

Timers or clocks

Time based indicators



One and two input instruments that can be configured as a Timer or as a Clock. As a Timer they can measure and display elapsed time between events, or control events via optional control outputs. As a Clock local time is displayed and optional control outputs can be configured to turn on and off twice in each 24 hour period.

- > **Large high contrast displays with wide viewing angle**
- > **General purpose and certified hazardous area models**
 - International Ex ia intrinsic safety
 - Ex nA non sparking
 - Dust certification
- > **Field mounting models have IP66 GRP enclosure**
 - Compact 'G' models
 - 'E' models with separate terminal compartment
 - Pipe and panel mounting accessories
- > **Panel mounting models**
 - Choice of sizes all with IP66 front panels
 - Rugged stainless steel Ex ia model may be installed in certified Ex e, Ex p or Ex t panel enclosure without invalidating the enclosure's certification.
 - Rear IP66 sealing kit
- > **-40 to +70°C operating temperature range**
- > **Accessories**
 - Dual isolated control outputs
 - Backlight
 - Scale cards - can be supplied printed with units of measurement and tag information for no additional charge.
 - Laser engraved stainless steel legend plates

Intrinsically safe

Ex nA

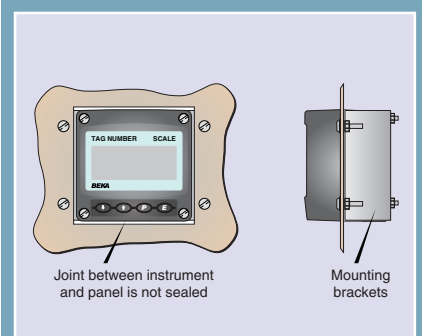
General purpose



Slide-in scale card can be supplied printed with customer specified information for no extra charge.



Easy scale card installation without the need to remove indicator from the panel.



BA394G panel mounting kit



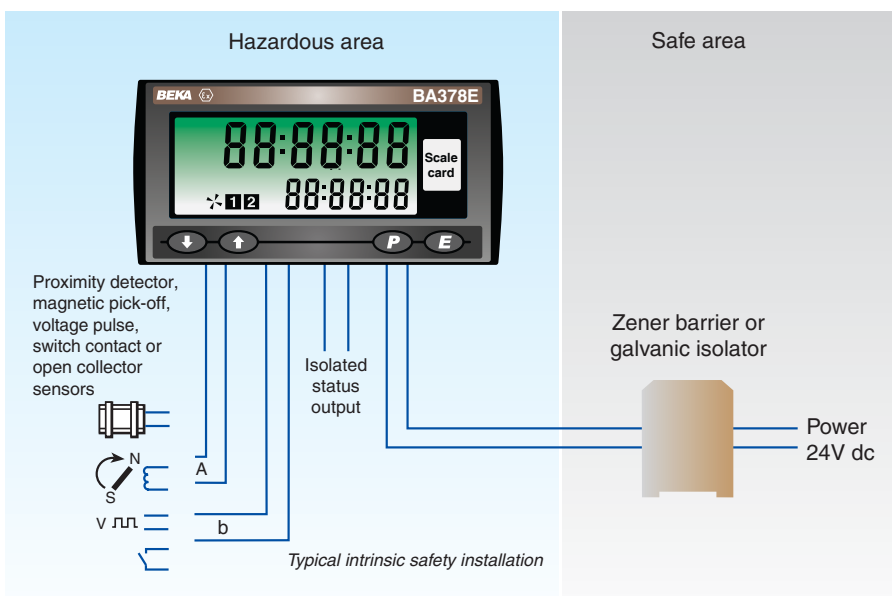
Timer/Clocks available

Model No.	Mounting	Input	Display digits		Certification					
			PRIMARY No. x height	SECONDARY No. x height	Europe ATEX		International IECEX		USA & Canada	
					Gas	Dust	Gas	Dust	Gas	Dust
Ex ia intrinsically safe - for use in Zones 0, 1 & 2 and 20, 21 & 22 where certified										
BA374G	Field compact	2 x Sensors	8 x 18mm	6 x 12mm	✓	✓	✓	✓	✓	✓
BA374E	Field - separate tml. compartment	2 x Sensors	8 x 18mm	6 x 12mm	✓	—	✓	—	✓	✓
BA377E	Panel 96 x 48	Sensor	8 x 9mm	6 x 6mm	✓	—	✓	—	✓	✓
BA377E-SS*	Panel Rugged 105 x 60	Sensor	8 x 9mm	6 x 6mm	✓	✓	✓	✓	✓	✓
BA378E	Panel 144 x 72	2 x Sensors	8 x 18mm	6 x 12mm	✓	—	✓	—	✓	✓

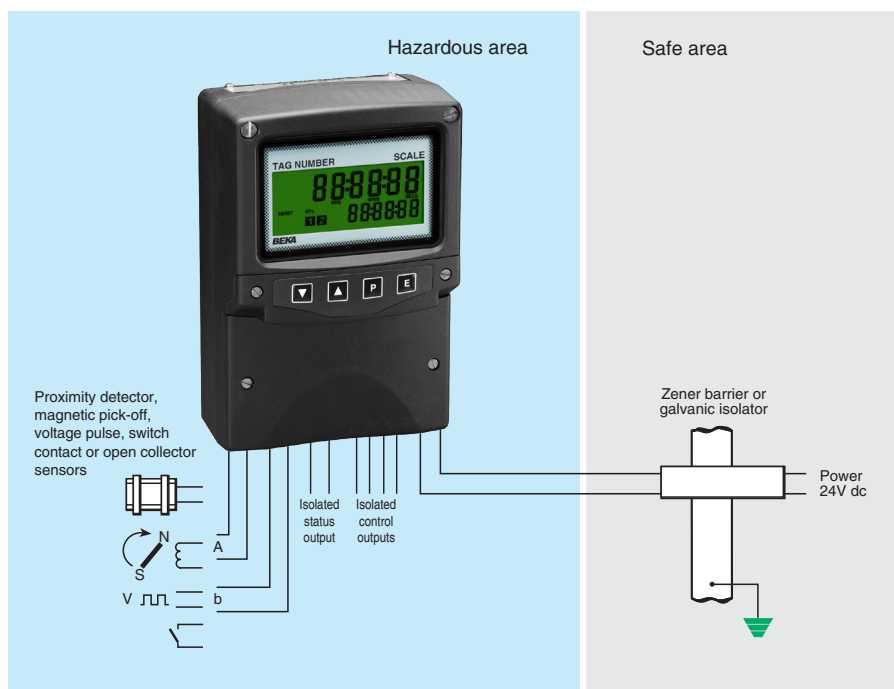
* Certification allows installation in an Ex e, Ex p or Ex t panel enclosure without invalidating enclosure certification

Ex nA & Ex tc - for use in Zones 2 and 22 without Zener barriers or galvanic isolators										
BA374NG	Field compact	2 x Sensors	8 x 18mm	6 x 12mm	✓	✓	✓	✓	✓	✓
BA377NE	Panel Rugged 105 x 60	Sensor	8 x 9mm	6 x 6mm	✓	✓	✓	✓	✓	✓

General Purpose - for use in safe areas										
BA574G	Field compact	2 x Sensors	8 x 18mm	6 x 12mm						
BA577E	Panel 96 x 48	Sensor	8 x 9mm	6 x 6mm						
BA577E-SS	Panel Rugged 105 x 60	Sensor	8 x 9mm	6 x 6mm						
BA578E	Panel 144 x 72	2 x Sensors	8 x 18mm	6 x 12mm						



A Timer/clock for every application - delivered ready for installation



The **BA374E** is a two input, field mounting, intrinsically safe instrument that can be configured as a Timer or as a Clock. As a Timer it is able to measure the elapsed time between external events, or control external events via the status and control outputs. When configured as a Clock the instrument can display time in a variety of formats. The BA374E is controlled by two inputs which may be independently configured on-site to operate with a magnetic pick-off, switch contact, proximity detector or a voltage output sensor. International intrinsic safety certification permits worldwide installation.

Configuration may be performed on-site via the front panel push buttons using the easy to use and well documented menus. The Timer employs a state and event structure to simplify configuration.

International intrinsic safety certification allows the BA374E timer or clock to be installed in gas hazardous areas worldwide. When configured to operate with a sensor having a voltage or magnetic pick-off output, the input terminals comply with the requirements for *simple apparatus* reducing system design and documentation.

Applications as a Timer include displaying the time interval between two events detected by one or two hazardous area sensors. External events can also be controlled using the isolated open collector status and the dual isolated control outputs. The Timer is able to perform common industrial timing application, such as those associated with dosing or sampling requiring an intrinsically safe solenoid valve to be regularly opened for a defined time. A powerful cycle function is included which

can be configured to repeat the timing function up to 99 times or continuously, with up to 100 hours delay between timed periods.

As a Clock the BA374E can display local time in various twelve or twenty four hour formats and the display may be synchronised to a pre-set time via the external reset input. The control outputs may be configured to switch loads on and off at pre-set times twice during each twenty four hour period.

The large display has high contrast and a wide viewing angle. Green backlighting enhances daylight viewing enabling the timer or clock to be read at night or when installed in a poorly illuminated area.

IP66 protection is provided by the robust GRP enclosure which has stainless steel fittings, silicone gaskets and a 4mm thick armoured glass window. Ingress and impact protection have been independently assessed by Intertek. A separate terminal compartment allows connection of field wiring without exposing the instrument's electronics.

