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 TRC 13.0004X**

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Certificate history:

Status: **Current**

Issue No: 6

Issue 5 (2021-03-19)
Issue 4 (2021-01-08)
Issue 3 (2016-08-05)
Issue 2 (2014-12-18)
Issue 1 (2013-07-31)
Issue 0 (2013-04-11)

Date of Issue: 2023-01-09

Applicant: **Imtex Controls Ltd.,**
Unit 4, Tenth Avenue
Deeside Industrial Park
Deeside
Flintshire
CH5 2UA
United Kingdom

Equipment: **Valve Controller, Type V and CA Series**

Optional accessory:

Type of Protection: **Flameproof, Intrinsic Safety, Enclosure**

Marking: Ex db [ia] IIC T6 Gb Tamb = -*ºC to +60ºC Ex db [ia] IIC T4 Gb Tamb = -*ºC to +85ºC

Ex tb III C T85ºC Db IP6X Tamb = -*ºC to +60ºC Ex tb III C T135ºC Db IP6X Tamb = -*ºC to +85ºC

*See Special Condition for Manufacturing No.3 in Annex.

Approved for issue on behalf of the IECEx Certification Body: **Stephen Winsor**

Position: **Certification Manager**

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:

Element Materials Technology
Unit 1 Pendle Place
Skelmersdale
West Lancashire

IECEx Certificate of Conformity

Certificate No.: **IECEx TRC 13.0004X**

Date of issue: 2023-01-09 Issue No: 6

Manufacturer: **Imtex Controls Ltd.,**
Unit 4, 10th Avenue
Deeside Industrial Park
Deeside
Flintshire
CH5 2UA
United Kingdom

Manufacturing locations:

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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:

GB/TRC/ExTR13.0004/00 GB/TRC/ExTR13.0004/01 GB/TRC/ExTR13.0004/02
GB/TRC/ExTR13.0004/03 GB/TRC/ExTR13.0004/04 GB/TRC/ExTR13.0004/05

Quality Assessment Report:

GB/SIR/QAR09.0002/10

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

The V and CA series of Valve Controllers are designed to provide high accuracy feedback of valve position, with comprehensive diagnostics, for use with plant control systems and can be used in hazardous gas or dust atmospheres. The equipment is mounted to a valve via a mounting plate and mounting kit. A shaft on the bottom of is physically linked to the valve and passes into the flameproof IP6X enclosure. This shaft can be linked internally to a variety of internal components - micro switches, position transmitters, reed switches, proximity sensors etc depending on the end user requirements. This shaft can also be equipped to provide a physical 'open/closed' type of visual indication.
The proximity and position sensors are approved intrinsically safe components that can be fitted within the enclosure therefore with regard to gas atmospheres these are associated equipment.
There are many options available for the internal components that can be fitted but the enclosure is the same for all models. Two faces contain the entry ports into the enclosure and can be supplied as M20, M25, ½ or ¾ NPT threaded entries.
The equipment is identified through one of the two nomenclatures see Annex for part numbering information.

SPECIFIC CONDITIONS OF USE: YES as shown below:
1. The equipment shall not be subjected to a build up of dust and is to be cleaned regularly to prevent a build up of dust forming on the enclosure.

2. The intrinsically safe components shall be supplied by an IECEx approved barrier.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Add an alternative part numbering compilation.
Change the marking code from Ex ‘d’ to Ex ‘db’

Annex:

Annex to CoC IECEx TRC 13.0004X is 6.pdf

Element Materials Technology,
Unit 1, Pendle Place,
Skelmersdale,
West Lancashire, WN8 9PN,
United Kingdom

Annex to IECEx Certificate of Conformity IECEx TRC 13.0004X issue No.:6

Routine Tests

1. The Aluminium enclosures shall be subjected to a routine pressure test in accordance with IEC 60079-1:2007, Clause 16.1 at a minimum pressure of 14.93 bar for at least 10 seconds. There shall be no permanent deformation of the joints, damage to the enclosure or leakage through the walls.

Special conditions for manufacture

1. The input parameters markings for the intrinsically safe components shall be determined from their respective certificate numbers depending upon whether they are required for IECEx.

2. Care should be taken to ensure that the minimum and maximum temperature information on the intrinsically safe components used within the V and CA valve controller is observed and satisfies the T_{amb} parameters and the T-class for the V and CA units.

3. Note that minimum ambient markings will depend on approved intrinsically safe components, if fitted, as will the parameters. Units will be marked accordingly at the point of manufacture in line with their individual intrinsically safe equipment approvals. However minimum permitted ambient in all cases is -40 °C.

