Hazardous area

Safe area

Zener barrier
or galvanic isolator

Supply

BA390
LED Cluster Lamp

Intrinsically safe for use in all gas hazardous areas

◆ **Intrinsically safe ATEX, FM & IECEx certification.**

◆ **Red, amber, green, blue & white models.**

◆ **20mA constant current.**

◆ **IP66 front**

◆ **Barrier or isolator will power two lamps.**

◆ **3 year guarantee**

The BA390 cluster lamps provide reliable cost-effective visual status indication in all hazardous areas. Each BA390 contains a group of high efficiency light emitting diodes mounted behind a coloured diffuser to produce a bright, uniform output with a typical life greater than ten years. All models contain a 20mA current regulator which maintains constant brilliance and provides protection against excess voltages.

ATEX intrinsic safety certification allows BA390 LED cluster lamps to be installed in all gas hazardous areas. Two lamps may be powered from a single IIC intrinsically safe Zener barrier or galvanic isolator and up to four lamps from a IIB device. FM and IECEx approval allows BA390 lamps to be installed in the USA and the increasing number of countries which accept international IECEx certification.

Five well defined colours - red, amber, green, blue and white comply with the indicator light colour requirements specified in IEC204-1, allowing all plant conditions to be annunciated.

IP66 sealing of the lens and the joint between the lamp and the panel makes the BA390 ideal for installations in areas that will be hosed, washed or splashed. When environmental protection behind the panel is also required, an optional rear sealing assembly is available.
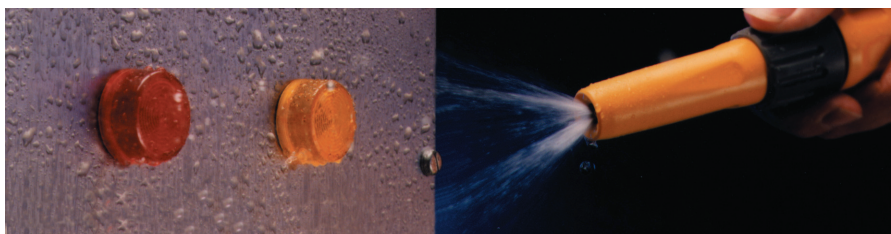
Mounting is via a single industry standard 22.5mm diameter hole. The lamp housing, fixing nut and terminals have a maximum diameter of 30mm which permits a very high packing density on the panel.

To aid identification from the rear of the panel, the model number and suffix which identifies the colour are marked on the lamp body close to the terminals

Reliability is ensured by an ISO9001 approved quality control system supported by a three year guarantee.

Low current Intrinsically safe cluster lamps for use with fieldbus multiple output modules or other low current sources are also available, please refer to the BA390S datasheet.

For safe area installations, please refer to the BA590 datasheet which describes a complementary range of non certified 24V dc powered cluster lamps.

Ex

FM
c APPROVED US

IEC IECEx

BEKA
associates

SPECIFICATION

Power supply

Voltage
   Operating   14 to 30V dc
   Reverse   60V max
Current   18 to 22mA

Output

Lamp colour	Typical at 150mm
Red	190 lux
Amber	150 lux
Green	250 lux
Blue	150 lux
White	300 lux

Intrinsic Safety

Europe ATEX

Code	Group II Category 1G
	Ex ia IIC T4 Ga
Certificate numbers	ITS13ATEX27822X
Installation	One or two BA390 lamps may be powered from any Ex ia IIC certified Zener barrier or galvanic isolator whose output safety parameters do not exceed:

     Uo   30V dc
     Po   1.2W at 60°C
     (e.g. 28V, 300Ω or 28V, 234Ω Zener barrier or galvanic isolator)

Gas groups	IIA, IIB or IIC
Location	Zone 0, 1 or 2

USA FM

Standard	3610 Entity
Code	CL I: Div 1: GP A, B, C, & D: T4 @ 60°C
File	3022662
Standard	3611 Nonincendive
Code	CL I: Div 2: GP A, B, C, & D: T4 @ 60°C
File	3022662

IECEx

Code	Ex ia IIC T4 Ga
Certification number	IECEx ITS 08.0030X

Environmental

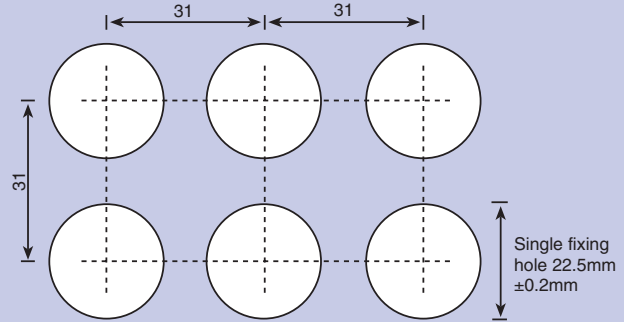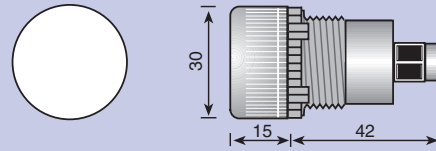|	
Operating temperature	-20 to 60°C
Storage temperature	-40 to 85°C
Relative humidity	5 to 95% non condensing
Operating life	100,000 hours typical
Enclosure	Front IP66
	Rear IP20 - see accessories for optional IP65 rear sealing assembly.
EMC	In accordance with EU Directive 2004/108/EC, full report available.
Immunity	No degradation of brightness for 10V/m field strength
Emissions	Electromagnetically benign

Mechanical

Terminals	Screw clamp for 1.5mm^2
Lens material	Polycarbonate
Body material	Nylon 6
Weight	18g

Accessories

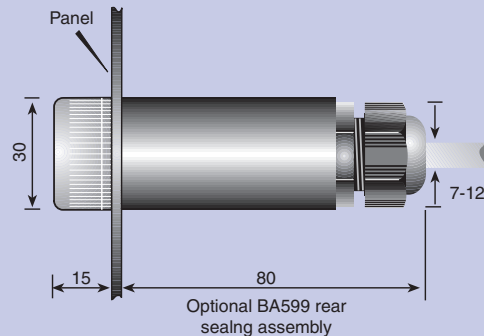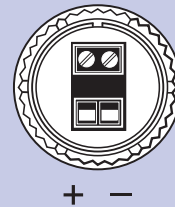|	
Rear sealing assembly	BA599 provides IP65 protection for terminals and rear of the lamp. Supplied with gland for 7 to 12mm diameter cable.

DIMENSIONS (mm)

Fixing centres for maximum packing density. Special tool may be required to tighten fixing nuts when minimum spacing is used.

Single fixing hole 22.5mm ±0.2mm

Panel

Optional BA599 rear sealing assembly

TERMINAL CONNECTIONS

+ −

HOW TO ORDER

Lamp colour	Please specify
Red	BA390R
Amber	BA390A
Green	BA390G
Blue	BA390B
White	BA390W

Accessories	Please specify if required
Rear sealing assembly	BA599

Example

Model number & colour	BA390A