

# UK-TYPE EXAMINATION CERTIFICATE

Product or Protective Systems Intended for Use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

- UK-Type Examination Certificate Number:** ITS21UKEX0082      **Issue 00**
- Product:** BA484DF Fieldbus Display
- Manufacturer:** BEKA Associates Ltd
- Address:** Old Charlton Road, Hitchin, Herts, SG5 2DA, United Kingdom
- This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- Intertek Testing and Certification Limited, Approved Body number 0359, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.  
  
The examination and test results are recorded in the confidential report 104629389CHE-006 dated 21<sup>st</sup> June 2022.
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN IEC 60079-0:2018 and EN 60079-11:2012 except in respect of those requirements referred to within item 14 of the Schedule.
- If the sign “X” is placed after the certificate number, it indicates that the product is subject to the special conditions of use specified in the Schedule to this certificate.
- This UK-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.
- The marking of the product shall include the following:

II 1 G Ex ia IIC T4 Ga



II 1 D Ex ia IIIC T125°C Da

-40°C ≤ Ta ≤ +60°C

**Certification Officer:** \_\_\_\_\_



M Newman

**Date:** \_\_\_\_\_

13<sup>th</sup> July 2022

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. This Certificate is accredited under UKAS schedule 0010

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## SCHEDULE:

UK-Type Examination Certificate Number: ITS21UKEX0082 Issue 00

### 11. Description of Product or Protective System

The BEKA 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 at least IP20.

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:**

$U_i = 17.5V$

$I_i = 380\text{ mA}$

$P_i = 5.32\text{ W}$

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:

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

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

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UK-Type Examination Certificate Number: ITS21UKEX0082 Issue 00

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 EN 60079-11:2012. The equivalent capacitance and inductance are the result of RF suppression components directly connected to the apparatus terminals.

### TB1 terminals S1 to S7:

$U_0 = 14.7 \text{ V}$

$I_0 = 146.7 \text{ mA}$

$P_0 = 0.58 \text{ W}$

The equivalent parameters are:

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

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

$L_i = 0.3 \text{ mH}$

### 12. Report Number

Intertek Report: 104629389CHE-006 dated 21<sup>st</sup> June 2022.

### 13. Special Conditions of Certification

- (a). Special Conditions of Use
  - None.
- (b). Conditions of Manufacture
  - None.

### 14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 104629389CHE-006 dated 21<sup>st</sup> June 2021.

### 15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Certification Information for BA484DF & BA488CF Fieldbus Display (sheets: 1,2,3 and 5)	CI480-01	3	Oct. 11
Certification Information for Alarm Board 01	CI-PC109, sheets 1 to 11	3	Nov. 10
UKCA Certification Information for BA484DF & BA488CF Fieldbus Display (Bus Powered variant)	CI480-11-UKCA	1	May 21