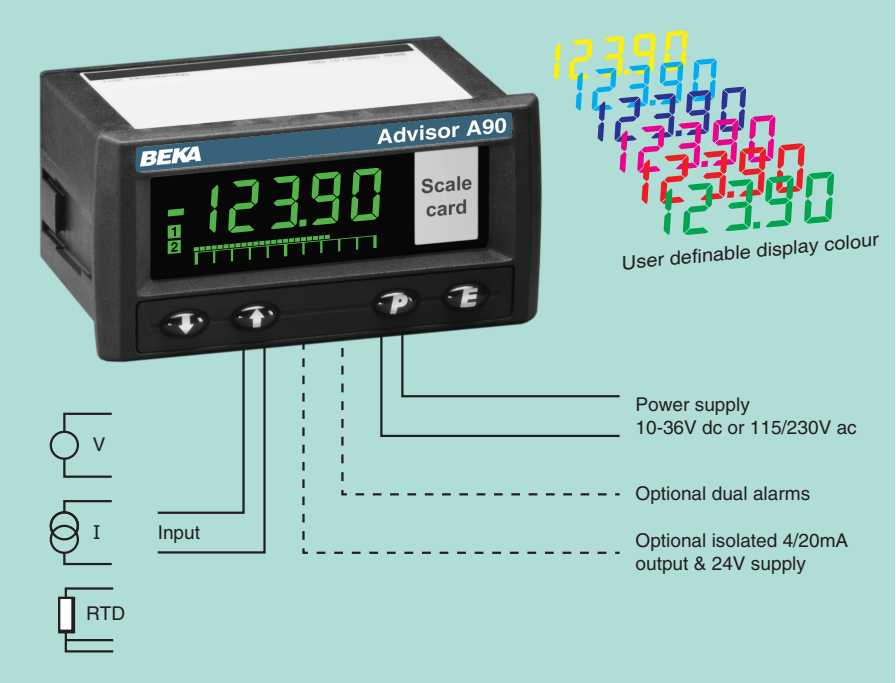


Advisor A90

Universal process panel meter with multicolour display

- **Multicolour display visible in all lighting conditions.**
- **5 digit 11mm and 31 segment bargraph display.**
- **dc and mains powered models.**
- **Current, voltage or RTD input.**
- **Optional alarms, isolated 4/20mA output and transmitter power supply.**
- **Easy on-site scale card installation.**
- **Max and min display**
- **96 x 48mm DIN enclosure with IP66 front.**
- **3 year guarantee**

www.beka.co.uk/a90

The A90 is a universal input panel meter that can display current or voltage process signals in engineering units and temperature directly from a resistance thermometer. The display, which can be configured to be any colour with adjustable brightness, has a high contrast allowing the meter to be read in all lighting conditions from bright sunlight to total darkness.

This second generation instrument has been designed and built using the same high quality techniques developed for our industry standard hazardous area products. The A90 is a tough instrument supported by a three year guarantee.

The main application of the A90 is to display a process variable or temperature in meaningful engineering units within a process area. The zero and span of the display are independently adjustable allowing the meter to be calibrated to display any linear variable represented by the input voltage or current. Maximum and minimum display values can be shown and a root extractor enables flow measurements to be displayed in linear engineering units. For weighing applications the A90 incorporates a tare function, including a front panel tare annunciator.

A two or three wire resistance thermometer may be directly connected to an A90 which can display temperature in a variety of units including °C and °F. The differential output from two resistance thermometers can also be displayed.

The A90 meter is configured via four front panel push buttons using a simple intuitive menu structure. An optional security code prevents accidental adjustment. Display calibration may be performed using the meter's internal references or external standards.

The colourful 11mm five digit display and 31 segment bargraph employ a novel technique that allows the display digits to be in any colour on a black background. When fitted with alarms the display colour can be linked to the alarm status. For example, a green display could indicate normal operation, the display changing to red when a high alarm occurs and to blue for a low alarm. The display intensity is fully adjustable preventing dazzle and preserving operators night vision.

IP66 front panel protection and a neoprene gasket to seal the joint between the panel meter and the instrument panel, make the instrument suitable for use in areas that will be cleaned with a hose. To simplify installation and maintenance, the A90 meter has removable terminal blocks allowing panel wiring to be completed before the A90 meter is installed.

Units of measurement are shown on the slide-in scale card which can be changed on-site without removing the meter from the instrument panel. Meters can be supplied with a printed customer specified scale card for no additional charge.

Optional alarms provide two channels, each with a change over relay output which may be independently configured as a high or low alarm. The alarm set points may be adjusted from within the configuration menu, or from the meter display mode via a separate optional security code. In addition to changing the display colour when an alarm is activated, display annunciators show the status of both alarms.

An isolated 4/20mA output is available as a factory fitted option. The output comprises a 4/20mA current sink and a 24V isolated power supply. The output may be wired as a current sink or as a current source and may be configured to represent any part of the meter display. When used as a current sink, the isolated 24V supply may be used to power a remote transmitter.

Other models in this range include the A90-SS which has the same specification but is housed in an impact resistant IP66 stainless steel panel mounting enclosure.

BEKA associates

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SPECIFICATION

Supply Voltage

dc model	10 to 36V dc
ac model	90 to 264V ac 47 - 63Hz

Display

Type	Negative liquid crystal with multicolour backlight. 5 digits 11mm high and 31 segment bargraph.
Span	Adjustable between 0 and ±99999
Zero	Adjustable between 0 and ±99999
Decimal point	1 of 4 fixed positions, absent or automatic
Polarity	Automatic minus sign
Zero blanking	Blanked apart from 0 in front of decimal point
Direction	Display may increase or decrease with increasing input.
Reading rate	4 per second
Overrange	99999 or -99999 with all decimal points and bargraph flashing.

