



# Certificate of Compliance

**Certificate:** 2411253 **Master Contract:** 252588  
**Project:** 80194199 **Date Issued:** 01/30/2024  
**Issued to:** **Balluff Incorporated**  
8125 Holton Dr  
Florence, Kentucky 41042  
United States  
**Attention:** Michael Hyde

*The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.*



**Issued by:** *Jared Gillespie*  
Jared Gillespie

## PRODUCTS

C225802 PROCESS CONTROL EQUIPMENT - For Hazardous Locations

C225882 PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards

Class I, Division 1, Groups ABCD; Class II, Division 1, Groups EFG; Class III; Enclosure Type 4X/6P; Class I, Zone 1, AEx db IIC T\* Ga/Gb; Class II, Zone 20, AEx ta IIIC T\* Da; Ex db IIC T\* Gb; Ex ta IIIC T\* Da; IP68

### **Linear Position Transducers**

BTL5 series

Model(s)	Input Voltage (VDC)	Input Power (W)	Max. Working Pressure (Mpa)	Ambient Temp. Range (°C)
BTL5 Series	10-30 VDC	3 W	60 MPa	-50°C to +65°C (T6 & T85°C) or -50°C to +80°C (T5 & T100°C)

BTL7 series



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Model(s)	Input Voltage (VDC)	Input Power (W)	Max. Working Pressure (Mpa)	Ambient Temp. Range (°C)
BTL7 Series	10-30 VDC	5 W	60 MPa	-50°C to +70°C (T6 & T85°C) or -50°C to +80°C (T5 & T100°C)

BTLx-**aci**-Mm-J-DEXC-\* -TA12-no  
 BTLx-**bcd**-Mm-J-DEXC- \*-TA12  
 BTLx-**Qc**fg-Mm-J-DEXC- \*-TA12  
 BTLx-**Sch**-Mm-J-DEXC- \*-TA12  
 BTLx-**Tcj**0-Mm-J-DEXC- \*-TA12  
 BTLx-**Hckl**-Mm-J-DEXC- \*-TA12  
 BTL7-**Vcqr**-Mm-J-DEXC-\* -TA12

**x = 5 or 7**

**Q** = Quadrature output

**S** = SSI output

**T** = Profibus DP output

**H** = CANopen output

**V** = EtherCAT output

**a** = Digital pulse output: I, K, L, M, N, P or R.

**b** = Analog output: A, B, C, E or G.

**c** = Supply voltage: 1 or 5.

**d** = Analog output signal characteristic: 0, 1 or 7.

**e** = Quadrature output signal frequency: 0, 1, 2 or 6.

**f** = Quadrature output resolution: 0, 1, 2, 3, 5, 6, 7 or 8.

**g** = Quadrature output mode/update rate: 0, 1, 2 or 4.

**h** = SSI output signal type, resolution and mode: Any alpha/numeric code (up to 3 digits) not effecting the Explosionproof protection method)

**i** = BTL7 P/M Interface without DPI/IP interface: 10. BTL7 P/M Interface with DPI/IP interface: 11. Blank for BTL5.

**j** = Profibus output software configuration: 1, 2 or 3.

**k** = CANbus output software configuration: 1, 2 or 3.

**l** = CANbus output baud rate: 0, 1, 2, 3, 4, 5, 6, 7 or 8.

**m** = Stroke length in millimeters (Maximums: BTL5 = 5080 & BTL7 = 7620)

**n** = Interrogation method (if a = "R", otherwise blank): E or I.

**o** = Recirculation count (if a = "R", otherwise blank): 1 to 16.

**q** = Number of magnets or address setting (Any alpha/numeric code not effecting the Explosionproof protection method)

**r** = Protocol type (Any alpha/numeric code not effecting the Explosionproof protection method)

\* = S or M = Special electrical or internal mechanical modifications not affecting scheduled drawings or the Explosion-proof/Flame-proof Protection methods and not exceeding 3W for the BTL5 and 5W for the BTL7. (may also be left blank)

**Conditions of Use:**

- Type 6P and IP68 ratings include a submersion rating of 167ft (51m) for 48 hours.

