



1. EC-TYPE EXAMINATION CERTIFICATE

2. Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3. EC-Type Examination Certificate Number: **ITS11ATEX47255/1**

4. Equipment or Protective System: **4 and 5 Digit Field Mounting Indicators and Rate Totalisers**

5. Manufacturer: **BEKA ASSOCIATES LIMITED**

6. Address: **Hitchin, Herts, SG5 2DA**

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Intertek Testing and Certification Limited, notified body number 0359 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Intertek Report G102060853LHD-001.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0:2012, EN 60079-11:2012, EN 60079-15:2010 and EN 60079-31:2014 except in respect of those requirements referred to at item 16 of the Schedule.

10. If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11. This EC Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12. The marking of the equipment or protective system shall include the following:-

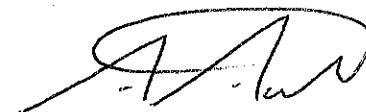


II 3 G Ex nA ic IIC T5 Gc



II 3 D Ex tc IIC T80°C Dc IP66

-40°C ≤ Ta ≤ +70°C



A T Austin
Certification Officer
Date: 16th July 2015

Intertek Testing & Certification Limited
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB
Tel: +44 (0)1372 370900 Fax: +44 (0)1372 370977
<http://www.intertek.com>

Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

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SCHEDULE

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13. Description of Equipment or Protective System

The 4 and 5 Digit Field Mounting Indicators and Rate Totaliser are field mounted loop powered equipment designed to display a measured variable in meaningful engineering units within the hazardous area. The zero and span of the display are independently adjustable allowing the instruments to be calibrated to display a linear variable represented by the 4/20 mA signal.

A root extractor and an adjustable sixteen segment lineariser enable the indicator to display flow and non-linear variables such as tank level in engineering units.

The 4 and 5 Digit Field Mounting Indicators and Rate Totaliser may be one of the following;

BA304NE 4 Digit Indicator

BA324NE 5 Digit Indicator

BA354NE Rate Totaliser

The 4 and 5 Digit Field Mounting Indicators and Rate Totaliser may optionally incorporate Alarm circuit on the main display board and may additionally be fitted with an optional Backlight board.

The 4 and 5 Digit Field Mounting Indicators and Rate Totaliser comprise a field terminal board, a main display board, a display module and an optional Backlight board, all housed within a plastic, glass reinforced polyester, enclosure. The enclosure provides a degree of protection of at least IP66.

The maximum input parameters are:

TB1 4/20 mA Loop Input – Terminals 1 & 3:

$I_i = 100 \text{ mA}$

TB2 Backlight – Terminals 12 & 13 (4/20 mA loop powered):

$I_i = 100 \text{ mA}$ (connected in series with TB1 terminals 1 & 3)

TB2 Backlight – Terminals 12 & 14 (Separately powered):

$U_i = 30 \text{ V}$

TB3 Rate Totaliser – Terminals RS1 & RS2

$U_i = 4.3 \text{ V}$

TB4 Alarms – each channel – Terminals 8 & 9; 10 & 11

$U_i = 30 \text{ V}$

$I_i = 200 \text{ mA}$

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VARIATION 1

Description of the Variation to the Equipment or Protective System.
To permit the following change: -

- Addition of three new models
BA304NG – field mounted, 4 digit, loop powered indicator,
BA324NG – field mounted, 5 digit, loop powered indicator,
BA354NG – field mounted, loop powered rate totaliser.
- Update to the latest versions of the standards:
EN 60079-0:2009 to EN 60079-0:2012,
EN 60079-11:2007 to EN 60079-11:2012,
EN 60079-31:2009 to EN 60079-31:2014,
EN 60079-15:2010 remains the same.
- Consideration of a new enclosure type, the 'G' field enclosure covered under component certificate no. ITS14ATEX18140U.
- Update to drawing no. CI300-66 from issue 1, dated 11/10/2010 to issue 2, dated 30/06/2015 to cover the above changes.

14. Report Number:

Intertek Report Ref: G102060853LHD-001 Issue: 1 Dated: July 2015

15. CONDITIONS OF CERTIFICATION:

(a). Special Conditions for safe use

- There are no special conditions for safe use.

(b). Conditions For Use (Routine Tests)

- A dielectric strength test shall be carried out at 500 V r.m.s. for 60 s. Alternatively, the test shall be carried out at 1.2 times the test voltage (600 V), but shall be maintained for at least 100 ms

16. Essential Health and Safety Requirements (EHSR's)

The relevant EHSR's have been identified and assessed in Intertek Report Ref: G102060853LHD-001 Issue: 1 Dated: July 2015

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17. Drawings and Documents

Number	Title	Issue	Date
CI300-61, sheets 1*, 3* - 15*, 18* - 20* & 28*	Certification Information for BA304E, BA324E Digital Indicators & BA354E Rate Totaliser	1	Oct, '10
CI300-66, sheets 1 to 4	Certification Information for BA304NE, BA324NE Digital Indicators & BA354NE Rate Totaliser	2	30/06/2015

Drawings marked * are common to and held with Certificate No ITS11ATEX27253.

This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.

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