



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

Certificate No.: IECEx ITS 12.0084X issue No.: 1

Status: Current

Certificate history:  
Issue No. 1 (2016-6-7)  
Issue No. 0 (2013-5-20)

Date of Issue: 2016-06-07

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

Equipment: **4 and 5 Digit Set Point Stations**  
Optional accessory:

Type of Protection: **Ex ia**

Marking: IECEx ITS 12.0084X  
Ex ia IIC T5 Ga  
Ex ia IIIC T80°C Da IP20  
-40°C ≤ Ta ≤ +70°C

Approved for issue on behalf of the IECEx  
Certification Body:

A T Austin

Position:

Certification Officer

Signature:  
(for printed version)

Date:

2016-06-07

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



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Manufacturer: **BEKA associates Limited**  
Old Charlton Road  
Hitchin  
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:

|  |   |
|--|---|
| <b>IEC 60079-0 : 2011</b><br>Edition: 6.0  | Explosive atmospheres - Part 0: General requirements                                |
| <b>IEC 60079-11 : 2011</b><br>Edition: 6.0 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"       |
| <b>IEC 60079-26 : 2006</b><br>Edition: 2   | Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga |

*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/ExTR12.0084/00

GB/ITS/ExTR12.0084/01

Quality Assessment Report:

GB/ITS/QAR06.0002/02



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The 4 and 5 Digit Set Point Stations are panel mounting instruments that allow an operator to manually adjust the current flowing in a 4/20mA loop, incorporate a digital and bargraph display to represent current in engineering units.

The Set Point Station may be one of the models listed below:

BA407E and BA408E 4 Digit Set Point Stations

BA427E and BA428E 5 Digit Set Point Stations

The Set Point Station may optionally be fitted with a Backlight board.

The 4 and 5 Digit Set Point Stations comprise a main board, display board and an optional backlight board, all housed within a plastic enclosure, which provides a degree of protection of at least IP20.

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

### CONDITIONS OF CERTIFICATION: YES as shown below:

For use in Group IIIC conductive dust atmosphere, the 4 and 5 Digit Set Point Station shall be mounted such that the instrument terminals have at least IP6X degree of protection.



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## EQUIPMENT(continued):

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

TB1 Terminals 1, 2, 3 and 4 (loop input)

$U_i = 30 \text{ V}$

$I_i = 200 \text{ mA}$

$P_i = 0.84 \text{ W}$

$C_i = 2.2 \text{ nF}$

$L_i = 0.01 \text{ mH}$

$C_o = 63.8 \text{ nF}$

$L_o = 0.79 \text{ mH}$

TB1 Terminals 1, 2, 3 and 4 (loop input) connected in series with TB2 Terminals 12 and 13 (loop powered Backlight)

$U_i = 30 \text{ V}$

$I_i = 200 \text{ mA}$

$P_i = 0.84 \text{ W}$

$C_i = 2.0 \text{ nF}$

$L_i = 0.01 \text{ mH}$

$C_o = 64 \text{ nF}$

$L_o = 0.79 \text{ mH}$

TB2 Terminals 12, 13 and 14 (optional backlight input)

$U_i = 30 \text{ V}$

$I_i = 200 \text{ mA}$

$P_i = 0.84 \text{ W}$

$C_i = 11 \text{ nF}$

$L_i = 0$

$C_o = 55 \text{ nF}$

$L_o = 0.8 \text{ mH}$

TB3 Terminals 5, 6 and 7 (optional remote encoder)

$U_i = 30 \text{ V}$

$U_o = 5.0 \text{ V}$

$I_i = 200 \text{ mA}$

$I_o = 1.0 \text{ mA}$

$P_i = 0.84 \text{ W}$

$P_o = 1.25 \text{ mW}$

$C_i = 0$

$L_i = 0$

$C_o = 66 \text{ nF}$

$L_o = 0.8 \text{ mH}$



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

Change to safety component, resistor R5 value.