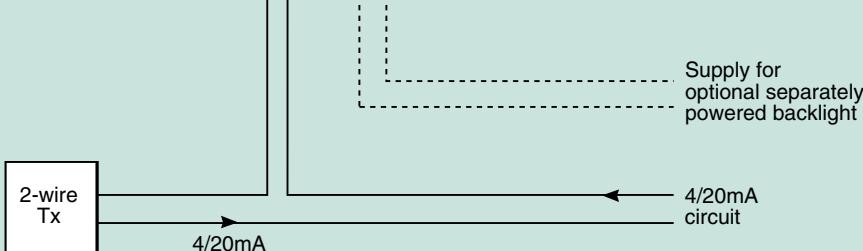


New model available
see BA508E



Shown with optional separately powered backlight

The BA508C is a general purpose panel mounting indicator which displays the current flowing in a 4/20mA loop in meaningful engineering units. The instrument is loop powered, but only introduces a 1V drop allowing it to be used in series with almost any 4/20mA loop. Modular accessories enable only the required features to be selected thus reducing cost while retaining interchangeability between instruments.

Main application of the BA508C is to display a measured variable or control signal in a process area. The zero and span of the display are independently adjustable so that the indicator can be calibrated to display any linear variable represented by a 4/20mA current, such as temperature, pressure, level or actuator position. When used with a differential flow transmitter, an optional square root extractor allows the BA508C to display flow in linear engineering units.

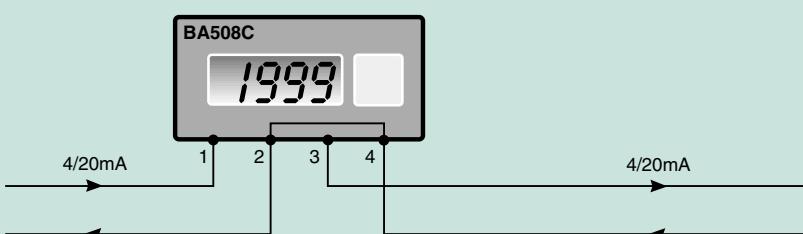
Separately powered backlighting is available as an option. The orange output enhances daylight contrast and enables the display to be read when the instrument is installed in a poorly illuminated area.

An optional internal calibrator simulates 4 and 20mA input currents and enables the indicator to be recalibrated without the need for test equipment or disconnection from the 4/20mA loop. Although not providing independent verification, it is an effective way to check performance or to recalibrate.

The front panel is a robust, easy to clean Noryl moulding sealed with a non-reflective, scratch resistant polyester membrane. A captive neoprene gasket provides an IP65 seal between the instrument enclosure and the panel.

Reliability is ensured by an ISO9001 approved quality control system supported by a three year guarantee. The indicator is protected from reverse connection and overrange input current, and incorporates extensive radio frequency filtering to comply with the European EMC Directive.

If flammable atmospheres are present the BA308C indicator should be used. This has the same features as the BA508C, but has been certified for use in hazardous areas.



BA508C loop powered indicator may be connected in series with any 4/20mA loop

BA508C

2-wire 4/20mA 3½ digit indicator

General purpose

- ◆ ±1999 display
25.4mm high
- ◆ Loop powered
only 1V drop
- ◆ Optional:
Backlight
Root extractor
Calibrator
- ◆ IP65 front
- ◆ 144 x 72mm DIN
enclosure
- ◆ 3 year guarantee

BEKA
associates

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Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

Input

Current	4 to 20mA
Voltage	Less than 1V at 20°C
Overrange	Less than 1.1V at -20°C ±200mA will not cause damage

Display

Type	3½ digit (-1999 to 1999)
Span	Liquid crystal 25.4mm high
Zero	Adjustable between 000 & 1999 for a 4 to 20mA input.
Decimal point	Adjustable between ±1000 with 4mA input.
Polarity	1 of 3 positions or absent
Direction	Automatic minus sign
Reading rate	Display may increase or decrease with increasing current. Factory set option.
Overrange	2.5 per second
	3 least significant digits are blanked

