

1

UNITED KINGDOM CONFORMITY ASSESSMENT

## UK TYPE EXAMINATION CERTIFICATE

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

3 Type Examination Certificate No.: **EMA21UKEX0053X**

4 Product: **CD52 Standard bandit 81-XX-0080-XX-X-XXX pig passage detector (or signaler)**  
**CD52 Stainless steel bandit 81-XX-0090-XX-X-XXX pig passage detector (or signaler)**

5 Manufacturer: **Control Devices Incorporated**

6 Address: **1801 N Juniper Ave, Broken Arrow, Oklahoma 74012, United States of America**

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, Approved Body number 0891, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, SI 2016:1107 (as amended), 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 **TRA-054219-33-00A**.

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

**EN IEC 60079-0:2018**

**EN 60079-1:2014**

**EN 60079-18:2015+A1:2017**

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.

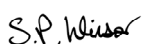
11 This TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall include the following:

 **II 2G Ex d mb IIB T5 Gb**

See section 15 for ambient temperature marking ranges.

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: 2021-12-16

Page 1 of 7

CSF341 4.0

**13 SCHEDULE TO UK TYPE EXAMINATION CERTIFICATE**

**14 CERTIFICATE NUMBER EMA21UKEX0053X**

**15 Description of Product**

The CD 52 standard bandit pig passage detector (or signaler) and CD 52 stainless steel bandit pig passage detector (or signaler) are non-intrusive, pig passage indicators. CD 52 standard bandit pig passage detector (or signaler) and CD 52 stainless steel bandit pig passage detector (or signaler) are comprised of an interconnected flameproof (Ex) Electronics Enclosure, Ex d Conduit Sealing Fitting, Ex d Unions, Ex d Outlet Body (Junction Box) and coupler to the Antenna pipe which is fully encapsulated.

The main electronics assembly is comprised of (Passage Information) LCD display (Display Board) and Low voltage circuitry installed (incorporating 4 PCBs – Heater Thermostat Switch Board, Heater Board, User Board and PC Board), housed in an Adalet (XIHLDG CX) Flameproof enclosure. The device can be supplied by a 24 Vdc power supply (connection supplied through terminal strip mounted in the Ex Outlet Box) or two D-Cell alkaline batteries housed in the Adalet Ex enclosure. Installed in the completely potted Pipe Mounting assembly are two Magnetic Transmitters that emit an electric field or two permanent magnets.

The CD 52 standard bandit pig passage detector (or signaler) has an aluminium alloy antenna base and 2 x 3/4" reducing fitting and the CD52 stainless steel bandit pig passage detector (or signaler) has a stainless steel antenna base and 2 x 3/4" reducing fitting.

The CD 52 standard bandit pig passage detector (or signaler) and the CD 52 stainless steel bandit pig passage detector (or signaler) have two operations 24 VDC, and Battery and each operation has different operation temperature ranges.

**Ratings:**

24 Vdc; 0.029 A (29 mA); 0.70 Watts

24 Vdc; 0.065 A (65 mA); 1.6 Watts - 4-20 mA Output Option

3 V; 0.0009 A (0.9 mA); 0.0027 Watts – DURACELL PC1300

2.4 V; 0.0008 A (0.8 mA); 0.0019 Watts – ANSMANN 5035362

3.6 V; 0.0006 A (0.6 mA); 0.0022 Watts – SAFT LS33600

3.65 V; 0.0005 A (0.5 mA); 0.0018 Watts – SAFT MP176065

**Ambient temperature range:**

Ta = -40 °C to +70 °C (24 Vdc operation)

Ta = -20 °C to +53 °C (Duracell PC 1300 Alkaline battery operation)

Ta = -20 °C to +64 °C (Ansmann 5035362 NiMH battery operation)

