



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 CML 19.0152X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-04-14

Applicant: **Shanghai Rocksensor Automation Co., Ltd**
5/F, Bldg.1, No.1258
Ping'an Road
Minhang District
Shanghai 201109
China

Equipment: **RP 1000 Smart Pressure Transmitter**

Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: Ex ia IIC T4-T6 Ga

Ex ia IIIC T80°C/T95°C/T130°C Da

(Refer to Specific Conditions of Use for the relationship between temperature class/assigned maximum surface temperature, ambient temperature, and process medium temperature).

Approved for issue on behalf of the IECEX
Certification Body:

A Snowden

Position:

Certification Officer

Signature:
(for printed version)

Date:

April 14, 2020

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:

Eurofins E&E CML Limited
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Ellesmere Port, CH65 4LZ
United Kingdom





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Manufacturer: **Shanghai Rocksensor Automation Co., Ltd**
5/F, Bldg.1, No.1258
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Additional
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 60079-11:2011 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/CML/ExTR19.0249/00](#)

[GB/CML/ExTR20.0069/00](#)

Quality Assessment Report:

[GB/CML/QAR18.0030/01](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The RP1000 Smart pressure transmitter is used to measure and transform the gauge pressure, differential pressure, absolute pressure, and other varieties of pressure into a 4~20mA current signal or HART signal. The transmitter consists of a transmitter body and a transmitter module. The silicone pressure chip, in the transmitter module, is used to monitor pressure. Five PCBs (terminal board, communication board, LCD board, communication interface board and A/D board) are assembled, within the enclosure. The A/D board is encapsulated with transmitter module by YT-ZB-61601 silicone gel.

Refer to certificate Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to certificate Annex for Specific Conditions of Use.

Annex:

[Certificate Annex IECEx CML 19.0152X Issue 0.pdf](#)

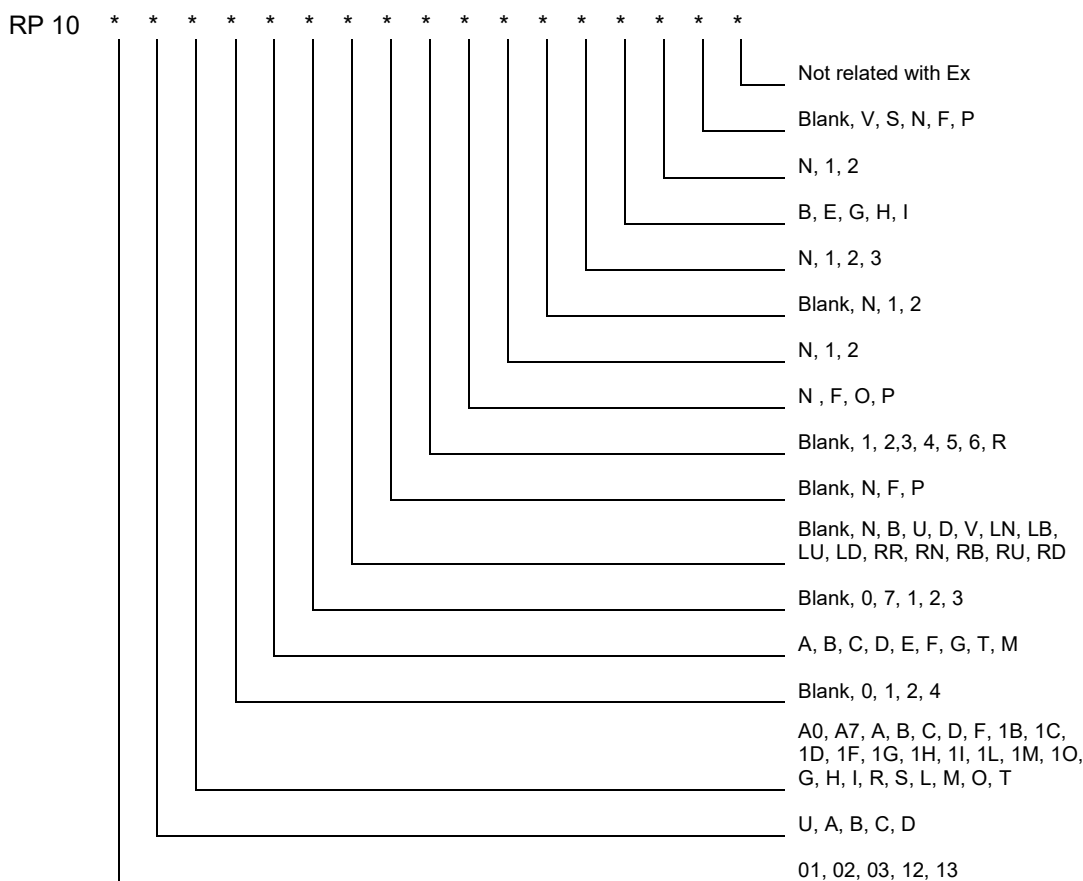
Annexe to: IECEx CML 19.0152X, Issue 0
Applicant: Shanghai Rocksensor Automation Co., Ltd
Apparatus: RP 1000 Smart Pressure Transmitter



Description

The RP1000 Smart pressure transmitter is used to measure and transform the gauge pressure, differential pressure, absolute pressure, and other varieties of pressure into a 4~20mA current signal or HART signal. The transmitter consists of a transmitter body and a transmitter module. The silicone pressure chip, in the transmitter module, is used to monitor pressure. Five PCBs (terminal board, communication board, LCD board, communication interface board and A/D board) are assembled, within the enclosure. The A/D board is encapsulated with transmitter module by YT-ZB-61601 silicone gel.

Input Parameters at Terminals PWR+, PWR-
 $U_i = 28V$, $I_i = 93mA$, $P_i = 0.65W$, $C_i = 9nF$, $L_i = 0$



The above are variants of the RP10 that are related to the intrinsic safety version.

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Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

1. Where the product incorporates certified parts or safety critical components, the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
2. The RP1000 Smart pressure transmitter shall be designed in accordance with general electrical safety standards, e.g. IEC 60950 or IEC 61010-1.
3. All products (except the Smart Transmitter type RP10*****P*****) shall be subjected to a routine dielectric strength test according to IEC 60079-11:2011, clause 10.3. 500VAC r.m.s shall be applied between the enclosure and terminals for 60 seconds and no breakdown of insulation shall occur.

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

1. A potential ignition hazard due to impact or friction for Ga applications shall be prevented.
2. When installed in an explosive gas atmosphere, separate cable glands or blanking plugs shall be incorporated, maintaining degree of protection IP20.
3. The Smart Transmitter type RP10*****P***** cannot pass the dielectric strength test (500V) between the circuit and the housing. Protective measures shall be taken during installation.
4. When installed in a combustible dust atmosphere, suitable separately IECEx certified cable glands or blanking plugs that provide a degree of protection IP67 shall be incorporated.
5. This equipment shall be supplied from a resistively limited source with an output resistance of 301Ω.
6. The relationship between ambient temperature, temperature class and process medium temperature is as follows:

Temperature class		Ambient temperature	Max. temperature on the sensor connector
T4	T130°C	(-40~+85)°C	90°C
T5	T95°C	(-40~+50)°C	50°C
T6	T80°C	(-40~+40)°C	40°C