Accuracy

At 20°C	±1 digit
Temperature effect on:	
Zero	Typ ±0.05 digit ±100ppm/°C
Span	Max ±0.1 digit ±200ppm/°C Typ ±50ppm; max ±100ppm/°C

Environmental

Operating temp	-20 to +60°C
Storage temp	-40 to +85°C
Humidity	To 95% at 40°C non-condensing
Enclosure	Front IP65; Rear IP20
EMC	In accordance with EU Directive 89/336/EEC, full report available.
Immunity	Less than 1% of span error for 10V/m field strength between 27MHz & 1 GHz.
Emissions	Undetectable above background noise. Class B equipment

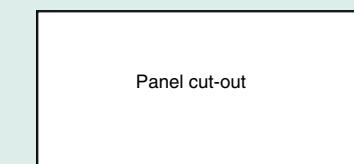
Mechanical

Terminals	Screw clamp for 0.5 to 1.5mm ² cables in removable terminal block.
Weight	0.5kg

Accessories

Separately powered backlight	LED backlight 18 to 30V dc, may be dimmed by reducing voltage below 18V. 40mA typical
Vin	
lin	
Root extractor	±16µA at input ±1 digit for inputs between 4.16 and 20mA (10 to 100% of flow)
Accuracy	Selectable by internal plug-in link, operates at 4.04mA input (5% of flow) <i>Not available with calibrator</i>
Clip-off	Simulates 4 and 20mA input, selected by plug-in link accessible through rear panel. <i>Not available with root extractor</i>
Calibrator	Blank scale card fitted to each indicator can be supplied typeset with units of measurement.
Typeset scale card	Thermally printed tag number on the rear of the instrument.
Tag number	BA398 provides additional mechanical protection.
Front cover	

DIMENSIONS (mm)

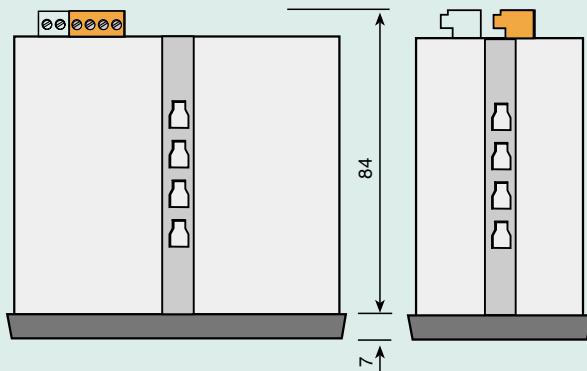


Recommended panel cut-out

DIN 43 700
138.0 +1.0/-0.0 x 68.0 +0.7/-0.0

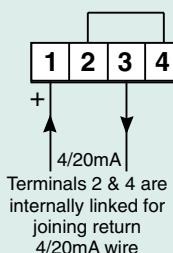
To achieve an IP65 seal between the instrument and the panel
136.0 +0.5/-0.0 x 66.2 +0.5/-0.0

Four panel mounting clips must be used

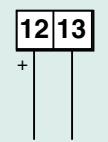


Terminals for optional
backlight are shown
in outline

TERMINAL CONNECTIONS



Terminals 2 & 4 are internally linked for joining return 4/20mA wire



Terminals for optional backlight

HOW TO ORDER

Model number
Display at 4mA
at 20mA

Please specify
BA508C
XXXX] Include position of decimal point
XXXX & sign if display is negative*

Accessories

Display backlight
Root extractor
or Calibrator
Scale card
Tag number
Front cover

Please specify if required
Separately powered backlight
Root extractor] Only one can
Calibrator be fitted
Legend
Legend
BA398

*Will be set to display 00.0 at 4mA and 100.0 at 20mA if calibration information is not supplied.