



Assessment Report

Title:

Variation to the Linear Position Transducers (IECEx SIR 11.0048X and Sira 11ATEX1104X)

Applicant:

Balluff Inc.

Report No. (Sira Free Ref. No.):

R70221320A

ExTR No.:

GB/SIR/ExTR19.0259/00

Date and place of issue:

October 2019

Sira Certification, Unit 6, Hawarden Industrial Park, Hawarden, Deeside, CH5 3US, United Kingdom

1 Report Summary

1.1 Certification Overview

This report is to introduce a variation to certificate numbers IECEx SIR 11.0048X and Sira 11ATEX1104X to assess the following modifications:

- i. The recognition of minor drawing modifications. These amendments are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety.

1.2 Applicant's Name & Address

The Applicant name and address are unchanged but reproduced for reference:

Balluff Inc.
8125 Holton Drive,
Florence, KY 41042
USA

1.3 Manufacturer's Name & Address

The Manufacturer name and address are unchanged. See section 1.6 for manufacturer locations.

1.4 Product Name/Model Number

The product name and model number are unchanged but reproduced for reference:

Range of Linear Position Transducers BTL5 and BTL7

1.5 Assessment Standards

The standards are unchanged but are reproduced below for reference.

| IECEX | ATEX |
|------------------------|------------------|
| IEC 60079-0:2011 Ed 6 | EN 60079-0:2012 |
| IEC 60079-1:2014 Ed 7 | EN 60079-1:2014 |
| IEC 60079-31:2013 Ed 2 | EN 60079-31:2014 |
| IEC 60079-26:2014 Ed 3 | EN 60079-26:2015 |

The requirements of the equivalent ATEX and IECEx standards are similar; therefore, any references in the following report can be regarded as referring to either format unless stated otherwise.

This report may be issued against standards that do not appear on the UKAS Scope of Accreditation, but have been added through Sira's flexible scope of accreditation. Sira's flexible scope is available on request.

1.6 Marking

The markings are unchanged but are reproduced below for reference.

| Detail | IECEX | ATEX | |
|--|---|--|--|
| Certificate no.: | IECEX SIR 11.0048X | Sira 11ATEX1104X | |
| Certification code BTL5: | Ex d IIC T6 Ga/Gb Ex t IIIC T85°C Da IP68 T _{amb} -50°C to +65°C Or Ex d IIC T5 Ga/Gb Ex t IIIC T100°C Da IP68 T _{amb} -50°C to +80°C | | |
| Certification code BTL7: | Ex d IIC T6 Ga/Gb Ex t IIIC T85°C Da IP68 T _{amb} -50°C to +70°C Or Ex d IIC T5 Ga/Gb Ex t IIIC T100°C Da IP68 T _{amb} -50°C to +80°C | | |
| Other marking: |  nnnn  II 1/2GD | | |
| | | nnnn=0102 or 0518 | |
| Model number: | MICROPULSE® BTLx Linear Position Transducer | | |
| Manufacturer's name: | Balluff Inc. | Balluff GmbH | Balluff Elektronika Kft |
| Manufacturer's address: | 8125 Holton Drive, Florence, KY 41042 USA | 9 Schurwaldstrasse Neuhausen a.d.F., 73765 Germany | Papai u 55 Vesprem, 8201 Hungary |
| Manufacturing Location identification: | US | DE | HU |
| Serial number: | zzzz | | |
| Year of manufacture: | xx yy | | |
| Warnings: | DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE MAY BE PRESENT USE 90°C RATED CONDUCTORS | | |

1.7 Product Description

The product description is unchanged.