Input (Selectable on-site)

Current	4 - 20mA or 0 - 50mA
Voltage	0 - 100mV; 0 - 1V or 0 - 10V
RTD	Pt100 2-wire, 3-wire or differential, includes configurable fault detection.

Push buttons (Function in display mode)

▼	Shows minimum diplay - other functions configurable.
▲	Shows maximum diplay - other functions configurable.
P	Displays analogue input or a % of span, has a modified function when optional alarms are fitted.
E	Tare function - when enabled

Accuracy

At 20°C

Linearity	Current & voltage ±0.02% of span ±1 digit 2 wire & 3 wire RTD ±0.05% of span ±1 digit Differential RTD ±0.1% of span ±1 digit
Root extracting (current input only).	±16µA at input ±1 digit
Temperature effect on:	
Zero	Less than 50ppm of span/°C
Span	Less than 100ppm of span/°C

Environmental

Operating temp	-40 to +55°C
Storage temp	-40 to +85°C
Humidity	to 95% at 40°C non condensing
Vibration	Report available
Enclosure	Front IP66, rear IP20
EMC	Complies with 2014/30/EU
LVD	Complies with 2014/35/EU
Isolation	ac supply 3kV rms dc supply 1.5kV Alarm contact 4kV rms All other ciruits 500V rms

Mechanical

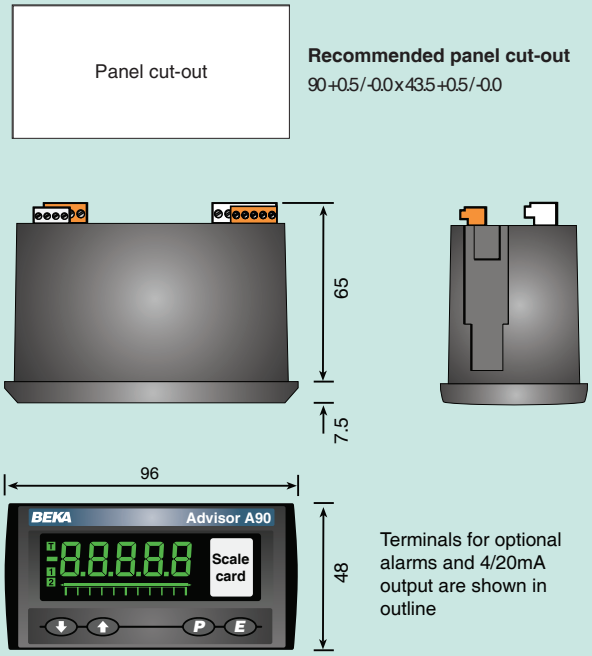
Terminals	Removable with screw clamp
Power & alarms	0.5 to 2.5mm² cable
Others	0.5 to 1.5mm² cable
Weight	0.25kg

Accessories

Alarms	Two alarm output relays each of which may be independently configured as a high or low, latching or non-latching alarms.
Output	Single pole change over contact
Contact rating	250V 5A ac, 30V 5A dc
4/20mA output including 24V transmitter supply.	Isolated 4/20mA current sink. Can be wired in series with 24V supply to produce current source. When current source is not required, 24V supply may be used to power remote transmitter.
Scale card	Blank card fitted to each meter can be supplied printed with specified units of measurement for no additional charge.
Tag legend	Specified tag number or application printed onto rear of the meter.
BA495 rear cover and sealing kit	Provides impact and IP66 protection for rear of instrument. #

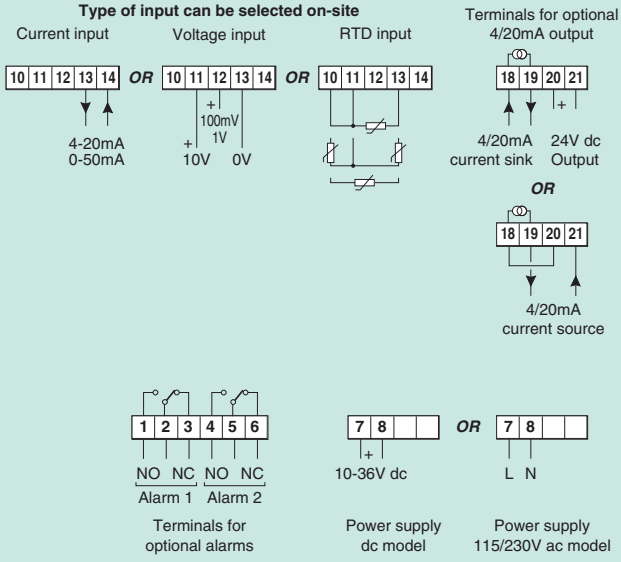
 # See accessory datasheet for details

DIMENSIONS (mm)



Terminals for optional alarms and 4/20mA output are shown in outline

TERMINAL CONNECTIONS



HOW TO ORDER

	Please specify
Model number	A90 panel meter
Supply	24V dc or 115/230V ac
Display mode	Linear or root extracting *
Input	Required input range
Display at:	
Zero	XXXXX] *Include position of decimal*
Span	XXXXX] *point & sign if negative. **
Colour	Required colour*

Accessories	**Please specify if required**
Dual alarms	Alarms
4/20mA output including 24V transmitter supply.	4/20mA output with Tx supply
Scale card	Legend required
Tag	Legend required
Rear cover and sealing kit	BA495

** Will be set to display in green 0.00 at 4mA and 100.00 at 20mA with linear input if calibration information is not supplied. Can easily be reconfigured on-site.*