

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:

**IECEX ITS 11.0016** 

Issue No: ↑

Certificate history:

Issue No. 1 (2015-07-31)

Status:

Current

Page 1 of 5

Issue No. 0 (2011-05-27)

Date of Issue:

2015-07-31

Applicant:

**BEKA associated Limited** 

Old Charlton Road

Hitchin Herts SG5 2DA **United Kingdom** 

Electrical Apparatus:

4 and 5 Digit Field Mounting Indicators and Rate Totaliser

Optional accessory:

Type of Protection:

Ex nA, Ex lc, Ex tc

Marking:

IECEX ITS 11.0016 Ex nA ic IIC T5 Gc -40°C < Ta < +70°C Ex tc IIIC T80°C Dc IP66 -40°C < Ta < +70°C

Approved for issue on behalf of the IECEx

Certification Body:

A T Austin

Position:

Signature:

(for printed version)

Date:

Certification Officer

2015-07-31

- 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 the Official IECEx Website.

Certificate issued by:

Intertek Testing & Certification Limited
ITS House, Cleeve Road,
. Leatherhead,
Surrey, KT22 7SB
United Kingdom







Certificate No:

IECEx ITS 11.0016

Issue No: 1

Date of Issue:

2015-07-31

Page 2 of 5

Manufacturer:

**BEKA associates Limited** 

Old Charlton Road

Hitchin Herts SG5 2DA United Kingdom

Additional Manufacturing location(s):

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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 electrical apparatus 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 60079-11:2011

Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "I"

Edition:6,0

IEC 60079-15: 2010

Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

Edition:4

IEC 60079-31:2013

Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

This Certificate does not indicate compliance with electrical 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 Report:

GB/ITS/ExTR11.0018/00

GB/ITS/ExTR11.0018/01

Quality Assessment Report:

GB/ITS/QAR06.0002/04



Certificate No:

IECEx ITS 11,0016

Issue No: 1

Date of Issue:

2015-07-31

Page 3 of 5

Schedule

### EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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 indicator 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 / BA304NG 4 Digit Indicator

BA324NE / BA324NG 5 Digit Indicator

BA354NE / BA354NG Rate Totaliser

The 4 and 5 Digit Field Mounting Indicator 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, and an optional Backlight board, all housed within a plastic, glass reinforced polyester, enclosure. The enclosure provides a degree of protection IP66 (Gas/Dust).

CONDITIONS OF CERTIFICATION: NO





Certificate No:

IECEX ITS 11,0016

Issue No: 1

Date of Issue:

2015-07-31

Page 4 of 5

EQUIPMENT (continued):

The maximum input parameters are:

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

I<sub>i</sub> = 100 mA

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

I<sub>i</sub> = 100 mA (connected in series with TB1 terminals 1 & 3)

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

Ui = 30 V

TB3 Rate Totaliser - Terminals RS1 & RS2:

 $U_{i} = 4.3 \text{ V}$ 

TB4 Alarms - each channel - Terminals 8 & 9; 10 & 11:

 $U_i = 30V$ 

l<sub>i</sub> = 200 mA



IEC 60079-0:2007 to IEC 60079-0:2011,

IEC 60079-11:2006 to IEC 60079-11:2011,

IEC 60079-31:2008 to IEC 60079-31:2013,

IEC 60079-15:2010 remains the same.

component certificate no. IECEx ITS 14,0063U.

Consideration of a new enclosure type, the 'G' field enclosure covered under

## IECEx Certificate of Conformity

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Certificate No:	IECEx ITS 11,0016	Issue No: 1
Date of Issue:	2015-07-31	Page 5 of 5
DETAILS OF CERTIFIC	ATE CHANGES (for issues 1 and above):	;
		•
Addition of three new mo	odels	
BA304NG – field mounte	ed, 4 digit, loop powered indicator,	
BA324NG – field mounte	ed, 5 digit, loop powered indicator,	
BA354NG – field mounte	ed, loop powered rate totaliser.	
Update to the latest vers	sions of the standards:	