1.8 Manufacturer's Documents

The modifications assessed in this report are detailed in the following drawings.

| Drawing | Sheets | Rev. | Date (Sira stamp) | Title | IECEX | ATEX |
|---------|--------|------|----------------------|---|-------|------|
| 833146 | 1 of 1 | 4 | 23 Sep 2019 | HALTEBUEGEL BTL-J-DEX-TA 'AO' | x | x |
| 833149 | 1 of 1 | 4 | 23 Sep 2019 | ASSY DWG BTL-J-DEXC-TA12-ANA/DIG 'AO' | x | x |
| 834394 | 1 of 1 | 5 | 23 Sep 2019 | Housing BTL-J-TA12 welding dwg 'AO' | x | x |
| 838251 | 1 of 1 | 4 | 23 Sep 2019 | ASSY DWG BTL-J-DEXC-TA12-BUS 'AO' | x | x |
| 899014 | 1 of 1 | 2 | 23 Sep 2019 | BTL END-PLUG-EXP-PROOF 'AO' | x | x |
| 899015 | 1 of 1 | 3 | 23 Sep 2019 | BTL WAVEGUIDE-TUBE-EXP 'AO' | x | x |
| 922528 | 1 of 1 | 2 | 23 Sep 2019 | Screw, M6 X 20 MOD 'AO' | x | x |
| 922550 | 1 of 1 | 2 | 23 Sep 2019 | O-Ring, 56.87 X 1.78 FKM/FPM 72 BK 'AO' | x | x |
| 922594 | 1 of 1 | 2 | 23 Sep 2019 | HALTEPLATTE BTL J-DEX-TA 'AO' | x | x |
| 922601 | 1 of 1 | 3 | 23 Sep 2019 | ZYLSHR M4x10-A4-70 AEHNL. DIN912 'AO' | x | x |
| 922613 | 1 of 1 | 2 | 23 Sep 2019 | DECKEL BTL-J-DEXC-TA ANA/DIG 'AO' | x | x |
| 922614 | 1 of 1 | 2 | 23 Sep 2019 | DECKEL BTL-J-DEXC-TA BUS 'AO' | x | x |
| 922681 | 1 of 1 | 2 | 23 Sep 2019 | FLANSCH BTL-J-TA12 'AO' | x | x |
| 922742 | 1 to 2 | 2 | 23 Sep 2019 | NAMEPLATE BTL-J-TA12 'AO' | x | x |
| 924216 | 1 to 2 | 2 | 23 Sep 2019 | NAMEPLATE BTL-J-KXX 'AO' | x | x |

1.9 Specific Conditions of Use

There are no changes to the conditions

1.10 Conditions Of Manufacture

There are no changes to the conditions

1.11 Conclusion

The modifications assessed in this report allow the equipment to maintain compliance with the listed standards, the certification code being unchanged.

1.12 Signatories

Compiled by + signature (ExTL): Marius Manastireanu
Certifier III

*Marius
Manastireanu
A Redeker*

Complied by + signature (ExTL): Andrew Redeker
(IEC/EN 60079-26) Certification Specialist

[Signature]

Reviewed by + signature (ExTL): Bryn Spencer
(IEC/EN 60079-0, -1, -31 only) Certification Specialist

Approved by + signature (ExCB): Neil Jones
Certification Manager

N. Jones

2 Relevant Clauses Affected by the Modifications

None of the applicable standard clauses have been affected by these modifications.

