

The **BA507C** 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 BA507C 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 BA507C to display flow in linear engineering units.

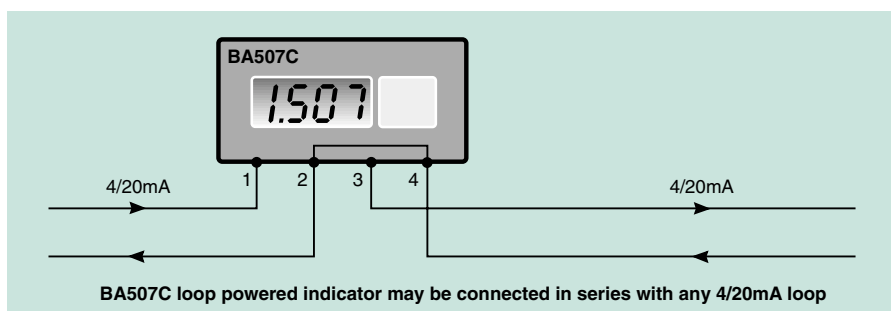
Separately powered backlighting is available as an option. The orange output enhances daylight contrast and enables the display to be read when the instrument is installed in a poorly illuminated area.

An optional internal calibrator simulates 4 and 20mA input currents enabling 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 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 BA307C indicator should be used. This has the same features as the BA507C, but has been certified for use in hazardous areas.



BA507C

2-wire 4/20mA
3½ digit indicator

General purpose

◆ ±1999 display
12.7mm high

◆ Loop powered
only 1V drop

◆ **Optional:**
Backlight
Root extractor
Calibrator

◆ IP65 front

◆ 96 x 48mm DIN
enclosure

◆ 3 year guarantee

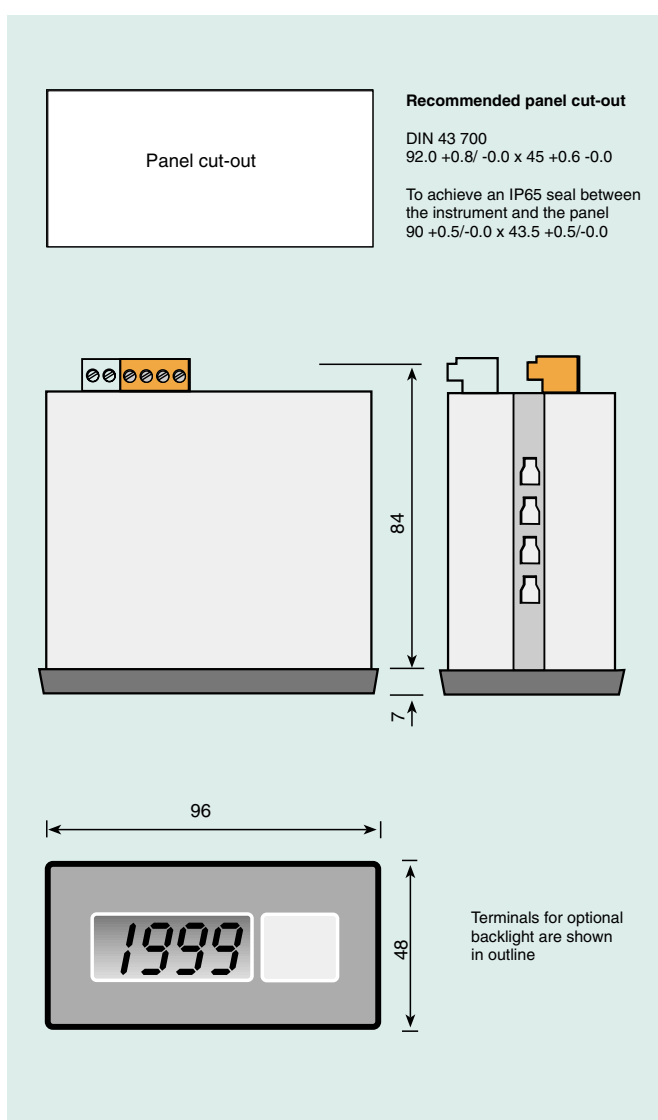
BEKA
associates

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

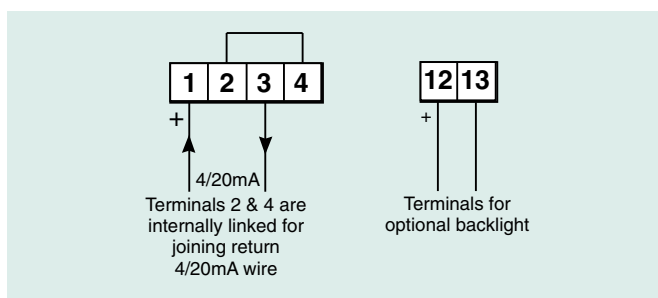
SPECIFICATION

| | |
|------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Input | |
| Current | 4 to 20mA |
| Voltage | Less than 1V at 20°C Less than 1.1V at -20°C |
| Overrange | ±200mA will not cause damage |
| Display | |
| Type | 3½ digit (-1999 to 1999) Liquid crystal 12.7mm high with optional backlighting. |
| 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 |
| Series mode rejection | Typ 1 digit error for 1mA pk to pk 50Hz signal. |
| 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 | 0.3kg |
| Accessories | |
| Separately powered backlight | LED backlight |
| Vin | 14 to 30V dc, may be dimmed by reducing voltage below 14V. |
| Iin | 40mA typical |
| 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. |

DIMENSIONS (mm)



TERMINAL CONNECTIONS



HOW TO ORDER

| | |
|--------------------|-----------------------------------------------------------------------------------|
| Model number | Please specify |
| Display at 4mA | BA507C |
| at 20mA | XXXX } Include position of decimal point XXXX } & sign if display is negative* |
| Accessories | Please specify if required |
| Display backlight | Separately powered backlight |
| Root extractor | Root extractor |
| or Calibrator | Calibrator } Only one can be fitted |
| Scale card | Legend |
| Tag number | Legend |

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