IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.:	**IECEx ITS 19.0018X**	Page 1 of 4	Certificate history: Issue 0 (2019-08-08)
Status:	**Current**	Issue No: 1	
Date of Issue:	2025-10-24		
Applicant:	**BEKA associates Limited** Old Charlton Road, Hitchin, Herts SG5 2DA **United Kingdom**		
Equipment:	**4 and 5 digits loop powered field mounted indicators and rate totaliser BA304SG, BA324SG, BA354SG, BA304SG-SS, BA324SG-SS and BA354SG-SS.**		
Optional accessory:			
Type of Protection:	**Encapsulation 'm', Intrinsic safety 'i', increased safety 'e', dust ignition proof 't'**		
Marking:	Ex eb ib mb IIC T5 Gb Ex ib mb tb IIIC T80°C Db -40°C ≤ Ta ≤ +60°C IECEx ITS 19.0018X		

Approved for issue on behalf of the IECEx Certification Body: **R J Tunnicliffe**

Position: **Certification Officer**

Signature: (for printed version)

Date: (for printed version) Date: 2025.11.07 08:28:20 Z

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3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Intertek Testing & Certification Limited
Units C & D, Imperial Park, Randalls Way
Leatherhead, Surrey KT22 7TS
United Kingdom

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Certificate No.: **IECEx ITS 19.0018X**

Date of issue: 2025-10-24

Issue No: 1

Manufacturer: **BEKA associates Limited**
Old Charlton Road, Hitchin, Herts SG5 2DA
United Kingdom

Manufacturing locations: **BEKA associates Limited**
Old Charlton Road, Hitchin, Herts SG5 2DA
United Kingdom

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 equipment 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 60079-11:2023 Edition:7.0 — Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"

IEC 60079-18:2017 Edition:4.1 — Explosive atmospheres - Part 18: Protection by encapsulation "m"

IEC 60079-31:2013 Edition:2 — Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

IEC 60079-7:2017 Edition:5.1 — Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This Certificate **does not** indicate compliance with 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 Reports:

GB/ITS/ExTR19.0019/00 GB/ITS/ExTR19.0019/01

Quality Assessment Report:

GB/ITS/QAR06.0002/13

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

General product information:
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 enables the indicator to display flow and non-linear variables such as tank level in engineering units.
The model BA304SG is a 4 digit indicator, BA324SG is a 5 digit indicator and BA354SG is a rate totaliser.

Models with -SS suffix are enclosed within stainless steel enclosure.
These instruments may be used as an alternative to a certified flameproof Ex d instrument in Zones 1 & 2, or as an alternative to a certified Ex nA instrument in Zone 2.

Maximum input voltage is:
U_N = 30V d.c.

SPECIFIC CONDITIONS OF USE: YES as shown below:
- The equipment shall be supplied from a SELV or PELV supply or from adequately approved supply providing double or reinforced insulation as required by IEC 60079-14 standard.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- Introduction of revised circuit for interface circuit.
- Addition of alternative encapsulation compound.
- Addition of stainless steel enclosure.
- Update IEC 60079-11 standard to Edition 7.
- Update to documentation.

Annex:

Annex for IECEx ITS 19.0018X issue 1.pdf

Annex to IECEx Certificate of Conformity

Certificate No:	**IECEx ITS 19.0018X**	**Issue No. 1**
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
*IECEx & ATEX Ex eb and Ex tb Certification Information for BA304SG and BA324SG Digital Indicators and BA354SG Rate Totaliser	CI300-67 (8 sheets)	2	Mar-2025

IECEx Certified Components on Which Conformance Depends

Item	Description	Manufacturer	Type	Certificate No. / Standards*	Coding / Ratings
1	Empty Enclosure	BEKA associates Ltd.	'G' Field Enclosure	**IECEx ITS 14.0063U** IEC 60079-0: 2011 IEC 60079-7: 2006 IEC 60079-15:2010 IEC 60079-31:2013	Ex e IIC Gb Ex ta III C Da IP66 -40°C ≤ Ta ≤ +70°C
2	Empty Enclosure	BEKA associates	Stainless-Steel G Series Enclosure	**IECEx CML 18.0071U** IEC 60079-0: 2017 IEC 60079-2:2014 IEC 60079-7: 2015 IEC 60079-31:2013	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

* "No applicable Technical Differences" or "Technical Differences evaluated and found satisfactory – for detail see ExTR"

Required Manufacturer Routine Testing

Test	Title/Description of Test	Standard and Clause
1	Equipment is routinely tested with the test voltage of 500V r.m.s for 60 seconds, alternatively at 600V r.m.s. for 100ms.	7.1 of IEC 60079-7
2	Each piece of the encapsulated interface shall be visually inspected for cracks in the compound, exposure of the encapsulated parts, flaking, shrinkage, swelling, softening, decomposition or failure of adhesion	9.1 of IEC 60079-18