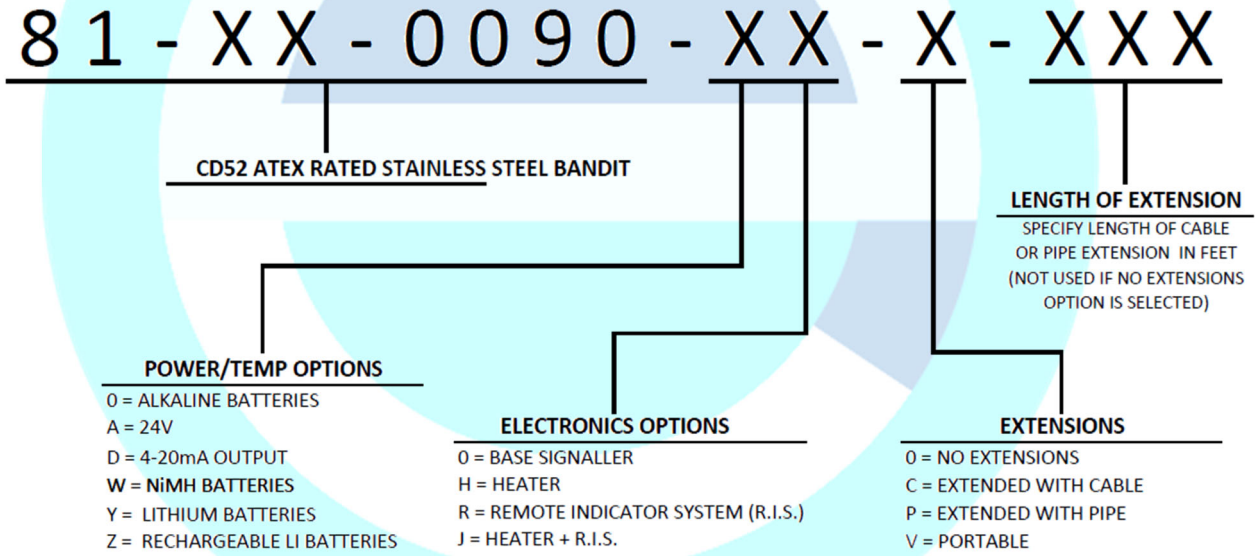
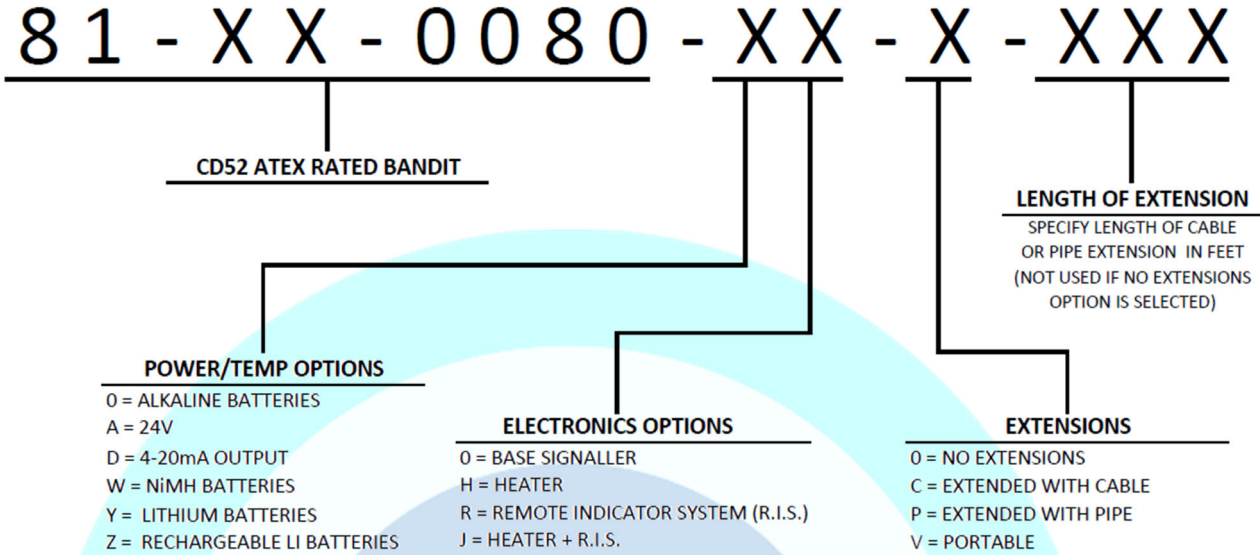
Ta = -40 °C to +70 °C (SAFT LS 33600 LiSOC12 battery operation)

