



**The Pageant BA3501 module** has four individually isolated unpowered 4/20mA passive outputs. Separate apparatus certification for the module allows it to be safely plugged into any one of the seven slots on a Pageant BA3101 Operator Display without the need for additional certification or approval.

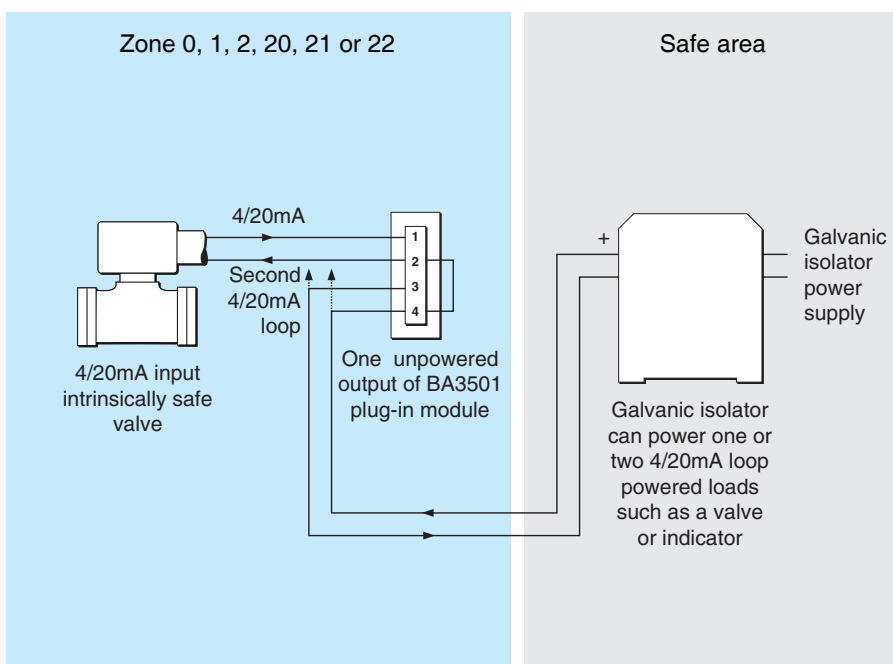
If requirements change, a BA3501 module may be fitted on-site to an operator panel which has already been installed and commissioned.

**This output module controls** up to four analogue variables generated by a Pageant Operator Panel. Each intrinsically safe, isolated 4/20mA output can control the position of a valve, be connected to a hazardous area field mounting instrument, or can be connected to a display to provide local indication of a process variable.

**Each output** is an unpowered 4/20mA current sink controlled by the Pageant operator panel. All outputs are galvanically isolated from each other and from the Pageant operator panel's power supply, allowing each one to be certified as a separate Ex ia circuit.

The output safety parameters of each output are below the threshold specified for *simple apparatus* which allows them to be ignored for some applications thus simplifying loop design.

**A 4/20mA output current** controlled by the Pageant BA3101 operator panel can be generated by connecting a BA3501 output in series with an intrinsically safe voltage source as shown below. Terminals 2 and 4 of each BA3501 output are internally linked for joining the return 4/20mA wire and the load can be in any gas or dust Zone.



Typical applications

# BA3501

## Pageant

## Analogue Output

## Module

### 4 x 4/20mA

*Each intrinsically safe output may be connected to a loop in any gas or dust hazardous area*

- ◆ Four 4/20mA unpowered outputs.
- ◆ Module plugs into a Pageant BA3101 intrinsically safe Operator Display.
- ◆ Each Ex ia output individually isolated.
- ◆ IECEx, ATEX & UKEX Ex ia IIC certification.
- ◆ 3 year guarantee

[www.beka.co.uk/ba3501](http://www.beka.co.uk/ba3501)



# BEKA

## associates

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## SPECIFICATION

**Power supply** From Pageant Operator Panel via CPU module

Module consumption 4% of available power

### Output

For each of the four isolated output channels

Current 2.5 to 22.0mA

Resistance Greater than 1MΩ

Voltage 5V to 30V at 20°C

Isolation 500V to other inputs and supplies

### Accuracy

Resolution 1μA  
Temperature effect. Less than 2μA/°C

### Intrinsic safety

#### International IECEx

Code Ex ia IIC T4 Ga  
Ex ia IIIC T135°C Da  
-40°C ≤ Ta ≤ +65°C

Safety parameters for each 4/20mA output

Ui 30V dc  
Ii 200mA  
Pi 0.66W

Ci 0  
Li 4μH

Cert. No. [IECEx 21.0131X](#)

\* Output parameters are below the *simple apparatus* threshold and may be ignored for some applications.