The display escutcheon which shows the timer or clocks units of measurement and tag information can be changed on-site. New instruments are fitted with a printed escutcheon showing customer specified marking. If this information is not supplied a blank escutcheon is fitted which can easily be marked on-site. An optional laser engraved stainless steel legend plate secured to the front of the instrument is also available.

The compact BA374G has the same functions and large display as the BA374E without a separate terminal compartment.

BA374E

two input timer or clock

Intrinsically safe for use in all gas hazardous areas

- ◆ **Configurable input:**
magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ **Separate displays with backlight**
- ◆ **Intrinsically safe**
- ◆ **IP66 GRP enclosure with separate terminal compartment**
- ◆ **Isolated dual controls, and status outputs.**
- ◆ **3 year guarantee**

www.beka.co.uk/ba374e



BEKA

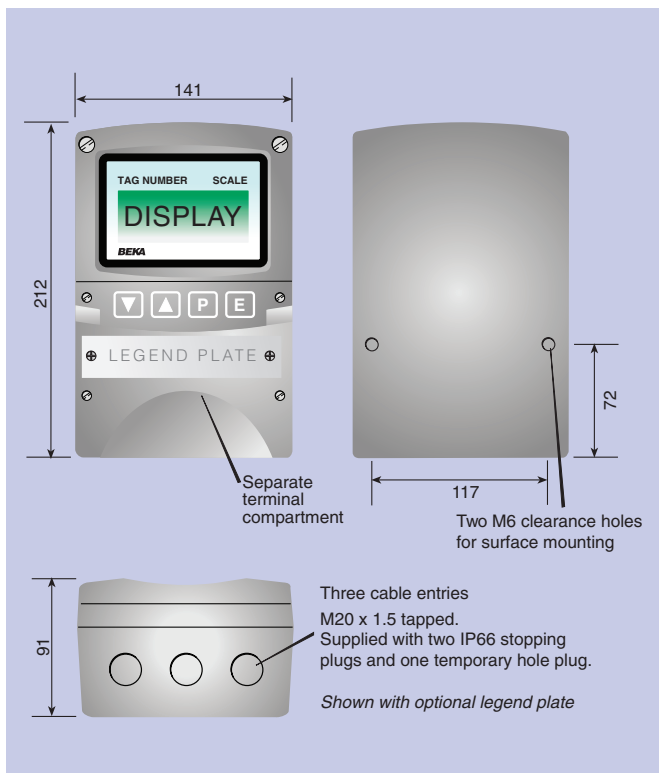
associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

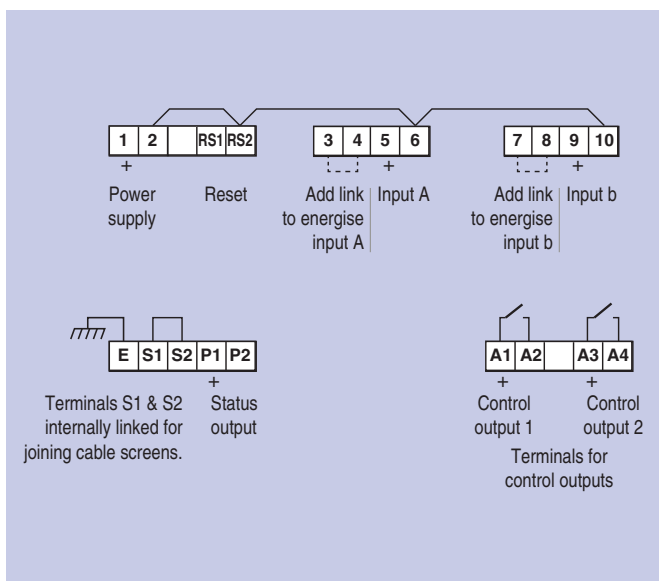
SPECIFICATION

Power supply	
Voltage	10 to 28V from a Zener barrier or galvanic isolator
Current	32mA
Input	
Switch contact	Lower 100Ω Upper 1kΩ switching thresholds
Proximity detector (NAMUR)	1.2mA 2.1mA
Open collector	2kΩ 10kΩ
Magnetic pick-off	0 +40mV
Voltage pulse (low)	1V 3V 28V max
Voltage pulse (high)	3V 10V 28V max
Display	
Type	Liquid crystal
Backlight	Green LED internally powered
Primary	18mm high
Secondary	12mm high
Format	hh:mm:ss ; hh:mm ; mm:ss or s
Remote Timer reset or Clock Sync	Contact closure with resistance less than 10kΩ
Timer	
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 ⁶ h maximum
Clock	
Accuracy	Less than ±0.43s error per day over operating temperature range.
Status output	
	Isolated, voltage free open collector, certified as a separate intrinsically safe circuit complying with the requirements for <i>simple apparatus</i> .
Ron	51Ω + 3V max
Roff	1MΩ min
I max	10mA
Dual 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
Intrinsic safety	
Europe ATEX	
Code	Group II Category 1G Ex ia IIC T5 Ga
Cert. No.	-40 ≤ Ta ≤ 70°C ITS16ATEX28408X
International IECEx	
Code	Ex ia IIC T5 Ga
Cert. No.	-40 ≤ Ta ≤ 70°C IECEx ITS 16.0004X
ETL & cETL	
Code	Class I Div 1 Gp A, B, C, D T5 Class II Div 1 Gp E, F, G Class III Class I Zone 0 AEx ia IIC T5 Ga Zone 20 AEx ia IIIC T80°C Da Ex ia IIC T5 Ga -40°C ≤ Ta ≤ 70°C
	USA & Canada USA Canada
Nonincendive	
Code	USA & Canada ETL & cETL Class I Div 2 Gp A, B, C & D T5 Class II Div 2 Gp F, G. Class III Div 2 -40 ≤ Ta ≤ 70°C
ETL Control No.	4008610
Environmental	
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	GRP
Ingress	IP66
EMC	Complies with 2014/30/EU
Mechanical	
Terminals	Screw clamp for 0.5 to 1.5mm ²
Weight	1.7kg
Accessories	
Escutcheon	Blank card fitted to all instruments. Can be supplied printed with specified units of measurement and tag information for no additional charge at time of purchase. #
Legend plate	316 stainless steel plate secured to the front of the instrument, laser engraved with tag number or application information. #
Pipe mounting kit	BA393 #
# See accessory datasheet for details	

DIMENSIONS (mm)

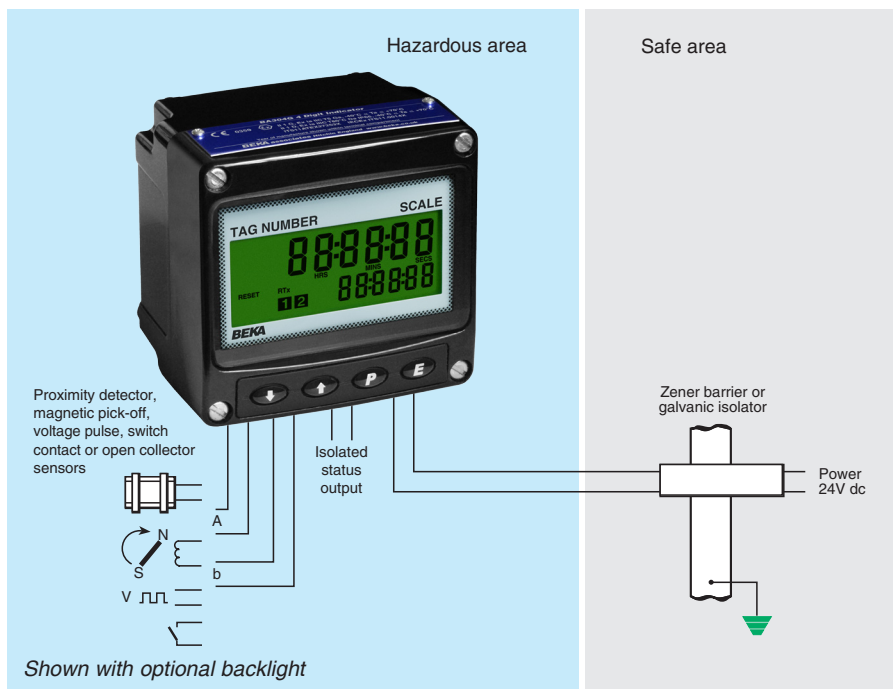


TERMINAL CONNECTIONS



HOW TO ORDER

Model number	BA374E
Function	Timer or Clock
Input	Type *
Accessories	
Escutcheon marking	Legend required
Units	Legend required
Tag	No charge if ordered with timer or clock.
Stainless legend plate	Legend required
Pipe mounting kit	BA393
* BA374E can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba374e for details. If configuration information is not supplied, instrument will be configured as a Timer with inputs configured for connection to open collector sensors. Can easily be reconfigured on-site.	



The **BA374G** is a two input, field mounting, intrinsically safe instrument that can be configured as a Timer or as a Clock. As a Timer it is able to measure the elapsed time between external events, or control external events via the status and optional control outputs. When configured as a Clock the instrument can display time in a variety of formats. The BA374G is controlled by two inputs which may be independently configured on-site to operate with a magnetic pick-off, switch contact, proximity detector or a voltage output sensor. A slide-in scale card simplifies identification and international intrinsic safety certification permits worldwide installation.

