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CONFORMITÉ EUROPÉENNE

EU - TYPE EXAMINATION CERTIFICATE

2 **Product or Protective System Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU – Annex III**

3 EU - Type Examination Certificate No.: **EMT19ATEX0027X (incorporating variation V1)**

4 Product: **Type V & CA Valve Controller
Variants VA, CAA & VO, CAO**

5 Manufacturer: **Imtex Controls Limited**

6 Address: **Unit 4, Tenth Avenue, Deeside Industrial Park, Deeside, Flintshire,
CH5 2UA, United Kingdom**

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

8 Element Materials Technology, Notified Body number 2812, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive. The examination and test results are recorded in the confidential reports

TRA-047204-33-00B & TRA-055505-33-02A

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 18 of the schedule.


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 EU - TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:

 **II I G Ex ia IIC T6...T4 Ga
II 2 D Ex ia IIIC T85°C ...T135 °C Db**

**Tamb is variable See Appendix B.
Applicable for Models VO and CAO**

 **II 2 GD
Ex ib IIC T6...T4 Gb
Ex ib IIIC T85°C ...T135 °C Db
Tamb is variable See Appendix B.
Applicable for Model VA and CAA**

This certificate and its schedules may only be reproduced in its entirety and without change. This certificate is issued in accordance with the Element Materials Technology Ex Certification Scheme.

S.P. Winsor

S P Winsor, Certification Manager

Issue date: 2022-09-28

Page 1 of 10

CSF355-NL 5.0

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

EMT19ATEX0027X (incorporating variation V1)

15 Description of Product

The Type V & CA Controller provides high accuracy position feedback and comprehensive diagnostic and testing functionality for automated process valves.

The equipment is housed within a metallic enclosure which resides upon the top of a process valve. A range of different sensors and or switches may be installed within the enclosure of the equipment. There are 6 cable entry points at the base of the enclosure.

Two models of each of the Type V & CA Controller are available, the VA or VO and CAA or CAO variants respectively. The type V & type CA variants are identical but have their own respective markings.

The VA/CAA features an internal programmable control board and is suitable for EPL Gb, Zone 1 IIC and Zone 21 IIIC environments. Enclosure material is constructed from stainless steel or die cast aluminium.

The VO/CAO has no internal programmable control board, only switches, sensors or transmitters and is suitable for EPL Ga, Zone 0 IIC and Zone 21 IIIC environments. Enclosure material is constructed from stainless steel only.

Cable glands shall be selected to be appropriate with the installation environment.

The equipment is identified through one of the two nomenclatures below:

Part number nomenclature 1 refer to Drawing A190352-IS

Feature code	Nomenclature
0	Model V or CA
1	Connected Solenoid I, O
2	Control Board Configuration I, Y
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, 2
10	Control Board Power E, L, O
11	Feature Information 1XX, 3XX

Example part number: VAI1217SYSR0P-100

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

CERTIFICATE NUMBER EMT19ATEX0027X (incorporating variation V1)

Part number nomenclature 2 refer to Drawing A190352U-IS

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
a2	Solenoid to be Connected (into Control Board) I, O
a3	Control Board Configuration D, B, W
b	No of Primary function 0, 1, 2, 3, 4, 5, 6
cc	Primary Function 00, 14, 16, 17, 25, 30, 40, 42, 43, 45, 46, 47, 48, 49, 70, 71, 72, 73
d	No of Secondary function 0, 1, 2, 3, 4
ee	Secondary function 00, 14, 16, 17, 25, 30, 40, 42, 43, 45, 46, 47, 48, 49, 60, 70, 71, 72, 73
ff	Non-Standard Switch/Sensor Designator OO, 2 Digit Alpha number from register
-	-
g	Material A, L, S
h	Cover Size S, T, R
ii	Coating OO, 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, C, O
m	No of Extra/Spare Terminals 0, 2, 4, 6, 8, A, B, C, D
-	-
n	Communication Protocol 0, 2, 4, 7, 9, F
n1	Control Board Power E, L, O
o	Regional Certification/ Applicable labelling W
p	Hazardous Feature S, Z
qq	Special Feature OO, 2 Digit Alpha number from register

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

The temperature class, operating ambient temperature and intrinsic safety entity parameters Um, Ui, li, Pi, Ci, Li, Uo, Io, Po, Lo, Co are fully described in the Appendix B to this certificate. Based on Drawings A190372 and A190354.

