

The **BA3401 Pageant Digital Input module** has eight contact input channels, each certified as a separate intrinsically safe circuit. The module is intended for use with isolated mechanical switches or isolated sensors with an open collector output. For 2-wire NAMUR proximity detector inputs the BA3402 Pageant plug-in module should be used.

This input module enables up to eight contact signals such as limit switches, alarm contact or push buttons to be easily connected to a Pageant Operator Panel where they can be displayed and used for PLC inputs.

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.

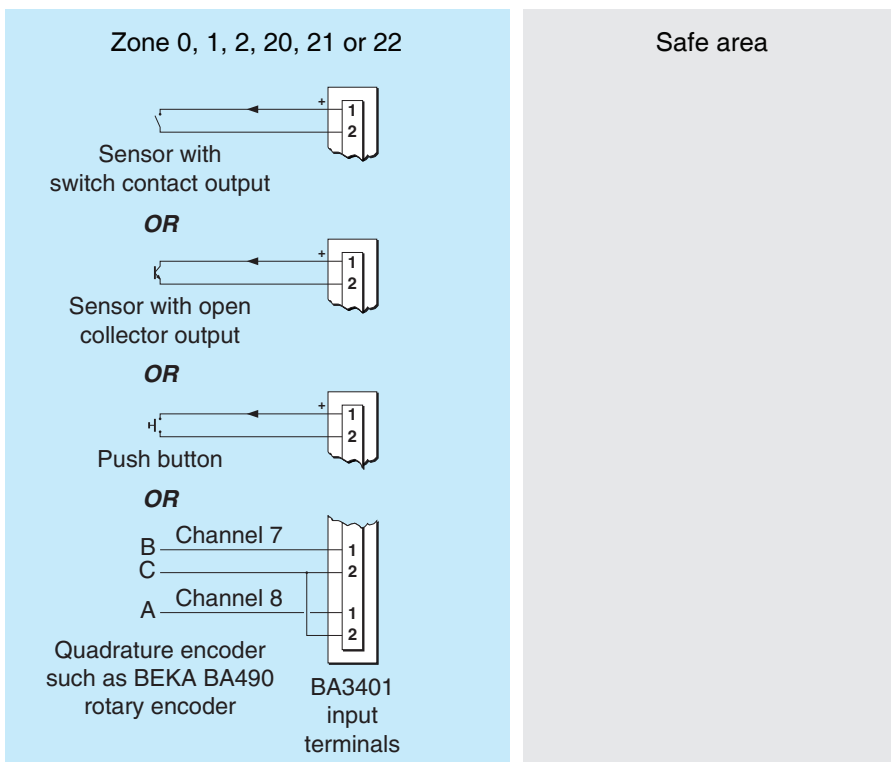
If requirements change, a BA3401 module may be fitted on-site to an Operator Panel which has already been installed and commissioned.

Each input may be connected to any isolated switch contact or to a sensor with an isolated open collector output located in Zone 0, 1, 2, 20, 21 or 22.

Although each input is a separate intrinsically safe circuit, each input is not individually isolated and therefore the switch or sensor and associated wiring should have 500V isolation from other circuits and from earth.

Rugged operator controls for a Pageant display system, such as Start and Stop buttons can be provided by connecting an industrial push button to a BA3401 input.

A quadrature input from a plant position sensor or from a BEKA panel mounting BA490 rotary encoder can be decoded by combining channels 7 and 8. This enables plant positions to be input to the Pageant Operator Panel system, or variables such as plant set-points to be easily adjusted by an operator.



Alternative sensor inputs

BA3401

Pageant Digital Input Module

8 x Contact

Each intrinsically safe input may be connected to a contact in any gas or dust hazardous area

- ◆ Eight contact or open collector inputs
- ◆ Two inputs can decode a quadrature signal.
- ◆ Module plugs into a Pageant BA3101 Ex ia intrinsically safe Operator Display.
- ◆ Each Ex ia input is a separate intrinsically safe circuit.
- ◆ IECEx, ATEX & UKCA Ex ia certification
- ◆ 3 year guarantee

www.beka.co.uk/ba3401



BEKA

associates

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

SPECIFICATION

Power supply From Pageant Operator Panel via CPU module

Module consumption 4% of available power

Input

8 contact or open collector sensors

For each input channel

Switching threshold

Closed <25k Ω

Open >35k Ω

Sensing voltage 3.3V

Sensing Current 33 μ A

Frequency Inputs polled 10 times per second by the BA3101 Operator Panel.

Quadrature encoder

Combining input channels 7 and 8 provides one quadrature input.

Intrinsic safety

International IECEx

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

Safety parameters for each input channel

Ui 0

Uo 4.94V

Io 0

Po 0

Ci 1.1nF

Li 4 μ H

Co 100 μ F for gas group IIC

Cert. No. IECEx 21.0004X

Europe ATEX and UK UKCA

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

Safety parameters for each input as IECEx

Cert. Nos. CML 21ATEX2110X

CML 21UKEX2111X

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

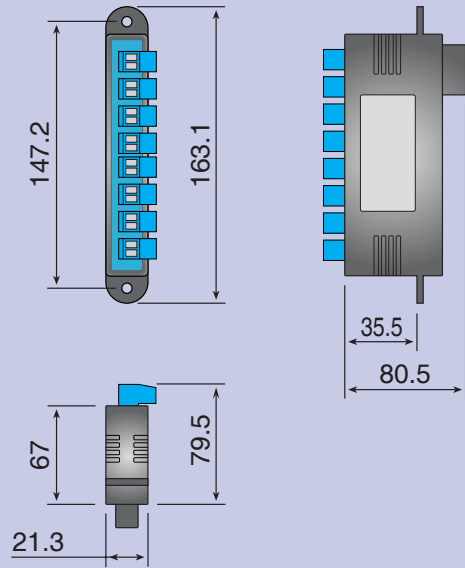
EMC Complies with UK & European Directives

Mechanical

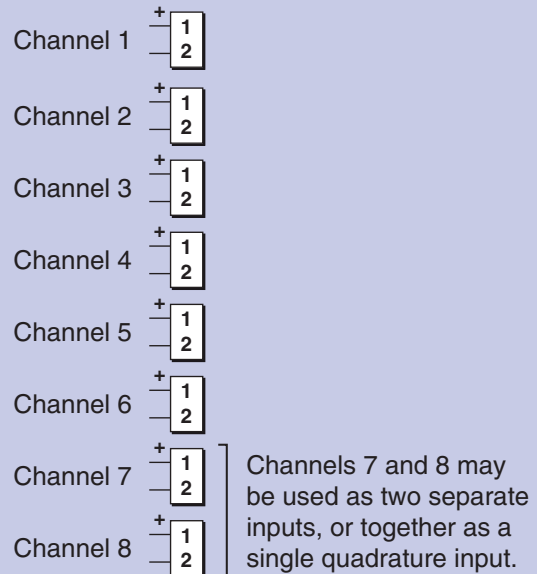
Terminals Screw clamp for 0.5 to 1.5mm² cable with blue removable terminal block for each channel.

Weight 0.15kg

DIMENSIONS (mm)



TERMINAL CONNECTIONS



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**
BA3401



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