

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.

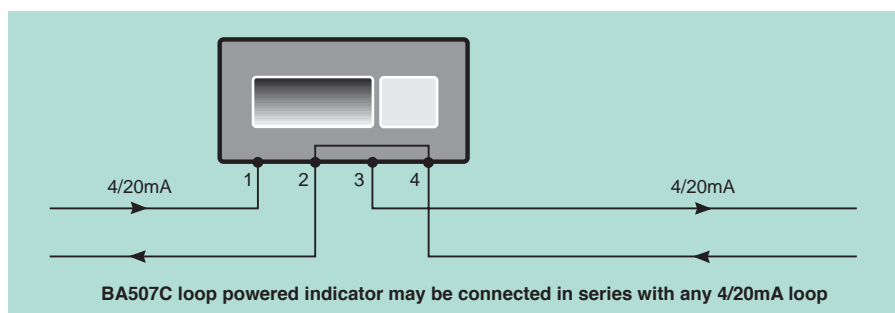
Backlighting is available as an option to improve readability when the BA507C is installed in a poorly illuminated area. High efficiency LED's provide an even glow which enhances the display contrast.

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

Loop powered

4/20mA

3½ digit indicator

● **±1999 display**
12.7mm high

● **No additional power supply required**

● **Optional:**
Backlight
Root extractor
Calibrator

● **IP65 front**

● **96 x 48mm DIN enclosure**

● **3 year guarantee**

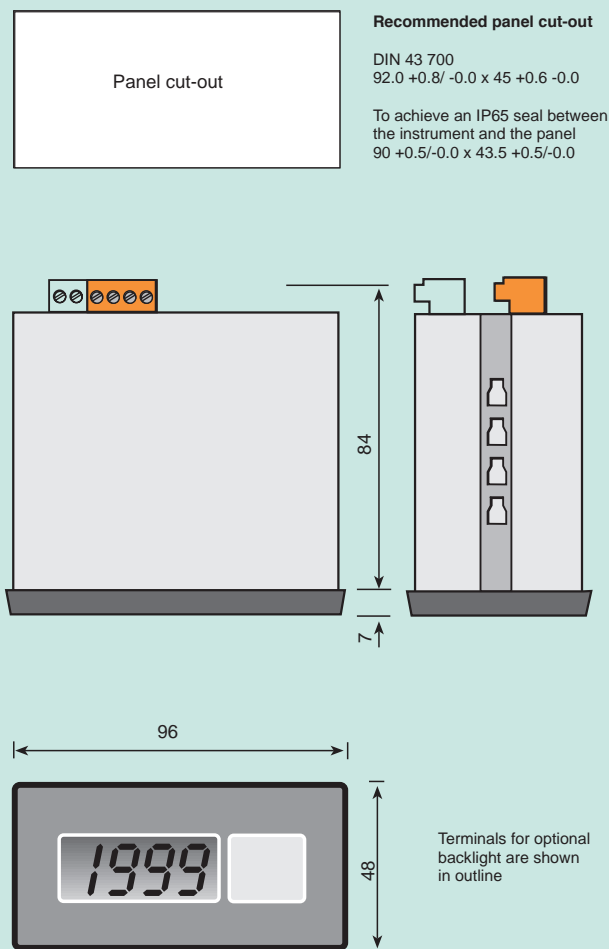
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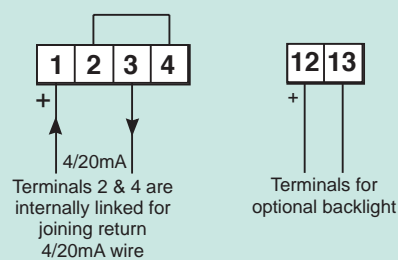
SPECIFICATION

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 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.
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
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	
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) Not available with calibrator
Calibrator	Simulates 4 and 20mA input, selected by plug-in link accessible through rear panel. Not available with root extractor
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
Display at 4mA
at 20mA

Please specify

BA507C

XXXX

XXXX

Include position of decimal point
& sign if display is negative*

Accessories

Display backlight
Root extractor
or Calibrator
Scale card
Tag number

Please specify if required

Backlight

Root extractor

Calibrator

Legend

Legend

Only one can
be fitted

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