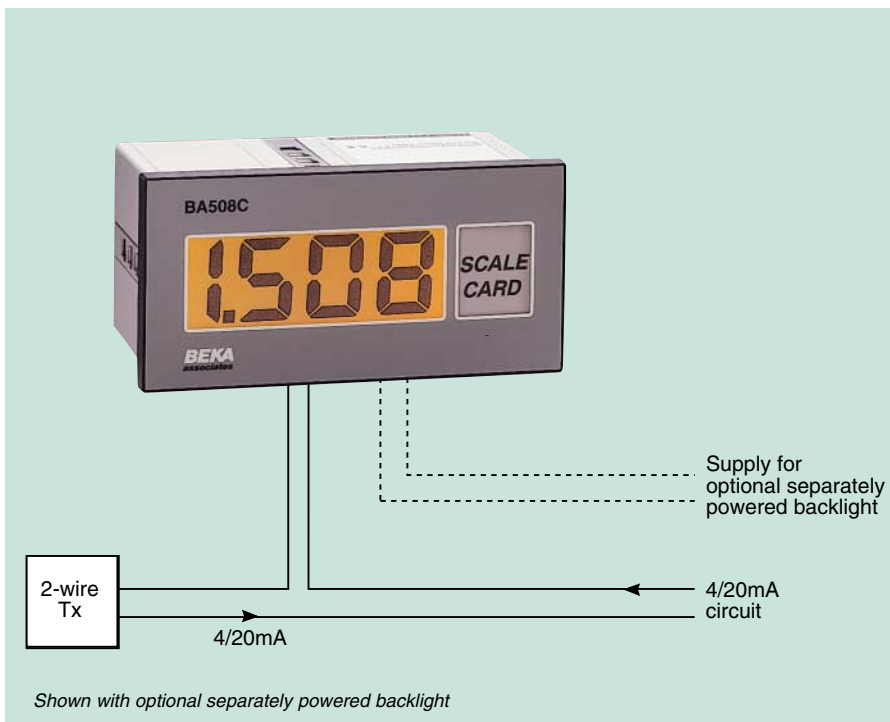


BA508C

2-wire 4/20mA
3½ digit indicator

General purpose



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.