**APPLICABLE REQUIREMENTS**



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CSA C22.2 No. 142-M1987 (Third Edition)(R2014) - Process Control Equipment - Third Edition; General Instruction No. 1: May 1987; No. 2: June 1987; No. 3: June 1988; No. 4: February 1989; No. 5: September 1990

ANSI/UL 60079-1 (Seventh Edition) - ANSI/UL 60079-1 (Seventh Edition) - Explosive Atmospheres – Part 1: Equipment Protection by Flameproof Enclosures "d"

CAN/CSA C22.2 NO. 60079-0:19 - CAN/CSA C22.2 NO. 60079-0:19 - Explosive atmospheres — Part 0: Equipment — General requirements

CAN/CSA-C22.2 No 60079-31:15(Second Edition)(R2020) - Explosive atmospheres — Part 31: Equipment dust ignition protection by enclosure "t" - Second Edition

FM 3600:2022 - Electrical Equipment for Use in Hazardous (Classified) Locations - General Requirements

CAN/CSA C22.2 No. 60079-1:16 (Third Edition) (R2021) - Explosive atmospheres — Part 1: Equipment protection by flameproof enclosures "d"

CSA C22.2 No. 94.2:20 (Third Edition) - Enclosures for electrical equipment, environmental considerations

ANSI/UL 60079-0-2020 (Seventh Edition) - Explosive Atmospheres - Part 0: Equipment - General Requirements

FM 3810:2005 - Electrical Equipment for Measurement, Control and Laboratory Use

CSA C22.2 No. 25-17 (Fourth Edition) - Enclosures for use in Class II, Division 1, Groups E, F, and G hazardous locations

UL 50E (Third Edition) - UL Standard for Safety Enclosures for Electrical Equipment, Environmental Considerations

CSA C22.2 No. 30-20 (Fourth edition) - Explosion-proof equipment

FM 3615 : 2022 - Explosionproof Electrical Equipment – General Requirements

ANSI/UL 60079-31:2015 (Second Edition) - Explosive Atmospheres - Part 31: Equipment Dust Ignition Protection by Enclosure 't'



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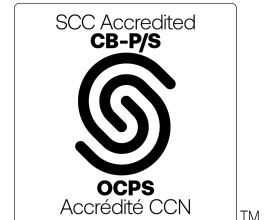
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Notes:

Products certified under Class C225802 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). [www.scc.ca](http://www.scc.ca)





## *Supplement to Certificate of Compliance*

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*The products listed, including the latest revision described below,  
are eligible to be marked in accordance with the referenced Certificate.*

### **Product Certification History**

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<b>Project</b>	<b>Date</b>	<b>Description</b>
80194199	January 30, 2024	FIR follow-up, update of Certificate 2411253 to address issues noted in FC# 252682, FIR dated Oct. 12, 2023. Update includes revising typo for Metals grades, European equivalents "1.4305" to "1.4429" as per drawings and updating report to current edition of applicable HazLoc standards to update Method of Protection marking to "db" and "ta".
80101818	January 27, 2023	Update to report 2411253 with reformatted drawings. Add new cover to base O-Ring material and update to current edition of CSA C22.2 No. 25-17 per Hazardous Locations Notice No. 35 – RefNo. N21-066.
70221319	September 26, 2019	Update to report 2411253 to include minor revisions and typographical changes to existing drawings.
70099158	November 23, 2016	Update to report 2411253 to include minor revisions and typographical changes to existing drawings. Delisting of Factory Location, Balluff GmbH Neuhausen Germany, ID#459068
70025514	October 09, 2015	Update to report 2411253 to include lower ambient temperature of -50C, alternate housing cover materials Nitronics 60 and SS316L, new model BTL7, alternate o-ring material, and update markings to include French translations.
2641874	October 23, 2013	Update to report 2411253 with lower ambient ranges: -40°C to +65°C for temperature code T6, respectively -40°C to +80°C for temperature code T5
2411253	June 16, 2011	Original Certification - BTL5 Series Linear Position Transducer For Use in Hazardous Locations