



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 05.0006** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 4 Issue 3 (2012-02-17)
Date of Issue: 2020-03-18 Issue 2 (2009-07-28)
Issue 1 (2005-05-13)
Applicant: **BEKA Associates Limited**
Old Charlton Road
Hitchin
Herts
SG5 2DA
United Kingdom
Equipment: **BA484DF Fieldbus Display**
Optional accessory:
Type of Protection: **Intrinsic Safety**
Marking: IECEx ITS 05.0006
Ex ia IIC T4 Ga
Ta = -40°C to 60°C
Ex ia III C T125°C Da IP66
Ta = -40°C to +60°C

Approved for issue on behalf of the IECEx
Certification Body:

V K Varma

Position:

Certification Officer

Signature:
(for printed version)

Date:

2020-03-18

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 www.iecex.com or use of this QR Code.



Certificate issued by:

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



IECEX Certificate of Conformity

Certificate No.: **IECEX ITS 05.0006**

Page 2 of 4

Date of issue: 2020-03-18

Issue No: 4

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

Additional
manufacturing
locations:

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

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/ExTR09.0030/00](#)

[GB/ITS/ExTR09.0030/01](#)

[GB/ITS/ExTR09.0030/02](#)

Quality Assessment Report:

[GB/ITS/QAR06.0002/07](#)

IECEX ATR:
UK/ITS/05/04014952C

File reference:
Intertek Project 04014952



IECEx Certificate of Conformity

Certificate No.: **IECEx ITS 05.0006**

Page 3 of 4

Date of issue: 2020-03-18

Issue No: 4

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

BA484DF Fieldbus Display is a field mounting equipment designed to display up to eight fieldbus process variables in the hazardous area. The BA484DF incorporates four push buttons. The BA484DF Fieldbus Display can be supplied with six optional alarm outputs that may be linked to any of the displayed fieldbus variables. The BA484DF is powered by fieldbus.

The BA484DF comprises a Field Connection Assembly 02, a Fieldbus Interface CI-PC134, two Alarm Board 01's, and a CPU and Display, all housed within a two parts plastic enclosure.

The enclosure provides a Degree of Protection of IP66.

Intrinsic safety is assured by the use of certified components, which provide limitation of voltage, current and power, limitation of capacitance and inductance, and infallible segregation.

The maximum intrinsically safe input and output parameters are as follows:

TB1 terminals 1 and 2

$U_i = 17.5 \text{ V}$

$I_i = 380 \text{ mA}$

$P_i = 5.32 \text{ W}$

Terminals 1 and 2 comply with Intrinsically Safe Concept (FISCO) to the IEC TS 60079-27 standard.

The equivalent parameters are:

$C_i = 1 \text{ nF}$

$L_i = 8 \text{ } \mu\text{H}$

TB1 terminals A1 & A2, A3 & A4, A5 & A6 (each channel)

TB2 terminals A7 & A8, A9 & A10, A11 & A12 (each channel)

$U_i = 28 \text{ V}$ $U_o = 1.49 \text{ V}$

$I_i = 200 \text{ mA}$ $I_o = 1 \text{ } \mu\text{A}$

$P_i = 0.85 \text{ W}$ $P_o = 3 \text{ } \mu\text{W}$

The equivalent parameters are:

$C_i = 0.04 \text{ } \mu\text{F}$

$L_i = 8 \text{ } \mu\text{H}$

For intrinsic safety considerations, under fault conditions the voltage, current and power at the above terminals 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.

TB1 terminals S1 to S7

$U_o = 14.7 \text{ V}$

$I_o = 146.7 \text{ mA}$

$P_o = 0.58 \text{ W}$

The equivalent parameters are:

$C_i = 30 \text{ } \mu\text{F}$ at 6 V

$C_i = 0.54 \text{ } \mu\text{F}$ at 14.7 V

$L_i = 0.3 \text{ mH}$

SPECIFIC CONDITIONS OF USE: NO



IECEx Certificate of Conformity

Certificate No.: **IECEx ITS 05.0006**

Page 4 of 4

Date of issue: 2020-03-18

Issue No: 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1 (UK/ITS/05/04014952C):

- Printed circuit boards containing electronics components are housed within a conductive plastic enclosure which may have a conductive coating on the inside surfaces. The enclosure provides a Degree of Protection of IP66.

Issue 2 (GB/ITS/ExTR09.0030/00):

- Correction of values of output parameters from mA to μ A and equivalent parameters of capacitance from mF to μ F, where appropriate; and correction of degree of protection to IP66.
- Following changes carried out on the Fieldbus Interface CI-PC134:
 - o Integrated circuit changed to an alternative type.
 - o Deletion of shunt Zener diodes D11 and D12.
 - o Deletion of capacitor C30, 1.2 μ F.
 - o Addition of shunt Zener diodes D20 and D21.
 - o Change of value of capacitor C39 to 1.2 μ F maximum.
 - o Minor changes to the circuit and non-safety related components.
 - o Minor modifications to the printed circuit boards PC133 and PC134 due to above changes.

Issue 3 (GB/ITS/ExTR09.0030/01):

- Addition of alternative Alarm Board 01 (PC175). The entity parameter, Li, is changed from 20 μ H to 8 μ H at the TBA terminals for each Alarm channel when PC175 is fitted. The remaining entity parameters are unchanged.
- Review of the BA484DF Fieldbus Display to the latest appropriate standards listed above and the markings have been updated accordingly. The original standards used for assessment and tests are listed in Issue 0.
- The lower ambient temperature is revised from -20°C to -40°C for Dust applications. The upper ambient temperature of +60°C remains the same. Hence the revised ambient temperature range is -40°C \leq Ta \leq +60°C.

Issue 4 (GB/ITS/ExTR09.0030/02, current):

- Update to the standard from IEC 60079-0:2011, 6th Edition to IEC 60079-0:2017, 7th Edition
- Removal of standards IEC 60079-26:2006 and IEC 61241-11:2005 from the scope of the certification. The requirements from these standards related to this product are incorporated within IEC 60079-11, 6th Edition.

Annex:

[IECEx ITS 05.0006 Issue 4 Annex.pdf](#)



Annex to IECEx Certificate of Conformity

Certificate No:	IECEX ITS 05.0006	Issue No. 4
Annex No. 1		

Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
Certification Information for BA484DF & BA488CF Fieldbus Display	CI480-11, sheets 1 to 3, 5	3	Oct. 11
Certification Information for Alarm Board 01	CI-PC109, sheets 1 to 11	3	Nov. 10

Certificate issued by:

intertek

Total Quality. Assured.

Legal entity name
Address

Page 1 of 1

SFT-IECEX-OP-HAZ-19f (10/23/2017)