3 Assessment of Modifications

| Document | Assessment |
|----------|---|
| 833146 | Updated from Rev 3 to 4 – Updated document approval block to include the ATEX, SIRA, CSA file numbers. Updated the Approved Document note verbiage from the "responsible person of the Business Unit" to the "approval appointee". |
| 833149 | Updated from Rev 3 to 4 – Updated document approval block to include the ATEX, SIRA, CSA file numbers. Updated the Approved Document note verbiage from the "responsible person of the Business Unit" to the "approval appointee". |
| 834394 | Updated from Rev 3 to 5 – Update document, clerical error CSA: 2411253 |
| 838251 | Updated from Rev 3 to 4 – Updated document approval block to include the ATEX, SIRA, CSA file numbers. Updated the Approved Document note verbiage from the "responsible person of the Business Unit" to the "approval appointee". |
| 899014 | Updated from Rev 1 to 2 - Added asterisk (*) to safety / functional critical dimensions |
| 899015 | Updated from Rev 1 to 3 – Update document, clerical error CSA: 2411253 |
| 922528 | Updated from Rev 1 to 2 - Added asterisk (*) to safety / functional critical dimensions |
| 922550 | Updated from Rev 1 to 2 – Updated document approval block to include the ATEX, SIRA, CSA file numbers. Updated the Approved Document note verbiage from the "responsible person of the Business Unit" to the "approval appointee". |
| 922594 | Updated from Rev 1 to 2 – Updated document approval block to include the ATEX, SIRA, CSA file numbers. Updated the Approved Document note verbiage from the "responsible person of the Business Unit" to the "approval appointee". |
| 922601 | Updated from Rev 1 to 3 – Update document, clerical error CSA: 2411253 |
| 922613 | Updated from Rev 1 to 2 - Added asterisk (*) to safety / functional critical dimensions |
| 922614 | Updated from Rev 1 to 2 - Added asterisk (*) to safety / functional critical dimensions |
| 922681 | Updated from Rev 1 to 2 - Added asterisk (*) to safety / functional critical dimensions Corrected DWG dimension errors. Added tolerances to critical and non-critical machining dimensions. Added missing dimensions. No changes made to flame-paths. Machining changes do not affect the protection method. |
| 922742 | Updated from Rev 1 to 2 – Updated document title block, Added the ATEX,SIRA,CSA, SIRA,CSA numbers above the Balluff Logo. Updated the Approved Document note verbiage from the "responsible person of the Business Unit" to the "approval appointee". |
| 924216 | Updated from Rev 1 to 2 – Updated document title block, Added the ATEX,SIRA,CSA numbers above the Balluff Logo. Updated the Approved Document note verbiage from the "responsible person of the Business Unit" to the "approval appointee". |
| | |

The modifications listed in section 1.1 have been reviewed against the requirements of IEC 60079-26:2014 Ed 3 and EN 60079-26:2015 and there are no clauses of these standards affected by the modifications.

4 Tests

No testing applicable.

5 Assessment Against the ATEX Directive 2014/34/EU

All relevant Essential Health and Safety Requirements (EHSRs) in Annex II of the Directive are addressed by the listed standards.

6 IECEx Checklists

6.1 IECEx TEST REPORT COVER

|   | | IECEX TEST REPORT COVER |
|--|--|-------------------------|
| ExTR Reference Number | See page 1 | |
| ExTR Free Reference Number | See page 1 | |
| Compiled by + signature (ExTL) | Refer to Report Summary | |
| Reviewed by + signature (ExTL) | Refer to Report Summary | |
| Approved by + signature (ExCB) | Refer to Report Summary | |
| Date of issue | See page 1 | |
| Ex Testing Laboratory (ExTL) | CSA Group Testing UK | |
| Address | Unit 6, Hawarden Industrial Park, Hawarden, Deeside, CH5 3US, United Kingdom | |
| Ex Certification Body (ExCB) | Sira Certification Service | |
| Address | Unit 6, Hawarden Industrial Park, Hawarden, Deeside, CH5 3US, United Kingdom | |
| Applicant's name | Refer to Report Summary | |
| Address | Refer to Report Summary | |
| Standards associated with this ExTR package | Refer to Report Summary | |
| Clauses considered | All clauses considered | |
| Test procedure | IECEX System | |
| Test Report Form Number | ExTR Cover_7 (released 2018-02) | |
| Test item description | Refer to Report Summary | |
| Model/type reference | Refer to Report Summary | |
| Code (e.g. Ex __ II__ T__) | Refer to Report Summary | |
| Rating | Refer to Report Summary | |
| All testing fully performed by ExTL staff at ExTL address above: | Refer to Section 2 | |
| <p><i>Instructions for Intended Use of ExTR Cover:</i> An ExTR Cover is the sole top-level document to associate together all other parts of an IECEx Test Report (ExTR) package. An ExTR package is comprised of an ExTR Cover and one or more associated ExTR documents (which may include Ex Test Reports, ExTR Addendums and ExTR of National Differences). All ExTR package documents are compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the overall ExTR package on this ExTR Cover.</p> | | |
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| | |
|--|-------------------------|
| Manufacturer's name | Refer to Report Summary |
| Address..... | Refer to Report Summary |
| Trademark..... | Refer to Report Summary |
| Particulars: Test item vs. Test requirements | |
| Classification of installation and use..... | Refer to Report Summary |
| Ingress protection | Refer to Report Summary |
| Rated ambient temperature range (°C)..... | Refer to Report Summary |
| Rated service temperature range (°C) for Ex Components.... | Refer to Report Summary |
| General remarks: | |
| The test results presented in this ExTR package relate only to the item or product tested. | |
| § "(see Attachment #)" refers to additional information appended to the ExTR package. | |
| § "(see appended table)" refers to a table appended to the ExTR package. | |
| § Throughout this ExTR package, a point is used as the decimal separator. | |
| § <i>Where the term "N/A" appears in any part of an ExTR package, it indicates that the associated issue was considered "Not applicable" to the involved evaluation.</i> | |
| § <i>In accordance with IECEx 02, a Receiving ExCB may request a sample of the Ex equipment and copies of the documentation referred to in an ExTR Cover.</i> | |
| The technical content of this ExTR package shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL. | |
| Copy of Marking Plate: | |
| Refer to Report Summary | |
| General product information: | |
| Refer to Report Summary | |
| Details of change (applicable only when revising an existing ExTR package): | |
| Refer to Report Summary | |
| In accordance with OD 024, testing not fully performed by ExTL staff at the above ExTL address: | |
| Refer to Section 2 | |
| National differences considered as part of this evaluation, if any: | |
| Assessment of National differences is recorded in a separate report. | |
| "Specific Conditions of Use" for Ex Equipment or "Schedule of Limitations" for Ex Components, if any: | |
| Refer to Report Summary | |
| Routine tests, if any: | |
| Refer to Report Summary | |
| Manufacturer's Documents | |
| Refer to Report Summary | |

