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 UL 23.0075X**

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Certificate history:
Issue 0 (2023-12-19)

Status: **Current**

Issue No: 1

Date of Issue: 2024-07-02

Applicant: **TopWorx Inc.**
3300 Fern Valley Road
Louisville, KY 40213
United States of America

Equipment: **Smart Valve Positioner, PD200******** Series**

Optional accessory:

Type of Protection: **Intrinsic Safety "ia"**

Marking: Ex ia IIC T4 Ga

Ex ia IIIC T135°C Db

-40°C to +65°C

Approved for issue on behalf of the IECEx Certification Body: **Katy A. Holdredge**

Position: **Senior Staff Engineer**

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:

UL Solutions (US)
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America

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Certificate No.: **IECEx UL 23.0075X**

Date of issue: 2024-07-02 Issue No: 1

Manufacturer: **TopWorx Inc.**
3300 Fern Valley Road
Louisville, KY 40213
United States of America

Manufacturing locations: **Sense Indústria Eletrônica Ltda.**
Av Joaquim Moreira Carneiro,
600 - 37540-000
Santa Rita do Sapucaí/MG
Brazil

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:

US/UL/ExTR23.0087/00 US/UL/ExTR23.0087/01

Quality Assessment Reports:

BR/ULBR/QAR23.0001/00 GB/SIR/QAR07.0025/12

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

The PD200 Series Smart Valve Positioners are intrinsically safe enclosed-type smart valve positioners intended to be powered by associated apparatus. The shaft is mechanically connected to the external valve actuator. When a control signal is received, the PD200 changes the position of the valve from anywhere between 0% and 100% of the full opening position, then sends a signal back to the control system confirming that the valve is in the new desired position.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Clean with a damp cloth before touching or servicing to avoid electrostatic discharge. See installation instructions for further guidance.
- Equipment has only been evaluated for low risk of mechanical impact. Equipment shall only be installed in areas where the risk for mechanical impact is low.
- External parts of the device contain aluminum. Care shall be taken to avoid sparking hazards due to impact.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Issue 1: Corrected typographical errors in the intrinsic safety entity parameters and schedule drawing dates.

Annex:

Annex to IECEx UL 23.0075X Issue 1.pdf

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TYPE DESIGNATION

PD200	H	S	N	G	RN	00	00	ES
I	II	III	IV	V	VI	VII	VIII	IX

I. Basic Series Designation
PD200 – Smart Valve Positioner with enhanced controls

II. Input & Communication
H – 4-20mA with HART

III. Feedback Output
S – Mechanical switches plus isolated position feedback transmitter 4-20mA

IV. Electric and Pneumatic Connection
N – Single conduit entry ½" NPT / Manifold with ¼" NPT
M – Single conduit entry M20 / Manifold with ¼" NPT

V. Manifold
0 – Pneumatic manifold with gauges not included
G – Pneumatic manifold with two pressure gauges included

VI. Type of Actuator
00 – No actuator adaptor
RN – Rotary NAMUR adapter
K1 - Linear lever with feedback 12 to 30mm stroke
K2 - Linear lever with feedback 12 to 60mm stroke
K3 - Linear lever with feedback 12 to 120mm stroke
K4 - Linear lever with feedback 80 to 200mm stroke

VII. Actuator Mounting Bracket
00 – Without mounting bracket

VIII. Options
00 – Without any additional options

IX. Hazardous Area Classification
ES – Intrinsically Safe

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PARAMETERS RELATING TO THE SAFETY

Intrinsically safe specifications:

Analog Control/HART Input 4-20mA (H+, H-):
U_i : 28 V
I_i : 93 mA
P_i : 0,651 W
L_i : 0 µH
C_i : 22 nF

Analog Feedback Output 4-20mA (RT+, RT-):
U_i : 28 V
I_i : 93 mA
P_i : 0,651 W
L_i : 0 µH
C_i : 0 nF

Alarm 1 (Switch 1):
U_i : 28 V
I_i : 93 mA
P_i : 2 W
L_i : 0 µH
C_i : 0 nF

Alarm 2 (Switch 2):
U_i : 28 V
I_i : 93 mA
P_i : 2 W
L_i : 0 µH
C_i : 0 nF

MARKING

Marking has to be readable and indelible; it has to include the following indications: