

Shown with optional backlight - loop powered

The **BA627E-SS** set point station enables the current flowing in a 4/20mA loop to be manually adjusted from within a process area via the front panel push buttons. Housed in a rugged stainless steel enclosure with a toughened glass window the BA627E-SS is ideal for installations in harsh industrial and marine environments and where the front of the instrument is likely to be impacted.

Main application of the BA627E-SS is the manual adjustment of a 4/20mA plant parameter such as a controller set point from within a process area. For example, as the remote set point generator for a speed controller or for positioning a 4/20mA actuator or valve. The BA627E-SS incorporates a five digit display plus a bargraph that may be calibrated to show the engineering units represented by the 4/20mA output current, enabling an operator to easily set the process variable to the required value.

Up to five pre-set output values may be rapidly selected using the instrument's front panel push buttons for applications where the same output values are repeatedly required. To minimise plant disturbance when the output is adjusted or switched between pre-sets, the maximum rate of output current change may be defined. The 4/20mA output range may also be restricted so that operators can only adjust the plant variable within safe limits.

The **bold 11mm** high liquid crystal display provides maximum contrast and has a very wide viewing angle, allowing the BA627E-SS set point station display to be read easily in most lighting conditions over a wide temperature range. The five digits, with four decimal points and a negative sign may be configured to display any variable represented by the 4/20mA output current between -99999 and 99999.

Engineering units represented by the 4/20mA output current may be shown on the slide-in scale card which is viewed through the window on the right hand side of the display. If the units are specified when the BA627E-SS is ordered a printed scale card will be fitted. If units are not specified, a blank card will be fitted which can easily be marked and installed on-site without dismantling the set point station enclosure or removing it from the panel.

Display backlighting which may be loop or separately powered is available as a factory fitted option. It provides green background illumination allowing the display to be read at night or in poorly illuminated areas. When powered from the 4/20mA loop the minimum operating voltage of the BA627E-SS is increased. Powering from a separate supply produces a brighter backlight but requires additional field wiring.

An external quadrature encoder may be directly connected to the BA627E-SS set point station to provide analogue control of the output current. Most three wire devices, such as the BEKA BA490 panel mounting rotary encoder may be located up to 1m from the BA627E-SS.

Reliability is ensured by component conformal coating, protection from incorrect connection and radio frequency interference. The set point station has been subjected to vibration testing and is supported by a three year guarantee.

For applications in hazardous areas the BA427E-SS, which has similar features as the BA627E-SS, has IECEx and ATEX certification allowing installation in most gas and dust hazardous areas. It may also be installed in Ex e, Ex n, Ex p and Ex t panel enclosures without invalidating the enclosure certification.

BA627E-SS

Rugged 4/20mA manual set point station
[set point generator]

General purpose for use in harsh and marine environments

- ◆ **Loop powered**
- ◆ **Rugged IP66 stainless steel enclosure.**
- ◆ **5 digit 11mm high display & 31 segment bargraph.**
- ◆ **Optional backlight & BA490 external rotary encoder.**
- ◆ **Easy on-site scale card installation.**
- ◆ **3 year guarantee**

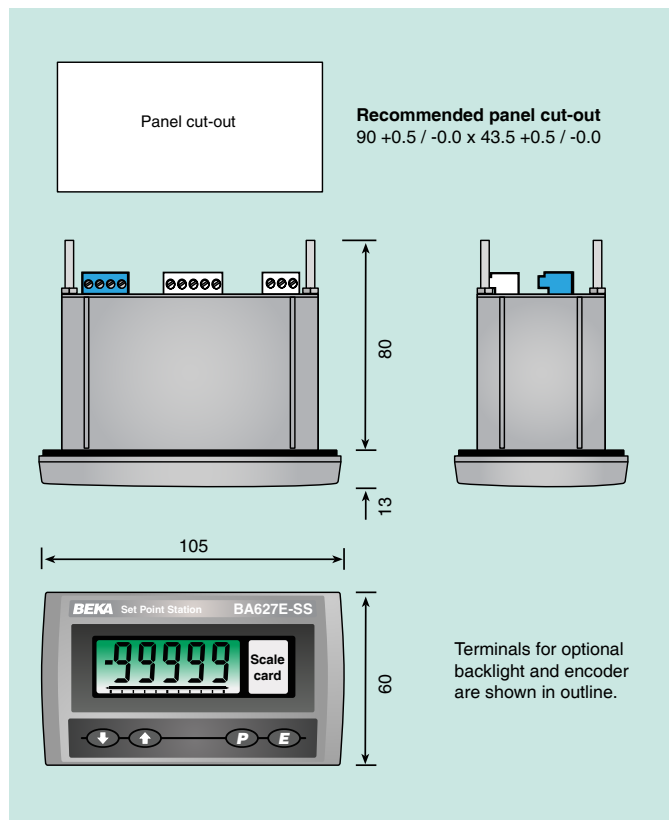
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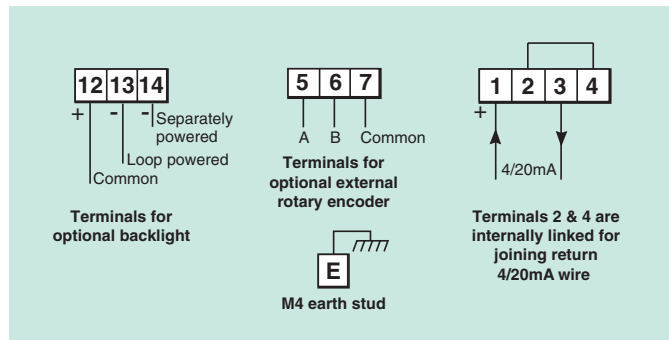
SPECIFICATION

Output	
Current	3.0 to 22.0mA
Resistance	Greater than 1MΩ
Power supply	
Voltage	6.1 to 30V 10 to 30V when optional backlight is loop powered.
Accuracy	
Control resolution	1 least significant digit of the display, or 0.3μA whichever is greater.
Temperature effect	Less than 2μA/°C
Display	
Type	Liquid crystal, non-multiplexed 5 digit 11mm high with 31 segment bargraph.
Zero	Adjustable between 0 & ±99999 with 4mA output.
Span	Adjustable between 0 & ±99999 with 20mA output.
Decimal point	1 of 4 positions or absent
Zero blanking	Blanked apart from 0 in front of decimal point.
Direction	Display may increase or decrease with increasing 4/20mA output.
Push buttons	
<input type="button" value="E"/> and <input type="button" value="▼"/> or <input type="button" value="▲"/>	(Function in operating mode) Scrolls output current down or up Two handed activation prevents output current being accidentally adjusted if <input type="button" value="▼"/> or <input type="button" value="▲"/> button or external encoder are inadvertently operated. Can be set to single handed operation in configuration menu.
<input type="button" value="▼"/>	Shows display calibration with 4mA output.
<input type="button" value="▲"/>	Shows display calibration with 20mA output.
<input type="button" value="P"/>	Displays output current in mA, as a % of span or provides access to pre-set outputs.
Environmental	
Operating temp	-40 to +70°C
Storage temp	-40 to +85°C
Humidity	to 95% at 40°C noncondensing
Vibration	Report available
Enclosure	
Ingress protection	Front IP66, rear IP20
Material	Stainless steel BS 3146-2:1977 ANC4B (316).
EMC	Complies with 2004/108/EC
Mechanical	
Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable.
Weight	0.85kg
Accessories	
Backlight	Green, may be loop or separately powered.
Loop powered	Set point station + backlight supply 10 to 30V.
Separately powered	9 to 30V at 22mA
Printed scale card	Blank card fitted to each Set Point Station, can be supplied typeset with specified engineering units.
Tag legend	Specified tag number or application laser etched onto rear of the instrument.

DIMENSIONS (mm)



TERMINAL CONNECTIONS



External encoder BA490 panel mounting rotary quadrature encoder which may be located up to 1m away from the BA627E-SS. See separate datasheet.

BA495 rear cover and sealing kit Provides impact and IP66 protection for rear of instrument. #

See accessory datasheet for details

HOW TO ORDER

Model number	Please specify BA627E-SS
Display at:	XXXXX } Include position of decimal XXXXX } point & sign if negative *
4.000mA	
20.000mA	
Accessories	Please specify if required
Display backlight	Backlight
Scale card	Legend required - No Charge if ordered with Set Point Station.
Tag	Legend required
External rotary encoder	BA490
Rear cover and sealing kit	BA495

* Will be set to display 0.00 at 4mA output and 100.00 at 20mA output if calibration information is not supplied. Calibration can easily be changed on-site.