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

CERTIFICATE NUMBER EMT19ATEX0027X (incorporating variation V1)

16 **Test Report No. (as added for this issue of the certificate):** TRA-055505-33-02A

17 **Specific Conditions of Use**

- (1) Dielectric strength of insulation must be >500 Vac RMS between different cores of internal wiring, between all circuits and the metallic frame, and between separate intrinsically safe circuits
- (2) Only suitable Ex approved IP 54 or greater rated cable glands, thread adapters and blanking plugs are permitted for use with the enclosure when installed in a hazardous environment.
- (3) The equipment shall be cleaned regularly with a damp or antistatic cloth to prevent a build up of dust on the equipment surfaces
- (4) Antistatic hazard with non-metallic parts – the equipment shall only be cleaned with a damp or antistatic cloth



Attention is drawn to the operating and installation instructions which may contain useful information in relation to conditions of use.

18 **Essential Health and Safety Requirements (Directive Annex II)**

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.

19 **Drawings and Documents**

The list of controlled technical documentation is given in Appendix A to this schedule.

20 **Routine Tests**

None.

21 **Specific Conditions for Manufacture**

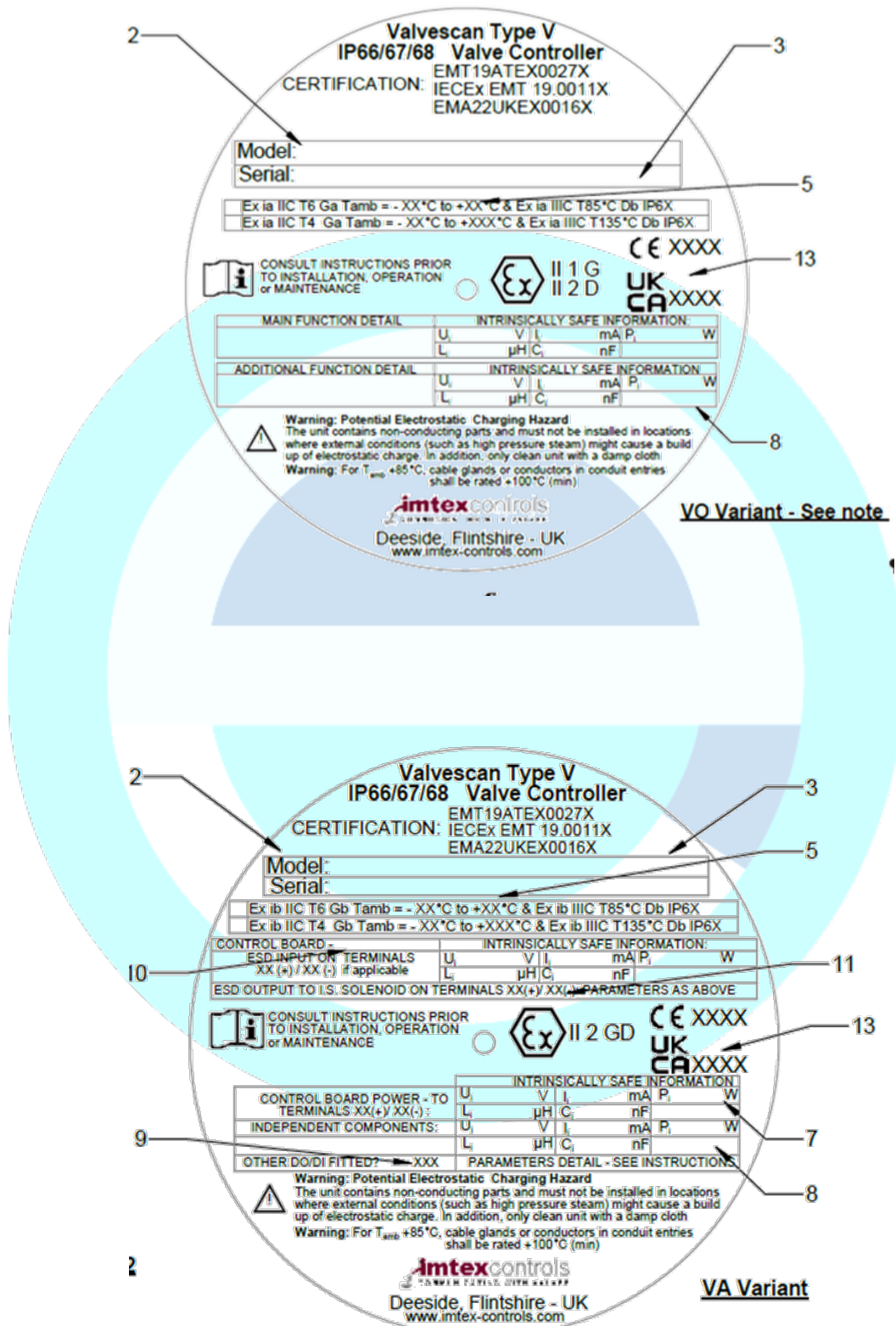
None.