◆ ±1999 display
25.4mm high

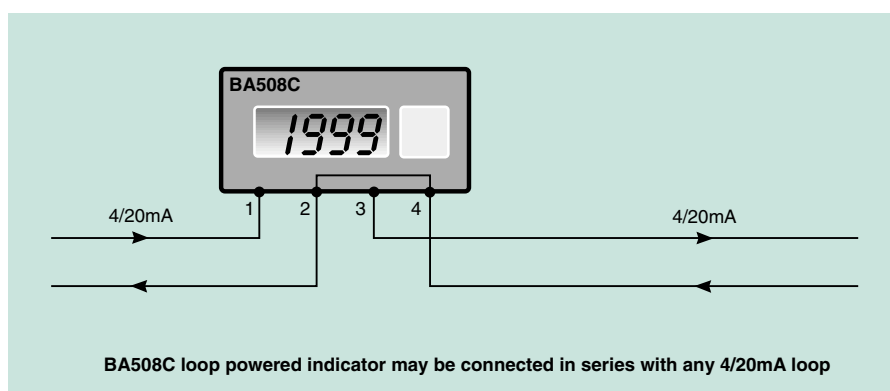
◆ Loop powered
only 1V drop

◆ **Optional:**
Backlight
Root extractor
Calibrator

◆ IP65 front

◆ 144 x 72mm DIN
enclosure

◆ 3 year guarantee



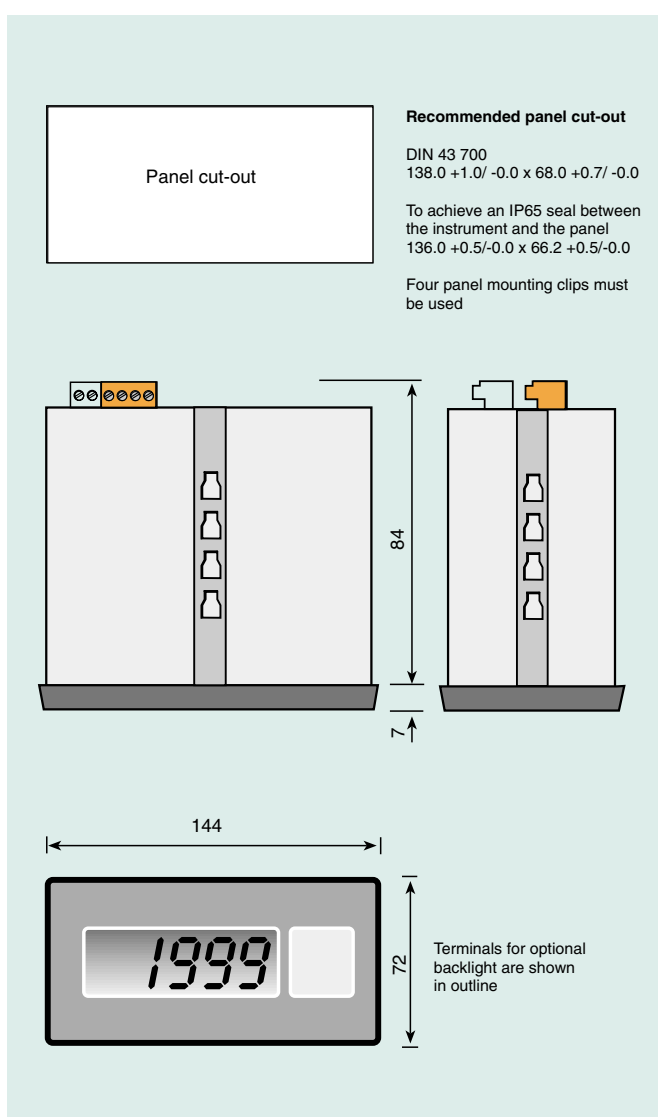
BEKA
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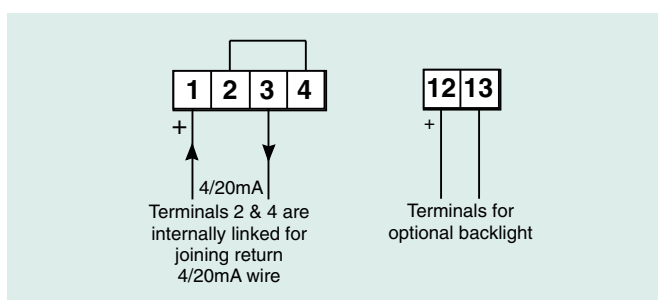
SPECIFICATION

Input	
Current	4 to 20mA
Voltage	Less than 1V at 20°C Less than 1.1V at -20°C
Overrange	±200mA will not cause damage
Display	
Type	3½ digit (-1999 to 1999) Liquid crystal 25.4mm high
Span	Adjustable between 000 & 1999 for a 4 to 20mA input.
Zero	Adjustable between ±1000 with 4mA input.
Decimal point	1 of 3 positions or absent
Polarity	Automatic minus sign
Direction	Display may increase or decrease with increasing current. Factory set option.
Reading rate	2.5 per second
Overrange	3 least significant digits are blanked
Accuracy	
At 20°C	±1 digit
Temperature effect on:	
Zero	Typ ±0.05 digit ±100ppm/°C Max ±0.1 digit ±200ppm/°C
Span	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
Vin	18 to 30V dc, may be dimmed by reducing voltage below 18V. 40mA typical
Iin	
Root extractor	
Accuracy	±16µA at input ±1 digit for inputs between 4.16 and 20mA (10 to 100% of flow)
Clip-off	Selectable by internal plug-in link, operates at 4.04mA input (5% of flow) <i>Not available with calibrator</i>
Calibrator	Simulates 4 and 20mA input, selected by plug-in link accessible through rear panel. <i>Not available with root extractor</i>
Typeset scale card	Blank scale card fitted to each indicator can be supplied typeset with units of measurement.
Tag number	Thermally printed tag number on the rear of the instrument.
Front cover	BA398 provides additional mechanical protection.

DIMENSIONS (mm)



TERMINAL CONNECTIONS



HOW TO ORDER

Model number	Please specify BA508C
Display at 4mA at 20mA	XXXX XXXX } Include position of decimal point XXXX } & sign if display is negative*
Accessories	Please specify if required
Display backlight	Separately powered backlight
Root extractor or Calibrator	Root extractor } Only one can Calibrator } be fitted
Scale card	Legend
Tag number	Legend
Front cover	BA398

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