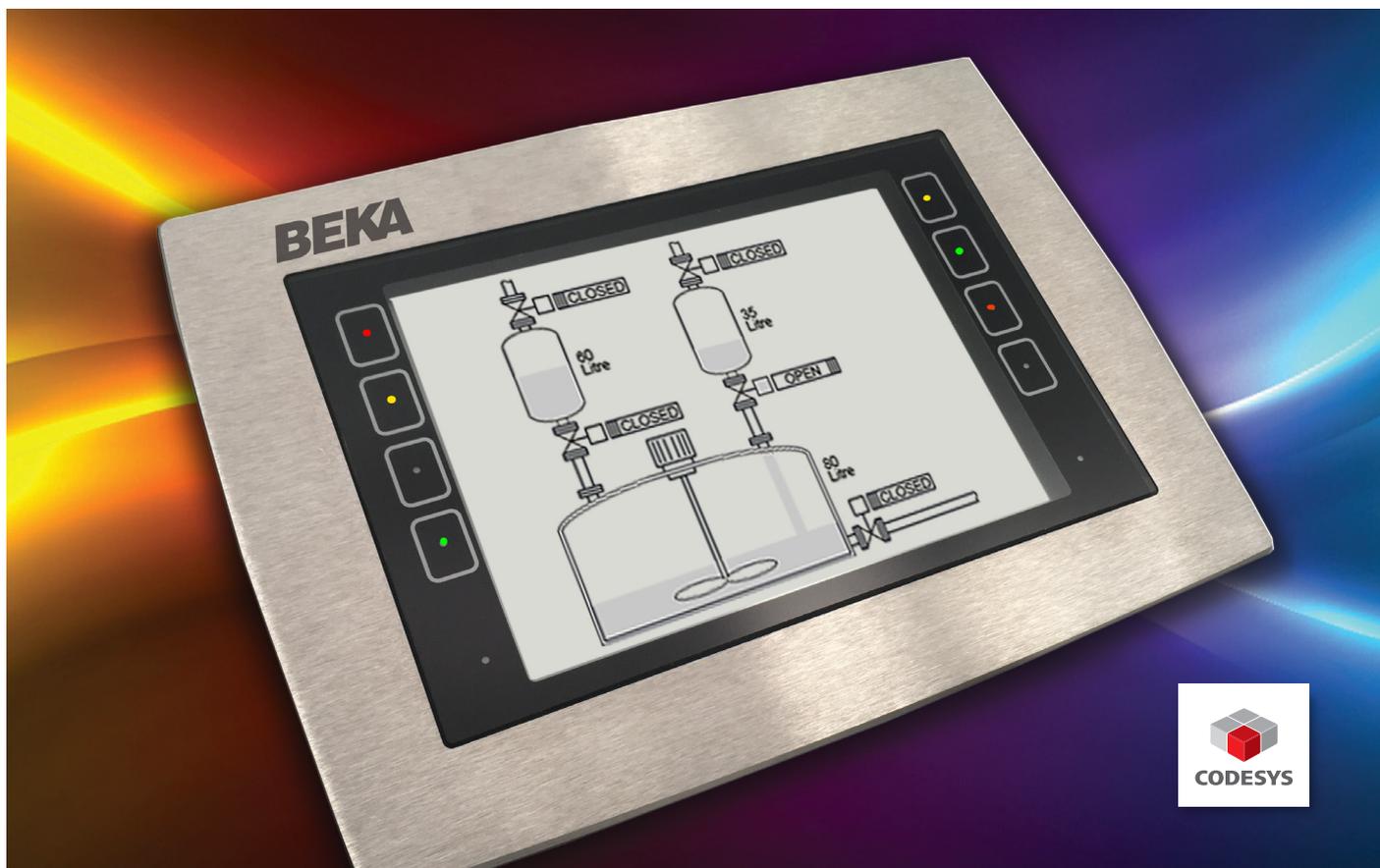


NEW PAGEANT

INTRINSICALLY SAFE OPERATOR PANEL
HMI, PLC, Modular I/O & Comms



- Intrinsic safety Ex ia certification allows installation in Zones 1, 2, 21 or 22
- 7 Inch backlit operator screen
- IEC 61131 compliant PLC
- Up to 7 plug-in input or output modules
- 8 touch buttons with tricolour annunciators
- IP66 toughened glass and stainless steel front panel
- 3 year guarantee

