

The **BA577E-SS** is a rugged general purpose instrument that may be configured as a Timer or as a Clock. Housed in a 316 stainless steel enclosure with a 10mm thick toughened glass window, it has IP66 front of panel protection and is suitable for use in hostile and marine environments, or where the front of the instrument is likely to be impacted.

**As a Timer** the BA577E-SS can measure and display the elapsed time between external events, or control external events via two optional control outputs. When configured as a Clock the instrument can display time in a variety of formats. The BA577E-SS is controlled by a single input which may be configured on-site to operate with a magnetic pick-off, switch contact, proximity detector, open collector or a voltage output sensor.

**Configuration** may be performed on-site via the front panel push buttons using easy to use and well documented menus. The Timer employs a state and event structure to simplify configuration. The BA577E-SS can be supplied configured to customers requirements including a customer defined printed slide-in scalecard for no additional charge.

**Applications as a Timer** include displaying the time interval between two events detected by a process area sensor such as a 2-wire proximity detector connected to the single input. With the addition of optional dual control outputs, the Timer can perform control functions such as repetitively opening a solenoid valve for a defined time. The Timer includes a powerful cycle function which can be configured to repeat a timing function up to 99 times or continuously, with up to 100 hours delay between timed periods.

**As a Clock** local time can be displayed in various twelve or twenty four hour formats and the display may be synchronised to a pre-set time via the external reset input.

Optional dual control outputs may be configured to switch loads on or off at pre-set times twice during each twenty four hour period.

**The display** has high contrast and a wide viewing angle enabling the instrument to be read in most lighting conditions over a wide temperature range.

**Display backlighting** which is internally powered, is available as a factory fitted option. It provides green background illumination enhancing daylight viewing and allowing the display to be easily read at night or when installed in a poorly illuminated area.

**IP66 front panel protection** with a silicone gasket to seal the joint between the instrument and the instrument panel, allow the BA577E-SS to be installed in areas that will be washed down.

**Optional control outputs** can switch loads such as a sounder or solenoid valve. The two galvanically isolated, solid state voltage free outputs may be independently configured with normally open or closed outputs. Annunciators on the BA577E-SS display show the status of both control outputs.

**For less hostile applications** the BA577E is functionally identical to the BA577E-SS but is housed in a Noryl enclosure also providing IP66 front of panel protection. If a larger display is required, the BA578E offers similar features with two inputs in a 144 x 72mm Noryl enclosure.

**For applications in flammable atmospheres** the BA377E-SS, which is functionally identical to the BA577E-SS, has international intrinsic safety certification. For applications in Zone 2 or 22 the rugged stainless steel BA377NE has Ex nA and Ex tc certification allowing installation without Zener barriers or galvanic isolators.

# BA577E-SS

## Rugged one input timer or clock

### General purpose

- ◆ 105 x 60mm rugged 316 stainless steel enclosure with IP66 front protection.
- ◆ May be configured as a Timer or as a Clock.
- ◆ Configurable input: magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ Two Separate displays
- ◆ Simple on-site scale card installation.
- ◆ Optional: Backlight Dual control outputs
- ◆ 3 year guarantee

**BEKA**  
associates

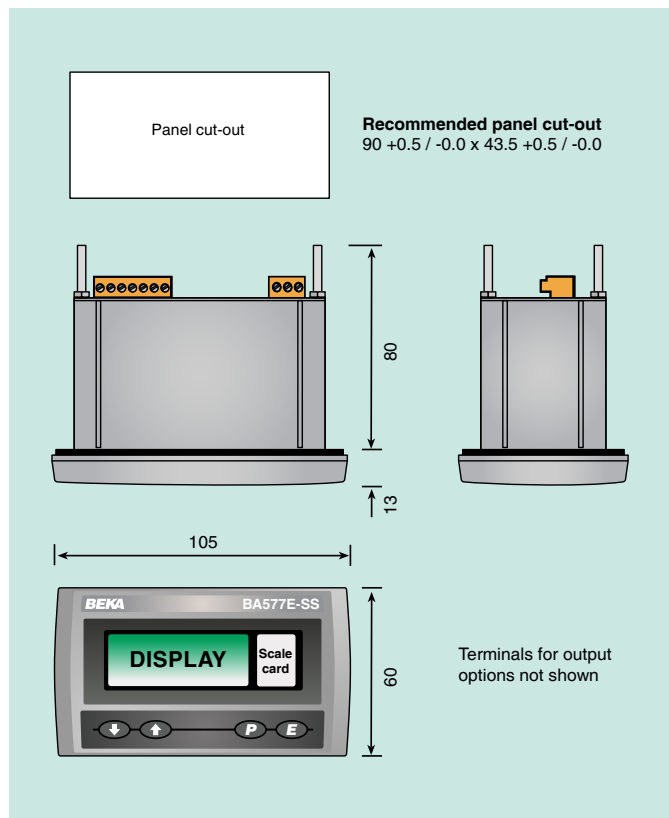
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## SPECIFICATION

