



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	IECEx CSAE 22.0019	Page 1 of 3	Certificate history:
Status:	Current	Issue No: 0	
Date of Issue:	2022-06-15		
Applicant:	MICRO SENSOR CO., LTD. No.18 Yingda Road, Wein District, Baoli City, Shaanxi Province, China		
Equipment:	MPM426W Series Level Transmitter		
Optional accessory:			
Type of Protection:	Intrinsically Safe		
Marking:	Ex ia IIC T4 Ga Ambient range: MPM426WPC: -30°C to +80°C (PFA Cable), MPM426WPF: -20°C to +80°C (PUR Cable), -10°C to +70°C (PVC/PE Cable)		

Approved for issue on behalf of the IECEx
Certification Body:

Michelle Halliwell

Position:

Director Operations, UK & Industrial Europe

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom





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Manufacturer: **MICRO SENSOR CO., LTD.**
No.18 Yingda Road, Wein District,
Baoli City, Shaanxi Province,
China

Manufacturing
locations: **MICRO SENSOR CO., LTD.**
No.18 Yingda Road, Wein District,
Baoli City, Shaanxi Province,
China

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

GB/CSAE/ExTR22.0111/00

Quality Assessment Report:

NO/DNV/QAR21.0025/00



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

MPM426W Series Level Transmitter is a stationary intrinsically safe apparatus used for level monitoring in hazardous area. The housing of apparatus is constructed from stainless steel with an end cap made of stainless steel or antistatic plastic and it houses printed circuit boards and a piezo-resistive sensor inside, which are completely encapsulated. The apparatus supports multiple standard outputs and cable options of multiple materials for a wide range of operation temperature.

Refer to the Annexe for additional information

SPECIFIC CONDITIONS OF USE: NO

Annex:

[IECEX CSAE 22.0019 Annexe Issue 0.pdf](#)

Annexe to: IECEx CSAE 22.0019 Issue 0

Applicant: MICRO SENSOR CO., LTD.

Apparatus: MPM426W Series Level Transmitter



EQUIPMENT Continued

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

MPM426W	a	b	c	d	e	f	g
	Application	Cable	Process Connection	Measured Range	Pressure Type	Accuracy	Output Signal

The following configurator options are relevant to the IS certifications:

Configuration code 'a' represents the application of the equipment.

Configurator code	Option	Description
a - Application	PF	Fuels
	PC	Chemicals

Configuration code 'b' represents the type of cable to be used.

Configurator code	Option	Description
b - Cable	P1	PE
	P2	PUR
	P3	PVC
	P4	PFA

Configuration code 'g' represents the output signal option.

Configurator code	Option	Description	Corresponding circuit
g - Output Signal	E	4-20mA	Current Output Circuit
	F	1-5V DC	Voltage Output Circuit (28VDC Power Supply)
	J	0-5V DC	
	V	0-10V DC	
	K2	0.5-4.5VDC (@ 12V~28VDC)	
	K3	0.5-4.5VDC (@ 5V~10VDC)	Voltage Output Circuit (10VDC Power Supply)
	W3	0.5-2.5VDC (@ 5V~10VDC)	Voltage Output Circuit (5VDC Power Supply)
	W2	0.5-2.5VDC (@ 5V±0.1VDC)	
	W1	0.5-2.5VDC (@ 3.3V±0.1VDC)	
	K1	0.5-4.5VDC (@ 5V±0.1VDC)	
	R8	RS485, MODBUS_RTU protocol, with temperature signal	Digital Output Circuit (RS485)
	R4	RS485, MODBUS_ASC II (MS custom protocol), with temperature signal	

The entity parameters for the different circuits are as follows:

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Annexe to: IECEx CSAE 22.0019 Issue 0

Applicant: MICRO SENSOR CO., LTD.

Apparatus: MPM426W Series Level Transmitter



Current Output Circuit (Red, Black Wires):

Entity Parameters	Ui: 28VDC, Ii: 100mA, Pi: 0.7W, Ci: 0 μ F, Li: 1.44 μ H
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Voltage Output Circuit (5VDC Power Supply):

Power Supply (Red, Black Wires)	Voltage Output Signal (White, Black Wires)	
Input Parameters	Input Parameters	Output Parameters
Ui: 6VDC, Ii: 100mA, Pi: 0.2W, Ci: 0.318 μ F, Li: 1.44 μ H	Ui: 5.88VDC, Ii: 30mA, Pi: 0.2W, Ci: 0 μ F, Li: 1.44 μ H	Uo: 6VDC, Io: 67mA, Po: 0.1W, Co: 40 μ F, Lo: 7.92mH

Voltage Output Circuit (10VDC Power Supply):

Power Supply (Red, Black Wires)	Voltage Output Signal (White, Black Wires)	
Input Parameters	Input Parameters	Output Parameters
Ui: 10VDC, Ii: 200mA, Pi: 0.56W, Ci: 0.428 μ F, Li: 1.44 μ H	Ui: 5VDC, Ii: 10mA, Pi: 0.04W, Ci: 0 μ F, Li: 1.44 μ H	Uo: 10VDC, Io: 212mA, Po: 0.53W, Co: 3 μ F, Lo: 0.79mH

Voltage Output Circuit (28VDC Power Supply):

Power Supply (Red, Black Wires)	Voltage Output Signal (White, Black Wires)	
Input Parameters	Input Parameters	Output Parameters
Ui: 28VDC, Ii: 250mA, Pi: 0.9W, Ci: 66nF, Li: 1.44 μ H	Ui: 14VDC, Ii: 12mA, Pi: 30mW, Ci: 0nF, Li: 1.44 μ H	Uo: 28VDC, Io: 20mA, Po: 0.14W, Co: 83nF, Lo: 88mH

Digital Output Circuit (RS485):

Power Supply (Red, Black wires)	RS485 (White, Yellow/Green wires)	
Input Parameters	Input Parameters	Output Parameters
Ui: 25.4VDC, Ii: 90mA, Pi: 0.56W, Ci: 13.2nF, Li: 1.44 μ H	Ui: 3.7VDC, Ii: 93mA, Pi: 85mW, Ci: 0nF, Li: 0 μ H	Uo: 6.51VDC, Io: 75mA, Po: 122mW, Co: 22 μ F, Lo: 6.32mH