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 TUR 16.0061X**	Page 1 of 5	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2023-07-04) Issue 0 (2020-05-11)
Date of Issue:	2026-06-09		

Applicant: **Chongqing Chuanyi Automation Co., Ltd. Measurement & Control Technology Branch**
No.61 Middle Section of Huangshan Avenue
Dazhulin Street, Liangjiang New District
Chongqing 401121
China

Equipment: **Pressure Transmitter Model PDS Series**

Optional accessory:

Type of Protection: **Equipment protection by flameproof enclosures “db”, Equipment protection by intrinsic safety "ia" and Equipment with Equipment Protection Level (EPL) Ga**

Marking: Ex ia IIC T4 Ga or
Ex db IIC T6…T4 Ga/Gb

Approved for issue on behalf of the IECEx Certification Body: **Dipl. -Ing. Klauspeter Graffi**

Position: **Head of Certification Body**

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.
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Certificate issued by:

TUV Rheinland Industrie Service GmbH
Am Grauen Stein
51105 Cologne
Germany

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Manufacturer: **Chongqing Chuanyi Automation Co., Ltd. Measurement & Control Technology Branch**
No.61 Middle Section of Huangshan Avenue
Dazhulin Street, Liangjiang New District
Chongqing 401121
China

Manufacturing locations: **Chongqing Chuanyi Automation Co., Ltd. Measurement & Control Technology Branch**
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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 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-11:2023 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

IEC 60079-26:2021 Explosive atmospheres - Part 26: Equipment with Separation Elements or combined Levels of Protection
Edition:4.0

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:

DE/TUR/ExTR16.0061/00 DE/TUR/ExTR16.0061/01 DE/TUR/ExTR16.0061/02

Quality Assessment Reports:

DE/TUR/QAR19.0023/00 DE/TUR/QAR19.0023/01 DE/TUR/QAR19.0023/02
DE/TUR/QAR19.0023/03 DE/TUR/QAR19.0023/04 DE/TUR/QAR19.0023/05

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Pressure transmitter

Model name:PDS803,PDS805,PDS813,PDS843,PDS863,PDS873,PDS879 and PDS883

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. When the equipment to be used with type of protection “ia“, the equipment shall be powered by powered by an intrinsically safe associated apparatus with same EPL as a minimum and the intrinsically safe parameters are stated in the instruction should be observed.
2. Only IECEx certified cable glands and blanking elements with suitable protection level can be used. Installation processes and suitable cable spec should be followed according to the manufacturer’s documents.
3. The cable entry point and the branching point of conductor is 81.8°C and 86.9°C respectively when the equipment operated under medium temperature does not exceed +80°C. The cable entry point and the branching point of conductor is 89.8°C and 94.9°C respectively when the equipment operated under medium temperature exceed +80°C(between +80°C to +120°C). End user need to choose the proper cable and cable gland for intended use.
4. When some pressure transmitters used with medium temperature range “-90°C~+400°C“ (with remote flange module), the correct installation method should be observed in accordance with the instruction so that the temperature at the process connection does not exceed +120°C.
5. It is not allowed to disassemble the measuring head module to avoid the sealed silicone oil and fluorocarbon oil lost and this action can be impact the boundary(partition walls) from EPL Ga to EPL Gb and it will be result in invaliding the type of protection “db“.
6. For safety,the work conditons, containing ambient temperature, medium temperature and medium pressure must be identified for different models under different application.

Process connection temperature range*	Ambient temperature range Ta	Temperature class	Remark
-40°C to +70°C	-40°C to +70°C	T6	For type “db” application only
-40°C to +80°C	-40°C to +80°C	T5	
-40°C to +120°C	-40°C to +80°C	T4	For both type “db” and type “ia” application

*The actual maximum medium temperature range is -90°C~+400°C,and the temperature of process connection shall not exceeding -40°C to +120°C by field installation via end user according to the approved instruction.

7. External earhing should be fixed before use in accordance with the instruction.
8. WARNING – DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.
9. Do not access the plastic key assesmbly when an explosive atmosphere is present and the the surface cleaning of equipment with damp cloth only. For minimize the risk form electrostatic charge, the equipment is intended use in the specified humidity conditions in the instruction.
10. Additional method should be taken to void an ignition hazard due to impact or friction when the equipment to be used in Zone 0 with an aluminum alloy enclosure.

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Equipment (continued):

PDS series pressure transmitter comprises a complete range of instruments for measuring gauge, differential and absolute pressure. The function of the pressure transmitter is that converting the input pressure signal into a standardized analog output current signal of 4-20 mA. Pressure transmitter is a fixed installed apparatus and the enclosure is made of aluminum alloy ADC12 or stainless steel JIS G5121-2003 SCS14, including a glass window cover and a plastic key cover.

Electronic circuits of PDS pressure transmitter are comprised of terminal board(anti-surge terminal board), main board, display board and acquisition board. Four PCB boards are installed in the aluminum alloy or stainless steel enclosure with IP67 rating and the terminal board and acquisition broad are encapsulated completely by two component addition silicone rubber WR7306.
The terminal board has two different versions, one for standard version and other one is lighting protection version.

Intended use:

PDS series pressure transmitter are designed and constructed with type ia or type db for different application purpose.
When it is used with type “ia”,PDS series pressure transmitter is powered by a certified safety barrier with same EPL.

When it is used with type “db”,a flameproof enclosure is provided for intended purpose,and the pressure transmitter will be installed into EPL Ga area and across to EPL Gb in accordance with IEC/EN 60079-26.
ATEX and IECEx certified NPT1/2” or M20x1.5 entry devices(made by metallic materials) to be used on the flameproof enclosure of PDS pressure transmitter.

Note:
The same flameproof enclosure to be used even if the PDS pressure transmitter to be used with type of protection “ia”,and only difference is the ATEX and IECEx certified cable entry devices and blind plugs are made of non-metallic materials in this case.

Refer to instruction for detailed information of model designation.

Electrical data
Intrinsically safe parameters:
Ui=28Vdc
Ii=100mA
Pi=0.7W
Ci=40nF
Li=0.7mH

Rated voltage:+28VDC(equipment to be used with type of protection “db“)

Environmental data
The pressure transmitter PDS series to be used with the following temperature parameters:

Temperature at Process connection*	Ambient temperature range Ta	Temperature class	Remark
-40°C to +70°C	-40°C to +70°C	T6	For type “db” application only
-40°C to +80°C	-40°C to +80°C	T5	
-40°C to +120°C	-40°C to +80°C	T4	For both type “db” and type “ia” application

* The actual maximum medium temperature range is -90°C~+400°C,and the temperature of process connection shall not exceeding -40°C to +120°C by field installation via end user according to the approved instruction.

Medium temperature:
'"-40°C~+120°C" without remote flange module
"-90°C~+400°C" with remote flange module

IP Rating: IP67

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
The name and address of the manufacturer have been updated to:

Chongqing Chuanyi Automation Co., Ltd, Measurement & Control Technology Branch

No.61 Middle Section of Huangshan Avenue Dazhulin Street, Liangjiang New District Chongqing 401121 P.R. China.