Configuration may be performed on-site via the front panel push buttons using the easy to use and well documented menus. The Timer employs a state and event structure to simplify configuration. The BA374G can be supplied configured to customers requirements including a customer defined printed scalecard for no additional charge.

Applications as a Timer include displaying the time interval between two events detected by one or two hazardous area sensors. The Timer can control an external event using the isolated open collector status output. If more than one circuit is to be switched, additional isolated dual control outputs are available as a factory fitted option. The Timer is able to perform common industrial timing application, such as those associated with dosing or sampling requiring an intrinsically safe solenoid valve to be regularly opened for a defined time. A powerful cycle function is included which can be configured to repeat the timing function up to 99 times or continuously, with up to 100 hours delay between timed periods.

As a Clock the BA374G can display local time 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 control outputs may be configured to switch loads on and 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 most lighting conditions over a wide temperature range.

Display backlighting which is internally powered from the timer or clock 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 protection is provided by the robust GRP enclosure which has stainless steel fittings, a silicone gasket and an 8mm thick armoured glass window. Ingress and impact protection have been independently assessed by Intertek.

International intrinsic safety certification allows the BA374G timer or clock to be installed in gas and dust hazardous areas worldwide. When configured to operate with a sensor having a voltage or magnetic pick-off output, the input terminals comply with the requirements for *simple apparatus* reducing system design and documentation.

Optional control outputs can switch hazardous area loads such as a sounder or solenoid valve, or safe area loads via a Zener barrier or isolator. The two galvanically isolated, solid state voltage free outputs may be independently conditioned with normally open or closed outputs. Annunciators on the BA374G display show the status of both control outputs.

Other field mounting timer or clocks include the BA374E which has the same functions as the BA374G, but incorporates a separate terminal compartment.

BA374G

two input timer or clock

Intrinsically safe for use in all gas & dust hazardous areas

- ◆ **Configurable input:** magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ **Separate displays**
- ◆ **Intrinsically safe**
- ◆ **IP66 GRP enclosure**
- ◆ **Isolated status output**
- ◆ **Simple on-site scale card installation.**
- ◆ **Optional:**
Backlight
Dual alarms
- ◆ **3 year guarantee**

www.beka.co.uk/ba374g



BEKA

associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

Power supply

Voltage	10 to 28V from a Zener barrier or galvanic isolator
Current	16mA max plus 16mA for optional backlight

Input

	Lower	Upper	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	28V max
Voltage pulse (high)	3V	10V	28V max

Display

Type	Liquid crystal
Primary	18mm high
Secondary	12mm high
Format	hh:mm:ss ; hh:mm ; mm:ss or s

Remote Timer reset or Clock Sync Contact closure with resistance less than 10kΩ

Timer

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 ⁶ h maximum

Clock

Accuracy	Less than ±0.43s error per day over operating temperature range.
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Status output

	Isolated, voltage free open collector, certified as a separate intrinsically safe circuit complying with the requirements for <i>simple apparatus</i> .
Ron	51Ω + 3V max
Roff	1MΩ min
I max	10mA

Intrinsic safety Europe ATEX Code

Group II Category 1G Ex ia IIC T5 Ga
-40 ≤ Ta ≤ 70°C
Group II Category 1D Ex ia IIIC T80°C Da
-40 ≤ Ta ≤ 60°C
ITS16ATEX28408X

Cert. No.

International IECEx Code

Ex ia IIC T5 Ga
-40 ≤ Ta ≤ 70°C
Ex ia IIIC T80°C Da
-40 ≤ Ta ≤ 60°C
IECEx ITS 16.0004X

Cert. No.

ETL & cETL Code

Class I Div 1 Gp A, B, C, D T5
Class II Div 1 Gp E, F, G Class III
Class I Zone 0 AEx ia IIC T5 Ga
Zone 20 AEx ia IIIC T80°C Da
Ex ia IIC T5 Ga
Ex ia IIIC T80°C Da
-40°C ≤ Ta ≤ 70°C

} USA & Canada
} USA
} Canada

Nonincendive USA & Canada ETL & cETL Code

Class I Div 2 Gp A, B, C & D T5
Class II Div 2 Gp F, G.
Class III Div 2
-40 ≤ Ta ≤ 70°C
4008610

ETL Control No.

Environmental

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	GRP
Ingress	IP66
EMC	Complies with 2014/30/EU

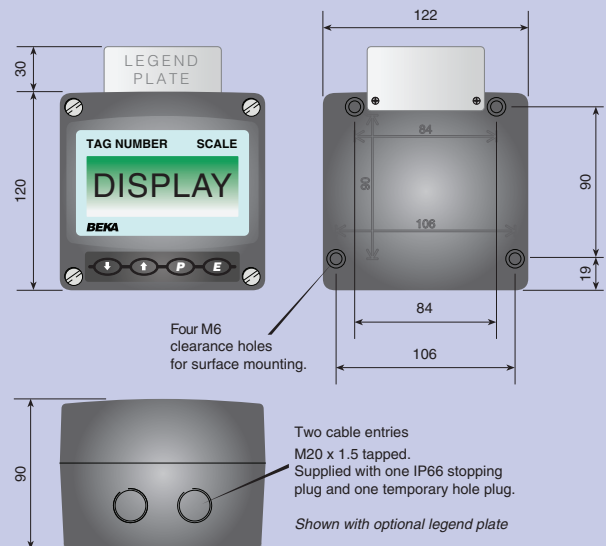
Mechanical

Terminals	Screw clamp for 0.5 to 1.5mm ²
Weight	1.1kg

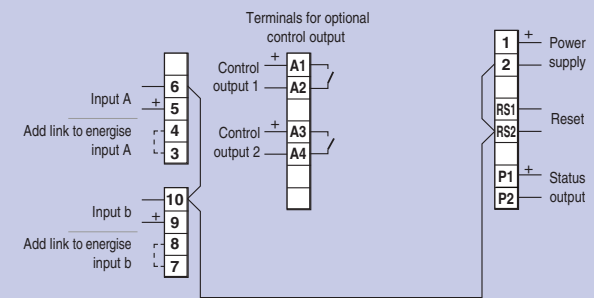
Accessories

Backlight	Green LED internally powered
Control outputs	Two outputs each of which may be independently configured as a NO or NC output.
Outputs	
Ron	Isolated single pole, voltage free solid state switch
Roff	5Ω + 0.7V max 1MΩ min

DIMENSIONS (mm)



TERMINAL CONNECTIONS



Scale card

Blank card fitted to all instruments. Can be supplied printed with specified units of measurement and tag information for no additional charge at time of purchase. #

Legend plate

316 stainless steel plate laser engraved with tag number or application information attached to rear of the instrument, visible from the front. #

Pipe mounting kit

BA393G 316 stainless steel #

Panel mounting kits

BA394G 316 stainless steel not sealing #
BA494G GRP sealing #

See accessory datasheet for details

HOW TO ORDER

Model number
Function
Input

Please specify for each input
BA374G
Timer or Clock
Type *

Accessories
Display backlight
Control outputs
Scale card marking
Units
Tag

Please specify if required
Backlight
Control outputs

Legend required
Legend required
No charge if ordered with instrument.

Stainless legend plate

Legend required

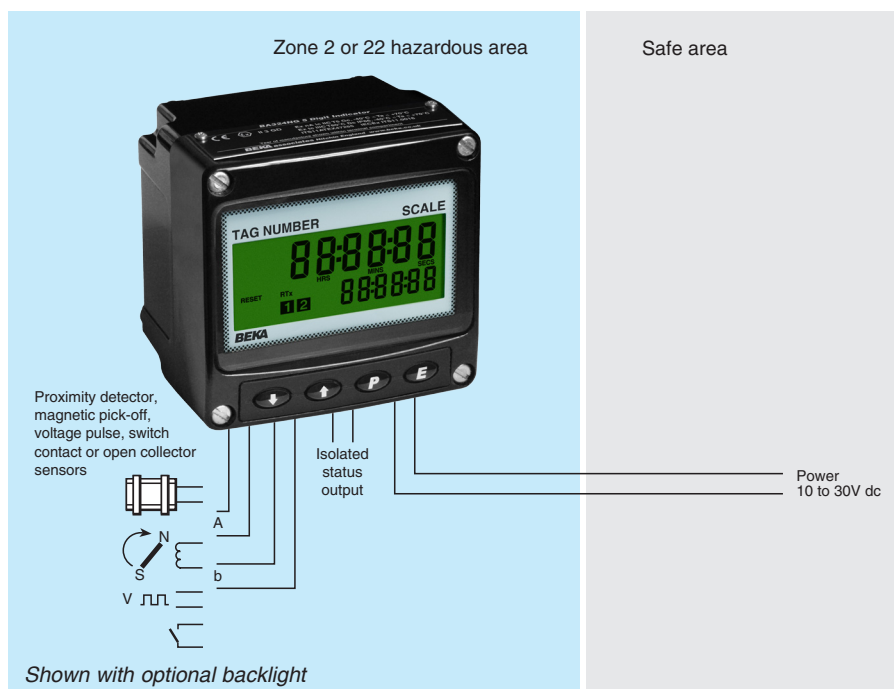
Pipe mounting kit

BA393G

Panel mounting kit

BA394G or BA494G

* BA374G can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba374g for details. If configuration information is not supplied, instrument will be configured as a Timer with open collector inputs. Can easily be reconfigured on-site.