22 **Photographs**



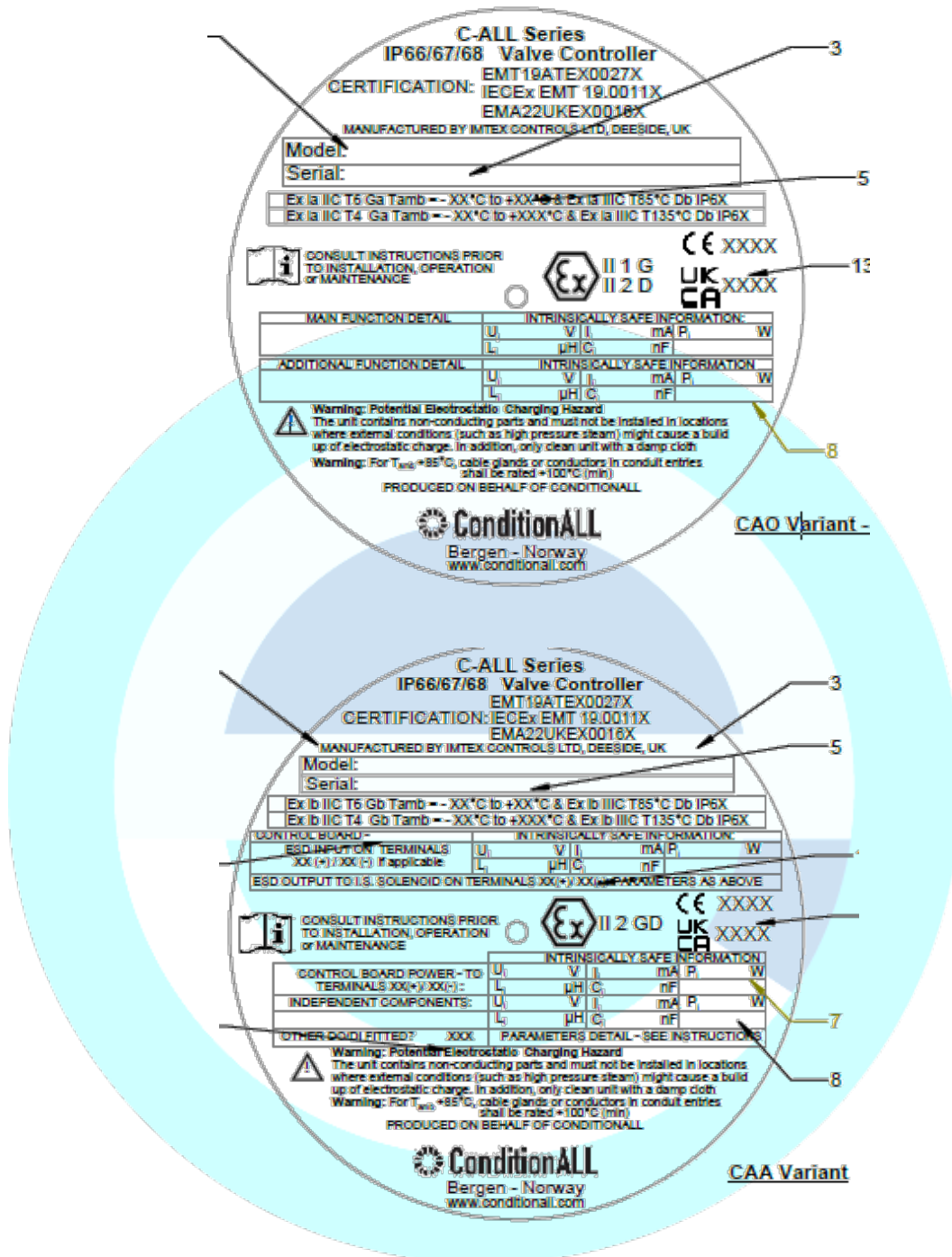
SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE
CERTIFICATE NUMBER EMT19ATEX0027X (incorporating variation V1)

