



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 22.0023X** Page 1 of 4 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2023-05-02

Applicant: **BEKA Associated Limited**
Old Charlton Road
Hitchin
Herts
SG5 2DA
United Kingdom

Equipment: **BA307SE & BA327SE**

Optional accessory:

Type of Protection: **Intrinsic Safety 'ic', Increased Safety 'ec' & Dust Ignition Protection 'tc'**

Marking: Ex ec ic IIC T5 Gc
Ex ic tc IIIC T80C Dc
IP66
-40°C ≤ Tamb ≤ +70°C
IECEX ITS 22.0023X

Approved for issue on behalf of the IECEx
Certification Body:

Mark Newman

Position:

Certificate Officer

Signature:
(for printed version)

Date:
2023.05.02

Date:
(for printed version)

15:57:21
+01'00'



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Certificate issued by:

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

intertek



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Manufacturer: **BEKA**
Old Charlton Road
Hitchin SG5 2DD
United Kingdom

Manufacturing
locations: **BEKA**
Old Charlton Road
Hitchin SG5 2DD
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](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

[IEC 60079-31:2022-01](#) Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

[IEC 60079-7:2017](#) Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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 Report:

[GB/ITS/ExTR21.0013/00](#)

Quality Assessment Report:

[GB/ITS/QAR06.0002/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The BA307SE & BA327SE 4 and 5 digit panel mounting indicators are loop powered instruments 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 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 Panel Mounting Indicators may optionally incorporate an Alarm board and may additionally be fitted with an optional Backlight board.

The 4 and 5 Digit Panel Mounting Indicators comprise a main board, a display module, an optional Alarm Board and an optional Backlight board, all housed within the certified BEKA 105 x 60 robust panel, stainless steel enclosure, certified under IECEx certificate number IECEx ITS 14.0007U.

SPECIFIC CONDITIONS OF USE: YES as shown below:

For Ex ec, the instrument must be installed within an Ex e or Ex pzc panel enclosure.

For Ex tc, the instrument must be installed in Ex tc panel enclosure.

For all installations, the instrument must be powered from a limited energy circuit and the vents located on the back of the instrument must not be obstructed.

For instruments designated for type of protection pressurized equipment the supply circuit shall be rated for a prospective short circuit current of not more than 10kA.

The equipment must be installed in a panel that maintains at least one of the following types of protection:

Ex e IIC Gc $-40^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$.

Ex pzc IIC Gc $-40^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$.

Ex tc IIIC Dc $-40^{\circ}\text{C} \leq \text{Ta} \leq +70^{\circ}\text{C}$ with an enclosure meeting the requirements of either: IP5X for Groups IIIB & IIIA or IP6X for Group IIIC applications.



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Equipment (continued):

Ratings:

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

$U_{\max} = 30V$

$I_{\max} = 200mA$

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

$U_{\max} = 30V$

$I_{\max} = 200mA$

(connected in series with TB1 terminals 1 & 3)

TB2 Backlight – Terminals 12 & 14 (separately powered)

$U_{\max} = 30V$

$I_{\max} = 200mA$

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

$U_{\max} = 30V$

$I_{o\max} = 200mA$

Annex:

[IECEX ITS 22.0023X Issue 0 Annex.pdf](#)



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ITS 22.0023X	Issue No. 0
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
ATEX, IECEx & UKCA Certification Information for BA307SE & BA327SE Digital Indicators	CI300-78	1	27/03/2023
BA307SE & BA327SE Ex ec & Ex tc loop-powered panel mounting indicators – User Manual Pages 4 to 7 only.	-	1	28.04.2023

IECEX Certified Components on Which Conformance Depends					
Item	Description	Manufacturer	Type	Certificate No. / Standards*	Coding / Ratings
1	Enclosure	BEKA associates Ltd.	Robust 105-60mm Panel Enclosure	IECEX ITS 14.0007U *IEC 60079-0:2011 *IEC 60079-7:2006 *IEC 60079-31:2008	Ex e IIC Gb, Ex p IIC Gb, Ex nA IIC Gc, Ex ta III C Da Operating temperature range: -40°C to +70°C.
2	Ex e terminals	PHOENIX CONTACT GmbH & Co. KG	SPT 2,5 / X-H-5,0-EX, where X is the number of ways, the equipment utilises 3, 4 & 5 way models.	IECEX KEM 07.0057U IEC 60079-0:2017 IEC 60079-7:2017	Ex eb IIC Gb Operating temperature range: -50 °C ... +110 °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	The voltages applied to infallible transformers shall conform to the values given in Table 10 as per the requirements of IEC 60079-11, Clause 11.2, Routine tests for infallible transformers. The transformers must either have 1500V applied between primary and secondary windings for 60 seconds or tested at 1.2x the test voltage for 1 second.	IEC 60079-11:2011, Clause 11.2