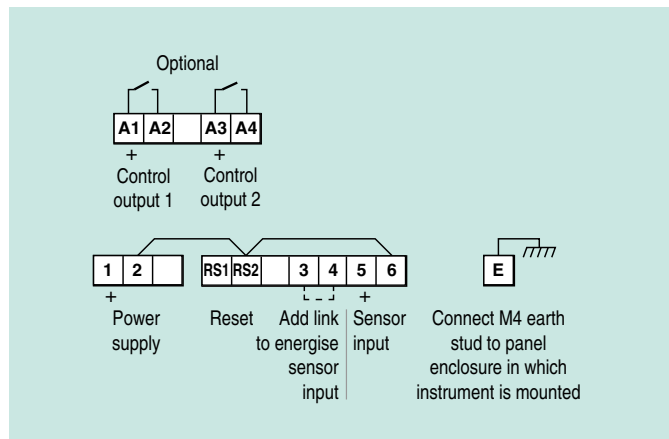
<b>Power supply</b>			
Voltage	10 to 30V dc		
Current	16mA max plus 22.5mA for optional backlight.		
<b>Input</b>			
	<b>Lower</b>	<b>Upper</b> switching thresholds	
Switch contact	100Ω	1kΩ	
Proximity detector (NAMUR)	1.2mA	2.1mA	
Open collector	2kΩ	10kΩ	
Magnetic pick-off	0	+40mV	
Voltage pulse (low)	1V	3V	30V max
Voltage pulse (high)	3V	10V	30V max
<b>Display</b>			
Type	Liquid crystal		
Primary	9mm high		
Secondary	6mm high		
Format	hh:mm:ss ; hh:mm ; mm:ss or s		
<b>Remote Timer reset &amp; Clock sync.</b>			
	Contact closure with resistance less than 10kΩ		
<b>Timer</b>			
Maximum duration	99h 59m and 59s or equivalent in any display format.		
Maximum delay between cycles.	99h 59m and 59s or equivalent in any display format.		
Grand total run-time	5 x 10 <sup>6</sup> hours maximum		
<b>Clock</b>			
Timekeeping	Less than ±0.43s error per day accuracy over operating temperature range.		
<b>Environmental</b>			
Operating temp	-40 to +70°C display -20 to +70°C		
Storage temp	-40 to +85°C		
Humidity	To 95% at 40°C non condensing		
Vibration	Report available		
Enclosure			
Material	BS 3146-2:1977 ANC4B (316)		
Protection	Front IP66, rear IP20		
EMC	Complies with 2014/30/EU		
<b>Mechanical</b>			
Terminals	Screw clamp for 0.5 to 1.5mm <sup>2</sup> cable, removable.		
Weight	0.85kg		
<b>Accessories</b>			
Backlight	Green LED internally powered		
Control outputs	Two outputs each of which may be independently configured as a NO or NC output.		
Outputs	Isolated single pole, voltage free solid state switch.		
Ron	5Ω + 0.7V max		
Roff	1MΩ min		
V max	30V dc		
I max	200mA		
Scale card	Blank card fitted to all instruments. Can be supplied printed with specified units of time for no additional charge at time of purchase. #		
Tag legend	Specified tag number or application printed onto rear of instrument. #		
BA495 rear cover and sealing kit	Provides impact and IP66 protection for rear of instrument. #		

# See accessory datasheet for details

## DIMENSIONS (mm)



## TERMINAL CONNECTIONS



## HOW TO ORDER

Model number	Please specify BA577E-SS
Function	Timer or Clock
Input	Type *
<b>Accessories</b>	<b>Please specify if required</b>
Display backlight	Backlight
Control outputs	Control outputs
Scale card	Legend required
Tag	No charge if ordered with instrument
Rear cover and sealing kit	Legend required
	BA495

\* BA577E-SS can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from [www.beka.co.uk/ba577e-ss](http://www.beka.co.uk/ba577e-ss) for details. If configuration information is not supplied, instrument will be configured as a Timer with an open collector input. Can easily be reconfigured on-site.