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UNITED KINGDOM CONFORMITY ASSESSMENT  
**UK-TYPE EXAMINATION CERTIFICATE**

[2]

**Product or Protective System Intended for use in Potentially Explosive Atmospheres  
UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1**

[3] UK-Type Examination Certificate No.: **UL22UKEX2249X Rev. 0**

[4] Product: **Pressure and temperature transmitter Vertex**

[5] Manufacturer: **Dynisco Instruments LLC**

[6] Address: **38 Forge Pkwy Franklin, MA 02038 USA**

[7] This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] UL International (UK) Ltd, Approved Body number 0843, in accordance with Regulation 44 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.  
The examination and test results are recorded in the confidential report **UKRCC-4790148753.2**.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN IEC 60079-0:2018 EN 60079-11:2012**

Except in respect of those requirements listed at section 19 of the schedule to this certificate.

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

[11] This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:

 **II 1 G Ex ia IIC T6...T3 Ga**

**Certification Manager**  
Andrew Moffat

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the UKEx Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Regulations. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

**Date of issue:** 2022-04-21

**Approved Body** UL International (UK) Ltd Unit 1-3 Horizon Kingsland Business Park Wade Road, Basingstoke RG24 8AH, UK  
Phone : +44 (0)1256 312100



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# Schedule

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Description of Product

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 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.

Nomenclature for type Vertex is:

Vertex Part Nos. VERT-A-a-b-c-d-e-B-C-D-E-F-f		
A	MA4	4-20mA Pressure only
	MPT	4-20mA Pressure and Temperature
a	***	Accuracy
b	***	Digital Communication
c	***	Unit of Measure
d	***	Range of Pressure
e	***	Process connection
B	6PN	Connector PT02A-10-6P
	6PW	Connector PTIH-10-6P
	8CN	Connector PC02A-12-8P
	8CW	Connector PCIH-12-8P
	8PN	Connector PT02A-12-8P
	8PW	Connector PTIH-12-8P
	3°C	Conduit fitting with 3 wire cable ≤ 100 ft. cable length
	5°C	Conduit fitting with 5 wire cable ≤ 100 ft. cable length
C	***	Snout Length ≤ 36in. and Extension Length ≤ 36in.
D	***	Flex Length ≤ 72 in.
E	NTR	No temperature sensor
	TC*	T/C with flex pigtail
F	ISK	Intrinsically Safe UKEx
f	*****	Option Codes

An asterisk “\*” represents any letter, number, or character.

Temperature range

The relation between ambient temperatures, the maximum process temperature, the assigned temperature class, and the exposed process connection length are shown in Drawing No. 000612.

Intrinsically safe specifications:

Intrinsically safe specifications are as shown in Drawing No. 000612.

Routine tests

None

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Test Report No. (associated with this certificate issue)

DE/UL/ExTR15.0051/03

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Specific conditions of use:

- The Transmitter is not capable of withstanding a 500V RMS AC dielectric strength test.
- Vertex Models with an aluminium main electronics enclosure (Electrical Connection Codes “\*\*N”) shall be installed in such a way that sparking as a result of impact or friction between aluminium 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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Conditions of certification:

None

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Essential Health and Safety Requirements (Regulations Schedule 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.



The trademark on the marking label.

or

will be used as the company identifier

The manufacturer shall inform the approved body concerning all modifications to the technical documentation as described in Annex III to UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1.

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**Schedule**  
**UK-TYPE EXAMINATION CERTIFICATE No.**  
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[20] Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
<b>Safety Documents</b>			
Vertex Transmitter IS Electrical Installation Drawing	000612	C	2022-03-11
VERTEX ATEX/IECEX IS Approval Safety Information Report	975157	C	2022-02-22
Vertex Main Electronics Potting Detail	4709100	A	2015-05-01
ATEX/IECEX/UKEx IS Nameplate 856390 Control Drawing	4709112	F	2022-03-25
<b>Schematics</b>			
8-Pin Bridge Board	999618C	B	2015-02-11
Interconnect Board	999620C	F	2015-02-11
mA HART Digital Board	999646C	C	2015-03-31
mA HART Analog Board	999647C	C	2015-02-11
mA HART ATEX-IS Conduit Connector Board with HALLs plus RCAL or 2nd 4-20mA	999648C	C	2015-02-11
Flex Interface Board	999649C	B	2015-02-11
mA HART 8-Pin Connector Board with HALLS for a welded shell	999656C	B	2015-02-11
mA HART 6-Pin Connector Board with HALLS for a welded shell	999657C	B	2015-02-11
mA HART 6-Pin Connector Board with PB for an O-Ring sealed shell	999658C	B	2015-02-11
mA HART 2nd 4-20mA Board	999659C	A	2015-02-11
<b>PCBA Board Layout Control Drawings</b>			
mA HART ATEX-IS Conduit Connector Board with HALLs plus RCAL or 2nd 4-20mA	975416	A	2015-02-10
mA HART Digital Board	975417	A	2015-02-11
mA HART Analog Board	975418	A	2015-02-13
Flex Interface Board	975419	A	2015-02-12
8-Pin Bridge Board	975420	A	2015-02-04
Interconnect Board	975421	A	2015-02-05
mA HART 8-Pin Connector Board with HALLS for a welded shell	975422	A	2015-02-12
mA HART 6-Pin Connector Board with HALLS for a welded shell	975423	A	2015-02-13
mA HART 6-Pin Connector Board with PB for an O-Ring sealed shell	975424	A	2015-02-13
mA HART 2nd 4-20mA Board	975425	A	2015-02-13
<b>PCBA BOM Control Drawing</b>			
8-Pin Bridge Board	975458	A	2015-05-01
Interconnect Board	975459	A	2015-05-01
Flex Interface Board	975460	A	2015-05-01
mA HART ATEX-IS Conduit Connector Board with HALLs plus RCAL or 2nd 4-20mA	975461	A	2015-05-01
mA HART 8-Pin Connector Board with HALLS for a welded shell	975462	A	2015-05-01
mA HART 6-Pin Connector Board with HALLS for a welded shell	975463	A	2015-05-01
mA HART 6-Pin Connector Board with PB for an O-Ring sealed shell	975464	A	2015-05-01
mA HART Digital Board	975465	A	2015-05-01
mA HART Analog Board	975466	A	2015-05-01
mA HART 2nd 4-20mA Board	975467	A	2015-05-01