

Shown with optional backlight - loop powered

The BA528E loop powered 4/20mA indicator is a fourth generation instrument that is electrically and mechanically compatible with the earlier BA528C, but has a much larger full 5 digit display plus a 31 segment analogue bargraph providing maximum visibility from a 144 x 72mm instrument. The new model has guaranteed performance between -40°C & +70°C and an even shorter enclosure depth than its predecessor. The scale card can easily be marked to show the units of measurement and can be installed on-site without dismantling the indicator enclosure or removing the indicator from the panel. If the units of measurement are not specified when the indicator is ordered, a blank scale card will be fitted.

The main application of the BA528E is to display a measured variable in meaningful engineering units within a process area. The zero and span of the display are independently adjustable allowing the indicator to be calibrated to display any linear variable represented by the 4/20mA signal. A root extractor and an adjustable sixteen segment lineariser enables the indicator to display flow and tank level variables in linear engineering units. For weighing applications a tare function is included.

The bold 29mm high 5 digit display and 31 segment bargraph provide maximum contrast and have a very wide viewing angle, allowing the BA528E indicator to be read easily in most lighting conditions. An optional factory fitted backlight is available for applications in poorly illuminated areas. The five digits, with four decimal points and a negative sign, may be configured to display any variable between –99999 and 99999.

IP66 front panel protection and a neoprene gasket to seal the joint between the indicator and the panel, making the

instrument suitable for use in areas that will be cleaned with a hose. To simplify installation and maintenance, the indicator has a removable terminal block allowing panel wiring to be completed before the BA528E indicator is installed.

A Backlight which may be loop or separately powered is available as a factory fitted option. It provides green background illumination allowing the display to be read at night or in poorly illuminated areas. When powered from the 4/20mA loop no additional field wiring is required. Powering from a separate supply produces a brighter backlight but requires additional field wiring.

Optional alarm outputs which can switch low power loads such as sounders, beacons and solenoid valves are available as a factory fitted option. The two galvanically isolated solid state outputs may be independently conditioned as high or low alarms with normally open or closed outputs. Annunciators on the display show the status of each output.

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

Other models in this range include the BA508E which has a similar specification with four even larger 34mm high digits without a bargraph.

If flammable atmospheres are present the BA328E should be used. This has the same features as the BA528E but has been certified for use in hazardous areas.

BA528E 2-wire 4/20mA 5 digit indicator

General purpose

- Loop powered only 1.2V drop
- 5 digit 29mm high display & 31 segment bargraph.
- Optional backlight & alarms
- Easy on-site scale card installation
- IP66 front
- Root extractor and 16 segment lineariser
- 144 x 72mm DIN enclosure
- 3 year guarantee



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4 to 20mA

backlight.

input.

input.

Less than 1.2V at 20ºC

segment bargraph.

1 of 4 positions or absent Automatic minus sign

increasing 4/20mA input.

(Function in display mode)

Shows display with 4mA input Shows display with 20mA input

2 per second

Tare enabled.

±0.02% ±1 digit.

Used for Tare function

±16µA at input ±1 digit.

Less than 25ppm/ºC

flashing.

Less than 1.3V at -40°C

Less than 5V with optional loop powered

Liquid crystal 5 digit 29mm high & 31

±200mA or ±30V will not damage indicator.

Adjustable between 0 & ±99999 for a 4/20mA

Blanked apart from 0 in front of decimal point.

Display may increase or decrease with

31 segments 80mm long 99999 or –99999 with all decimal points

Displays input in mA or a % of span, has a

modified function when alarms are fitted or

Less than 50ppm/^oC Less than 0.05% of span error for 1mA pk to

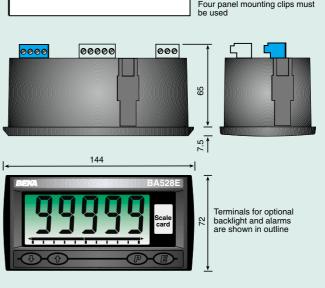
Adjustable between 0 & ±99999 with 4mA

Panel cut-out

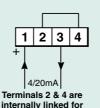
Recommended panel cut-out

DIN 43 700 $138.0 + 1.0 / -0.0 \times 68.0 + 0.7 / -0.0$

To achieve an IP66 seal between the instrument and the panel $136.0 + 0.5/-0.0 \times 66.2 + 0.5/-0.0$ Four panel mounting clips must be used



8 9



joining return 4/20mA wire

+ + Alarm 1 Alarm 2 Terminals for optional alarms

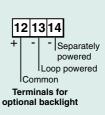
Please specify

Linear, root or lineariser*

BA528E

10

11



Model number Display mode Display at:

4 000mA 20.000mA

Accessories Display backlight Dual alarms Scale card

Tag

Include position of decimal point,* XXXXX sign if negative & intermediate points if lineariser is required. XXXXX

Please specify if required Backlight Alarms Legend required Legend required

* Will be set to display 0.0 at 4mA and 1000.0 at 20mA with a linear display if calibration information is not supplied. Can easily be recalibrated on site.

Overrange

Voltage

Display Type

Input Current

Span

Zero

Decimal point Polarity Zero blanking Direction

Reading rate Bargraph Overange

Push buttons

▲ 'P

Έ

Accuracy at 20°C Linear Root extracting Temperature effect on: Zero Span Series mode rejection.

Environmental

Operating temp Storage temp Humidity Vibration Enclosure EMC

Mechanical

Terminals

Weight

Accessories

Backlight Loop powered Separately powered V supply l in

Alarms

Output Vmax Imax Ron Roff

Printed scale card

Pack of printed scale cards and four blanks

Tag legend

pk 50 or 60Hz interference. -40 to +70°C -40 to +85°C to 95% at 40°C noncondensing. Report available Front IP66, rear IP20

Complies with 2004/108/EC

Screw clamp for 0.5 to 1.5mm² cable, removable. 0.35kg

Green, may be loop or separately powered.

Indicator input voltage 5V 11V to 30V dc

35mA

Two alarm outputs each of which may be independently configured as a high or low alarm contact with a NO or NC output. Isolated solid state switch 40V dc 200mA $5\Omega + 0.7V \text{ max}$ $1M\Omega$ min

supplied printed with specified units of measurement. Contains 26 common units of measurement

Blank card fitted to each Indicator can be

Specified tag number or application thermally printed onto rear of the instrument.