### Europe ATEX and UKEX

Code Group II Category 1GD  
Ex ia IIC T4 Ga  
Ex ia IIIC T135°C Da  
-40°C ≤ Ta ≤ +65°C

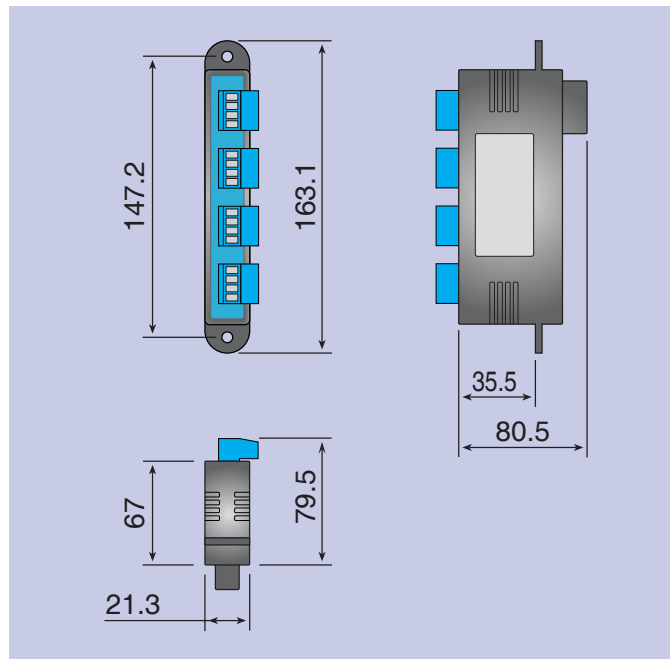
Safety parameters for each input as IECEx

Cert. Nos. [CML 21ATEX21163X](#)  
[CML 21UKEX21164X](#)

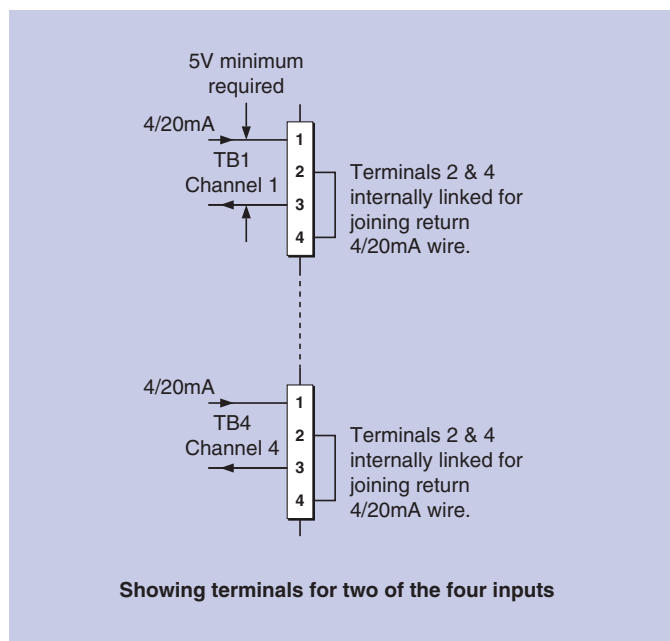
### Environmental

Operating temp -40 to +65°C  
Storage temp -40 to +85°C  
Enclosure IP20  
Material Noryl UL94V-1 flame class rating  
Humidity to 95% at 40°C non-condensing  
EMC Complies with UK & European EMC Directives.

## DIMENSIONS (mm)



## TERMINAL CONNECTIONS



### Mechanical

Terminals Screw clamp for 0.5 to 1.5mm<sup>2</sup> cable with a blue removable terminal block for each channel.

Weight 0.15kg

**Reliability is ensured** by component conformal coating, protection from incorrect connection and radio frequency interference. The module has been subjected to extensive vibration and thermal testing and is supported by a three year guarantee.

## HOW TO ORDER

Model number **Please specify**  
BA3501