

1 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.: **TRAC11ATEX11268X (incorporating variations V1 to V2)**

4 Product: **Capacitance Level Control - Digimatic DML4AI
(including 4B Braime ATS8V0 and ATS9V0 series)**

5 Manufacturer: **Synatel Instrumentation Limited,**

6 Address: **Walsall Road, Norton Canes, Cannock, Staffordshire, WS11 9TB,
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 0891, 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 **TES-003019-33-00A,
TRA-023059-33-00A & TRA-037529-33-00B.**

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

EN 60079-0:2012/A11:2013

EN 60079-11:2012


EN 60079-31:2014

Except in respect of those requirements listed at section 18 of the schedule.

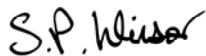
10 If the sign "X" is placed after the certificate number, it indicates that the product is subject to specific conditions of use specified in the schedule to this certificate.

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 1 (1) D Ex ta [ia] IIC T100°C Da Tamb = -20 °C to +50 °C

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, Certification Manager

Issue date: 2018-07-30 (issue 2)

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13 SCHEDULE TO EU - TYPE EXAMINATION CERTIFICATE

14 TRAC11ATEX11268X (incorporating variations V1 to V2)

15 Description of Product

The Digimatic Level Control, model type DML4AI, is a fixed point level controller that calibrates and monitors the capacitance of a sensor probe for detecting the level of material inside a tank or vessel. The equipment is intended for use in combustible non-conductive dust environments using the concepts' of intrinsic safety 'ia' and protection by enclosures 'ta'.

The sensor probe extension is supplied as a flush probe version as well as a standard probe in various lengths to suit customer requirements and is considered not to be a source of ignition.

The construction consists of a 2-part (base, lid) nylon injection moulded enclosure, rated to IP65 achieved by a neoprene rubber gasket fitted under the lid. The lid is secured to the base by means of four M5 Slotted hexagonal headed steel screws which have nitrile 'O' ring retainers fitted.

The enclosure is covered with a nickel loaded coat of paint as an antistatic measure.

Inside the enclosure there is a PCB with the electronic circuit and field wiring terminals. From the base of the enclosure there is an integral externally mounted sensor and from the side of the enclosure there are up to two cable entries by means of an IP6x approved gland.

There is a relay used as an indicator, the contacts are rated at 250Vac and 2.5A, connections are made through the same conduit entry as the mains wiring.

The supply voltage Um is either 24Vdc or 110/230 Vac.

Model Variants

Synatel part #	Braime / 4B part #	Description
DML4AI	ATS8V0nAI	Level probe
DML4AIV	ATS8V0nAIv	Variable length power shield
DML4AIFP	ATS8V0nAIFP	Flush probe
DML4AIUS	ATS9V0NAI	Fitted with NPT mounting and conduit treads
DML4AIVUS	ATS9V0nAIv	Fitted with NPT mounting and conduit treads
DML4AIFPUS	ATS9V0nAIFP	Flush probe
DML4AIS	ATS8V0nAIS	Level probe
DML4AISUS	ATS9V0nAIS	Level probe

where n indicates possible other approvals e.g. N = INMETRO
where v is variable length probe in mm e.g. ATS9V0NAI-300
ATS refers to Autoset range for the US.
DMLA part numbers, US refers to NPT thread,
ATS part number a 9 refers to NPT thread

16 Test report No. (associated with this certificate issue): TRA-037529-33-00A.

CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC11ATEX11268X V2

17 Specific Conditions of Use

1. Cable glands used must be at least IP6x approved.
2. The enclosure shall be inspected for damage to the nickel coating regularly as part of the maintenance schedule.

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, the following are considered relevant to this product, and conformity is demonstrated in the report:

<u>Clause</u>	<u>Subject</u>
None	None

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

1. All material used to manufacture the enclosure body and lid shall be coated as per Note 2 in controlled drawing A3-301253B.
2. Only the transformer as specified in controlled drawing ref. A3-300658C is permitted to be used in the DML4AI.
3. Resistor R7 and the free space to nearest track are to be potted to a minimum depth of 1mm.