Ta = -40 °C to +70 °C (SAFT MP176065 Li-Ion battery operation)

Only product numbers 81-05-0080 and 81-05-0090 have been assessed. The manufacturer has confirmed there will be no changes to the product, but only cosmetic changes for customer orders (customer name label on display face) which will constitute part number change to 81-XX-0080 or 81-XX-0090.

**SCHEDULE TO UK TYPE EXAMINATION CERTIFICATE**  
**CERTIFICATE NUMBER EMA21UKEX0053X**

The part number description is



**SCHEDULE TO UK TYPE EXAMINATION CERTIFICATE  
CERTIFICATE NUMBER EMA21UKEX0053X**

**16 Test report No. (associated with this certificate issue):** TRA-054219-33-00A.

**17 Specific Conditions of Use**

1. The integral cable between the junction boxes/enclosures shall be effectively clamped to prevent pulling or twisting.



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 (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 test reports.

**19 Drawings and Documents**

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

**20 Routine Tests**

1. Each piece of "m" equipment shall be subjected to a visual inspection. No damage shall be evident, such as cracks in the compound, exposure of the encapsulated parts, flaking, inadmissible shrinkage, swelling, and decomposition, failure of adhesion or softening.
2. The compound in the antenna shall be subject to a dielectric strength test at 500 Vrms for 1 sec between each circuit and all earthed parts.

**21 Specific Conditions for Manufacture**

None.

**22 Photographs**



**SCHEDULE TO UK TYPE EXAMINATION CERTIFICATE  
CERTIFICATE NUMBER EMA21UKEX0053X**

**23 Details of Markings**

TAG #: XXXXXXXXXXXXXXXX  
MFR: CONTROL DEVICES INCORPORATED  
1801 N. JUNIPER AVENUE  
BROKEN ARROW, OK USA 74012  
+1-918-258-6068  
www.pigging.com  
MODEL: CD52 STANDARD BANDIT 81-05-0080  
PIG PASSAGE DETECTOR (SIGNALLER)  
RATING:  
24VDC; 0.029A (29mA); 0.70 Watts - 24VDC  
24VDC; 0.065A (65mA); 1.6 Watts - 4-20mA Output Option  
3V; 0.0009A (0.9mA); 0.0027 Watts - DURACELL PC1300  
2.4V; 0.0008A (0.8mA); 0.0019 Watts - ANSMANN 5035362  
3.6V; 0.0006A (0.6mA); 0.0022 Watts - SAFT LS33600  
3.65V; 0.0005A (0.5mA); 0.0018 Watts - SAFT MP176065  
IP66  
SERIAL #: XXXXXXXXXXXXXXXX  
IECEX CERTIFICATE NUMBER: IECEX EMT 21.0004X  
ATEX CERTIFICATE NUMBER: ERO21ATEX0004X  
UKEX CERTIFICATE NUMBER: EMA21UKEX0053X  
Ex d mb IIB T5 Gb



II2G Ex d mb IIB T5 Gb  
24VDC Ta = -40°C to +70°C  
BATTERY: Ta = -20°C to +53°C (DURACELL PC1300)  
-40°C to +70°C (SAFT LS33600)  
-40°C to +70°C (SAFT MP176065)  
-20°C to +64°C (ANSMANN 5035362)

WARNING: USE ONLY APPROVED BATTERIES.  
WARNING: DON'T MIX OLD WITH NEW BATTERIES.  
WARNING: DO NOT OPEN WHEN ENERGIZED.  
WARNING: EXPLOSION HAZARD - BATTERIES MUST ONLY BE CHANGED IN AN AREA KNOWN TO BE NON-HAZARDOUS.  
WARNING: DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT.

