



Intertek Industrial

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: **ITS06ATEX25314**
4. Equipment or Protective System: **BA418CF FIELDBUS DISPLAY**
5. Manufacturer: **BEKA ASSOCIATES LIMITED**
6. Address: **Hitchin, Herts, SG5 2DA**
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. The 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 Report Number:
Intertek Report Ref 06020618, dated August 2006.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0: 2004, EN 50020:2002 and EN 60079-27:2006
except in respect of those requirements listed at item 18 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 2 G, EEx ia IIC T4 (Tamb = -40°C to 70°C)

Intertek Testing & Certification Limited
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P. Browning
P Browning
Certification Manager
6 September 2006

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13. **Schedule**
14. EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS06ATEX25314
15. 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.

The BA418CF is designed and has been assessed to be suitable for use in a FISCO system in accordance with EN 60079-27:2006.

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:

$U_i = 22 \text{ V}$
 $I_i = 250 \text{ mA}$
 $P_i = 1.2 \text{ W}$

The equivalent parameters are:

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

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13. Schedule

14. EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS06ATEX25314

16. Report No. Intertek Report Ref 06020618, dated August 2006

17. SPECIAL CONDITIONS FOR SAFE USE

None

18. Essential Health and Safety Requirements

The essential health and safety requirements not covered by reference to the standards identified in Section 9 above have been addressed in Intertek Report Reference 06020618

19. DRAWINGS

Number	Issue	Date	Description
CI410-01 sheets 1* to 9*, 12, 15 & 16*	1	Mar 06	BA418CF Certification Information

Drawings marked * are common to and held with EC-Type Examination Certificate Nos ITS06ATEX25313 and ITS06ATEX25324 and held with ITS06ATEX25313.

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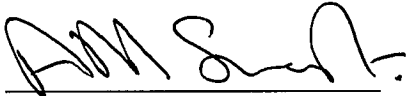
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1. **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**
3. Supplementary EC-Type Examination Certificate Number: **ITS06ATEX25314/1**
4. Equipment or Protective System: **BA418CF FIELDBUS DISPLAY**
5. Manufacturer: **BEKA ASSOCIATES LIMITED**
6. Address: **OLD CHARLTON ROAD, HITCHIN, HERTS, SG5 2DA**
7. This supplementary certificate extends EC-Type Examination Certificate Number ITS06ATEX25314 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having variations specified in the Schedule attached to this certificate and the documents therein referred to.

Intertek Report Ref 08033580, dated July 2008

This Supplementary Certificate shall be held with the original Certificate



A M Smart
Deputy Certification Officer
18 July 2008

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Schedule

SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE NUMBER
ITS06ATEX25314/1

VARIATION ONE

Description of the Variation to the Equipment or Protective System.

To permit the following changes:

- 1.1 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 .
- 1.2 Deletion of C114, D112 and D113 on the main display board, PC144.
- 1.3 Change to the aggregate capacitance values on the main display board, PC144.
- 1.4 Addition of two test points and revised fuse footprint on the terminal board, PC147.
- 1.5 Change to the certification label details to include a '+' before the higher ambient temperature.
- 1.6 Changes to the printed circuit board track layouts on PC144 and PC147 to reflect the above changes.
- 1.7 Changes to the Certification Information drawing, CI410-01, to reflect the above changes.

The above changes do not impair intrinsic safety. The entity parameters are unchanged.

Report No.

Intertek Report Ref 08033580, dated July 2008

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Schedule

**SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE NUMBER
ITS06ATEX25314/1**

SPECIAL CONDITIONS FOR SAFE USE

None

Essential Health and Safety Requirements

See original certificate

DRAWINGS

Number	Sheets	Issue	Date	Description
CI410-01	1 to 17	2	May 08	BA414DF, BA414CF & BA418CF Certification Information

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1. **SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC**
3. Supplementary EC-Type Examination Certificate Number: **ITS06ATEX25314/2X**
4. Equipment or Protective System: **BA418CF FIELDBUS INDICATOR**
5. Manufacturer: **BEKA ASSOCIATES LIMITED**
6. Address: **OLD CHARLTON ROAD, HITCHIN, HERTS, SG5 2DA**
7. This supplementary certificate extends EC-Type Examination Certificate Number ITS06ATEX25314 to apply to equipment or protective systems designed and constructed in accordance with the specification set out in the Schedule of the said Certificate but having variations specified in the Schedule attached to this certificate and the documents therein referred to.

Intertek Report Ref 09043172A, dated October 2009

This Supplementary Certificate shall be held with the original Certificate



A T Austin
Certification Officer
4 November 2009

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Schedule

**SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE NUMBER
ITS06ATEX25314/2X**

VARIATION TWO

Description of the Variation to the Equipment or Protective System.

To permit the following changes:

- 1.1 Title of the equipment changed from BA418CF Fieldbus Display to BA418CF Fieldbus Indicator.
- 1.2 Value of R119 reduced from 209 Ω to 171 Ω .
- 1.3 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.
- 1.4 Addition of FISCO Field Device input parameters:
 $U_i = 17.5\text{ V}$
 $I_i = 380\text{ mA}$
 $P_i = 5.32\text{ W}$

The above changes do not impair intrinsic safety and the temperature class of the equipment is unaffected. The entity parameters are unchanged.

VARIATION THREE

Assessment of the BA418CF Fieldbus Indicator to the standards listed below.

- EN 60079-0:2006
- EN 60079-11:2007
- EN 60079-26:2007
- EN 60079-27:2008

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Schedule

SUPPLEMENTARY EC-TYPE EXAMINATION CERTIFICATE NUMBER ITS06ATEX25314/2X

The equipment coding is:



II 1 G, Ga Ex ia IIC T4 (Tamb = -40°C to +70°C)
FISCO Field Device Ex ia IIC T4 (Tamb = -40°C to +70°C)

Report No.

Intertek Report Ref 09043172A, dated October 2009

SPECIAL CONDITION FOR SAFE USE

When installed in a potentially explosive atmosphere requiring equipment 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.

Essential Health and Safety Requirements

See original certificate

DRAWINGS

Number	Sheets	Issue	Date	Description
CI410-01	2, 6, 7, & 16	3	Aug 09	BA414CF, BA414DF & BA418CF Certification Information

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.

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