

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 and mains powered cluster lamps.



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**



BEKA

associates

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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
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Certificate numbers	BAS01ATEX1062X
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Installation	One or two BA390 lamps may be powered from any EEx ia IIC certified Zener barrier or galvanic isolator whose output safety parameters do not exceed: U_o 30V dc P_o 1.3W at 40°C P_o 1.2W at 60°C (e.g. 28V, 300Ω or 28V, 234Ω Zener barrier or galvanic isolator) Gas groups IIA, IIB or IIC
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Location	Zone 0, 1 or 2
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Up to four BA390 lamps may be powered from any certified EEx ia IIB Zener barrier or galvanic isolator whose output safety parameters do not exceed: U_o 30V dc P_o 1.3W at 40°C Gas groups IIA or IIB

Location	Zone 0, 1 or 2
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USA FM

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

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

IECEx

Standard Code	IEC 60079-11:2006 Ga Ex ia IIC T4
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

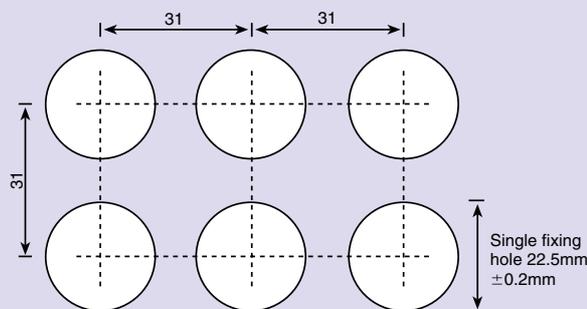
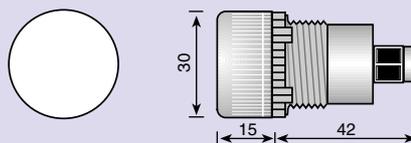
Mechanical

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

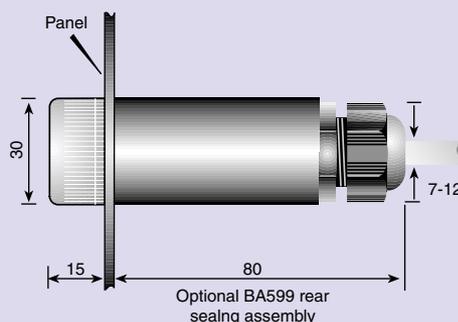
Accessories

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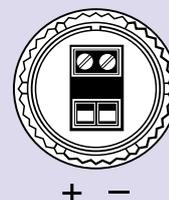
DIMENSIONS (mm)



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



TERMINAL CONNECTIONS



HOW TO ORDER

Lamp colour

Red
Amber
Green
Blue
White

Please specify

BA390R
BA390A
BA390G
BA390B
BA390W

Accessories

Rear sealing assembly

Please specify if required

BA599

Example

Model number & colour

BA390A