23 Details of Markings



SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

CERTIFICATE NUMBER EMT19ATEX0027X (incorporating variation V1)



24 Certificate History

Original certificate	2022-08-24	First issue.
Original certificate issue 2	2022-08-24	This was issued to include report TRA-047204-33-00B which supersedes TRA-047204-33-00A. The report was issued to make corrections to the Notified Body address on page 1 and changes to the certificate number on page 2. There were no other changes.
Variation V1	2022-09-28	Addition of an alternative part numbering compilation and an alternative variant name CA.

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

CERTIFICATE NUMBER EMT19ATEX0027X (incorporating variation V1)

This certificate is a consolidated certificate and reflects the latest status of the certification, including all variations and amendments.

25 Notes to CE marking

In respect of CE Marking, Element Materials Technology accepts no responsibility for the compliance of the product against all applicable Directives in all applications.

26 Notes to this certificate

Element Materials Technology certification reference: ERO038397P11 (GU-IMTQ-0008).

Throughout this certificate, the date format yyyy-mm-dd (year-month-day) is used.

Notified Body number 2812 is the designation for Element Materials Technology Rotterdam BV.

In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variation certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 2016.

27 Conditions for the validity of this certificate

This certificate remains valid for so long as:

- (i) The equipment listed in section 4 is manufactured in accordance with the documents listed in Appendix A of this certificate.
- (ii) The standards listed in section 9 of this certificate continue to satisfy the Essential Health and Safety Requirements of Annex II of Directive 2014/34/EU and the generally acknowledged state of the art (e.g. as determined by the publishers of those standards).

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

CERTIFICATE NUMBER EMT19ATEX0027X (incorporating variation V1)

