BA505C

2-wire 4/20mA manual set point station
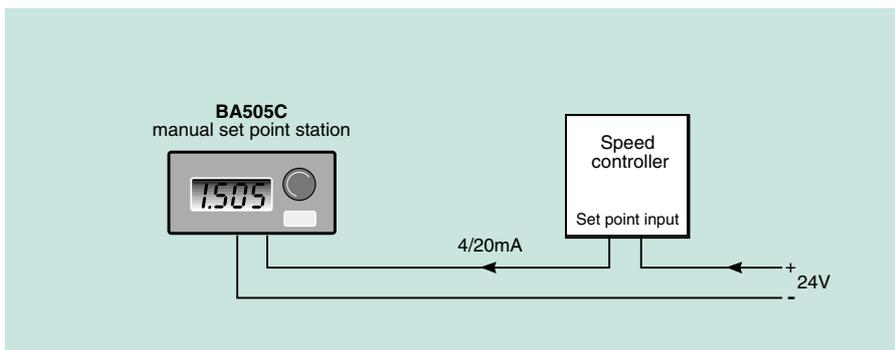
General purpose

Shown with optional separately powered backlight

◆ **Loop powered**

◆ **Optional:**
   Loop powered backlight
   Separately powered backlight

◆ **IP65 front**

◆ **96 x 48mm DIN enclosure**

◆ **3 Year guarantee**

The BA505C is a panel mounting manual set point station that enables the current flowing in a 4/20mA loop to be manually adjusted from within a process area. The instrument is loop powered and contains a 3½ digit display which may be calibrated to show the 4/20mA current in engineering units.

Main application of the BA505C is the adjustment of plant parameters from within a process area. Speed controller set points such as a vessel mixer, actuator position or any parameter represented by a 4/20mA signal an be adjusted by the set point station. The BA505C incorporates a ten turn high resolution potentiometer fitted with a friction damper to minimise the risk of accidental adjustment. The magnitude of the variable being adjusted is shown on a 3½ digit display which may be calibrated in engineering units. An operator can therefore accurately set the process parameter to the required value without the need for any other instruments.

The front panel is a robust Noryl moulding sealed with a scratch resistant polyester membrane, and a captive neoprene gasket provides an IP65 seal between the enclosure and the panel. To simplify installation and maintenance, the BA505C has a removable rear terminal block which allows panel wiring to be completed before the set point station is installed. A blank scale card is fitted to all instruments, this can be typeset during manufacture, or marked on site to show the units of adjustment.

Reliability is ensured by an ISO9001 approved quality control system supported by a three year guarantee. Set point stations are protected from reverse connection and overrange input current, and incorporate radio frequency filtering to comply with the European EMC Directive.

For applications in flammable atmospheres the BA405C has been certified intrinsically safe and may be installed in most hazardous areas.

SPECIFICATION

Output

Current	Typ 3.5 to 21mA
Resistance	Greater than 1M

Power Supply

Voltage   6.1 to 30V
10 to 30V with optional loop powered backlight.

Accuracy

Control resolution	0.05% of maximum output
Temperature effect	Less than 2µA/°C

Display

Type	$3^{1}/_{2}$ digit
Zero	Adjustable between -1000 & 1000
Span	Adjustable between 000 & 1999
Polarity	Automatic minus sign
Decimal point	1 of 3 positions or absent selected by internal plug-in link.

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	Electromagnetically benign

Mechanical

Terminals	Screw clamp for 0.5 to 1.5mm² cables in removable terminal block.
Weight	0.4kg

Accessories

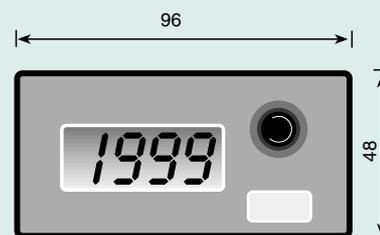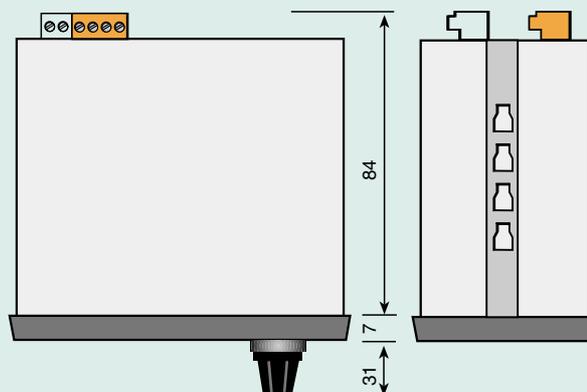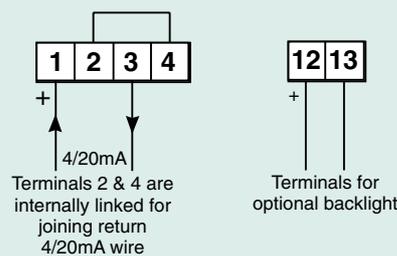|	
Separately powered backlight	LED backlight
Vin	14 to 30V dc, may be dimmed by reducing voltage below 14V.
Iin	40mA typical
Loop powered backlight	Green, powered from 4/20mA current.
Typeset scale card	Blank scale card fitted to each instrument can be supplied typeset with units of measure-ment.
Tag number	Thermally printed tag number on the rear of the instrument.

DIMENSIONS (mm)

Recommended panel cut-out

DIN 43 700
92.0 +0.8/ -0.0 x 45 +0.6 -0.0

To achieve an IP65 seal between the instrument and the panel
90 +0.5/-0.0 x 43.5 +0.5/-0.0

84
7
31
96
48

1999

Terminals for optional backlight are shown in outline

TERMINAL CONNECTIONS

1	2	3	4

+

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

12	13

+

Terminals for optional backlight

HOW TO ORDER

	Please specify
Model number	BA505C
	Display at 4mA XXXX
	Display at 20mA XXXX

Include position of decimal point and sign if negative

Accessories	**Please specify if required**
Display backlight	Separately powered backlight or Loop powered backlight
Scale card	Legend
Tag strip	Legend