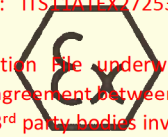




In accordance with EC NOTICE TO STAKEHOLDERS WITHDRAWAL OF THE UNITED KINGDOM AND EU RULES IN THE FIELD OF INDUSTRIAL PRODUCTS dated 13 March 2020.

This issued certificate - Certificate No: ITS11ATEX27253X



and supporting Technical Construction File underwent a legal transfer of new ownership by signed agreement between the named applicant on this certificate and the 3rd party bodies involved in the transfer from NB0359 to NB2575 on 17 December 2020

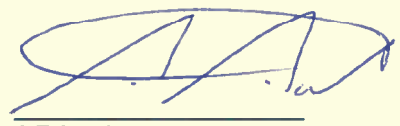
1. **EC-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**
3. **EC-Type Examination Certificate Number:** ITS11ATEX27253X Issue 2
4. **Equipment or Protective System:** 4 and 5 Digit Field Mounting Indicators and Rate Totaliser
5. **Manufacturer:** BEKA ASSOCIATES LIMITED
6. **Address:** Old Charlton Road, Hitchin, Herts, SG5 2DA, United Kingdom
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 Ref G102060844 dated July 2015 and Intertek Report Ref 10048733A Issue 1 dated April 2011.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0:2012/A11:2013 and EN 60079-11:2012 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:-

Name: Fabrizio Massei
Position: ATEX Certification Officer
Signature:
Date: 17 December 2020



II 1 G, D Ex ia IIC T5 Ga,
 Ex ia IIIC T80°C Da IP66,
 -40°C ≤ Ta ≤ 70°C



A T Austin
 Certification Officer
 12 August 2015

Intertek Testing & Certification Limited
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Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification's Conditions for Granting Certification.

SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS11ATEX27253X Issue 2

13. Description of Equipment or Protective System

The 4 and 5 Digit Field Mounting Indicators 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 any 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 models are BA304E & BA304G 4 Digit Indicator, BA324E & BA324G 5 Digit Indicator and BA354E and BA354G Rate Totaliser.

The 4 and 5 Digit Field Mounting Indicators and Rate Totaliser may additionally be fitted with an optional Back Light Board.

The 4 and 5 Digit Field Mounting E-series indicators BA304E & BA324E and Rate Totaliser BA354E comprise a Field Terminal Board, Main Display Board with optional Alarm circuits, Display LCD101 and optional Back Light Board all housed within an IP66 stainless steel or a glass reinforced polyester (GRP) enclosure.

The G-series models BA304G 4 Digit Indicator, BA324G 5 Digit Indicator and BA354G Rate Totaliser are similar to the E-series. They are housed within a pre-certified enclosure with IP rating of at least IP66.

The boards in both E-series and G-series contain fixed resistors, keypads, liquid crystal display (LCD), transformers, capacitors, inductors, semiconductor devices, connectors for printed circuit board (pcb) interconnections, terminal blocks for external connections and plastic spacers for pcb mounting.

The maximum intrinsically safe input and output parameters at the external connections are as follows:

TB1 Terminal 1 and 3 (Loop Input); TB2 Terminal 12 and TB1 Terminal 3 (TB2 - 13 and TB1 -1 connected in series)

$U_i = 30 \text{ V}$	$U_o = 1.1 \text{ V}$
$I_i = 200 \text{ mA}$	$I_o = 3 \text{ mA}$
$P_i = 0.84 \text{ W}$	$P_o = 4.5 \text{ mW}$
$C_i = 13 \text{ nF}$ (for E-series)	
$C_i = 5.4 \text{ nF}$ (for G - Series)	
$L_i = 0.016 \text{ mH}$ (0.02 mH)	
$C_o = 53 \text{ nF}$ (for E-series)	
$C_o = 60.6 \text{ nF}$ (for G - Series)	
$L_o = 0.78 \text{ mH}$	

TB2 Terminals 12, 13 and 14 (Backlight Input)

$U_i = 30 \text{ V}$
$I_i = 200 \text{ mA}$
$P_i = 0.84 \text{ W}$
$C_i = 13 \text{ nF}$ (for E-series)
$C_i = 3.3 \text{ nF}$ (for G - Series)
$L_i = 0.008 \text{ mH}$ (0.01 mH)
$C_o = 53 \text{ nF}$ (for E-series)
$C_o = 63 \text{ nF}$ (for G - Series)
$L_o = 0.79 \text{ mH}$

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SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS11ATEX27253X Issue 2