The **BA374NG** is a two input, field mounting instrument that can be configured as a Timer or as a Clock. As a Timer it is able to measure the elapsed time between external events, or control external events via the status and optional control outputs. When configured as a Clock the instrument can display time in a variety of formats. The BA374NG is controlled by two inputs which may be independently configured on-site to operate with a magnetic pick-off, switch contact, proximity detector or a voltage output sensor. International Ex nA and Ex tc certification permits worldwide installation in Zones 2 or 22 without Zener barriers or galvanic isolators which significantly reduces the installation cost.

Configuration may be performed on-site via the front panel push buttons using the easy to use and well documented menus. The Timer employs a state and event structure to simplify configuration. The BA374NG can be supplied configured to customers requirements including a customer defined printed scalecard for no additional charge.

Applications as a Timer include displaying the time interval between two events detected by one or two sensors in Zone 2 or 22. The Timer can also control an external event using the isolated open collector status output. If more than one circuit is to be controlled, dual isolated control outputs are available as a factory fitted option. The Timer is able to perform many common industrial timing application, such as those associated with dosing or sampling requiring a valve to be regularly opened for a defined time. A powerful cycle function is included which can be configured to repeat the timing function up to 99 times or continuously, with up to 100 hours delay between timed periods.

When configured as a Clock the BA374NG can display local time in various twelve or twenty four hour formats, and may be synchronised to a pre-set time via the external reset input. The isolated open collector status output can be configured to switch on and off twice at pre-set times during each twenty four hour period and may be used for repetitive timing functions. If more than one circuit is to be controlled, optional factory fitted isolated dual control outputs are available. Each output may be independently configured to switch on and off twice at pre-set times 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 from the timer or clock, 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 protection is provided by the robust GRP enclosure which has stainless steel fittings, a silicone gasket and an 8mm thick armoured glass window. Ingress and impact protection have been independently assessed by Intertek.

International Ex nA and Ex tc certification allows the BA374NG timer or clock to be installed in Zones 2 and 22 gas and dust hazardous areas worldwide. BEKA Application Guide AG310 contains Ex nA installation recommendations.

Other timers or clocks in the range include the panel mounting BA377NE and an extensive range of field and panel mounting intrinsically safe and general purpose models.

BA374NG

Ex nA two input timer or clock

Can be installed in Zone 2 or 22 without Zener barriers or galvanic isolators

- ◆ **Configurable input:**
magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ **Separate primary and secondary displays.**
- ◆ **Ex nA & Ex tc certified**
- ◆ **IP66 GRP enclosure**
- ◆ **Isolated status output**
- ◆ **Simple on-site scale card installation.**
- ◆ **Optional:**
Backlight
Dual outputs
- ◆ **3 year guarantee**

www.beka.co.uk/ba374ng



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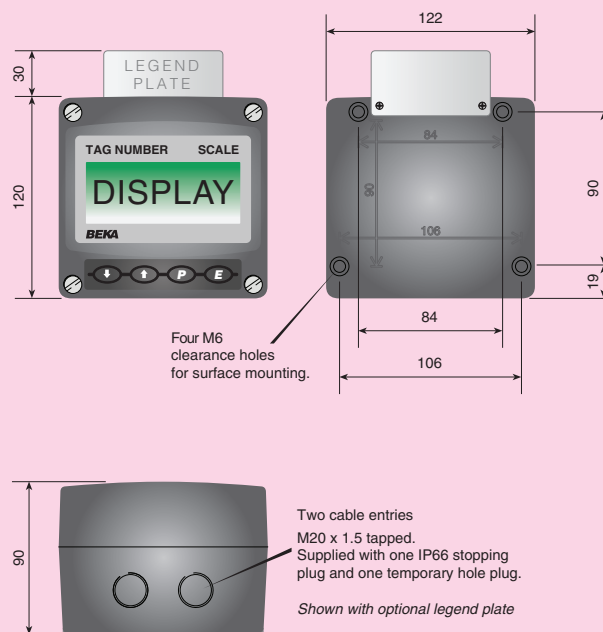
BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

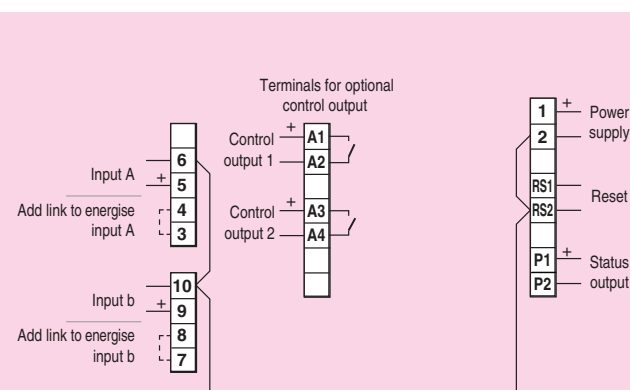
Power supply	
Voltage	10 to 30V
Current	16mA max plus 16mA for optional backlight
Input	
Switch contact	Lower 100Ω Upper 1kΩ switching thresholds
Proximity detector (NAMUR)	1.2mA 2.1mA
Open collector	2kΩ 10kΩ
Magnetic pick-off	0 +40mV
Voltage pulse (low)	1V 3V 30V max
Voltage pulse (high)	3V 10V 30V max
Display	
Type	Liquid crystal
Primary	18mm high
Secondary	12mm high
Format	hh:mm:ss ; hh:mm ; mm:ss or s
Timer reset or Clock sync	
	Contact closure with resistance less than 10kΩ
Status output	
Ron	Isolated, open collector
Roff	51Ω + 3V max
Ui	1MΩ min
I max	30V dc
	10mA
Timer	
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 ⁶ h maximum
Clock	
Accuracy	Less than ±0.43s error per day over operating temperature range.
Certification	
Note: Ex ic codes refer to instrument push button contacts which are nonincendive.	
Europe ATEX	
Code	Group II Category 3G Ex nA ic IIC T5 Gc Group II Category 3D Ex ic tc IIIC T80°C Dc -40 ≤ Ta ≤ 60°C ITS16ATEX48409X
Cert. No.	
International IECEx	
Code	Ex nA ic IIC T5 Gc Ex ic tc IIIC T80°C Dc -40 ≤ Ta ≤ 60°C IECEx ITS 16.0005X
Cert. No.	
ETL & cETL	
Code	Class I Zone 2 AEx nA ic IIC T5 Gc USA Zone 22 AEx ic tc IIIC T80°C Dc Ex nA ic IIC T5 Gc Ex n IIC T5 Gc Ex ic tc IIIC T80°C Dc Class III Div 2, Class II Div 2, Gp F, G Canada -40°C ≤ Ta ≤ 60°C 4008610
ETL Control No.	
Environmental	
Operating temp	-40 to +70°C display -20 to +70°C
Certification temp	-40 to +60°C
Storage temp	-40 to +85°C
Humidity	to 95% at 40°C non condensing
Vibration	Report available
Enclosure	
Material	GRP
Ingress	IP66
EMC	Complies with 2014/30/EU
Mechanical	
Terminals	Screw clamp for 0.5 to 1.5mm ²
Weight	1.1kg
Accessories	
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
Ui	30V dc
I max	10mA
Scale card	Blank card fitted to all instruments. Can be supplied printed with specified units of measurement and tag information for no additional charge at time of purchase. #
Legend plate	316 stainless steel plate laser engraved with tag number or application information attached to rear of the instrument, visible from the front. #
Pipe mounting kit	BA393G 316 stainless steel #
Panel mounting kits	BA394G 316 stainless steel not sealing #

See accessory datasheet for details

DIMENSIONS (mm)



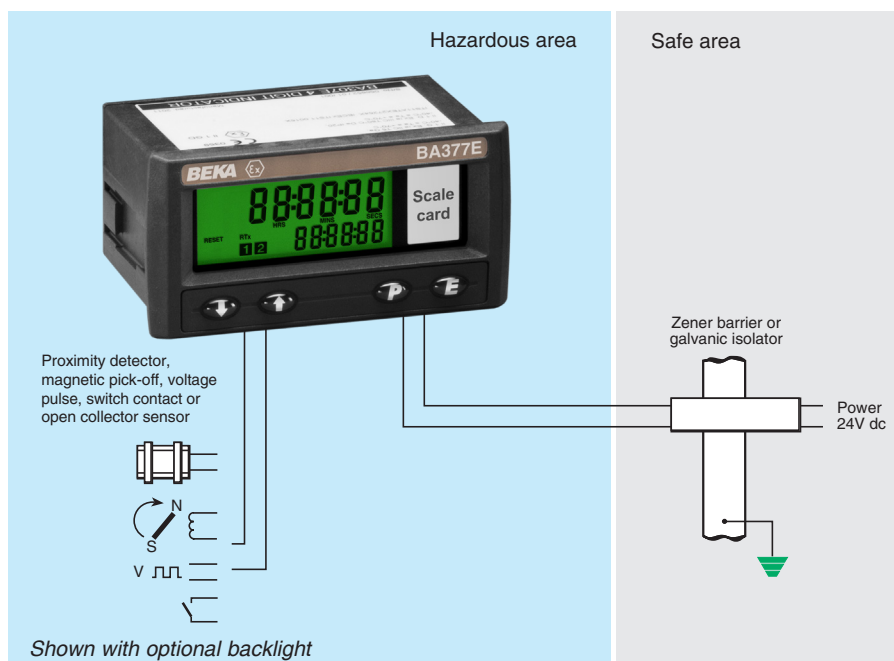
TERMINAL CONNECTIONS



HOW TO ORDER

Model number	Please specify for each input
Function	BA374NG
Input	Timer or Clock
	Type *
Accessories	Please specify if required
Display backlight	Backlight
Control outputs	Control outputs
Scale card marking	Legend required
Units	Legend required
Tag	No charge if ordered with instrument
Stainless legend plate	Legend required
Pipe mounting kit	BA393G
Panel mounting kit	BA394G

* BA374NG can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba374ng for details. If configuration information is not supplied, instrument will be configured as a Timer with open collector inputs. Can easily be reconfigured on-site.



