



## EC-TYPE EXAMINATION CERTIFICATE

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

EC-Type Examination Certificate Number : BAS02ATEX1311

Equipment or Protective System: LS, LED CLUSTER TYPES DA\*171 AND DA\*172

Manufacturer: RTK ENGINEERING LIMITED

Address: Harrogate, North Yorkshire, HG2 0NP

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

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°

02(C)0337 dated 28 August 2002

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.

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.

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.

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

II 1 G    EEx ia IIC T4 (-20°C ≤ T<sub>a</sub> < +40°C or +60°C - see Schedule)

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

File No: ELCS 2308/02/034

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.



Electrical Equipment Certification Service  
Health and Safety Executive  
Harpur Hill, Buxton, Derbyshire, SK17 9JN, United Kingdom  
Tel: +44(0)1298 28000 Fax: +44(0)1298 28244  
Internet: www.bascefs.com e-mail: bascefs.info.eecs@hsl.gov.uk



I M CLEARE  
DIRECTOR  
9 September 2002



13

## Schedule

14

## EC-TYPE EXAMINATION CERTIFICATE N° BAS02ATEX1311

15

## Description of Equipment or Protective System

I.S. LED Cluster Types DA\*171 and DA\*172 are designed as panel mounted indicators and contain a number of coloured LED's mounted on a p.c.b. with associated electronic components. The p.c.b. is housed in a small plastic enclosure with customer terminals at the rear and an appropriately coloured lens within either a plastic or metal bezel at the front.

The DA\*171 and DA\*172 LED Clusters are fitted with up to five LED's connected either in series or in parallel and may contain optional current regulator, adjustable voltage regulator, bridge circuit, voltage suppressor and alternative types of LED.

The third letter in the type number denotes the colour of the LED Cluster (R for Red, O for orange etc.) and the sixth digit is either 1 or 2 which denotes either a plastic or metal bezel around the lens.

The enclosure provides a Degree of Protection IP20 and the exposed surface of the lens is treated with a durable antistatic coating.

**EEx ia IIC T4 (-20°C ≤ T<sub>a</sub> ≤ +40°C)****EEx ia IIC T4 (-20°C ≤ T<sub>a</sub> ≤ +60°C)**U<sub>i</sub> = 40V d.c.U<sub>i</sub> = 40V d.c.P<sub>i</sub> = 1.3WP<sub>i</sub> = 1.2WC<sub>i</sub> = 0C<sub>i</sub> = 0L<sub>i</sub> = 0L<sub>i</sub> = 0

16

## Report No.

02(C)0337

17

## Special Conditions For Safe Use

None.

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 No 02(C)0337 Clause 6.1.1.3
1.2.2	Components for incorporation or replacement	Report No 02(C)0337 Clause 6.1.2.2
1.2.5	Additional means of protection	Report No 02(C)0337 Clause 6.1.2.5
1.2.7	Protection against other hazards	Report No 02(C)0337 Clause 6.1.2.7
1.4.2	Withstanding attack by aggressive substances	Report No 02(C)0337 Clause 6.1.4.2



13

Schedule

14

**EC-TYPE EXAMINATION CERTIFICATE N° BAS02ATEX1311**

19

**DRAWINGS**

<b>Number</b>	<b>Issue</b>	<b>Date</b>	<b>Description</b>
CE5278	3	27/08/02	General Assembly
CE5282	2	27/08/02	Circuit Diagram
CE5281	1	20/3/02	Tracking and component Layout
CE5279	3	30/08/02	Certification Label

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

BASEEFA List Keywords  
ZINDICAT