



Certificate of Compliance

Certificate: 80106303

Master Contract: 302530

Project: 80106303

Date Issued: 2022-07-14

Issued To: MICRO SENSOR CO., LTD.
No.18 Yingda Road, Weibin District,
Baoji City, Shaanxi Province,
China

Attention: Junqiao Yang

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only



Issued by: Hongliang Cui
Hongliang Cui

PRODUCTS

2258 04 - PROCESS CONTROL EQUIPMENT Intrinsically Safe Entity - For Hazardous Locations
2258 84 - PROCESS CONTROL EQUIPMENT Intrinsically Safe Entity - For Hazardous Locations -
Certified to US Standards

Class I, Division 1, Groups A, B, C, D T4
Ex ia IIC T4 Ga
Class I, Zone 0, AEx ia IIC T4 Ga

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.

Ambient range:

MPM426WPC: -30°C to +80°C (PFA Cable)



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MPM426WPF: -20°C to +80°C (PUR Cable), -10°C to +70°C (PVC/PE Cable)

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	For MPM426WPF only
	P2	PUR	
	P3	PVC	
	P4	PFA	For MPM426WPC only

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)	
	W3	0.5-2.5VDC (@ 5V~10VDC)	Voltage Output Circuit (10VDC Power Supply)
	W2	0.5-2.5VDC (@ 5V±0.1VDC)	
	W1	0.5-2.5VDC (@ 3.3V±0.1VDC)	Voltage Output Circuit (5VDC Power Supply)
	K1	0.5-4.5VDC (@ 5V±0.1VDC)	
	R8	RS485, MODBUS_RTU protocol, with temperature signal	
	R4	RS485, MODBUS_ASC II (MS custom protocol), with temperature signal	



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The entity parameters for the different circuits are as follows:

Current Output Circuit (Red, Black Wires):	
Entity Parameters	Ui: 28VDC, Ii: 100mA, Pi: 0.7W, Ci: 0 μ F, Li: 1.44 μ H

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

APPLICABLE REQUIREMENTS

CSA C22.2 No. 60079-0:19

Explosive atmospheres - Part 0: Equipment - General requirements



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CAN/CSA C22.2 No. 60079-11:14
(R2018)

CAN/CSA C22.2 No. 61010-1-12,
UPD1:2015, UPD2:2016, AMD1:2018

ANSI/UL 60079-0-2020
Seventh Edition

ANSI/UL 60079-11-2018
Sixth Edition

ANSI/UL 913-2019
Eighth Edition

UL 61010-1, 3rd edition (2012), AMD1:
2018

Explosive atmospheres - Part 11: Equipment protection by
intrinsic safety “i”

Safety requirements for electrical equipment for
measurement, control, and laboratory use - Part 1: General
requirements

Explosive atmospheres - Part 0: Equipment - General
Requirements

Explosive atmospheres - Part 11: Equipment protection by
intrinsic safety “i”

Intrinsically Safe Apparatus and Associated Apparatus for
Use in Class I, II, III, Division 1, Hazardous (Classified)
Locations

Safety requirements for electrical equipment for
measurement, control, and laboratory use - Part 1: General
requirements

Notes:

Products certified under Class C225804, C225884 have been certified under CSA’s
ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca





Supplement to Certificate of Compliance

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*The products listed, including the latest revision described below,
are eligible to be marked in accordance with the referenced Certificate.*

Product Certification History

Project	Date	Description
80106303	2022-07-14	Original cCSAus Certification of MPM426W Series Level Transmitter IFE was conducted at MICRO SENSOR CO., LTD. Location: No.18 Yingda Road, Weibin District, Baoji City, Shaanxi Province, China