

The **BA524G** is a general purpose, loop powered 4/20mA field mounting indicator, with a large five digit display and a bargraph housed in a robust IP66 GRP or stainless steel enclosure.

Main application of the BA524G is to display a measured variable in 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 also enable the indicator to display flow and variables such as tank level in linear engineering units. For weighing applications a tare function is included.

The large 29mm high 5 digit display and 31 segment bargraph provide maximum contrast and have a very wide viewing angle, allowing the BA524G indicator to be easily read in most lighting conditions over a wide temperature range. Optional factory fitted backlighting is available for installations in poorly illuminated areas. The five digit display, with four decimal points and a negative sign, may be configured to display any variable between -99999 and 99999.

IP66 and impact protection are provided by a robust GRP or 316 stainless steel enclosure. Both have a thick armoured glass window and silicone gaskets. Impact and ingress protection have been assessed by UKAS accredited bodies. The BA524G and BA524G-SS are surface mounting, but can be pipe or panel mounted using accessories.

Display backlighting which may be loop or separately powered is available as a factory fitted option. It provides green background illumination enabling the display to be read at night or in poorly illuminated areas. When powered from the 4/20mA loop, no additional wiring is required but the indicator's voltage drop is increased. Powering from a separate supply produces a slightly brighter backlight but requires additional field wiring.

Optional dual alarm outputs which can switch low power loads, such as sounders, beacons or 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 both alarms.

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

Other field mounting models in this range include the BA504G which has a similar specification with an even larger 4 digit, 34mm high display.

If flammable atmospheres are present either the BA324G or BA304G, should be used. Both have the same features as the BA524G, but are intrinsically safe and have international certification for use in hazardous gas and dust atmospheres.

BA524G BA524G-SS

2-wire 4/20mA 5 digit indicator

General purpose





- ◆ IP66 GRP or stainless steel enclosure.
- ◆ Loop powered only 1.2V drop.
- ◆ 5 digit 29mm high display & 31 segment bargraph.
- ◆ Optional backlight & alarms.
- ◆ Root extractor and 16 segment lineariser.
- ◆ Easy scale card installation on-site.
- ◆ 3 year guarantee

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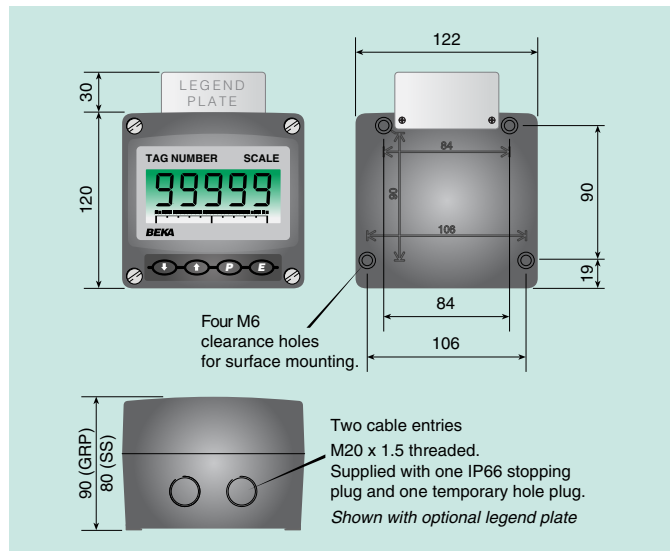
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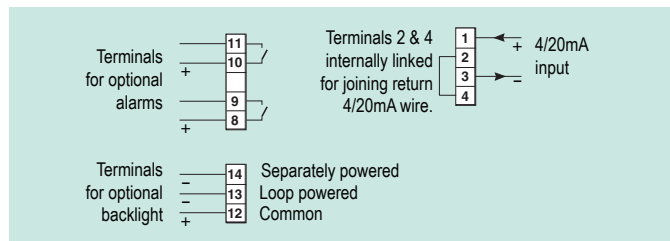
SPECIFICATION

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 the indicator.
Display	
Type	Liquid crystal, non-multiplexed 5 digits 29mm high.
Span	Adjustable between 0 & ±99999 for a 4/20mA input.
Zero	Adjustable between 0 & ±99999 with 4mA input.
Decimal point	1 of 4 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
Bargraph	31 segments 80mm long
Overrange	99999 or -99999 with all decimal points flashing.
Push buttons	
	(Function in display mode) Shows display with 4mA input
	Shows display with 20mA input
	Displays input in mA or as a % of span, has a modified function when alarms are fitted.
	Used for tare function
Accuracy at 20°C	
Linear	±0.02% of span ±1digit
Root extracting	±16µA at input ±1 digit
Temperature effect on:	
Zero	Less than 25ppm of span/°C
Span	Less than 50ppm of span/°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
EMC	Complies with EMC Directive 2014/30/EU.
Mechanical	
Enclosure	
Material	GRP or 316 stainless steel
Ingress protection	IP66
Impact protection	Enclosure 7J, Window 4J
Weight	
GRP	1.1kg
Stainless steel	2.6kg
Terminals	Orange with screw clamp for 0.5 to 1.5mm ² cable.
Scale card	Slide-in card showing units of measurement and tag information through display window.
Accessories	
Backlight	Green, may be loop or separately powered.
Loop powered	Indicator input voltage increases to 5V.
Separately powered	
V supply	11 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.
Output	Isolated, voltage free solid state switch.
Vmax	40V dc
Imax	200mA
Ron	5Ω + 0.7V max
Roff	1MΩ min

DIMENSIONS (mm)



TERMINAL CONNECTIONS



Legend plate	316 stainless steel plate laser engraved with tag number or application information attached to rear of the instrument, visible from the front. #
Pipe mounting kit	BA393G 316 stainless steel #
Panel mounting kits	
For BA524G and BA524G-SS	
BA394G	Mounts indicator into an open panel aperture, does not seal aperture #
For BA524G	
BA494G	Mounts indicator into an open panel aperture and seals aperture.#
For BA524G-SS	
BA494G-SS	Mounts indicator into an open panel aperture and seals aperture #
Back-box terminals for BA524G.	Including 4/20mA loop maintenance diode

See accessory datasheet for details

HOW TO ORDER

	Please specify
Model number	
GRP enclosure	BA524G
Stainless steel enclosure	BA524G-SS
Display mode	Linear, root or lineariser*
Display at:	
4.000mA	XXXXX
20.000mA	XXXXX
	Include position of decimal point & sign if negative.*
Scale card marking	
Units	Legend required
Tag	Legend required
Accessories	Please specify if required
Display backlight	Backlight
Dual alarms	Alarms
Stainless legend plate	Legend required
Pipe mounting kit	BA393G
Panel mounting kit	BA394G, BA494G or BA494G-SS
Back-box terminals	Back-box terminals

* Will be set to display 0.00 at 4mA and 100.00 at 20mA with a linear display if calibration information is not supplied. Can easily be recalibrated on-site.