



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

Certificate No.: IECEx ITS 08.0003X Issue No: 1 Certificate history:
Status: Current Page 1 of 5 Issue No. 1 (2014-02-25)
Date of Issue: 2014-02-25 Issue No. 0 (2008-05-27)
Applicant: BEKA associates Limited
Old Charlton Road
Hitchin
Herts
Herts
SG5 2DA
United Kingdom
Electrical Apparatus: BA326C
Optional accessory:
Type of Protection: Intrinsic Safety, Ex ia
Marking: IECEx ITS 08.0003X
Ex ia IIC T5 Ga
-40°C < Ta < +60°C

Approved for issue on behalf of the IECEx
Certification Body:

A M Smart

Position:

Certification Officer

Signature:
(for printed version)

Date:

2014-02-25

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:

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





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Manufacturer: **BEKA associates Limited**
Old Charlton Road
Hitchin
Herts
Herts
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 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 60079-26 : 2006 Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
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/ExTR08.0003/00](#) [GB/ITS/ExTR08.0003/01](#)

Quality Assessment Report:

[GB/ITS/QAR06.0002/03](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

BA326C Combined Indicator is a two wire panel mounting equipment designed to be connected in a 4/20 mA loop and provide a display in engineering units.

The BA326C may alternatively be identified as a B SI 26/1 Combined Indicator.

The BA326C comprises a main board, a display board and an optional alarm interface board and/or backlight boards, all housed within a metallic enclosure.

The enclosure provides a degree of protection of at least IP20.

Intrinsic safety is assured by limitation of voltage, current and power, limitation of capacitance, limitation of inductance and infallible segregation.

The equivalent resistance of the apparatus at terminals 1 and 3 is 14.85 ohm minimum in normal operation and 24.75 ohm minimum under fault conditions.

CONDITIONS OF CERTIFICATION: YES as shown below:

When installed in a potentially explosive atmosphere requiring apparatus of Category 1G, the indicator shall be installed such that even in the event of rare incidents, an ignition source due to impact or friction between aluminium enclosure at the rear of the instrument mounting panel and iron/steel is excluded.



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EQUIPMENT (continued):

The maximum intrinsically safe input parameters are as follows:

Terminals 1 and 3, and Terminals 8 and 9; 10 and 11

$U_i = 28 \text{ V}$

$I_i = 200 \text{ mA}$

$P_i = 0.84 \text{ W}$

The equivalent parameters are:

$C_i = 0.02 \text{ }\mu\text{F}$

$L_i = 0.01 \text{ mH}$

Terminals 12 and 13

$U_i = 28 \text{ V}$

$I_i = 159 \text{ mA}$

$P_i = 0.8 \text{ W}$

The equivalent parameters are:

$C_i = 0.03 \text{ }\mu\text{F}$

$L_i = 0.01 \text{ mH}$

For intrinsic safety considerations, under fault conditions, the voltage, current and power at terminals 1 and 3, 8 and 9, and 10 and 11 do not exceed those specified in clause 5.7 of IEC 60079-11:2006. The equivalent capacitance and inductance are the result of r.f. suppression components directly connected to the apparatus terminals.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

ISSUE 1 (GB/ITS/ExTR08.0003/01 dated 25th February 2014)

- Update the BAC326C Certification documentation to conform with the latest standards IEC60079-0:2011, IEC60079-11:2011 and IEC60079-26:2006.
- Alternative design of the BA326C Combined Indicator comprises main board (PC201) and Display board (PC202) housed in the same metallic enclosure. Accessories like Alarm board or Back Light boards are identical to already approved. The input and output parameters at the BA326C terminals (alternative design) for external connections are identical to already approved above. Both versions of the equipment can be housed in aluminium enclosure and located in Zone 0 with EPL Ga. Special Conditions of Use were specified to prevent ignition of flammable gases due to impact or friction.
- Update marking for the equipment to:
IECEx ITS 08.0003X
Ex ia IIC T5 Ga
 $-40^{\circ}\text{C} \leq \text{Ta} \leq +60^{\circ}\text{C}$
- Minor modification to input parameters for Terminals 1 & 3, 8 & 9 and 10 & 11 from $U_i = 30\text{V}$ to $U_i = 28\text{V}$ and from $P_i = 0.75\text{W}$ to $P_i = 0.85\text{W}$.