The **BA377E** is an intrinsically safe instrument with one input that may be configured as a Timer or as a Clock. As a Timer it is able to 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 BA377E 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. International intrinsic safety certification permits worldwide installation and a slide-in scale card simplifies identification.

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 BA377E can be supplied configured to customer's requirements including a customer defined printed scalecard for no additional charge.

Applications as a Timer include simply displaying the time interval between two events detected by a hazardous 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, for instance opening a hazardous area 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 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.

IP66 front panel protection with a neoprene gasket to seal the joint between the instrument and the instrument panel, allow the BA377E to be installed in areas that will be washed down.

International intrinsic safety certification permits the BA377E to be installed worldwide. When configured to operate with a sensor having a voltage or magnetic pick-off output, the input terminals comply with the requirements for *simple apparatus* reducing system design and documentation.

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.

Optional control outputs can switch hazardous area loads such as a sounder or solenoid valve, or safe area loads via a Zener barrier, or safe area loads via a Zener barrier or isolator. The two galvanically isolated, solid state voltage free outputs may be independently conditioned with normally open or closed outputs. Annunciators on the BA377E display show the status of both control outputs.

Rugged versions and a two input instrument are available in other models within the range. The intrinsically safe BA377E-SS is identical to the BA377E except that it is housed in an impact resistant rugged stainless steel enclosure. The BA377NE has Ex nA and Ex tc certification allowing installation in Zone 2 or 22 without Zener barriers or galvanic isolators.

If a larger display is required the BA378E is a two input intrinsically safe Timer or Clock housed in a 144 x 72mm plastic DIN enclosure.

BA377E

One input timer or clock

Intrinsically safe for use in all gas hazardous areas

- ◆ **Configurable input:** magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ **Separate displays**
- ◆ **Intrinsically safe**
- ◆ **96 x 48mm DIN enclosure with IP66 front protection.**
- ◆ **Optional:** Backlight Dual control outputs
- ◆ **3 year guarantee**

www.beka.co.uk/ba377e



BEKA
associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

Power supply

Voltage	10 to 28V from a Zener barrier or galvanic isolator.	
Current	16mA max plus 22.5mA for optional backlight	

Input

	Lower	Upper	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	28V max
Voltage pulse (high)	3V	10V	28V max

Display

Type	Liquid crystal	
Primary	9mm high	
Secondary	6mm high	
Format	hh:mm:ss ; hh:mm ; mm:ss or s	

Remote Timer reset & Clock sync.

Contact closure with resistance less than 10kΩ.

Timer

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 runtime	5 x 10 ⁶ hours maximum

Clock

Timekeeping accuracy	Less than ±0.43s error per day over operating temperature range.
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Intrinsic safety

Europe ATEX Code	Group II Category 1G Ex ia IIC T5 Ga
Cert. No.	-40°C ≤ Ta ≤ 70°C ITS16ATEX28408X
International IECEx Code	Ex ia IIC T5 Ga
Cert. No.	-40°C ≤ Ta ≤ 70°C IECEx ITS 16.0004X
ETL & cETL Code	Class I Div 1 Gp A, B, C, D T5 (USA & Canada)
	Class II Div 1 Gp E, F, G. Class III Div 1 (USA & Canada)
	Class I Zone 0 AEx ia IIC T5 Ga (USA)
	Ex ia IIC T5 Ga (Canada)
	-40°C ≤ Ta ≤ 70°C

Nonincendive USA & Canada ETL & cETL

Code	Class I Div 2 Gp A, B, C, D T5
	Class II Div 2 Gp F, G. Class III Div 2
	-40°C ≤ Ta ≤ 70°C
ETL Control No.	4008610

Environmental

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	Noryl SE1GFN3. Front IP66, rear IP20
EMC	Complies with EMC Directive 2014/30/EU

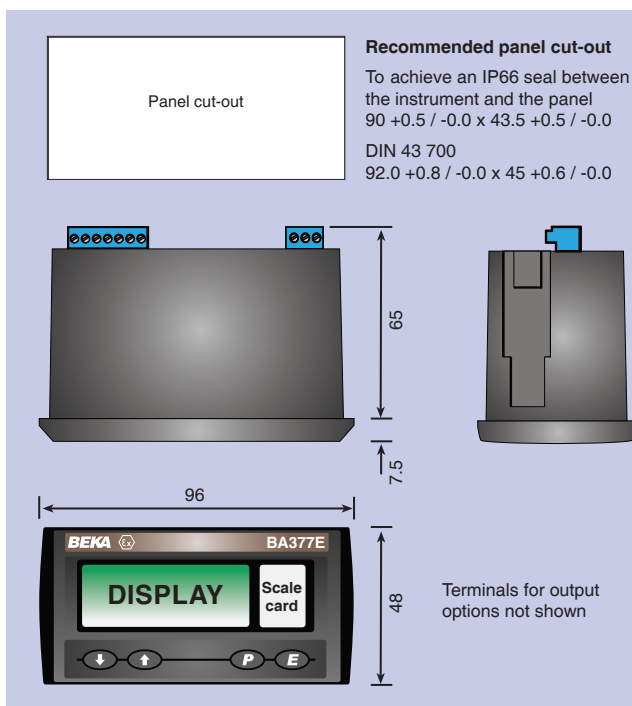
Mechanical

Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable terminal blocks.
Weight	0.15kg

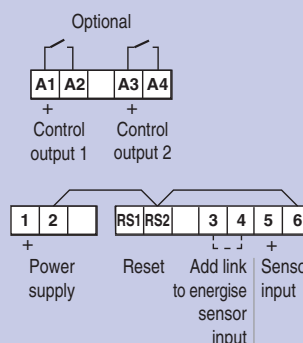
Accessories

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

DIMENSIONS (mm)



TERMINAL CONNECTIONS



Scale card

Blank card fitted to all instruments. Can be supplied typeset with specified units of measurement 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

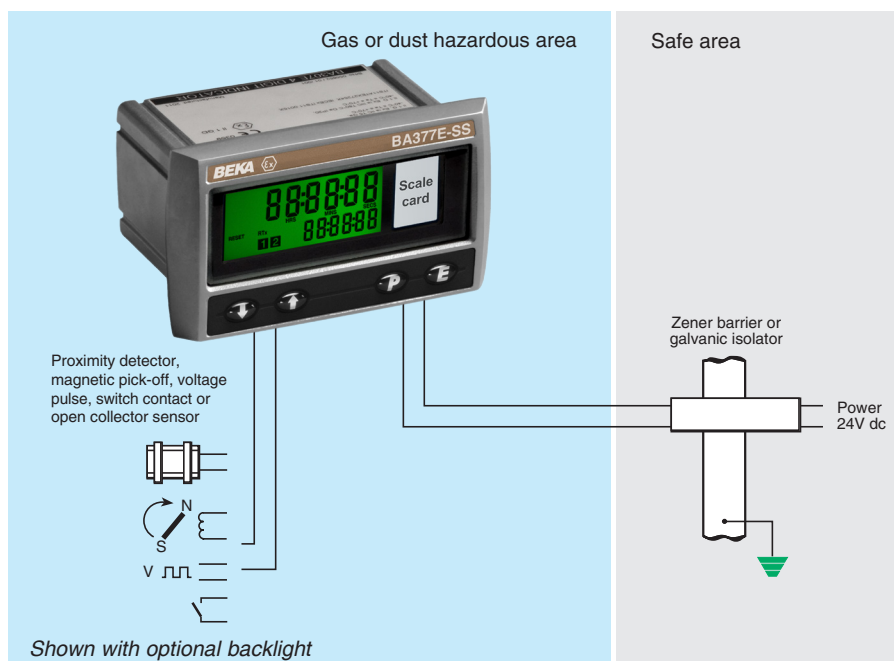
HOW TO ORDER

Model number	Please specify
Function	BA377E
Input	Timer or Clock
	Type *

Accessories

Display backlight	Please specify if required
Control outputs	Backlight
Scale card	Control outputs
	Legend required
	No charge if ordered with instrument.
Tag	Legend required
Rear cover and sealing kit	BA495

* BA377E can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba377e 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.



The **BA377E-SS** is an intrinsically safe instrument with one input housed in a rugged stainless steel enclosure that may be configured as a Timer or as a Clock. The intrinsic safety certification and the rugged enclosure allow the BA377E-SS to be safely installed in an Ex e, Ex n, Ex p or Ex t panel enclosure without invalidating the panel enclosure's certification.

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 BA377E-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 simply displaying the time interval between two events detected by a hazardous 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, for instance repetitively opening a hazardous area 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 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.

IP66 front panel protection with a silicone gasket to seal the joint between the instrument and the instrument panel, allow the BA377E-SS to be installed in areas that will be washed down.

