



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 EMT 21.0004X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2021-12-14

Applicant: **Control Devices Inc**
1801 North Juniper Avenue
Broken Arrow
Oklahoma 74012
United States of America

Equipment: **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)**

Optional accessory:

Type of Protection: **flameproof "Ex d" encapsulation "mb"**

Marking: Ex d mb IIB T5 Gb IP66

Tamb: - 20°C to +53°C (DURACELL 1300)
Tamb: - 40°C to +70°C (SAFT LS33600)
Tamb: - 40°C to +70°C (SAFT MP176065)
Tamb: - 20°C to +64°C (ANSMANN 5035362)
Tamb: - 40°C to +70°C (24Vdc operation)

Approved for issue on behalf of the IECEx
Certification Body:

Stephen Winsor

Position:

Certification Manager

Signature:
(for printed version)

Date:

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
United Kingdom





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Manufacturer: **Control Devices Inc**
1801 North Juniper Avenue
Broken Arrow
Oklahoma 74012
United States of America

Additional
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 60079-0:2011](#) Explosive atmospheres - Part 0: General requirements
Edition:6.0

[IEC 60079-1:2007-04](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:6

[IEC 60079-18:2009](#) Explosive atmospheres Part 18: Equipment protection by encapsulation "m"
Edition:3

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:

[CA/CSA/ExTR13.0045/00](#)
[CA/CSA/ExTR13.0045/03](#)
[GB/EMT/ExTR21.0001/00](#)

[CA/CSA/ExTR13.0045/01](#)
[CA/CSA/ExTR13.0045/04](#)

[CA/CSA/ExTR13.0045/02](#)
[CA/CSA/ExTR13.0045/05](#)

Quality Assessment Report:

[CA/CSA/QAR12.0002/07](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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 (XIHLDGCX) 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 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.

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.

Ratings:

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

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

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

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

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

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

Supply type	Ambient range
External	-40°C to +70°C
Duracell PC1300	-20°C to +53°C
Ansmann 5035362	-20°C to +64°C
SAFT LS33600	-40°C to +70°C
SAFT MP176065	-40°C to +70°C

SPECIFIC CONDITIONS OF USE: YES as shown below:

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

Annex:

[Annex to IECEX EMT 21.0004X.pdf](#)

