

**BA590 series cluster lamps** are solid state panel mounting indicators which offer a high reliability alternative to conventional panel lamps incorporating a filament bulb. Very low current consumption and a ten year life minimise maintenance costs by totally eliminating routine bulb replacement. Each BA590 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 BA590 models contain a 20mA current regulator which maintains constant brilliance over a wide range of supply voltages.

**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.

**IP65 sealing** of the lens and the joint between the lamp and the panel makes the BA590 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.

**If flammable atmospheres are present** the complementary BA390 or BA390S intrinsically safe cluster lamps should be used. These have the same features as the BA590 but have been certified for installation in all gas hazardous areas.

**BA590** 24V dc  
**BA591** 115V ac  
**BA592** 230V ac

**LED Cluster Lamp**

*General purpose*

◆ Red, amber, green, blue & white models

◆ Long life - typically more than 10 years

◆ Low cost

◆ IP66 front

◆ 24V dc, 115V ac and 230V ac models

◆ 22.5mm hole mounting

◆ 3 year guarantee



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## SPECIFICATION

### BA590 - 24V dc

#### Power supply

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

#### Output

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

### BA591 - 115V ac

#### Power supply

Voltage	100 to 127V ac
Current	20mA average 0.7A peak

#### Output

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

#### Repetitive switching

Once every 2 seconds max

#### Operating temperature

-20 to +50°C

### BA592 - 230V ac

#### Power supply

Voltage	200 to 253V ac
Current	20mA average 1.4A peak

#### Output

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

#### Repetitive switching

Once every 5 seconds max

#### Operating temperature

-20 to +50°C

## COMMON SPECIFICATION

#### Environmental

Operating temperature	-20 to +60°C
Storage temperature	-40 to +60°C

Humidity To 95% at 40°C non-condensing

Operating life Typically 100,000 hours

Enclosure Front IP66  
Rear IP20 - see accessories for optional IP65 rear sealing assembly.

EMC In accordance with EU Directive 89/336/EEC.  
Immunity No degradation of brightness for 10V/m.  
Emissions Electromagnetically benign

Electrical safety In accordance with EU Directive 73/23/EEC

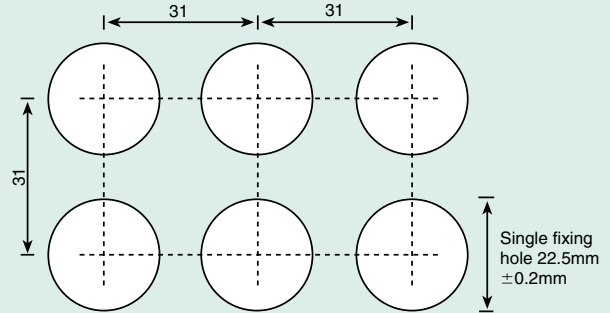
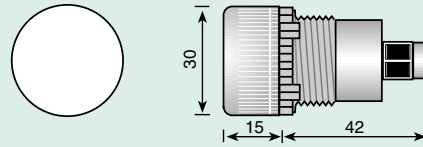
#### Mechanical

Terminals	Screw clamp for 1.5mm <sup>2</sup> .
Lens material	Polycarbonate
Lamp body	Nylon 6
Weight	18g

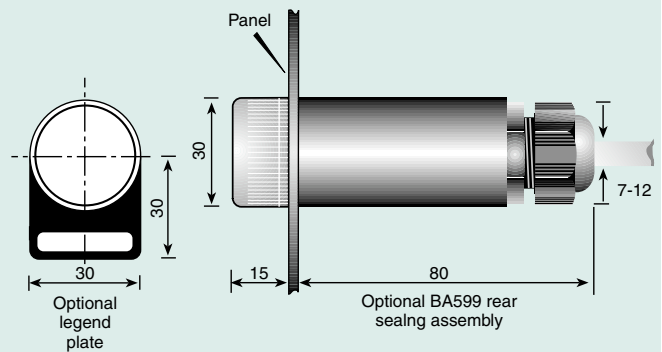
#### Accessories

Legend plate Will accommodate up to two rows of ten alphanumeric characters.

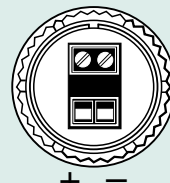
## DIMENSIONS (mm)



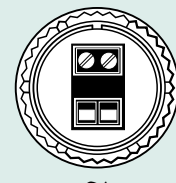
Fixing centres for maximum packing density.  
Special tool may be required to tighten fixing nuts when minimum spacing is used.



## TERMINAL CONNECTIONS



BA590



BA591 & BA592

## HOW TO ORDER

#### Please specify

Model number	BA590, BA591 or BA592
Colour	Red Amber Green Blue White
Model suffix R	
Model suffix A	
Model suffix G	
Model suffix B	
Model suffix W	

#### Accessories

Legend plate  
Rear sealing assembly

#### Please specify if required

Legend required  
BA599 provides IP65 protection for terminals and rear of the lamp. Supplied with gland for 7 to 12mm diameter cable.

#### Example

Model and colour BA590R