APPENDIX A - TECHNICAL DOCUMENTS			
Title:	Drawing No.:	Rev. Level:	Date:
Type V & CA - Master Model Description Exi - Versions Only	A190352-IS	B	2022-06-08
Type V - Exi – Master Model Description	A190352U-IS	A	2022-06-08
TITLE PLATE IECEX/ATEX/UKCA Unit	A160225	I	2022-03-22
Installation, Operating & Maintenance Type V - IECEX/ATEX - I.S. Version (2 sheets)	A190379-V-IOM-003-IS	E	2022-03-22
Type V Controller – General Layout	J100479	D	2019-11-18
VA Assembly w/ 2x NJ2-V3-N (2 sheets)	VAII242SZSR2L3OO	A	2019-11-18
Type VO Controller w/ 4x Reed Switch (2 sheets)	VOOI425SZSR001SW	-	2019-11-18
Control Board Intrinsically Safe Information – Type VA and VO variants (4 sheets)	A190372	E	2022-02-04
Characteristics for Additional Electrical Equipment Integrated Into Type V Enclosure – Ambient Temperature and Intrinsically Safe Reference Document (23 sheets)	A190354	E	2022-08-09
TITLE PLATE IECEX/ATEX/UKCA Unit	A160225-CA	-	2022-06-08
IOM –CA-Exi-ATEX/UKCA	A190379-CA-IOM-003-IS	-	2022-03-22

Note: The symbol “ - ” indicates that this information was not available.

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

CERTIFICATE NUMBER EMT19ATEX0027X (incorporating variation V1)

APPENDIX B - Table of Ambient temperature ranges and Table of entity parameters

Assembly Component/Function	Ambient temperature ranges for Unit (°C)		
	Minimum ambient (°C)	Maximum ambient T6 / T85°C	Maximum ambient T4 / T135°C
Base Exd Enclosure			
Model VO - No Control Board Fitted & No Intrinsically Safe Components Old Nomenclature - Function - Various New Nomenclature - Function - Various	-40	60	85
Non-I.S. Version of Control Board in Exd Enclosure			
Model VA- only control board fitted Old Nomenclature - Function 01 New Nomenclature - Function 00	-40	60	85
Intrinsically Safe Components			
Model VA - only control board fitted Old Nomenclature - Function 01 New Nomenclature - Function 00	-30	60	80
Model VA or VO - with volt-free contact switches (in line with Section 5.7 of 60079-11:2012) Old Nomenclature - Functions 14, 16, 17, 25, 40 New Nomenclature - Functions 14, 16, 17, 25, 30, 40, 73	-40	40	85
Model VA or VO - with proximity sensors (manufacturer: Hans Turck) Old Nomenclature - Functions 42, 43 New Nomenclature - Functions 42, 43, 47	Refer to Component Information in A190354 rev.E		50 70 (selected sensors only - see below)
Model VA or VO - with proximity sensors (manufacturer: Pepperl & Fuchs) Old Nomenclature - Functions 42, 43 New Nomenclature - Functions 42, 43, 45, 46, 48, 49	Refer to Component Information in A190354 rev.E		50 75
Model VA or VO - with transmitter (manufacturer: Zettlex) Old Nomenclature - Function 70 New Nomenclature - Function 70, 71, 70 (with 60 2nd Function)	-40	50	75

SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

CERTIFICATE NUMBER EMT19ATEX0027X (incorporating variation V1)

Model VA or VO - with transmitter (manufacturer: PR Electronics) Old Nomenclature - Function 70 New Nomenclature - Function 72	-40	50	75
Note: for models fitted with more than one Function Device, the T_{amb} would revert to worst case e.g. Combination of VA Model with control board and transmitter fitted, T_{amb} -30 °C to 50 °C for T6.			

Tables of entity parameters

1.0 - VA, CAA variant with only control board fitted

For the Type V enclosure using the Exi variant of the main control board, refer to document A190372 for the Intrinsically Safe parameters that relate to the control board. The equipment will be marked accordingly.

1.1 - VO, CAO variant with no control board fitted.

The VO Variant of the Type V unit which does not contain a Control Board.

It only includes switches, certified sensors or transmitters, refer to document A190354 for the Intrinsically Safe parameters. The equipment will be marked accordingly.

DUAL CERTIFIED COMPONENTS IECEx and ATEX contain

- 1.1.1 Simple Apparatus Components
- 1.1.2 Hans Turck Sensors
- 1.1.3 Pepperl & Fuchs Sensors
- 1.1.4 Zettlex Transmitter