1.0	30 Nov 23	Current Output Lower Board PCB
MS7.820.546	1 of 1	1.0	30 Nov 23	Voltage Output Upper Board PCB
MS7.820.547	1 of 1	1.0	30 Nov 23	Voltage Output Lower Board PCB

Project Number 80176873

This certificate and its schedules may only be reproduced in its entirety and without change  
CSA Group Netherlands B.V. Utrechtseweg 310, Building B42, 6812AR Arnhem, The Netherlands