

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:** ITS21UKEX0078 **Issue 00**
- Product:** BA484D Serial Text 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 02007502, dated December 2002, 04014720, 10050420, dated 2011-11-01 and 104629389CHE-002 dated 15 September 2021.
- 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 T5 Ga



II 1 D Ex ia IIIC T80°C Da

-40°C ≤ Ta ≤ +60°C

Certification Officer: _____



M Newman

Date: _____

10 November 2021

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

Intertek Testing & Certification Limited, Cleeve Road, Leatherhead, Surrey, KT22 7SA
Registered No 3272281 Registered Office: Academy Place, 1-9 Brook Street, Brentwood, Essex, CM14 5NQ.

SCHEDULE:

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11. Description of Product or Protective System

BA484D Serial Text Display is a field mounting equipment designed to display text and simple graphics in the hazardous area. The BA484D incorporates four push-buttons and two solid state outputs to form an operator interface for simple machine and process control applications.

The BA484D comprises a Field Connection Assembly, a 5051 Power Supply & Communications Board, an Alarm Board 01 and a CPU and Display Board, all housed within a two parts plastic enclosure.

The enclosure provides a degree of protection IP66.

Intrinsic safety is assured by limitation of voltage, current and power, limitation of capacitance and inductance segregation.

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

TB1 terminals 1 and 2

$U_i = 25 \text{ V}$

$I_i = 108 \text{ mA}$

$P_i = 0.58 \text{ W}$

The equivalent parameters are:

$C_i = 0.01 \mu\text{F}$

$L_i = 0.02 \text{ mH}$

TB1 terminals 4 and 2

$U_i = 14 \text{ V}$

$I_i = 108 \text{ mA}$

$P_i = 0.45 \text{ W}$

The equivalent parameters are:

$C_i = 0$

$L_i = 0$

TB1 terminals 1, 2, 5 and 6

$U_i = 20 \text{ V}$

$I_i = 139 \text{ mA}$

$P_i = 0.46 \text{ W}$

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The equivalent parameters are:

$C_i = 0.01 \mu\text{F}$

$L_i = 0.02 \text{ mH}$

TBS terminals S1 to S7

$U_o = 14.7 \text{ V}$

$I_o = 99 \text{ mA}$

$P_o = 0.6 \text{ W}$

The equivalent parameters are:

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

$C_i = 0.4 \mu\text{F}$ at 14.7 V

$L_i = 0.3 \text{ mH}$

TBA terminals A1 & A2, A3 & A4 (each Alarm channel)

$U_i = 28 \text{ V}$

$U_o = 1.49 \text{ V}$

$I_i = 200 \text{ mA}$

$I_o = 1 \mu\text{A}$

$P_i = 0.84 \text{ W}$

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

The equivalent parameters are:

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

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

For intrinsic safety considerations, under fault conditions the voltage, current and power at the above terminals, TBA, do not exceed those specified in Clause 5.7 of IEC 60079-11:2012. The equivalent capacitance and inductance are the result of r.f. suppression components directly connected to the apparatus terminals.

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12. Report Number

Intertek Report: 104629389CHE-002 dated dated 15 September 2021.

13. Special Conditions of Certification

- (a). Special Conditions of Use
 - No Special Conditions of Use
- (b). Conditions of Manufacture
 - No Conditions of Manufacture

14. Essential Health and Safety Requirements (EHSRs)

The relevant Essential Health and Safety Requirements (EHSRs) have been identified and assessed in Intertek Report: 104629389CHE-002 dated 15 September 2021.

15. Drawings and Documents

Title:	Drawing No.:	Rev. Level:	Date:
Certification information for BA484D & BA488C Serial Text Display (Sheets 1, 2, 3 & 5)	CI480-01	3	Oct. 11
UKCA Certification information for BA484D & BA488C Serial Text Display (2 Sheets)	CI480-01-UKCA	1	May 21

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