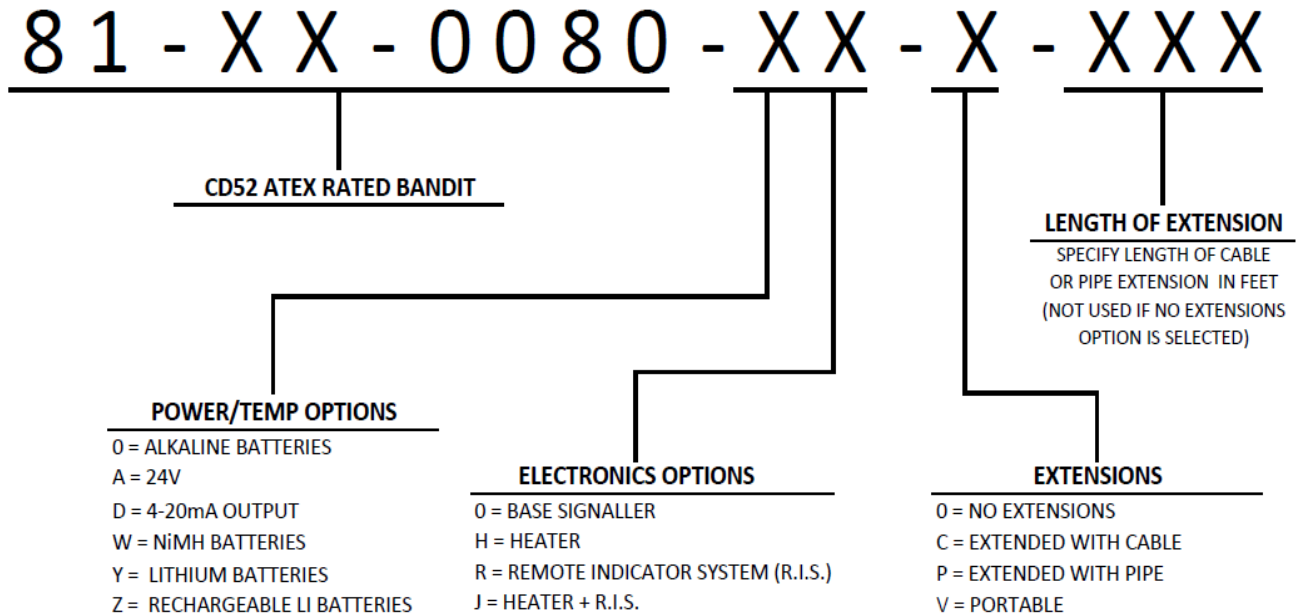


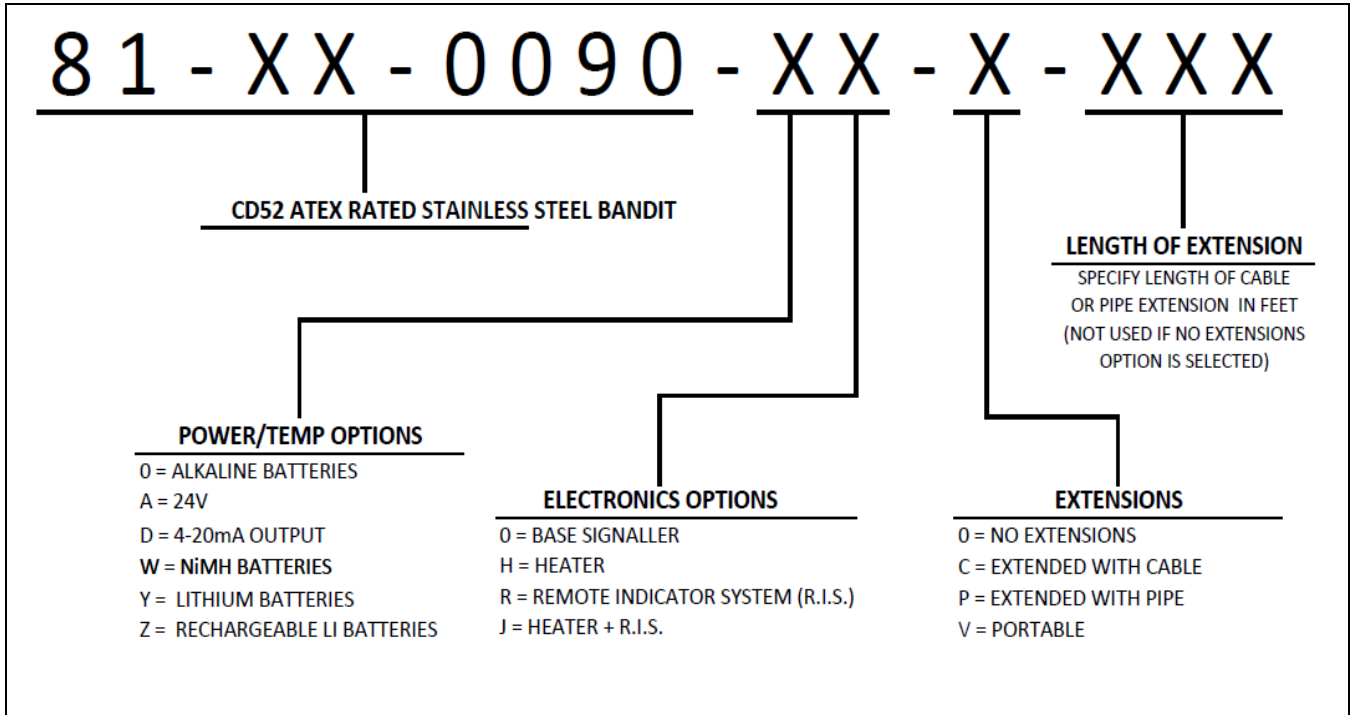
Annex to IECEx Certificate of Conformity

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Temperature ranges	
Ratings	Ambient temperature
24 Vdc; 0.029A (29mA); 0.70 Watts	
24 Vdc; 0.065A (65mA); 1.6 Watts - 4-20mA Output Option	-40°C to +70°C (24 Vdc OPERATION)
3 V; 0.0009A (0.9mA); 0.0027 Watts – DURACELL PC1300	-20°C to +53°C (Duracell 1300 Alkaline battery operation)
2.4 V; 0.0008A (0.8mA); 0.0019 Watts – ANSMANN 5035362	-20°C to +64°C (Ansmann 5035362 NiMH battery operation)
3.6 V; 0.0006A (0.6mA); 0.0022 Watts – SAFT LS33600	-40°C to +70°C (SAFT LS 33600 LiSOC12 battery operation)
3.65 V; 0.0005A (0.5mA); 0.0018 Watts – SAFT MP176065	-40°C to +70°C (SAFT MP176065 Li-Ion battery operation)

The part number description is





“Special conditions for manufacture”

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

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.

Manufacturer's Documents			
Title:	Drawing No.:	Rev. Level:	Date:
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 40)	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

* Denotes information not provided by manufacturer



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