TB3 Terminals RS1 and RS2

$U_i = 30\text{ V}$ $U_o = 6\text{ V}$
 $I_i = 200\text{ mA}$ $I_o = 2.5\text{ mA}$
 $P_i = 0.84\text{ W}$ $P_o = 3.75\text{ mW}$
 $C_i = 13\text{ nF}$ (for E-series)
 $C_i = 0$ (for G – Series)
 $L_i = 0.008\text{ mH}$ (0.01 mH)
 $C_o = 53\text{ nF}$ (for E-series)
 $C_o = 66\text{ nF}$ (for G – Series)
 $L_o = 0.79\text{ mH}$

TB4 Terminal 8 and 9; Terminals 10 and 11 (Alarm 1 and Alarm 2)

$U_i = 30\text{ V}$ $U_o = 1.47\text{ V}$
 $I_i = 200\text{ mA}$ $I_o = 1\text{ }\mu\text{A}$
 $P_i = 0.84\text{ W}$ $P_o = 2.2\text{ }\mu\text{W}$
 $C_i = 24\text{ nF}$ (for E-series)
 $C_i = 0$ (for G – Series)
 $L_i = 0.008\text{ mH}$ (0.01 mH)
 $C_o = 42\text{ nF}$ (for E-series)
 $C_o = 66\text{ nF}$ (for G – Series)
 $L_o = 0.79\text{ mH}$

For intrinsic safety considerations, under fault conditions, the voltage, current and power at the output terminals TB1 - 1 & 3, terminals TB2 - 12 & TB1 - 3 and terminals TB4 - 8 & 9 and 10 & 11 do not exceed those specified in clause 5.7 of EN60079-11. The equivalent capacitance and inductance are the result of r.f. suppression components directly connected across the apparatus input terminals.

14. Report Number

Intertek Report Ref G102060844 dated July 2015.
Intertek Report Ref 10048733A Issue 1 dated April 2011.

15. Conditions of Certification

(a). Special Conditions for safe use

- When installed in a Zone 0 potentially explosive atmosphere requiring EPL Ga apparatus, the instrument shall be installed such that even in the event of rare incidents, an ignition source due to impact or friction between the aluminium label and iron/steel is excluded.

(b). Conditions of Manufacture

- Routine tests for infallible transformers, 500 V between primary and secondary windings (both windings are supplied from intrinsically safe circuits).

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SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS11ATEX27253X Issue 2

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

The relevant EHSR's have been identified and assessed in Intertek Report Ref 10048733A Issue 1 dated April 2011.

17. Drawings and Documents

Title	Drawing No.:	Rev. Level:	Date:
ATEX & IECEx Certification Information for BA304E 4 Digit Indicator, BA324E 5 Digit Indicator and BA354E Rate Totalisers	CI300—61, Sheets 1-15, 18-20, 28, 29 & 32	3	Oct '10

18. Revisions

Variation One; Intertek Report Ref G102060844 dated July 2015, ITS11ATEX27253X Issue 2

1. Re-assessments of the 4 and 5 Digit Field Mounting Indicators to the requirements of the latest standards EN 60079-0: 2012 and EN 60079-11:2012.
2. The G-series models BA304G 4 Digit Indicator, BA324G 5 Digit Indicator and BA354G Rate totaliser added as part of this certification.
3. Changes to appropriate documents to reflect the above changes.

Title	Drawing No.:	Rev. Level:	Date:
ATEX & IECEx Certification Information for BA304E 4 Digit Indicator, BA324E 5 Digit Indicator and BA354E Rate Totalisers	CI300—61, Sheets 1-15, 18-20, 26 - 28, 29 & 32, 37 - 50	3	August '15

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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Additional information about the BA304G-SS-PM and BA324G-SS-PM ATEX certification

This ATEX EU-Type Examination Certificate ITS11ATEX27253X confirms the intrinsic safety compliance of the BA304G-SS and BA324G-SS 4/20mA loop powered indicators.

IECEX Component Certificate IECEX CML 18.0071U for the BEKA stainless steel G series enclosure in which the BA304G-SS-PM and BA324G-SS-PM indicators are housed confirms the impact and ingress protection required for the following types of protection:

Ex eb IIC Gb	Protection by Increased safety EN 60079-7:2015
Ex ec IIC Gc	Protection by Increased safety EN 60079-7:2015
Ex pxb IIC Gb	Protection by pressurised enclosure EN 60079-2:2014-07
Ex pyb IIC Gb	Protection by pressurised enclosure EN 60079-2:2014-07
Ex pzc IIC Gc	Protection by pressurised enclosure EN 60079-2:2014-07
Ex ta IIIC Da	Dust ignition protection by enclosure EN 60079-31:2013

When a BA304G-SS-PM or a BA324G-SS-PM indicator is correctly installed in a cabinet having one of these types of protection, installation of the indicator does not invalidate the cabinet's certification.

