



## 1. EC-TYPE EXAMINATION CERTIFICATE

2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**

3. **EC-Type Examination Certificate Number:** ITS06ATEX25314X Issue 2

4. **Equipment or Protective System:** BA418CF FIELDBUS INDICATOR

5. **Manufacturer:** BEKA ASSOCIATES LIMITED

6. **Address:** Old Charlton Road, Hitchin, Herts, SG5 2DA, United Kingdom

7. This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8. Intertek Testing and Certification Limited, notified body number 0359 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential Intertek Report Ref G102060830 dated September 2015, Intertek Report Ref 08033580, dated July 2008, Intertek Report Ref 09043172A, dated October 2009 and Intertek Report Ref 06020618, dated August 2006.

9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with standards EN 60079-0:2012/A11:2013 and EN 60079-11:2012 except in respect of those requirements referred to at item 16 of the Schedule.

10. If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

11. This EC Type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12. The marking of the equipment or protective system shall include the following:-



II 1 G Ex ia IIC T4 Ga, - 40°C ≤ Ta ≤ +70°C  
FISCO Field Device Ex ia IIC T4 Ga

II 3 G Ex ic IIC T4 Gc, - 40°C ≤ Ta ≤ +70°C



A M Smart  
Certification Officer  
29 October 2015

Intertek Testing & Certification Limited  
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
Tel: +44 (0)1372 370900 Fax: +44 (0)1372 370977  
[www.intertek.com](http://www.intertek.com)

Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

This certificate may only be reproduced in its entirety and without any change, schedule included and is subject to Intertek Testing and Certification's Conditions for Granting Certification.

SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS06ATEX25314X Issue 2

13. **Description of Equipment or Protective System**

BA418CF Fieldbus Indicator is a panel mounting equipment designed to display one fieldbus process variable on a 5 digit LCD and 31 segment analogue bar graph.

The BA418CF comprises a panel terminal board and a main display board, all housed within a metallic enclosure having a magnesium content less than 6% by weight. Part of the housing, bezel and keypads, or blanks is made of plastic. The display window is of polycarbonate.

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 and inductance, and infallible segregation.

The maximum intrinsically safe input parameters are as follows:

$U_i = 17.5 \text{ V}$ ,  $I_i = 380 \text{ mA}$  and  $P_i = 5.32 \text{ W}$  (FISCO) OR,  
 $U_i = 22 \text{ V}$ ,  $I_i = 250 \text{ mA}$  and  $P_i = 1.2 \text{ W}$  (Non-FISCO) OR,  
 $U_i = 32 \text{ V}$ ,  $I_i = 125 \text{ mA}$  and  $P_i = 1 \text{ W}$  (For "ic" only)

The equivalent parameters are:

$C_i = 0$   
 $L_i = 8 \mu\text{H}$   
 $C_o = 165 \text{ nF}$   
 $L_o = 0.15 \text{ mH}$

14. **Report Number**

Intertek Report Ref G102060830, dated September 2015  
Intertek Report Ref 09043172A, dated October 2009  
Intertek Report Ref 08033580, dated July 2008  
Intertek Report Ref 06020618, dated August 2006.

15. **Conditions of Certification**

(a). Special Conditions for safe use

When installed in a Zone 0 potentially explosive atmosphere requiring EPL Ga apparatus, the instrument shall be installed such that even in the event of rare incidents, an ignition source due to impact or friction between the aluminum enclosure at the rear of the instrument mounting panel and iron/steel is excluded.

(b). Conditions of Manufacture

- None

**Intertek Testing & Certification Limited**  
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977

[www.intertek.com](http://www.intertek.com)

**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.**

This Certificate is the property of Intertek Testing and Certification Ltd and is subject to Intertek Testing and Certification's Conditions for Granting Certification.



SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS06ATEX25314X Issue 2

16. **Essential Health and Safety Requirements (EHSR's)**

The relevant EHSR's have been identified and assessed in Intertek Report Ref 06020618, dated August 2006.

17. **Drawings and Documents**

Title	Drawing No.:	Rev. Level:	Date:
BA414DF Certification Information	CI410-01 sheets 1* to 9*, 12, 15 & 16*	1	Mar '06

18. **Revisions**

**Variation One;** Intertek Report Ref 08033580, dated July 2008, ITS06ATEX25313X/1

- Addition of C125, D118, D119, IC110 and additional connectors to two optional keypads and an optional switch support board, PC158, on the main display board, PC144.
- Deletion of C114, D112 and D113 on the main display board, PC144.
- Change to the aggregate capacitance values on the main display board, PC144.
- Addition of terminal 4, two test points and a revised fuse footprint on the terminal board, PC147.
- Change to the certification label details to include a '+' before the higher ambient temperature.
- Changes to the printed circuit board track layouts on PC144 and PC147 to reflect the above changes.
- Changes to the Certification Information drawing, CI410-01, to reflect the above changes.

Title	Drawing No.:	Rev. Level:	Date:
BA414DF, BA414CF & BA418CF Certification Information	CI410-01, Sheets 1-17	2	May '08

**Variation Two;** Intertek Report Ref 09043172A, dated October 2009, ITS06ATEX25313X/2

- Title of the equipment changed from BA418CF Fieldbus Display to BA418CF Fieldbus Indicator.
- Value of R119 reduced from 209Ω to 171Ω.
- BA418CF may alternatively be identified as a BA448CF Fieldbus Indicator, or a BA448CL Fieldbus Listener, or a BA428CF Fieldbus Set-Point Station, or a BA438CF (product name yet to be defined). The above alternate models are due to changes in the firmware.
- Addition of FISCO Field Device input parameters:  
 $U_i = 17.5\text{ V}$   
 $I_i = 380\text{ mA}$   
 $P_i = 5.32\text{ W}$

Title	Drawing No.:	Rev. Level:	Date:
BA414DF, BA414CF & BA418CF Certification Information	CI410-01, Sheets 2, 6, 7, & 16	3	Aug '09

**Intertek Testing & Certification Limited**  
**Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB**  
**Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977**

[www.intertek.com](http://www.intertek.com)

**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.**

This Certificate is the property of Intertek Testing and Certification Ltd and is subject to Intertek Testing and Certification's Conditions for Granting Certification.



SCHEDULE

EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS06ATEX25314X Issue 2

**Variation Three;** Intertek Report Ref G102060830 dated September 2015, ITS06ATEX25313X Issue 2

- Re-assessments of the Field bus Indicators to the requirements of the latest standards EN 60079-0: 2012 and EN 60079-11:2012.
- Addition of the entity parameters;  $U_i = 32V$ ,  $I_i = 125mA$  and  $P_i = 1W$  when located in Zone 2 with level of protection "ic".
- Changes to appropriate documents to reflect the above changes.

Title	Drawing No.:	Rev. Level:	Date:
ATEX and IECEx Certification Information for BA414CF BA414DF and BA418CF	CI410-1	4	September 2015

*This Certificate is for the exclusive use of Intertek's client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this Certificate. Only the Client is authorized to permit copying or distribution of this Certificate and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek.*

**Intertek Testing & Certification Limited**  
Intertek House, Cleeve Road, Leatherhead, Surrey, KT22 7SB  
Tel: + 44 (0)1372 370900 Fax: +44 (0)1372 370977

[www.intertek.com](http://www.intertek.com)

**Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.**

This Certificate is the property of Intertek Testing and Certification Ltd and is subject to Intertek Testing and Certification's Conditions for Granting Certification.