



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 19.0090X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 4 Issue 3 (2021-04-29)
Date of Issue: 2021-08-31 Issue 2 (2020-10-26)
Issue 1 (2020-06-25)
Issue 0 (2019-12-20)
Applicant: **Topworx Inc.**
3300 Fern Valley Rd.
Louisville, KY, 40213
United States of America
Equipment: **D2 HART7 PST ESD Switchbox, Models Models DX*-S*C*****, DX*-S*1*****, DX*-S*2*****.**
Optional accessory:
Type of Protection: **Flameproof "db", Non-sparking "nA", Hermetically-sealed "nC"; Dust Ignition Protection by Enclosure "tb" and "tc"**
Marking: Ex db IIC T6...T4 Gb
Ex db IIB + H2 T6...T4 Gb
Ex tb IIIC T85°C...T135°C Db
Ex tc IIIC T135°C Dc
Ex nA nC IIC T4 Gc

-40°C to +60°C
-40°C to +80°C

Approved for issue on behalf of the IECEx
Certification Body:

Lucy Frieders

Position:

Staff Engineer

Signature:
(for printed version)

Date:

2021-08-31

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 LLC
333 Pfingsten Road
Northbrook IL 60062-2096
United States of America





IECEX Certificate of Conformity

Certificate No.: **IECEX UL 19.0090X**

Page 2 of 4

Date of issue: 2021-08-31

Issue No: 4

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

Additional manufacturing locations: **Emerson Automation Fluid Control & Pneumatics Poland Sp. z o. o. (Emerson AFCP Poland Sp. z o.o.)**
Kurczaki 132
Lodz 93-331
Poland

Emerson Machinery Equipment (Shenzhen) Co. Ltd
101 Building 2, COFCO Park
Honglang North 2nd Road
Xin'an Street
Bao'an District
Shenzhen 51801
China

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 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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/ExTR19.0102/00](#)
[US/UL/ExTR19.0102/03](#)

[US/UL/ExTR19.0102/01](#)
[US/UL/ExTR19.0102/04](#)

[US/UL/ExTR19.0102/02](#)

Quality Assessment Reports:

[GB/BAS/QAR06.0020/10](#)

[GB/SIR/QAR07.0025/08](#)

[NL/DEK/QAR11.0004/06](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX UL 19.0090X**

Page 3 of 4

Date of issue: 2021-08-31

Issue No: 4

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Cat. Nos. D2 HART7 PST ESD, Models DX*-S*C*****, DX*-S*1*****, DX*-S*2***** are switchbox monitors. The equipment consists of the DXP/DXS Enclosure. Internal to the enclosure are three boards: the Main Board, the GO-Switch Board, and the Terminal Board.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- See Drawing ES-08436-1 for information on the flameproof joints.
- The slotted hexagonal head cover screws are not of standard form; they shall only be replaced with identical screws sourced from the equipment manufacturer.
- The hexagonal head cover screws are stainless steel 304, grade A2-70 or A4-80 screws to ISO 35061. The minimum yield stress is 31000 psi.
- All unused entries must be filled with a suitably certified Ex component blanking plug.



IECEX Certificate of Conformity

Certificate No.: **IECEX UL 19.0090X**

Page 4 of 4

Date of issue: 2021-08-31

Issue No: 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Addition of "nA", "nC", "tb" and "tc" protection types.

Issue 2: Updated model name on nameplate drawings.

Issue 3: Minor enclosure change.

Issue 4: Construction changes to switch board and terminal board.

