

BA390S low current cluster lamps provide reliable cost-effective visual status indication in all hazardous areas. Lamps have a typical life of ten years and, depending upon colour, contain two or three high efficiency light emitting diodes mounted behind a coloured diffuser to produce a uniform output.

Optimised for high brightness at low current BA390S lamps may be powered from almost any intrinsically safe output. Their high efficiency enables them to provide a useful output with an input current of only a few milliamps. For example, a BA390S lamp may be powered from one output of an intrinsically safe multiple digital output fieldbus module. These have several separate 4mA outputs, thus a number of BA390S cluster lamps may be powered and controlled by one module.

ATEX, FM and IECEx intrinsic safety approval allows BA390S lamps to be installed in Europe, the USA and the ever 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 BA390S 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.

Intrinsically safe cluster lamps for use with conventional Zener barriers and galvanic isolators are also available, please refer to the BA390 datasheet. For safe area applications please refer to the BA590 datasheet.



BA390S

Low Current LED Cluster Lamp

Intrinsically safe for use in all gas hazardous areas

- ◆ Intrinsically safe ATEX, FM & IECEx certification
- ◆ Red, amber, green, blue & white models
- ◆ Guaranteed operation at 4mA
- ◆ Operates from fieldbus and remote I/O modules
- ◆ IP66 front
- ◆ 3 year guarantee



BEKA

associates

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SPECIFICATION

Power supply

Current	4mA for specified performance. Current must be defined by external resistor or current limit. See Application Guide AG390 for typical outputs at other currents.
Max Voltage	22mA
Operating Reverse	8V typical, 8.7V max 60V max

Output at 4mA

Lamp colour	Typical at 150mm
Red	60 lux
Amber	38 lux
Green	42 lux
Blue	46 lux
White	56 lux

Intrinsic safety

Europe ATEX Code	Group II Category 1G Ex ia IIC T4
Certificate number	BAS01ATEX1062X
Installation	May be powered from any EEx ia IIC certified source whose output parameters do not exceed: U _o 30V dc P _o 1.3W at 40°C ambient P _o 1.2W at 60°C ambient
Gas group	IIA, IIB or IIC
Location	Zone 0, 1 or 2

USA FM

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

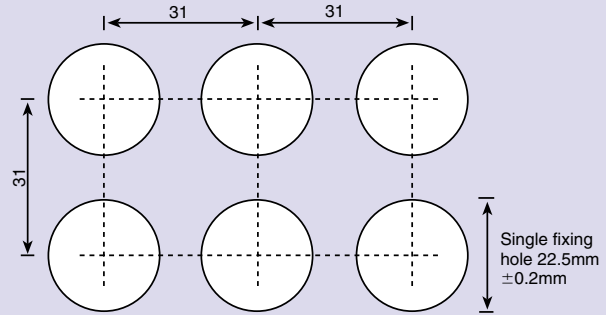
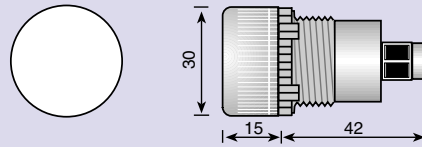
Mechanical

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

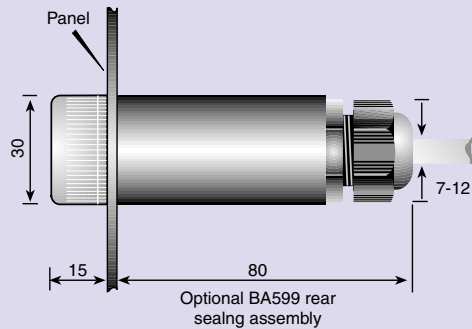
Accessories

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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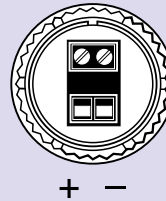
DIMENSIONS (mm)



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

BA390RS
BA390AS
BA390GS
BA390BS
BA390WS

Accessories

Rear sealing assembly

Please specify if required

BA599

Example

Model number & colour

BA390AS