22 Photographs



23 Details of Markings

SYNATEL INSTRUMENTATION LTD.		CE 1180 20XX
Norton Canes . Cannock . WS11 9TB . GB		
TRAC11ATEX11268X IECEx TRC 12.0016X		
 II 1 (1) D	Tamb -20°C to +50°C	
Ex ta [ia] IIIC T100°C Da	IP65	

Serial data label




 SYNATEL Instrumentation Ltd. CANNOCK, STAFFORDSHIRE WS11 9TB UK Tel: +44(0)1543 277003 Web: www.synatel.co.uk	SERIES: DML4AI CODE: 822-029X SER No: XXXXX.XXX	Supply Um : 110/230V AC 50/60Hz, 24V DC PROSPECTIVE SHORT CIRCUIT CURRENT: 1600A
	Do not open when energised	Relay Terminals Um : 110/230V AC 50/60Hz, 24V DC Ii : 2.5A

Alternative 4B Braime Elevator Components label part 1

4B BRAIME ELEVATOR COMPONENTS LTD.		CE 1180 20XX
Hunslet Road, Leeds. LS10 1JZ. GB		
TRAC11ATEX11268X IECEx TRC 12.0016X		
 II 1 (1) D	Tamb -20°C to +50°C	
Ex ta [ia] IIIC T100°C Da	IP65	
<i>www.synatel.co.uk</i>		
<i>Manufacturer: Synatel Instrumentation Ltd, Cannock, Staffs, WS11 9TB UK</i>		

SUBSTITUTE X'S AFTER 20 WITH YEAR OF MANUFACTURE

4B Braime Elevator Components label part 2

 BRAIME ELEVATOR COMPONENTS LTD. Hunslet Road, Leeds. LS10 1JZ GB Tel: +44 (0) 113 246 1800 Web: www.go4b.com	Part No:-  ATS8V0XXXXX Ser No:-  MOXXXXX.XXX Code: 882-049X	Supply Um : 110/230V AC 50/60Hz, 24V DC PROSPECTIVE SHORT CIRCUIT CURRENT: 1600A
	Do not open when energised	Relay Terminals Um : 110/230V AC 50/60Hz, 24V DC Ii : 2.5A

SUBSTITUTE X'S IN PART No. WITH FULL PRODUCT PART NUMBER
 SUBSTITUTE X'S IN SERIAL No. WITH MANUFACTURING BATCH NUMBER
 SUBSTITUTE X IN CODE WITH MANUFACTURE ISSUE STATUS

CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC11ATEX11268X V2

Alternative 4B Components label part 1



SUBSTITUTE X's AFTER 20 WITH YEAR OF MANUFACTURE

Alternative 4B Components label part 2



SUBSTITUTE X's IN PART No. WITH FULL PRODUCT PART NUMBER
 SUBSTITUTE X's IN SERIAL No. WITH MANUFACTURING BATCH NUMBER
 SUBSTITUTE X IN CODE WITH MANUFACTURE ISSUE STATUS

24 Details of Variations to this Certificate

This certificate is a consolidated certificate and reflects the latest status of the certification, including the following variations:

- Variation V1 – Update of standards from EN61241-0,-1,-11 to EN60079-0,-11,-31 including IIC and include a variant with NPT thread.
- Variation V2 -- Addition of alternate Labels for 4B Braime Elevator Components Ltd. & 4B Components Ltd.
- Variation V2 issue 2 - Correction of model variants table.

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: TRA-037529-32-02.

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

Notified Body 0891 is the designation for Element Materials Technology Warwick Ltd (formerly known as TRaC Global Ltd).

