

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 17.0121X** Page 1 of 4

Certificate history:

Current Status:

Issue No: 2

Issue 1 (2020-07-30) Issue 0 (2018-05-16)

Date of Issue: 2022-03-31

Applicant: **Dynisco Instruments LLC**

> 38 Forge Parkway Franklin, MA 02038 **United States of America**

Vertex Sensors, VERT-***-***-***-***-***-***-***-***-*** Equipment:

Optional accessory:

Type of Protection: Intrinsic Safety "ia"

Marking: Ex ia IIC T6...T3 Ga

> -50°C to 50°C -50°C to 75°C -50°C to 85°C

Please refer to Manufacturer drawing 000612 for additional information.

Approved for issue on behalf of the IECEx

Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:

(for printed version)

(for printed version)

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Certificate issued by:

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





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Manufacturer: Dynisco Instruments LLC

38 Forge Parkway Franklin, MA 02038 **United States of America**

United States of America

Manufacturing Dynisco Instruments LLC

locations: 38 Forge Parkway
Franklin, MA 02038

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/ExTR15.0051/00 US/UL/ExTR15.0051/01 US/UL/ExTR15.0051/02 US/UL/ExTR15.0051/03

Quality Assessment Report:

GB/SIR/QAR17.0006/02



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Vertex is a pressure and temperature transmitter intended for use in process control applications. The transmitter is comprised of four main sections: Sensor Snout Assembly, Transition Electronics, Flex/Rigid Assembly, Main Electronics. The Sensor Snout Assembly consists of the process connection and sensor, various different assemblies may be used. The Transition Electronics consists of two circuit boards, the 8-Pin Bridge Board and Interconnect Board. The Flex/Rigid Assembly consists of no circuit boards or one circuit board (depending on model), the Flex PCB. The Main Electronic consists of three or four circuit boards (depending on model) fully encapsulated, the Digital Board, Analog Board, 2nd 4-20mA Board (Optional), and either ATEX IS Conduit Connector Board or 8-Pin Connector Board with HALLS or 6-Pin Connector Board with push buttons (PB).

The Vertex sensor can be connected to a maximum process temperature of up to 400°C. The ambient temperature range, maximum process temperature, and exposed process connection length are described in Drawing No. 000612.

The Vertex is connected to up to three intrinsically safe circuits supplied from associated apparatus; Pressure (which also provides main power), Temperature (optional), and Customer T/C (optional). Connection to the Vertex for Pressure and Temperature is made via miniature bayonet (PT 26482 Series 1) or miniature threaded (PC Series) connector or conduit with 3 or 5 wire. Connection to the Vertex for Customer T/C is made via a pigtail connection. The Vertex Series of Sensors have Entity Parameters as described in Drawing No. 000612.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The Transmitter is not capable of withstanding a 500V RMS AC dielectric strength test.
- Vertex Models with an aluminum main electronics enclosure (Electrical Connection Codes "**N") shall be installed in such a way that sparking as a result of impact or friction between aluminum and steel is excluded.
- The device is intended for different ambient temperatures and process temperature connections as detailed in Drawing No. 000612.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Updated Notified Body number on label marking.

Issue 2: Devices were evaluated to the latest edition of the 60079-0 standard.

Annov:

Annex to IECEx UL 17.0121X Issue 2.pdf



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TYPE DESIGNATION

The Vertex Series of Sensors has the following nomenclature:

Vertex Part Nos. VERT-A-a-b-c-d-e-B-C-D-E-F-f

Α	MA4	4-20mA Pressure only
	MPT	4-20mA Pressure and Temperature
а	***	Accuracy
b	***	Digital Communication
С	***	Unit of Measure
d	***	Range of Pressure
е	***	Process connection
В	6PN 6PW 8CN 8CW 8PN 8PW 3*C 5*C	Connector PT02A-10-6P Connector PTIH-10-6P Connector PC02A-12-8P Connector PCIH-12-8P Connector PT02A-12-8P Connector PTH-12-8P Conduit fitting with 3 wire cable ≤ 100 ft. cable length Conduit fitting with 5 wire cable ≤ 100 ft. cable length
С	***	Snout Length ≤ 36in. and Extension Length ≤ 36in.
D	***	Flex Length ≤ 72 in.
Е	NTR TC*	No temperature sensor T/C with flex pigtail
F	ISE ISI ISK	Intrinsically Safe ATEX Intrinsically Safe IECEx Intrinsically Safe UKEx
f	*****	Option Codes

[&]quot;*" Represents any letter, number, or character.

PARAMETERS RELATING TO THE SAFETY

Ui = 30V



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MARKING

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

