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 05.0005 issue No.:2	Certificate history: Issue No. 2 (2009-8-21) Issue No. 1 (2005-1-27)
Status:	**Current**	
Date of Issue:	**2009-08-21**	Page 1 of 4

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

Electrical Apparatus: **BA 324D 4½ Digit Indicator**
Optional accessory:

Type of Protection: **Intrinsic Safety**

Marking: **Ex ia IIC T5**
Ta = -40°C to +60°C
Ex ia IIC T5
DIP A21 TA 80°C IP66
Ta = -20°C to +60°C

Approved for issue on behalf of the IECEx Certification Body: A M Smart

Position: Certification Officer

Signature:
(for printed version)

Date: 2009-9-2

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

Intertek

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Manufacturer: **BEKA Associates Limited**
Old Charlton Road
Hitchin
Herts
SG5 4DA
United Kingdom

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 : 2000 Edition: 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-11 : 1999 Edition: 4	Electrical apparatus for explosive gas atmospheres - Part 11: Intrinsic safety 'i'
IEC 61241-1-1 : 1999 Edition: 2	Electrical apparatus for use in the presence of combustible dust - Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation - Specification for apparatus

*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

IECEx ATR:
GB/ITS/ExTR07.0008/00
UK/ITS/05/04014952B

File Reference:
07024066
04014952, 87IV0382, 04013679

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Schedule

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

The BA324D 4½ Digit Indicator is a two-wire field mounted equipment designed to be connected in a 4/20 mA process loop and provide a display in Engineering units.
The BA324D may alternatively be identified as a GSI 24/1 or DA4/Ex-50A 4½ Digit Indicator.
The BA324D comprises a terminal board, main/display board and an optional alarm interface board and an optional separately powered back light or a loop powered back light board, all housed within a metallic enclosure or conductive plastic enclosure which may have a conductive coating on the inside surfaces. The enclosure provides a Degree of Protection of IP66.
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 Ω minimum in normal operation and 24.75 Ω minimum under fault conditions.
The maximum intrinsically safe input parameters are as follows:
Terminals 1 and 3
U_i = 30 V dc
I_i = 200 mA dc
P_i = 0.85 W
The equivalent parameters are:
C_i = 0.02 μF
L_i = 0.01 mH
Terminals 8 and 9; 10 and 11
U_i = 30 V dc
I_i = 200 mA dc
P_i = 0.85 W
The equivalent parameters are:
C_i = 0.04 μF
L_i = 0.02mH
Terminals 12 and 13
U_i = 28 V dc
I_i = 159 mA dc
P_i = 0.8 W
The equivalent parameters are:
C_i = 0.04 μF
L_i = 0.02mH

For intrinsic safety considerations, under fault conditions the voltage, current and power at the terminals 1 and 3, 8 and 9, and 10 and 11 do not exceed those specified in Clause 5.4 of IEC 60079-11:1999. The equivalent capacitance and inductance are the result of r.f suppression components directly connected to the apparatus terminals.

CONDITIONS OF CERTIFICATION: NO

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

Issue 2:

Correction of units where appropriate, mF changed to μF and W changed to Ω.