Annex:

[Annex to IECEx UL 19.0090X Issue 4.pdf](#)



IECEx Certificate of Conformity

Certificate No.: IECEx UL 19.0090X

Issue No.: 4

Page 1 of 2

PARAMETERS RELATING TO THE SAFETY

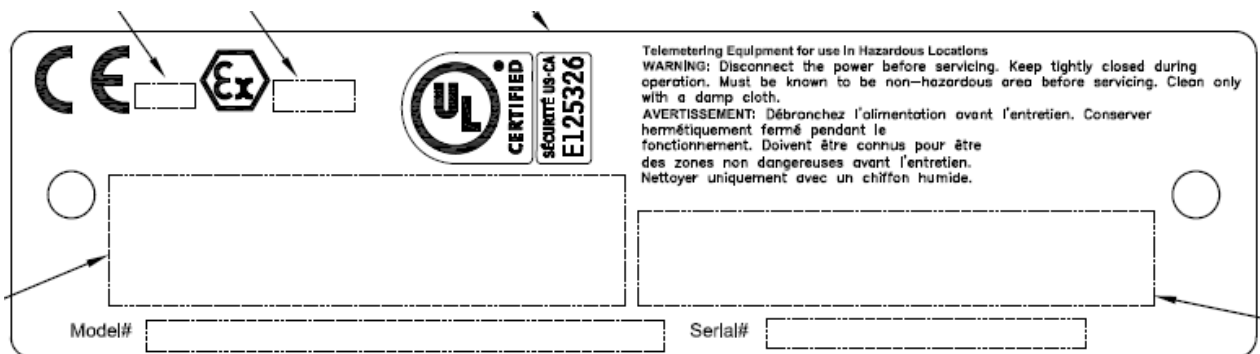
Input to HART module: 24 Vdc max, 20 mA max

Input from External Pilots: 30W max or 28W max (28 W max when rated nA nC)

Input to Switches: 24 Vdc max, 250 mA max

MARKING

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



To be used with the following notes:

Ex db IIB+H2 T6...T4 Gb; Ex tb IIIC T85°C/T135°C Db; IP66/67

Tamb: -40°C to +60°C/80°C

DEMKO 19 ATEX 2321X IECEx UL 19.0090X

HART: 24VDC, 20mA, 0.7W

SOLENOID: 28VDC, 0.5W (when fitted)

SWITCH: 24VDC, 250mA (For 'SS' Option with (2) MiniGO Sws, wired separate from HART module is fitted)

Or

Ex db IIC T6...T4 Gb; Ex tb IIIC T85°C...T135°C Db; IP66/67

Tamb: -40°C TO +60°C/80°C

DEMKO 19 ATEX 2321X IECEx UL 19.0090X

HART: 24VDC, 20mA, 0.7W

SOLENOID: 24Vdc, 0.5W (when fitted)

SWITCH: 24VDC, 250mA (For 'SS' Option with (2) MiniGO Sws wired separately from HART module when fitted)



IECEx Certificate of Conformity

Certificate No.: IECEx UL 19.0090X

Issue No.: 4

Page 2 of 2

Or

Markings for above models:

Class I, Zone 2, Div2, GrABCD; Class II, Zone 22, Div2, GrFG; Type 4/4X

Ex nA nC IIC T4 Gc; Ex tc IIIC T135°C Dc; IP66/67

Tamb; -40°C TO +80°C

DEMKO 20 ATEX 2388X DEMKO 19 ATEX 2321X IECEx UL 19.0090X

HART: 24VDC, 20mA, 0.7W

SOLENOID: 24VDC, 0.5W (when fitted)

SWITCH: 24VDC, 250mA (For 'SS' Option with (2) MiniGO Sws wired separately from HART module when fitted)

With:

3. Ex MARKING FOR METAL ENCLOSURE WITH T6...T4 CODES: II 2 GD

Or

3. Ex MARKING FOR METAL ENCLOSURE WITH T6/T4 CODES: II 3 GD

And

4. ARTWORK FOR MANUFACTURING FACILITIES:

TopWorx, 3300 Fern Valley Road, Louisville, KY USA

5. NOTIFIED BODY NUMBER: 0518



ROUTINE TESTS

Electric strength test per Clause 6.5.2 of IEC 60079-15 must be conducted on printed wiring boards.