Table of entity parameters

Table of entity parameters		
Parameter	Proximity sensor	Transmitter
Ui	Replication of parameters listed on fitted approved Sensor certificate.	Replication of parameters listed on fitted approved Transmitter certificate.
Ii		
Pi		
Ci		
Li		

Part numbering information

Part number nomenclature 1 refer to Drawing A190352-EXD

Feature code	Nomenclature
0	Model V or CA
1	Connected Solenoid D, O
2	Control Board Configuration D, P
3	No of Additional Function Devices 0, 1, 2, 3, 4, 5, 6
4	Function 01, 14, 16, 17, 25, 40, 42, 43, 70
5	Enclosure S, L, 9
6	Conduit size Z, Y, X, W, V, U, T, S, R, Q, P, N, M, L, K, J
7	Output Drive S, N
8	Indicator R, B, E, Y, C, O
9	System Communication 0, 1, 2, 3, 4, 5, 6, 7, 8, 9
10	Control Board Power C, E, L, P, O
11	Feature Information DXX, 1XX, 3XX

Example part number: VADD217SYSR2E-100

Annex to IECEx Certificate of Conformity IECEx TRC 13.0004X issue No.:6

Part number nomenclature 2 refer to Drawing A190352U-EXD

Feature code	Nomenclature a a1 a2 a3 b cc d ee ff – g h ii j k l m – n n1 o p qq
a	Model V or CA
a1	Control card fitted A, I, O, S
a2	Solenoid to be Connected (into Control Board) D, O
a3	Control Board Configuration D, H, P, B, W,
b	No of Primary function 0, 1, 2, 3, 4, 5, 6
cc	Primary Function 00, 14, 16, 17, 25, 26, 30, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 70, 71, 72, 73, 74, 90, 91
d	No of Secondary function 0, 1, 2, 3, 4
ee	Secondary function 00, 14, 16, 17, 25, 26, 30, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 70, 71, 72, 73, 74, 90, 91
ff	Non-Standard Switch/Sensor Designator OO-Standard Function, 2 Digit Alpha number from register
-	-
g	Material A, L, S
h	Cover Size S, R
ii	Coating OO-Natural finish, 2 Digit Alpha number from register
j	Conduit Entries for Connection 4, 8, D, H, K, L, M, N, P, Q, R, S, T, U, V, W, X, Y, Z
k	Shaft N, S
l	Indicator R, B, E, Y, N, C, O, 1, 2, 3, 4, 5, 6
m	No of Extra/Spare Terminals 0, 2, 4, 6, 8, A, B, C, D
-	-
n	Communication Protocol 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A, B, C, D, F
n1	Control Board Power C, E, L, P, O
o	Regional Certification/ Applicable labelling W
p	Hazardous Feature D, C
qq	Special Feature OO-No Feature, 2 Digit Alpha number from register

Example part number: VADD216000OO-ASOO2MR2-2E-WCOO

Manufacturer's Documents

Title:	Drawing No.:	Rev. Level:	Date:
External Earthing Clamp	A100353	-	2008-09-22
Type V - Master Model Description Ex d [ia] Variant	A190352-EXD	B	2021-02-05
Type V - Exd - Master Model Description	A190352U-EXD	First	2022-02-03
Characteristics for Additional Electrical Equipment Integrated Into Type V Enclosure – Ambient Temperature and Intrinsically Safe Reference Document (23 pages)	A190354	E	2022-08-09
TITLE PLATE IECEx/ATEX/UKCA Unit	A160190	H	2022-03-21
TITLE PLATE IECEx/ATEX/UKCA Unit	A160249	A	2022-03-18
Type V Unit – Housing	C100190	H	2020-10-09
Type V StSt Cover	C110150	D	2020-10-09
Type V General Layout	J100411	D	2020-10-09
Type V Shaft Assembly	J100418	B	2020-10-09
Flamepath Gaps in Type V Assembly	J100419	C	2020-10-22
Volume Calculation for Type V Assembly	J100420	B	2020-10-09
Type V General Layout	J100421	B	2020-10-09
Type V - Exd Requirements	J100422	B	2020-10-09
Installation, Operating and Maintenance, Type V - IECEx/ATEX (3 pages)	V-IOM-004	B	2022-03-18
Type VS Unit – w/ 2 x V3 Mech	VSDD216SZSR0-IOO	-	2020-10-09
IVC/IDC/IHP24 Identification Format	A190281-VAL	C	2020-10-22
Type V Unit - Housing - Al	C100200	A	2020-10-22
Type V Cover – Al	C110151	A	2020-10-22
Installation, Operating and Maintenance, Type CA - IECEx/ATEX (3 pages)	CA-IOM-004	A	2022-03-18