Installation requirements for these loop powered indicators is contained in the BA304G-SS-PM and BA324G-SS-PM Instruction Manual and in the BEKA Application Guide AG300 both of which may be downloaded from this website.

Please note that the IECEX G Enclosure Component Certificate number does not appear on the indicator's certification label.

A copy of the IECEX G Enclosure Component Certificate IECEX CML 18.0071U follows this note.



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

EX COMPONENT CERTIFICATE

Certificate No.: IECEx CML 18.0071U Issue No: 0 Certificate history:
Issue No. 0 (2018-06-08)

Status: **Current** Page 1 of 3

Date of Issue: **2018-06-08**

Applicant: **BEKA associates**
Old Charlton Road, Hitchin, Hertfordshire, SG5 2DA
United Kingdom

Ex Component: **Stainless-Steel G Series Enclosure**

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 600079-0).

Type of Protection: **Increased Safety "eb/ec", Pressurized "pxb/pyb/pzc", Dust Ignition "ta"**

Marking:

Ex eb IIC Gb
Ex ec IIC Gc
Ex pxb IIC Gb
Ex pyb IIC Gb
Ex pzc IIC Gc
Ex ta IIIC Da

Ta: -40°C to +80°C

Approved for issue on behalf of the IECEx
Certification Body:

A C Smith

Position:

Technical Operations Director

Signature:
(for printed version)

Date:

2018-06-08

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](http://www.iecex.com).

Certificate issued by:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





IECEX Certificate of Conformity

Certificate No: IECEx CML 18.0071U Issue No: 0
Date of Issue: 2018-06-08 Page 2 of 3
Manufacturer: **BEKA associates**
Old Charlton Road, Hitchin, Hertfordshire, SG5 2DA
United Kingdom

Additional Manufacturing location(s):

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 Component 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 Ex Component 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 : 2017 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-2 : 2014-07 Edition:6	Explosive atmospheres - Part 2: Equipment protection by pressurized enclosure "p"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*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 Ex Component listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/CML/ExTR18.0096/00](#)

Quality Assessment Report:

[GB/ITS/QAR06.0002/06](#)



IECEX Certificate of Conformity

Certificate No: IECEx CML 18.0071U

Issue No: 0

Date of Issue: 2018-06-08

Page 3 of 3

Schedule

Ex Component(s) covered by this certificate is described below:

The Stainless-Steel G Series Enclosures consist of a metallic enclosure fitted with a toughened glass window and a silicone rubber front panel keypad. The enclosures incorporate the use of silicone adhesives and gaskets. They include entries for fitting suitably dimensioned and separately certified entry devices.

Refer to Annex for full description, Conditions of Manufacture and Schedule of Limitations.

SCHEDULE OF LIMITATIONS:

Refer to Annex for full description, Conditions of Manufacture and Schedule of Limitations.

Annex:

[IECEX CML 18.0071U Iss. 0 Certificate Annex.pdf](#)

Annexe to: IECEx CML 18.0071U Issue 0
Applicant: BEKA associates
Apparatus: Stainless-Steel G Series Enclosure



Product Description

The Stainless-Steel G Series Enclosures consist of a metallic enclosure fitted with a toughened glass window and a silicone rubber front panel keypad. The enclosures incorporate the use of silicone adhesives and gaskets. They include entries for fitting suitably dimensioned and separately certified entry devices.

The enclosures can be installed in three different ways; as a standalone enclosure, as a panel mount with only the front of the enclosure used, and as a panel mount using both the front and back of the enclosure used.

Conditions of Manufacture

The following are conditions of manufacture:

- i. When the enclosures incorporate plain entries, the entry size shall be no more than 0.7 mm greater than the separately certified entry device it is intended to be used with.
- ii. When the enclosures incorporate threaded entries, the entries must comply with the requirements of IEC 60079-31 clause 5.3.2.

Schedule of Limitations

The following is the schedule of limitations:

- i. The component enclosures have an operating temperature range of -40°C to +80°C and shall not be used outside of this range.
- ii. The component enclosures shall be used with suitably dimensioned and appropriately certified entry devices with a Level of Protection of IP66.

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