



Intertek



1. **TYPE EXAMINATION CERTIFICATE**

2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**

3. Type Examination Certificate Number: **ITS11ATEX47255**

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

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 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 94/9/EC of 23 March 1994


The examination and test results are recorded in confidential Report Ref 10048732 Issue 1, dated May 2011.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0:2009, EN 60079-11:2007, EN 60079-15:2010 and EN 60079-31:2009 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 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 GD, Ex nA ic IIC T5 Gc, - 40°C ≤ Ta ≤ + 70°C
Ex tc IIIC T80°C Dc IP66, - 40°C ≤ Ta ≤ + 70°C

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A T Austin
Certification Officer
Date: 27 May 2011

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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

$U_i = 30 \text{ V}$

$I_i = 200 \text{ mA}$

14. Report NUMBER

Intertek Report Ref 10048732 Issue 1, dated May 2011.

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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 300-66, Safety Requirements (EhsR's)

The relevant EHSR's that have not been addressed by the standards listed in this certificate have been identified and assessed in Intertek Report Ref 10048732, dated May 2011.

17. **DRAWINGS**

Number	Issue	Date	Description
CI300-61, sheets 1*, 3* -15*, 18* - 20* & 28*	1	Oct., '10	Certification Information for BA304E, BA324E Digital Indicators & BA354E Rate Totaliser
CI300-66, sheets 1 to 3	1	11/10/2010	Certification Information for BA304NE, BA324NE Digital Indicators & BA354NE Rate Totaliser

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

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