



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 SIR 19.0065X	Page 1 of 4	<u>Certificate history:</u> Issue 0 (2020-05-26)
Status:	Current	Issue No: 1	
Date of Issue:	2021-01-27		
Applicant:	mPower Electronics (Shanghai) Co., Ltd. Building 2, 66 Chunzhong Road Minhang District Shanghai 201108 China		
Equipment:	POLI multiple-gas detector, models MP400/MP400P/MP400S/MP400H		
Optional accessory:			
Type of Protection:	Intrinsically Safe ia and Flameproof da and db		
Marking:	Ex ia da IIC T4 Ga or Ex ia db IIC T4 Gb or Ex ia da db IIC T4 Gb or Ex ia IIC T4 Ga Ta = -20°C to 50°C		

Approved for issue on behalf of the IECEx
Certification Body:

Neil Jones

Position:

Certification Manager

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:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom

sira
CERTIFICATION





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Issue No: 1

Manufacturer: **mPower Electronics (Shanghai) Co., Ltd.**
Building 2, 66 Chunzhong Road
Minhang District
Shanghai 201108
China

Manufacturing
locations:

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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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 Reports:

GB/SIR/ExTR20.0101/00

GB/SIR/ExTR21.0019/00

Quality Assessment Report:

CN/NEP/QAR18.0006/01



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The MP400* is a multiple gas detector for a continuous display of gas concentrations, STEL, TWA and Peak values as well as high, low STEL and TWA alarms for ambient air use.

The physical dimensions are 140mm by 84mm by 42mm and the unit weights about 430g. It is a small-size handheld and battery powered gas monitor which is housed in a transparent plastic enclosure (PC), partially covered with soft thermoplastic rubber material (TPE). The front enclosure has one large-size LCD display and two push buttons for users to operate functions and change settings. The detector is also equipped with a metal clip on the back enclosure.

MP400* is powered by a rechargeable Li-ion battery, and provided with 4 sensor sockets, installed with smart type sensors. All sockets support EC sensor, but only the last sockets (P1, P2) support high power sensors (Catalytic, NDIR and PID). The EC sensors are for toxics and oxygen monitoring of ambient air. Two push buttons are used to operate the unit menu including gas concentration display or alarm settings. The visual alarm comprises multiple LEDs viewed from the top, left side, right side and front of the detector. An imbalanced motor and a buzzer are also built in to produce vibration and audible alerts which cannot be ignored even in a noisy environment. It also incorporates a liquid crystal display.

Refer to the Annexe for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The MP400* shall only be charged using a charger approved as SELV or Class 2 equipment against IEC 60950 or an equivalent IEC standard. The maximum voltage from the charger shall not exceed 6.0 Vdc.
Likewise, any data download device connected to the MP400* shall also be approved SELV or Class 2 equipment. The maximum voltage from the device shall not exceed 6.0 Vdc.
2. The MP400* shall only be fitted with mPower battery pack PN: M004-3002-000 or M004-3002-100 or 12.01.09.0003 or 12.01.09.0001.
3. Before use, ensure that the ESD film on the display is not damaged or peeling, or the anti-static coating is not damaged.
4. The MP400* shall not be used or be exposed to air with an oxygen concentration of more than 21%.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

This issue, Issue 1, recognises the following change; refer to the certificate annex to view a comprehensive history:

1. Addition of certified NDIR sensors, model MSH2*** and MSH2ia***.

Annex:

[IECEX SIR 19.0065X Annexe Issue 1.pdf](#)

Annexe to: IECEx SIR 19.0065X Issue 1

Applicant: mPower Electronics (Shanghai) Co., Ltd

Apparatus: POLI multiple-gas detector, models
MP400/MP400P/MP400S/MP400H



High power sensors are listed as below:

Type of high power sensors	Type of protection
Baseline PID sensor	Ex ia IIC Ga
Dynament NDIR sensors	Ex db IIC Gb
Optosense NDIR sensors	Ex ia IIC Ga
SGX catalytic bead sensor for LEL detection	Ex da IIC Ga
mPower catalytic bead sensor for LEL detection	Ex da ia IIC

The MP400* has no electrical connections while in the hazardous area. It may be charged in the non-hazardous area only: Um = 6.0 Vdc, maximum charging current when using Narada NLP883759LT20 cell is 1900 mA and 2200mA when using E-One ICP103450DA cell.

MP400* includes four models: MP400 (diffusion version), MP400P (pump version), MP400S (super version) and MP400H (wireless host version). The pump version has an internal sampling pump to push gas to sensor. Wireless version includes a wireless module for data communication.

Product Model Code Definition:

Model Number Code					
MP400	*	Definition	pump	Wireless module	Sensor supported
	Blank	Diffusion model, for MP400D, the suffix D is omitted by default.	No	No	All sensors listed in manufacturer's document number CER90100, Revision 1
	P	Pump model	Yes	No	All sensors listed in manufacturer's document number CER90100, Revision 1
	S	Super model	Yes	Yes, internal Antenna	All sensors listed in manufacturer's document number CER90100, Revision 1
	H	Wireless host model	No	Yes, external Antenna	All sensors listed in manufacturer's document number CER90100, Revision 1

Conditions of Manufacture

- The MP400 series incorporates previously certified sensors, certified under IECEx UL 13.0050U or IECEx OBAC 18.0001U or IECEx ITS 11.0047U or IECEx SIR 05.0053U or IECEx FTZU 15.0002U. It is therefore the responsibility of the mPower Electronics (Shanghai) Co., Ltd to continually monitor the status of the certifications associated with this device. mPower Electronics (Shanghai) Co., Ltd shall inform Sira of any modifications to the device that may impinge upon the explosion safety design of the MP400 series.
- The mPower 4R LEL catalytic sensor's sintered material shall be verified according to ISO/IEC 80079-34:2018, Annex B.

Full certificate change history

- Addition of certified NDIR sensors, model MSH2*** and MSH2ia***.

Date: 27 January 2021

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Form 9530 Issue 1

Sira Certification Service

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