International intrinsic safety certification permits the BA377E-SS to be installed worldwide. When configured to operate with a sensor having a voltage or magnetic pick-off output, the input terminals comply with the requirements for *simple apparatus* reducing system design and documentation.

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.

Optional control outputs can switch hazardous area loads such as a sounder or solenoid valve, or safe area loads via a Zener barrier or isolator. The two galvanically isolated, solid state voltage free outputs may be independently conditioned with normally open or closed outputs. Annunciators on the BA377E-SS display show the status of both control outputs.

Zone 2 certification and a larger display are available in other models within the range, including the intrinsically safe BA377E which is identical to the BA377E-SS but is housed in a Noryl enclosure.

The BA377NE is also identical to the BA377E-SS but has Ex nA and Ex tc certification allowing installation in Zone 2 or 22 without Zener barriers or galvanic isolators.

If a larger display is required the intrinsically safe BA378E is a two input timer or clock in a 144 x 72mm DIN enclosure.

BA377E-SS

Rugged one input timer or clock

Intrinsically safe gas & dust certified for use in an Ex e, Ex n, Ex p or Ex t panel enclosure or in harsh hazardous areas

- ◆ **Configurable input:** magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ **Separate displays**
- ◆ **Intrinsically safe**
- ◆ **105 x 60mm rugged 316 stainless steel enclosure with IP66 front protection.**
- ◆ **Optional:** Backlight
Dual control outputs
- ◆ **3 year guarantee**

www.beka.co.uk/ba377e-ss



BEKA
associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

Power supply

Voltage	10 to 28V from a Zener barrier or galvanic isolator.	
Current	16mA max plus 22.5mA for optional backlight.	

Input

	Lower	Upper	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	28V max
Voltage pulse (high)	3V	10V	28V max

Display

Type	Liquid crystal
Primary	9mm high
Secondary	6mm high
Format	hh:mm:ss ; hh:mm ; mm:ss or s

Remote Timer reset & Clock sync.

Contact closure with resistance less than 10kΩ.

Timer

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 ⁶ hours maximum

Clock

Timekeeping accuracy	Less than ±0.43s error per day over operating temperature range.
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Intrinsic safety

Europe ATEX Code	Group II Category 1G Ex ia IIC T5 Ga Group II Category 1D Ex ia IIIC T80°C Da -40°C ≤ Ta ≤ +60°C ‡ ITS16ATEX28408X
Cert. No.	

International IECEx Code

Ex ia IIC T5 Ga
Ex ia IIIC T80°C Da
-40°C ≤ Ta ≤ +60°C ‡
IECEx ITS 16.0004X

ETL & cETL Code

Class I Div 1 Gp A, B, C, D T5 (USA & Canada)
Class II Div 1 Gp E, F, G. Class III Div 1 (USA & Canada)
Class I Zone 0 AEx ia IIC T5 Ga (USA)
Zone 20 AEx ia IIIC T80°C Da (USA)
Ex ia IIC T5 Ga (Canada)
Ex ia IIIC T80°C Da (Canada)
-40°C ≤ Ta ≤ 60°C ‡

Nonincendive USA & Canada ETL & cETL

Code	Class I Div 2 Gp A, B, C, D T5 Class II Div 2 Gp F, G. Class III Div 2 -40°C ≤ Ta ≤ 70°C
ETL Control No.	4008610

‡ +70°C when not relying upon the certified impact and ingress protection provided by the front of the BA377E-SS enclosure to maintain the certification of the panel enclosure in which the BA377E-SS is mounted.

Environmental

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

Ingress	Front IP66, rear IP20
Material	BS 3146-2:1977 ANC4B (316)
EMC	Complies with 2014/30/EU

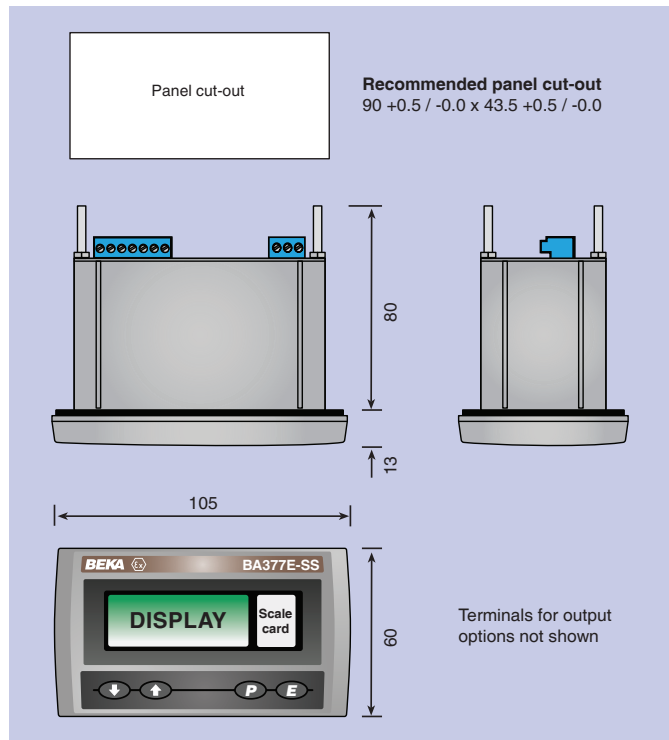
Mechanical

Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable terminal blocks.
Weight	0.85kg

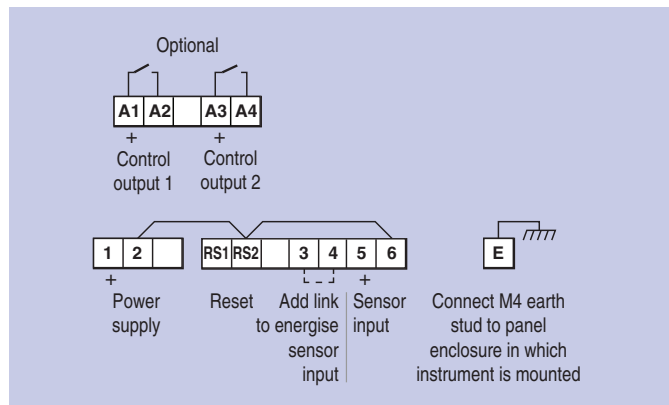
Accessories

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

DIMENSIONS (mm)



TERMINAL CONNECTIONS



Scale card

Blank card fitted to all instruments. Can be supplied typeset with specified units of measurement for no additional charge at time of purchase. #

Tag legend

Specified tag number or application laser etched onto rear of instrument. #

BA495 rear cover and sealing kit

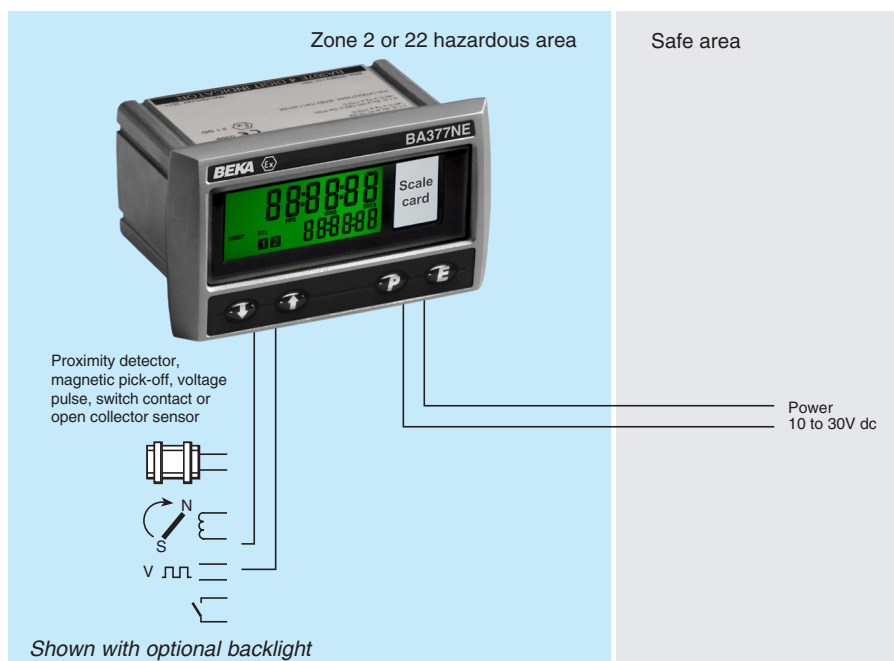
Provides impact and IP66 protection for rear of instrument. #

See accessory datasheet for details

HOW TO ORDER

Model number	Please specify BA377E-SS
Function Timer or Clock	
Input	Type *
Accessories	Please specify if required
Display backlight	Backlight
Control outputs	Control outputs
Scale card	Legend required
	No charge if ordered with instrument.
Tag	Legend required
Rear cover and sealing kit	BA495

* BA377E-SS can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba377e-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.



The **BA377NE** timer or clock has a rugged stainless steel enclosure allowing it to be safely installed in an Ex n or Ex tc panel enclosure located in Zones 2 or 22 without the need for Zener barriers or galvanic isolators. The instrument is easy to use and can be configured on-site to operate with sensors having a wide variety of outputs. A slide-in scale card simplifies identification.

Configuration may be performed on-site via the front panel push buttons using simple well documented menus. The Timer employs a state and event structure to simplify configuration. If required the BA377NE can be supplied configured to customer's requirements including a customer defined printed slide-in scalecard for no additional charge.