6.2 IECEx Test Report Addendum

|   | | IECEX TEST REPORT ADDENDUM |
|---|--|----------------------------|
| ExTR Reference Number | See page 1 | |
| ExTR Free Reference Number | See page 1 | |
| Compiled by + signature (ExTL) | Refer to Report Summary | |
| Reviewed by + signature (ExTL) | Refer to Report Summary | |
| Date of issue | Refer to Report Summary | |
| Ex Testing Laboratory (ExTL) | CSA Group Testing UK | |
| Address | Unit 6, Hawarden Industrial Park, Hawarden, Deeside, CH5 3US, United Kingdom | |
| Applicant's name | Refer to Report Summary | |
| Address | Refer to Report Summary | |
| Standards | Refer to Report Summary | |
| Test procedure | IECEX System | |
| Test Report Form Number | ExTR Addendum_3 (released 2018-02) | |
| <p><i>Instructions for Intended Use of ExTR Addendum:</i> An ExTR Addendum is to supplement a previously issued ExTR package. Only those clauses applicable to the supplemental issue being addressed are to be tabulated and remarked upon as part of this document. An ExTR of National Differences may also supplement this document. An ExTR Addendum is to be compiled and reviewed by the ExTL. The Issuing ExCB indicates final approval of the ExTR Addendum as part of the overall ExTR package on the associated ExTR Cover.</p> | | |
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| <p>Possible test case verdicts:</p> <ul style="list-style-type: none"> - test case does not apply to the test item: N/A - test item does meet the requirement: Pass | | |
| <p>General remarks:</p> <p>The test results presented in this ExTR Addendum relate only to the item or product tested, and are only valid when considered together with the related Ex Test Report that was previously issued, along with any previously issued ExTR Addendums for the same item or product.</p> <p>Only clauses and manufacturer's documents impacted by this document are detailed.</p> <ul style="list-style-type: none"> § "(see Attachment #)" refers to additional information appended to this document. § "(see appended table)" refers to a table appended to this document. § Throughout this document, a point is used as the decimal separator. <p>The technical content of this ExTR Addendum shall not be reproduced except in full without the written approval of the Issuing ExCB and ExTL.</p> | | |