

## 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 19.0045X   | Page 1 of 4           | Certificate history:                         |  |
|--|---|-----------------------|--|--|
| Status:  | Current   | Issue No: 2           | lssue 1 (2022-05-26)<br>Issue 0 (2019-07-25) |  |
| Date of Issue:   | 2023-04-10  |                       |  |  |
| Applicant:   | Dwyer Instruments LLC<br>102 Indiana Highway 212<br>Michigan City, IN 46360<br>United States of America |                       |  |  |
| Equipment:   | Differential Pressure Switches, Series 1950G-*-*-*  |                       |  |  |
| Optional accessory:  |   |                       |  |  |
| Type of Protection:  | Flameproof "db"   |                       |  |  |
| Marking:   | Ex db IIB + H <sub>2</sub> T6 Gb  |                       |  |  |
|  | Please see Annex for temperature informati  | on.                   |  |  |
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| Approved for issue o<br>Certification Body:  | n behalf of the IECEx   | Katy A. Holdredge     |  |  |
| Position:  |   | Senior Staff Engineer |  |  |
| Signature:<br>(for printed version)  |   | Katy a. Halibulge     |  |  |
| Date:<br>(for printed version)   |   | 2023-04-10            |  |  |
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| Certificate issued   | by:   |                       |  |  |

Solutions

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

| IECEX                       | IECEx Certificate<br>of Conformity   |             |  |
|-----------------------------|--|-------------|--|
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| Date of issue:              | 2023-04-10   | Issue No: 2 |  |
| Manufacturer:               | <b>Dwyer Instruments LLC</b><br>102 Indiana Highway 212<br>Michigan City, IN 46360<br><b>United States of America</b>  |             |  |
| Manufacturing<br>locations: | <b>Dwyer Instruments LLC</b><br>3999 E Hubb Road<br>Bldg R-6-1<br>La Porte IN 46350<br><b>United States of America</b> |             |  |

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

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/ExTR19.0051/00

US/UL/ExTR19.0051/01

US/UL/ExTR19.0051/02

Quality Assessment Report:

CA/CSA/QAR09.0006/14



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#### EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Series 1950G Differential Pressure Switches allow for the operation of a switch through means of an internal diaphragm. During operation, the differential pressure causes the displacement of the diaphragm, which in turn magnetically operates the switch.

Please see Annex for additonal infomation.

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

- The cover bolts have a minimum property class of 10.9.
- Repairs to the flamepaths are only to be performed by Dwyer Instruments LLC.



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#### DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Updates to nameplate.

Issue 2: Updates manufacturing location address and minor drawing update.

#### Annex:

Annex to IECEx UL 19.0045 Issue 2.pdf



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### TYPE DESIGNATION

#### Nomenclature:

- <u>1950G</u> <u>00</u> <u>B</u> <u>120</u> I II III IV
- I Basic Series Designation
   1950G 1950G Pressure Switch

## II – Pressure Range Designation

- 00 0.07 to 0.15 In. WC
- 0 0.15 to 0.5 ln. WC
- 1 0.4 to 1.6 ln. WC
- 5 1.4 to 5.5 ln. WC
- 10 3 to 11 In. WC
- 20 4 to 20 In. WC
- III Diaphragm and O-Ring Material Designation
  - B Buna N
  - N Neoprene
  - S Silicone
  - V Fluoroelastomer
  - F Fluorosilicone

IV – Input Voltage Supply

24 – 24VDC 120 – 120VAC 240 – 240VAC



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### PARAMETERS RELATING TO THE SAFETY

The lower ambient temperature of the Series 1950G Differential Pressure Switches is dependent upon the O-Ring/Diaphragm material used within the construction based on the table below.

| O-Ring/Diaphragm<br>Material | Lower ambient temperature |
|------------------------------|---------------------------|
| Buna-N<br>Neoprene           | -17°C                     |
| Silicone<br>Fluorosilicone   | -40°C                     |
| Fluoroelastomer              | -1°C                      |

Supply: 24 Vdc, 120 Vac or 240 Vac ± 10% Relay Contacts: 10A – 120/240 Vac, 28 Vdc Resistive 50mA – 125 Vdc