BEKA
associates



**UK
CA**

www.beka.co.uk

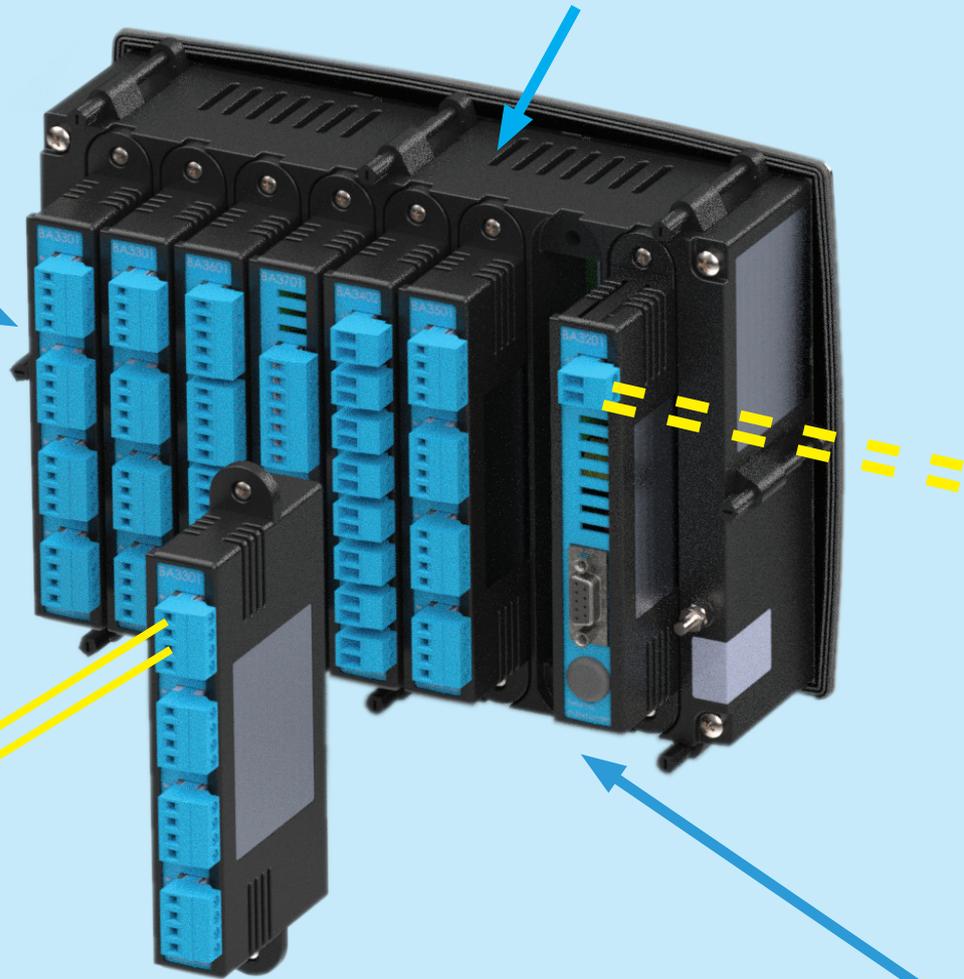
Zone 0, 1, 2, 20, 21, 22

Zone 1, 2, 21 or 22



Up to seven input and output modules can be plugged into a Pageant Operator Panel System.

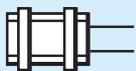
BA3101 Pageant Operator Display



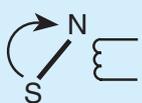
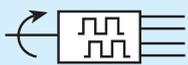
Module inputs are Ex ia certified allowing connection to sensors located in Zones 0, 1, 2, 20, 21 & 22

INPUTS

4/20mA



V Ω Ω



OUTPUTS

4/20mA



Plug-in input and output modules

BA3301 Analogue Input, 4 x 4/20mA, individually isolated

BA3401 Digital Input, 8 x Contact or Open Collector

BA3402 Digital Input, 8 x Proximity Detector, NAMUR

BA3501 Analogue Output, 4 x 4/20mA, individually isolated

BA3601 Digital Output, 4 x Solid State Contact Outputs, individually isolated

BA3701 Digital Input, 2 x Totaliser or Counter, NAMUR input, 2 x isolated synchronous outputs

Safe area, Zone 2 or 22

Pageant is powered by a BEKA Power Isolator

BA212 for IIA & IIB applications

BA243 for IIC applications



Plug-in CPU and communications module

BA3201 without external communication

BA3202 Modbus RTU communication RS485-IS

Accessories

BA3901 Power Combiner, IIC applications

BA3902 USB Programming Cable

BA3903 RS485-IS SUB D9 Connector

Pageant is an intrinsically safe combined operator panel, HMI and PLC which can be installed in Zones 1, 2, 21 or 22. It can accommodate up to seven plug-in intrinsically safe input and output modules which allow direct connection to most types of analogue and digital hazardous area sensors. Pageant can operate alone, or as part of an integrated system to provide economical monitoring, control and communications for a wide range of hazardous area equipment such as mud pumps, pharmaceutical coating machines and flammable liquid stills.