Applications as a Timer include simply displaying the time interval between two events detected by a hazardous 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, for instance opening a hazardous area 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 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.

IP66 front panel protection with a silicone gasket to seal the joint between the instrument and the instrument panel, allow the BA377NE to be installed in areas that will be washed down.

International Ex nA certification permits the BA377NE timer or clock to be installed worldwide. When mounted in a panel enclosure complying with Ex n (non sparking) impact and ingress requirements, the enclosure and instrument may be installed in a Zone 2 hazardous area without barriers or isolators. Certified Ex n or Ex e enclosures are often used. Similarly, the BA377NE can be mounted in an Ex tc enclosure located in Zone 22. BEKA Application Guide AG310 provides Ex nA installation recommendations.

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.

Optional dual control outputs can switch hazardous or safe area loads such as a sounder or solenoid valve. The two galvanically isolated, solid state voltage free outputs may be independently conditioned with normally open or closed outputs. Annunciators on the BA377NE display show the status of both control outputs.

Intrinsically safety models and instruments with larger displays are available within the range. The BA377E-SS has the same features as the BA377NE including a rugged stainless steel enclosure, but is certified intrinsically safe Ex ia.

The intrinsically safe BA377E offers similar features in a Noryl enclosure and the BA378E is an intrinsically safe two input timer or clock in a 144 x 72mm Noryl enclosure with a larger display.

BA377NE

Rugged Ex nA & Ex tc one input timer or clock

Can be installed in Zones 2 or 22 without Zener barriers or galvanic isolators.

- ◆ **Configurable input:**
magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ **Separate displays**
- ◆ **Ex nA & Ex tc certified**
- ◆ **105 x 60mm rugged 316 stainless steel enclosure with IP66 front protection.**
- ◆ **Optional:**
Backlight
Dual control outputs
- ◆ **3 year guarantee**

www.beka.co.uk/ba377ne



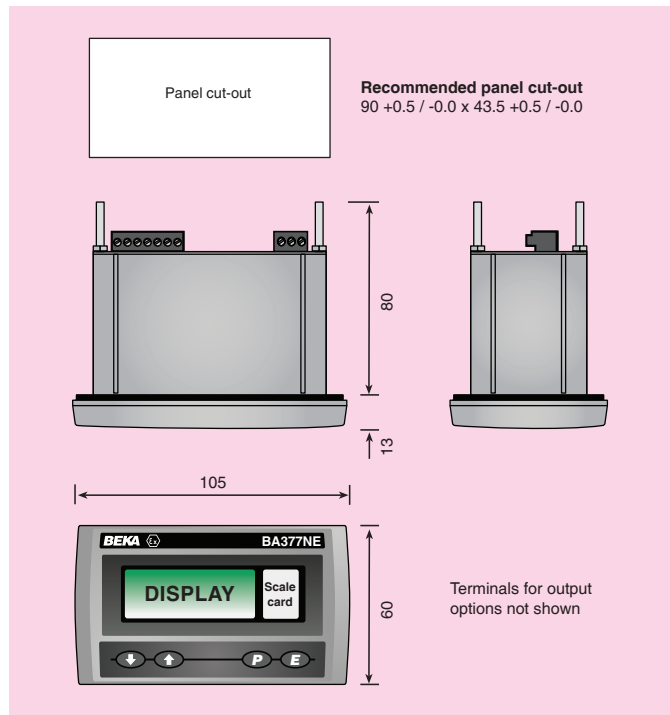
BEKA associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

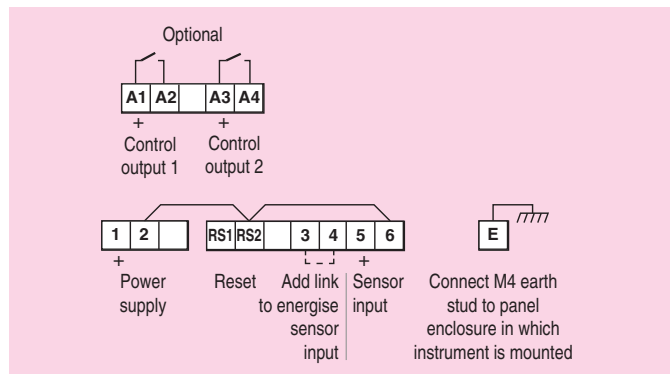
SPECIFICATION

Power supply			
Voltage	10 to 30V dc		
Current	16mA max plus 22.5mA for optional backlight.		
Input			
Switch contact	Lower	Upper	switching thresholds
Proximity detector (NAMUR)	100Ω	1kΩ	
Open collector	1.2mA	2.1mA	
Magnetic pick-off	2kΩ	10kΩ	
Voltage pulse (low)	0	+40mV	
Voltage pulse (high)	1V	3V	30V max
	3V	10V	30V max
Display			
Type	Liquid crystal		
Primary	9mm high		
Secondary	6mm high		
Format	hh:mm:ss ; hh:mm ; mm:ss or s		
Remote Timer reset & Clock sync.			
	Contact closure with resistance less than 10kΩ.		
Timer			
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 ⁶ hours maximum		
Clock			
Timekeeping accuracy	Less than ±0.43s error per day over operating temperature range.		
Certification			
	Note: Ex ic in codes refers to instrument push button contacts which are nonincendive.		
Europe ATEX Code	Group II Category 3G Ex nA ic IIC T5 Gc Group II Category 3D Ex ic tc IIIC T80°C Dc -40°C ≤ Ta ≤ +60°C ITS16ATEX48409X		
Cert. No.			
International IECEx Code	Ex nA ic IIC T5 Gc Ex ic tc IIIC T°80°C Dc -40°C ≤ Ta ≤ +60°C IECEx ITS 16.0005X		
Cert. No.			
ETL & cETL Code	Class I Zone 2 AEx nA ic IIC T5 Gc (USA) Zone 22 AEx ic tc IIIC T80°C Dc (USA) Ex nA ic IIC T5 Gc (Canada) Ex n IIC T5 Gc (Canada) Ex ic tc IIIC T80°C Dc (Canada) -40°C ≤ Ta ≤ 60°C 4008610		
ETL Control No.			
Environmental			
Operating temp	-40 to +60°C display -20 to +60°C		
Storage temp	-40 to +85°C		
Humidity	to 95% at 40°C non condensing		
Vibration	Report available		
Enclosure			
Ingress	Front IP66, rear IP20		
Material	BS 3146-2:1977 ANC4B (316)		
EMC	Complies with 2014/30/EU		
Mechanical			
Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable terminal blocks.		
Weight	0.85kg		
Accessories			
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		

DIMENSIONS (mm)



TERMINAL CONNECTIONS



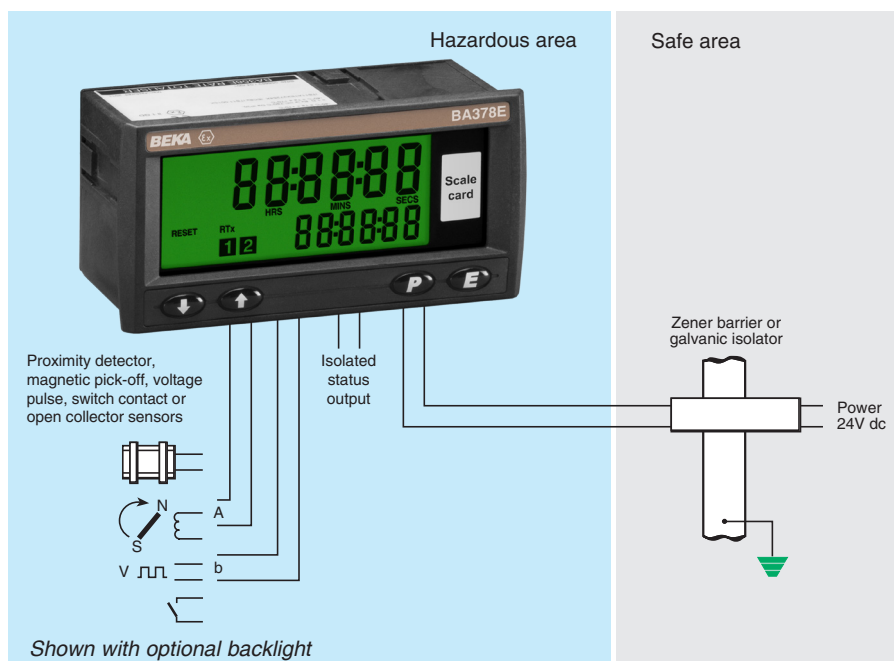
Scale card	Blank card fitted to all instruments. Can be supplied typeset with specified units of measurement for no additional charge at time of purchase. #
Tag legend	Specified tag number or application laser etched onto rear of instrument. #
BA495 rear cover and sealing kit	Provides impact and IP66 protection for rear of instrument. #

See accessory datasheet for details

HOW TO ORDER

Model number	Please specify BA377NE
Function	Timer or Clock
Input	Type *
Accessories	Please specify if required
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

* BA377NE can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba377ne 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.



The **BA378E** is a two input intrinsically safe instrument that may be configured as a Timer or as a Clock. As a Timer it is able to measure and display the elapsed time between external events, or control external events via the status and optional control outputs. When configured as a Clock the instrument can display time in a variety of formats. The BA378E is controlled by two inputs which may be independently configured on-site to operate with a magnetic pick-off, switch contact, proximity detector, open collector or a voltage output sensor. International intrinsic safety certification permits worldwide installation, and a slide-in scale card simplifies identification.

