

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.

The lamp function can be shown on an optional legend plate secured between the lamp and the panel. Plates can be supplied blank or typeset with up to two rows of ten alphanumeric characters.

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

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

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 Voltage 8V typical, 8.7V max
Reverse Voltage 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 Standard Code EN50020:1994
Group II Category 1G
Ex ia IIC T4
Certificate number BAS01ATEX1062X
Installation May be powered from any Ex 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 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

Standard IEC 60079-11:2006
Code 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 89/336/EEC, full report available.
Immunity No degradation of brightness for 10V/m field strength
Emissions Electromagnetically benign

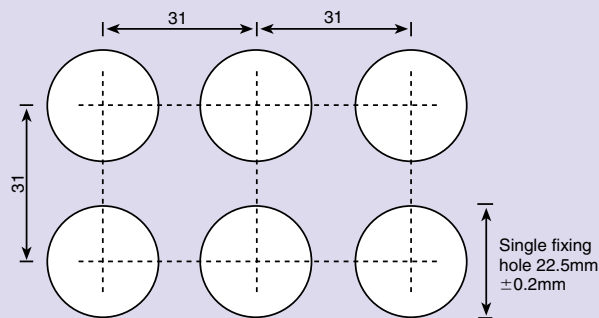
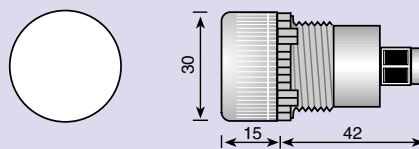
Mechanical

Terminals Screw clamp for 1.5mm²
Lens material Polycarbonate
Body material Nylon 6
Weight 18g

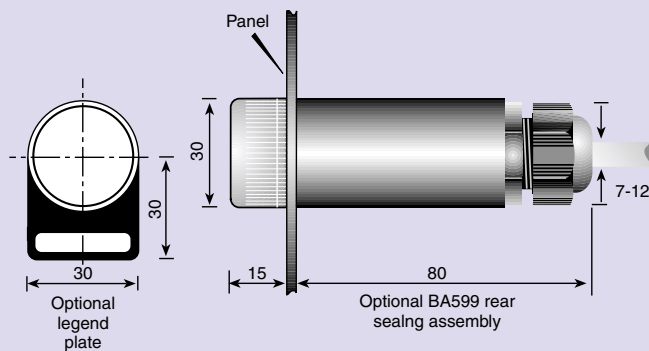
Accessories

Legend plate Will accommodate up to two rows of ten alphanumeric characters.
Rear sealing assembly BA599 provides IP65 protection for terminals and rear of the lamp. Supplied with gland for 7 to 12mm diameter cable.

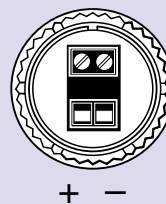
DIMENSIONS (mm)



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



TERMINAL CONNECTIONS



HOW TO ORDER

Lamp colour

Red
Amber
Green
Blue
White

Please specify

BA390RS
BA390AS
BA390GS
BA390BS
BA390WS

Accessories

Legend plate
Rear sealing assembly

Please specify if required

Legend
BA599

Example

Model number & colour
Legend plate

BA390AS
Run