TAG #: XXXXXXXXXXXXXXXX  
MFR: CONTROL DEVICES INCORPORATED  
1801 N. JUNIPER AVENUE  
BROKEN ARROW, OK USA 74012  
+1-918-258-6068  
www.pigging.com  
MODEL: CD52 STAINLESS STEEL BANDIT 81-05-0090  
PIG PASSAGE DETECTOR (SIGNALLER)  
RATING:  
24VDC; 0.029A (29mA); 0.70 Watts - 24VDC  
24VDC; 0.065A (65mA); 1.6 Watts - 4-20mA Output Option  
3V; 0.0009A (0.9mA); 0.0027 Watts - DURACELL PC1300  
2.4V; 0.0008A (0.8mA); 0.0019 Watts - ANSMANN 5035362  
3.6V; 0.0006A (0.6mA); 0.0022 Watts - SAFT LS33600  
3.65V; 0.0005A (0.5mA); 0.0018 Watts - SAFT MP176065  
IP66  
SERIAL #: XXXXXXXXXXXXXXXX  
IECEX CERTIFICATE NUMBER: IECEX EMT 21.0004X  
ATEX CERTIFICATE NUMBER: ERO21ATEX0004X  
UKEX CERTIFICATE NUMBER: EMA21UKEX0053X  
Ex d mb IIB T5 Gb



II2G Ex d mb IIB T5 Gb  
24VDC Ta = -40°C to +70°C  
BATTERY: Ta = -20°C to +53°C (DURACELL PC1300)  
-40°C to +70°C (SAFT LS33600)  
-40°C to +70°C (SAFT MP176065)  
-20°C to +64°C (ANSMANN 5035362)

WARNING: USE ONLY APPROVED BATTERIES.  
WARNING: DON'T MIX OLD WITH NEW BATTERIES.  
WARNING: DO NOT OPEN WHEN ENERGIZED.  
WARNING: EXPLOSION HAZARD - BATTERIES MUST ONLY BE CHANGED IN AN AREA KNOWN TO BE NON-HAZARDOUS.  
WARNING: DO NOT OPEN WHEN AN EXPLOSIVE GAS ATMOSPHERE IS PRESENT.

Cosmetic changes for customer orders (customer name on display face) will constitute part number change to 81-XX-0080 and 81-XX-0090.

**24 Certificate History**

Original certificate      2021-12-16      First issue.

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

**25 Notes to UKCA marking**

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

**26 Notes to this certificate**

Element Materials Technology certification reference: TRA-054219-00 (GU-CDIQ-0002).

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

Approved Body 0891 is the designation for Element Materials Technology Warwick Ltd.

**SCHEDULE TO UK TYPE EXAMINATION CERTIFICATE**  
**CERTIFICATE NUMBER EMA21UKEX0053X**

**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 Schedule 1 of the Regulations SI 2016:1107 (as amended by SI 2019:696) and the generally acknowledged state of the art (e.g., as determined by the publishers of those standards).



**SCHEDULE TO UK TYPE EXAMINATION CERTIFICATE**  
**CERTIFICATE NUMBER EMA21UKEX0053X**

**APPENDIX A - TECHNICAL DOCUMENTS**

<b>Title:</b>	<b>Drawing No.:</b>	<b>Rev. Level:</b>	<b>Date:</b>
Schedule drawing CD52 Standard Bandit (Sheets 1 to 8)	81-05-0080-S	O	2021-11-24
Schedule drawing CD52 Stainless steel Bandit (Sheets 1 to 8)	81-05-0090-S	A	2021-11-24
CD52 Standard Bandit Non-Intrusive Pig Passage Signaler (ATEX-IECEX and UKCA Certification) User Guide (Pages 1 to 52)	89-03-0066-00	-	2021-08-17
CD52 Stainless Steel Bandit Non-Intrusive Pig Passage Signaler (ATEX-IECEX and UKCA Certification) User Guide (Pages 1 to 40)	89-03-0068-00	-	2021-08-17