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 : **BAS02ATEX1185X**

4 Equipment or Protective System: **BA374C AND BA378C INDICATING TRANSMITTERS**

5 Manufacturer: **BEKA ASSOCIATES**

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 Electrical Equipment Certification Service, notified body number 600 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 N°

01(C)0781 dated 7 June 2002

9 Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + Amds 1 & 2 **EN 50020: 1994** **EN 50284: 1999**

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 and construction of the specified equipment or protective system. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment or protective system.

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

⟨Ex⟩ **II 1 G** **EEx ia IIC T5 (T_{amb} = -40°C to +60°C)**

This certificate may only be reproduced in its entirety and without any change, schedule included.

File No: EECS 0121/02/020

This certificate is granted subject to the general conditions of the Electrical Equipment Certification Service. It does not necessarily indicate that the apparatus may be used in particular industries or circumstances.

M CLEARE
DIRECTOR
27 June 2002

HSE Health & Safety Executive

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13 **Schedule**

14 **EC-TYPE EXAMINATION CERTIFICATE N° BAS02ATEX1185X**

15 **Description of Equipment or Protective System**

BA374C and BA378C Indicating Transmitters are designed to be connected in a 4/20mA d.c. process loop which is proportional to the input signal (e.g. from thermocouple, RTD, etc) and to provide a display in engineering units.

The BA374C is a field mounting indicating transmitter and the BA378C is a panel mounting indicating transmitter, both may be fitted with an alarm interface board and/or backlight board.

The BA374C/BA378C comprises six printed circuit boards housed in a metal enclosure or conductive plastic enclosure, which may have a conductive coating on the inside surfaces.

Terminals 1 to 4

U_o = 8.61V d.c.
I_o = 62mA d.c.
P_o = 0.14W
C_i = 1.64µF
L_i = 0.01mH

Terminals 5 and 6

U_i = 30V d.c.
I_i = 280mA d.c.
P_i = 0.85W
C_i = 0.02µF
L_i = 0.01mH

Terminals 8 and 9; 10 and 11

U_i = 30V d.c. U_o = 0.7V d.c.
I_i = 280mA d.c. I_o = 1.3µA d.c.
P_i = 0.85W P_o = 4.1µW
C_i = 0.04µF
L_i = 0.02mH

Terminals 12 and 13

U_i = 30V d.c.
I_i = 159mA d.c.
P_i = 0.8W
C_i = 0.04µF
L_i = 0.02mH

13 **Schedule**

14 **EC-TYPE EXAMINATION CERTIFICATE N° BAS02ATEX1185X**

For intrinsic safety considerations, under fault conditions, the voltage, current, and power at terminals 8 and 9 and 10 and 11 do not exceed those specified in Clause 5.4 of EN 50020: 1994. The equivalent capacitance and inductance are the result of r.f. suppression components directly connected to apparatus terminals.

16 **Report No.**

01(C)0781

17 **Special Conditions For Safe Use**

The front bezel and display membrane of the BA378C Indicating Transmitters have conductive coatings, clean with soap and water, do not use abrasives, avoid inappropriate contact with solvents.

18 **Essential Health and Safety Requirements**

ESSENTIAL HEALTH & SAFETY REQUIREMENTS not covered by Standards listed at (9)		
Clause	**Subject**	**Compliance**
1.1.3	Changes in characteristics of materials and combinations thereof	Report 01(C)0781 Clause 5.1.1.3
1.2.2	Components for incorporation or replacement	Report 01(C)0781 Clause 5.1.2.2
1.2.5	Additional means of protection	Report 01(C)0781 Clause 5.1.2.5
1.2.7	Protection against other hazards	Report 01(C)0781Clause 5.1.2.7
1.4.2	Withstanding attack by aggressive substances	Report 01(C)0781 Clause 5.1.4.2

19 **DRAWINGS**

Number	**Issue**	**Date**	**Description**
CI370-01 Sheets 1, 3, 4, 5, 6, 7, 11, 12, 14, 16, 17, 20, 21, 23, 24, 25 & 28	1	16.07.96	Certification Information
CI370-01 Sheets 2, 8, 9, 10, 13, 15, 18, 19, 22, 26, 27, 29, 30, 31 & 32	2	13.05.02	Certification Information

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BASEEFA List Keywords
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