Designed with the help of users Pageant comprises an industry standard CODESYS® IEC 61131 compliant PLC, plus a seven inch back-lit operator display which is readable in all lighting conditions. An increasing range of plug-in analogue and digital input and output interface modules, plus a CPU module with optional external communications enable systems to be constructed with just the required functions. Operator inputs are made via eight touch buttons which incorporate programmable tricolour annunciators.

Intrinsic safety provides users with the safest hazardous area protection. This new BEKA low power technology eliminates the need for a heavy protective enclosure, reduces cost and allows the back-lit display and modules to be powered from a single BEKA Power Isolator. The BA3101 display and each of the plug-in interface modules have individual international apparatus certification with common interface safety parameters allowing users to only purchase the modules required for their application. If circumstances change, additional modules can be fitted and configured on-site.

Communication with Pageant is via an isolated RS485-IS port which can be connected to other equipment in the hazardous area, or to the safe area via a proprietary Isolator. Modules for Modbus are already available with others being developed.

Panel mounting Pageant has a toughened glass display window surrounded by a 316 stainless steel bezel providing IP66 ingress protection and a flat easy to wipe clean surface.



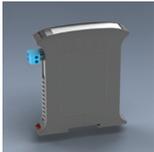
BA3101
Intrinsic Safe Operator Display
 FSTN Liquid Crystal
 178mm (7 inch) diagonal, 320 x 240 pixels
 White Backlight, brilliance adjustable
 8 Touch buttons & 2 Tri-colour annunciators



BA3201
CPU without external communication
 Operating system, memory and power distribution
 CODESYS PLC IEC 61131 compliant



BA3202
CPU with Modbus RTU communication
 Operating system, memory and power distribution
 CODESYS PLC IEC 61131 compliant
 Modbus Master or Slave
 Isolated RS485-IS



BA212
Power Isolator IIA or IIB applications
 4.4W Typical output
 Safe area or zone 2 mounting
 DIN rail mounting, 22.5mm Wide



BA243
Power Isolator IIC applications
 4-Channel, combined output 4.4W
 Safe area or zone 2 mounting
 DIN rail mounting, 97mm Wide



BA3901
Power Combiner
 Required for BA243
 Extends cable length for IIC applications
 Mounts onto CPU Module



BA3301
Analogue input module
 4 x 4/20mA inputs
 Individually isolated unpowered inputs
 Consumes 4% of power available for modules



BA3401
Digital input module
 8 x Contact or open collector
 Quadrature decoder using 2 inputs
 Consumes 4% of power available for modules



BA3402
Digital input module
 8 x NAMUR 2 wire proximity detector inputs
 Quadrature decoder using 2 inputs
 Consumes 40% of power available for modules



BA3501
Analogue output module
 4 x 4/20mA outputs
 Individually isolated unpowered outputs
 Consumes 4% of power available for modules



BA3601
Digital output module
 4 solid state contact outputs
 Individually isolated
 Consumes 4% of power available for modules



BA3701
Totaliser/counter module
 2 Non-isolated 2-wire NAMUR inputs
 2 Isolated synchronous pulse outputs
 Consumes 24% of power available for modules



BA3902
USB Programming Cable
 Dedicated to Pageant
 Required to protect IS circuits



BA3903
RS485-IS Connector
 Sub D9 connector
 Required for connecting CPU to RS485-IS comms

SPECIFICATION

Power supply

Voltage	20 to 30Vdc via Power Isolator
Current	Depends on modules fitted 320mA typ.

Certification (typical, see specific data sheet)

IECEX	Ex ia IIC T4 Ga Ex ia IIIC T135°C Da
ATEX & UKCA	II 1G Ex ia IIC T4 Ga II 1D Ex ia IIIC T135°C Da

* Dust certification requires IP54 enclosure

Environmental

Operating Temp	-40 to 65°C (Display -20 to 65°C)
Storage Temp	-40 to 85°C
Humidity	to 95% at 40°C non-condensing
EMC	Complies with EMC directive 2014/30/EU

Materials

Display front	316 Stainless steel 4mm Toughened glass Flat, easy to clean & bevelled outside edges
Display rear	Flame retardant Noryl
Power Isolator	Flame retardant ABS & Polycarbonate
Modules	Flame retardant Noryl

Ingress Protection

Display	IP66 (front) IP20 (rear)
Modules	IP20

Weights

See individual data sheets

DIMENSIONS for BA3101 Operator Display

