

The 7 digit BA528E SP101 loop powered 4/20mA indicator is a special version of the BA528E indicator, featuring two additional least significant digits, which may be configured to be active digits, or dummy trailing zeros.

For additional measurement resolution, either one or both of the additional digits may be active, resulting in a six or seven digit active display. Increased resolution causes the input current noise to become more significant which may result in an unstable display. The BA528E SP101 indicator therefore includes an adjustable digital filter.

When operators prefer to see digits rather than a scale card specifying a times ten or hundred multiplying factor, the least, or the least two significant digits can be configured as dummy trailing digits which always display zero.

The bold 18mm high 7 digit display provides maximum contrast and has a wide viewing angle, allowing the indicator to be easily read in most lighting conditions. An optional factory fitted backlight is available for applications in poorly illuminated areas. The seven digits, with six decimal point locations and a negative sign may be configured to display any variable between -9999999 and 9999999.

The BA528E SP101 retains all of the original BA528E indicator features, apart from the bargraph.

IP66 front panel protection with a neoprene gasket to seal the joint between the indicator and the panel, make 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 SP101 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 slightly 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.

BA528E SP101

2-wire 4/20mA
7 digit indicator

General purpose

- ◆ Loop powered only
1.2V drop.
- ◆ 7 digit 18mm high display.
- ◆ 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

www.beka.co.uk/ba528e

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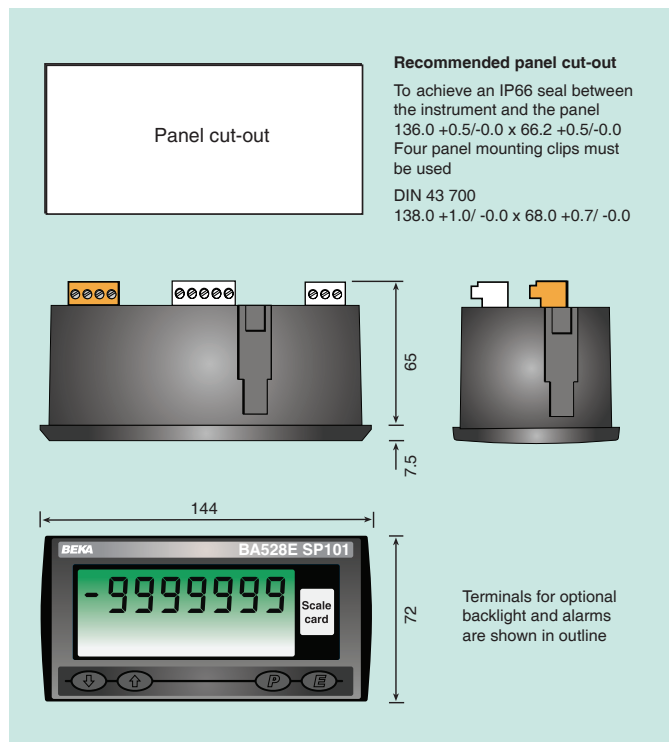
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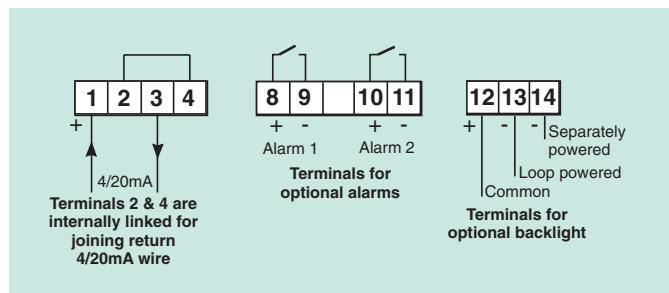
SPECIFICATION

Input	
Current	4 to 20mA
Voltage	Less than 1.2V at 20°C Less than 1.3V at -40°C Less than 5V with optional loop powered backlight.
Overrange	±200mA or ±30V will not damage indicator.
Display	
Type	Liquid crystal 7 digit 18mm high
Span	Adjustable between 0 & ±9999999 for a 4/20mA input.
Zero	Adjustable between 0 & ±9999999 with 4mA input.
Decimal point	1 of 6 positions or absent
Polarity	Automatic minus sign
Zero blanking	Blanked apart from 0 in front of decimal point.
Direction	Display may increase or decrease with increasing 4/20mA input.
Reading rate	2 per second
Overrange	9999999 or -9999999 with all decimal points flashing.
Push buttons	
▼	(Function in display mode) Shows display with 4mA input
▲	Shows display with 20mA input
'P'	Displays input in mA or a % of span, has a modified function when alarms are fitted or Tare enabled.
'E'	Used for Tare function
Accuracy at 20°C	
Linear	±0.02% ±1 digit.
Root extracting	±16µA at input ±1 digit.
Temperature effect on:	
Zero	Less than 25ppm/°C
Span	Less than 50ppm/°C
Series mode rejection.	Less than 0.05% of span error for 1mA pk to pk 50 or 60Hz interference.
Environmental	
Operating temp	-40 to 70°C
Storage temp	-40 to 85°C
Humidity	to 95% at 40°C noncondensing.
Vibration	Report available
Enclosure	Front IP66, rear IP20
EMC	Complies with EMC Directive 2014/30/EU
Mechanical	
Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable.
Weight	0.35kg
Accessories	
Backlight	Green, may be loop or separately powered. Indicator input voltage 5V
Loop powered	
Separately powered	
V supply	11V to 30V dc
I in	35mA
Alarms	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
Output	
Vmax	40V dc
Imax	200mA
Ron	5Ω + 0.7V max
Roff	1MΩ min

DIMENSIONS (mm)



TERMINAL CONNECTIONS



Printed scale card	Blank card fitted to each Indicator can be supplied printed with specified units of measurement.
Pack of printed scale cards	Contains 26 common units of measurement and four blanks.
Tag legend	Specified tag number or application thermally printed onto rear of the instrument.

HOW TO ORDER

Model number	BA528E SP101
Display mode	Linear, root or lineariser*
Display at:	
4.000mA	XXXXXXX Include position of decimal point,*
20.000mA	XXXXXXX sign if negative & intermediate points if lineariser is required.
Accessories	Please specify if required
Display backlight	Backlight
Dual alarms	Alarms
Scale card	Legend required
Tag	Legend required

* Will be set to display 0.0000 at 4mA and 100.0000 at 20mA with a linear display if calibration information is not supplied. Can easily be recalibrated on site.