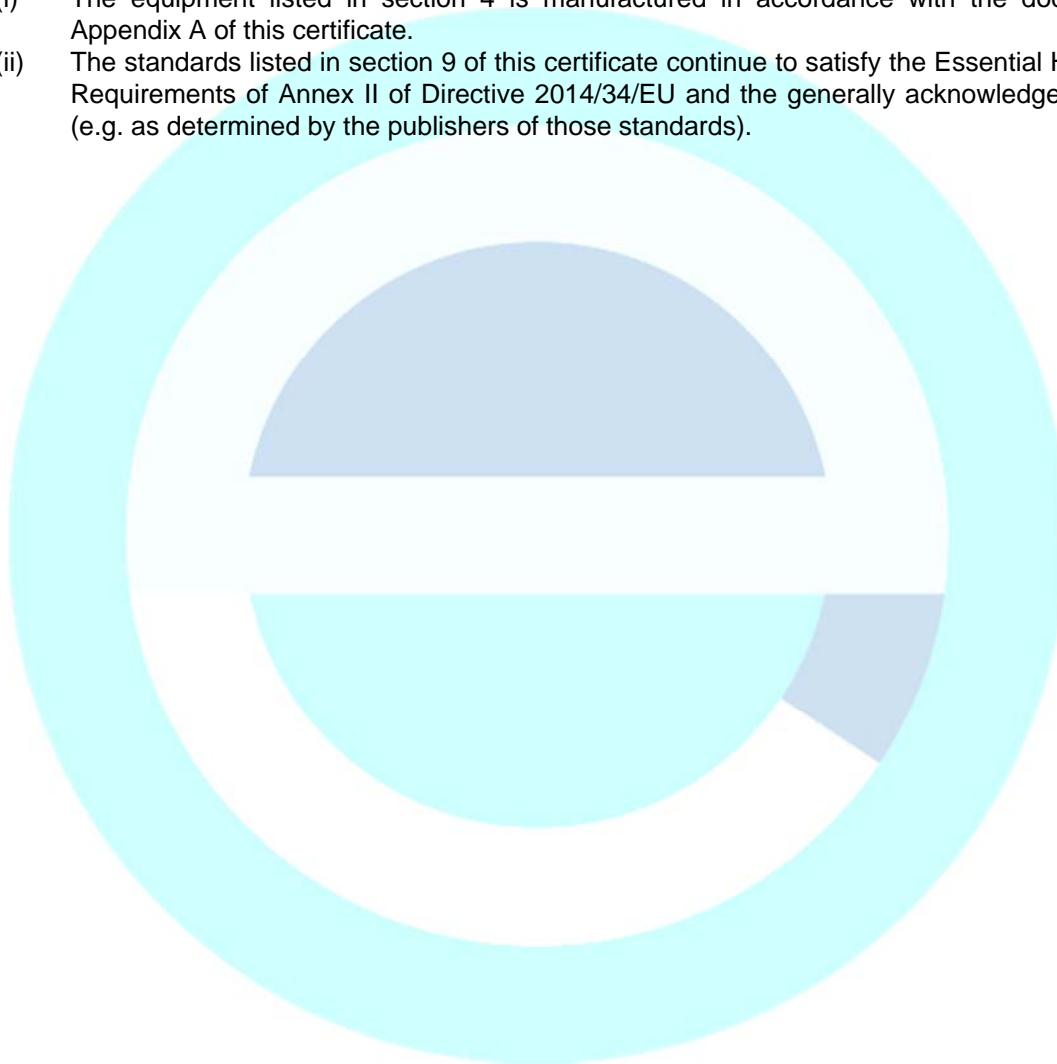
CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC11ATEX11268X V2

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).



CONTINUATION OF SCHEDULE TO CERTIFICATE TRAC11ATEX11268X V2

APPENDIX A - TECHNICAL DOCUMENTS

Title:	Drawing No.:	Rev. Level:	Date:
DML4AI Control Schematic	200739	C	2014-10-12
DML4AI Display Circuit Assembly (schematic)	200744	A	2010-08-12
DML4AI Circuit Assembly (BOM)	M200739	C	2014-10-12
DML4AI Display Circuit Assemble (BOM)	M200744	A	2011-08-17
DML4AI Control PCB	200740	B	2012-01-18
Transformer 466-011	300658	C	2006-03-31
DML4(A) Probe Variants	301255	A	2012-11-21
Autoset Body Mouldings	301249	A	2012-09-25
DML4AI Ident Label	15638	B	2014-10-09
DML4AI Approval Label	15637	C	2014-11-05
DML4AI Manual	M2542	C	*
DML4AI Enclosure Details	301253	B	2014-09-18
DML4AI.US Body Mouldings	301377	B	2014-09-18
ATS8 Approval Label	A4-1578	A	2017-10-18
ATS9 Approval Label	A4-15879	A	2017-10-18
ATS8 Serial Label	A4-15880	A	2017-10-18
ATS9 Serial Label	A4-15881	A	2017-10-18
ATS8 Manual	M2601	B	*
ATS9 Manual	M2602	B	*
DML4 and ATS8/9 Part numbers	A4-200888	A	2018-07-18

* Information not provided