

BA390S low current panel lamps provide reliable, cost effective visual status indication in all gas and dust hazardous areas. Each BA390S lamp produces a uniform output with just a few milliamps of input current and has a typical life greater than ten years.

Optimised for use at low currents
BA390S lamps may be powered from almost any intrinsically safe supply. Their high efficiency results in a useful visible output with an input current of only a few milliamps. Lamps can therefore be powered from a current limited intrinsically safe supply, such as a digital output on a multiple output fieldbus module. Several lamps can also be powered, with suitable current limiting, from a Zener barrier or galvanic isolator.

IECEx and ATEX intrinsic safety
certification permits BA390S LED panel lamps to be installed in all gas and dust hazardous areas. For use in the USA all models also have FM gas certification.

Five well defined lamp colours - red, amber, green, blue and white allow lamps to be selected to comply with the indicator light colours recommended by IEC 73. When not powered, the front of panel coloured diffuser enables the lamp colour to be easily identified.

IP66 sealing of the lamp front and the joint between the lamp and the panel enclosure, enable BA390S lamps to be successfully installed in areas that will be hosed, washed or splashed. When rear of panel environmental protection is also required, the optional BA599 rear sealing kit provides IP66 protection and includes a cable gland to seal and support the supply cable.

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.

Complementary certified panel lamps incorporating an internal 20mA current regulator that may be powered directly from a Zener barrier or galvanic isolator are also available, please see BA390 datasheet. For safe area applications, the uncertified BA590 lamps incorporate a 20mA regulator and have similar features as the BA390 lamps.



BA390S

Low Current LED Panel Lamp

*Intrinsically safe for use
in all gas and dust
hazardous areas*

- ◆ Intrinsically safe IECEx, ATEX & FM certification.
- ◆ Red, amber, green, blue & white models.
- ◆ Guaranteed operation at 4mA.
- ◆ Operates from any current limited intrinsically safe source
- ◆ IP66 front
- ◆ 3 year guarantee

www.beka.co.uk/ba390s



BEKA

associates

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SPECIFICATION

Power supply

Current	4mA for specified performance. Current must be defined by an external resistor or current regulator. See Application Guide AG390.
Max	22mA
Voltage Drop	Voltage drop 8V typical 8.7V max via Zener barrier or galvanic isolator
Reverse	60V max

Output at 4mA

Lamp colour	Typical illuminance at 150mm
Red	60 lux
Amber	45 lux
Green	45 lux
Blue	80 lux
White	60 lux

Intrinsic Safety

International IECEx

Code	gas	Ex ia IIC T4 Ga
	dust *	Ex ia IIIC T135°C Da
		-20°C ≤ Ta ≤ +60°C

Input safety parameters

Ui	30V
Ii	159mA
Pi gas	1.2W
Pi dust *	0.683W

Certification number IECEx ITS 08.0030X

Europe ATEX

Code	gas	Group II Category 1G
		Ex ia IIC T4 Ga
	dust *	Group II Category 1D
		Ex ia IIIC T135°C Da
		-20°C ≤ Ta ≤ +60°C

Input safety parameters

Ui	30V
Ii	159mA
Pi gas	1.2W
Pi dust *	0.683W

Certificate number ITS13ATEX27822X

* Dust certification is an option

USA FM only gas certification

Standard	3610 Entity intrinsic safety
Code	CL I: Div 1: GP A, B, C & D: T4 @ 60°C
	AEx ia IIC T4 Ta = 60°C
File	3022662
Standard	3611 Nonincendive
Code	CL I: Div 2: GP A, B, C & D: T4 @ 60°C
File	3022662

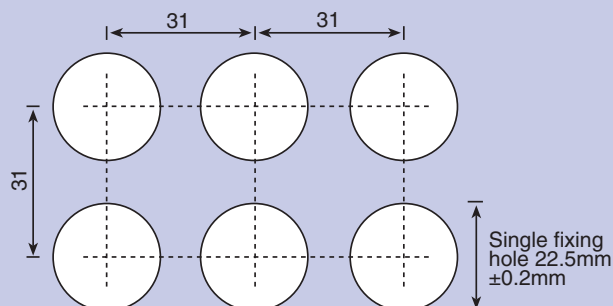
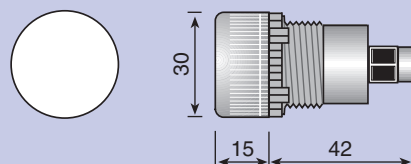
Environmental

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 Rear
	IP66
	IP20 - see accessories for BA599
	optional IP66 rear sealing kit.
EMC	Complies with EMC Directive 2014/30/EU.

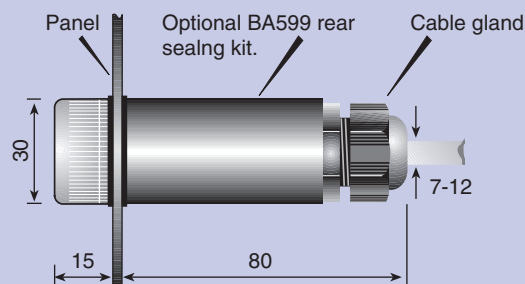
Mechanical

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

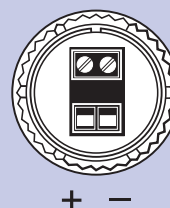
DIMENSIONS (mm)



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



TERMINAL CONNECTIONS



Accessories

Dust certification
Rear sealing kit

IECEx and ATEX dust certification
BA599 provides IP66 protection for
terminals and rear of the lamp.
Supplied with gland for 7 to 12mm
diameter cable.

HOW TO ORDER

Lamp colour

Red
Amber
Green
Blue
White

Please specify

BA390RS
BA390AS
BA390GS
BA390BS
BA390WS

Accessories

IECEx & ATEX certification
Rear sealing kit

Please specify if required

Dust certification
BA599