Configuration may be performed on-site via the front panel push buttons using the easy to use and well documented menus. The Timer employs a *state* and *event* structure to simplify configuration. The BA378E can be supplied configured to customers requirements including a customer defined printed scalecard for no additional charge.

Applications as a Timer include simply displaying the time interval between two events detected by one or two hazardous area sensors such as 2-wire proximity detectors. The Timer can control an external event using the isolated open collector status output if only a single output is required. If it is required to switch more than one circuit, additional dual isolated control outputs are available as a factory fitted option. The Timer is able to perform common industrial timing application such as those associated with dosing or sampling where an intrinsically safe solenoid valve is required to be opened for a defined time. The Timer includes a powerful cycle function which can be configured to repeat the 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 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.

IP66 front panel protection with a neoprene gasket to seal the joint between the instrument and the instrument panel allows the BA378E to be installed in areas that will be washed down.

International intrinsic safety certification permits the BA378E to be installed worldwide. When configured to operate with a sensors having a voltage or magnetic pick-up output, the input terminals comply with the requirements for *simple apparatus* reducing system design and documentation.

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.

Optional control outputs can switch hazardous area loads such as a sounder or solenoid valve, or safe area loads via a Zener barrier or isolator. The two galvanically isolated, solid state voltage free outputs may be independently conditioned with normally open or closed outputs. Annunciators on the BA378E display show the status of both control outputs.

When panel space is limited the intrinsically safe BA377E single input Timer or Clock provide similar features in a smaller 94 x 48mm enclosure. The BA377E-SS is identical to the BA377E except that it is housed in a rugged stainless steel enclosure with a 10mm thick window that may be installed in an Ex e, Ex n, Ex p or Ex t panel enclosure without invalidating the enclosure's certification. The BA377NE has Ex nA and Ex tc certification allowing installation in Zone 2 or 22 without Zener barriers or galvanic isolators.

BA378E

Two input timer or clock

Intrinsically safe for use in all gas hazardous areas

- ◆ **Configurable inputs:** magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ **Separate displays**
- ◆ **Intrinsically safe**
- ◆ **144 x 72mm DIN enclosure with IP66 front protection.**
- ◆ **Isolated status output**
- ◆ **Optional:**
Backlight
Dual controls outputs
- ◆ **3 year guarantee**

www.beka.co.uk/ba378e



BEKA

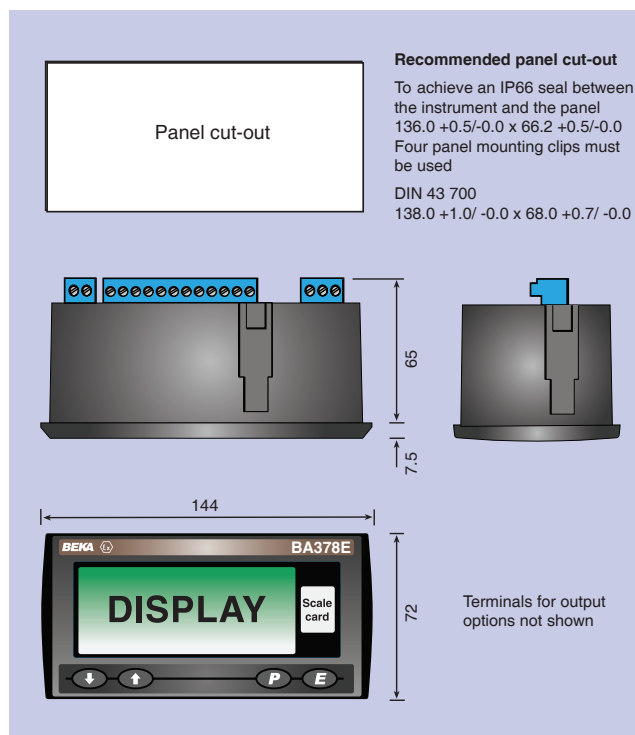
associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

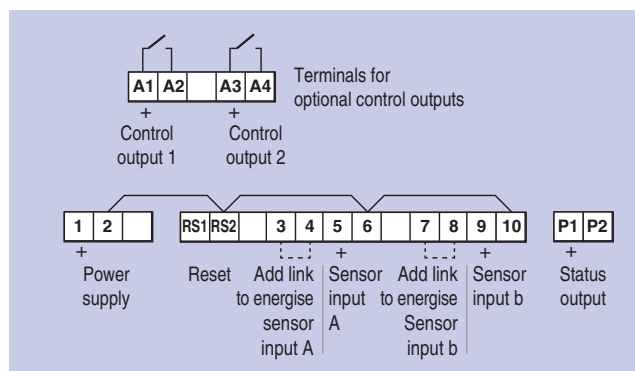
SPECIFICATION

Power supply	
Voltage	10 to 28V from a Zener barrier or galvanic isolator.
Current	22mA max plus 16mA for the optional backlight.
Input A & b	
Switch contact	Lower 100Ω Upper 1kΩ switching thresholds
Proximity detector (NAMUR)	1.2mA 2.1mA
Open collector	2kΩ 10kΩ
Magnetic pick-off	0 +40mV
Voltage pulse (low)	1V 3V 28V max
Voltage pulse (high)	3V 10V 28V max
Display	
Type	Liquid crystal
Primary	18mm high
Secondary	12mm high
Format	hh:mm:ss ; hh:mm ; mm:ss or s
Remote Timer reset & Clock sync.	
	Contact closure with resistance less than 10kΩ.
Timer	
Status output	Isolated, voltage free, open collector, certified as a separate intrinsically safe complying with the requirements for <i>simple apparatus</i> .
Ron	51Ω + 3V max
Roff	1MΩ min
I max	10mA
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	5x10 ⁶ hours maximum
Clock	
Timekeeping accuracy	Less than ±0.43s error per day over operating temperature range.
Intrinsic safety	
Europe ATEX Code	Group II Category 1G Ex ia IIC T5 Ga
Cert. No.	-40°C ≤ Ta ≤ 70°C ITS16ATEX28408X
International IECEx Code	Ex ia IIC T5 Ga
Cert. No	-40°C ≤ Ta ≤ 70°C IECEx ITS 16.0004X
ETL & cETL Code	Class I Div 1 Gp A, B, C, D T5 (USA & Canada) Class II Div 1 Gp E, F, G. Class III Div 1 (USA & Canada) Class I Zone 0 AEx ia IIC T5 Ga (USA) Ex ia IIC T5 Ga (Canada) -40°C ≤ Ta ≤ 70°C
Nonincendive USA & Canada	
Code	ETL & cETL Class I Div 2 Gp A, B, C, D T5 Class II Div 2 Gp F, G. Class III Div 2 -40°C ≤ Ta ≤ 70°C
ETL Control No.	4008610
Environmental	
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	Noryl SE1GFN3. Front IP66, rear IP20
EMC	Complies with EMC Directive 2014/30/EU
Mechanical	
Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable terminal blocks.
Weight	0.35kg
Accessories	
Backlight	Green LED internally powered
Control outputs	Two outputs each of which may be independently configured as a NO or NC output.

DIMENSIONS (mm)



TERMINAL CONNECTIONS



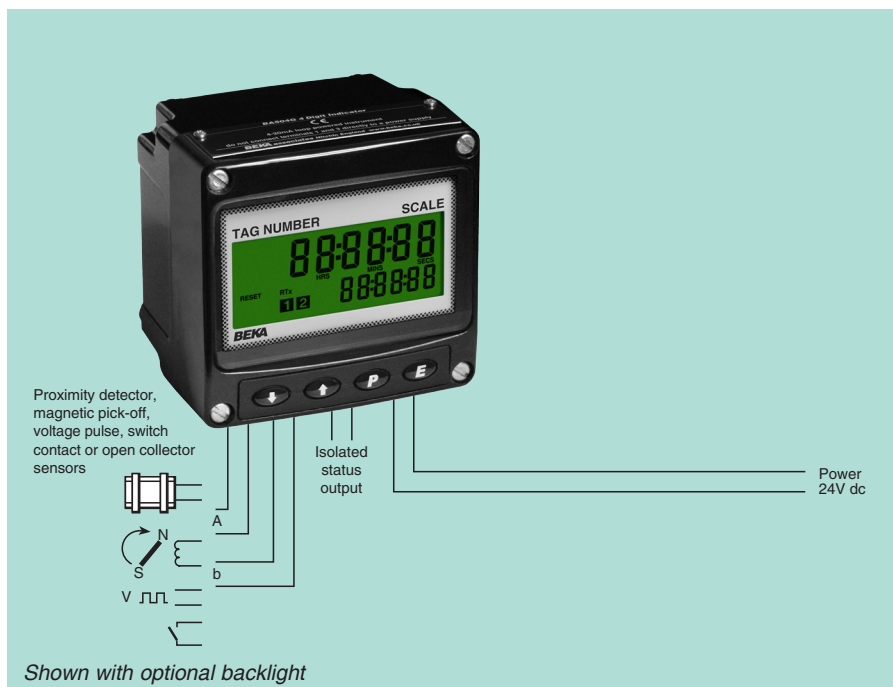
Outputs	Isolated single pole, voltage free solid state switch.
Ron	5Ω + 0.7V max
Roff	1MΩ min
Scale card	Blank card fitted to all instruments. Can be supplied typeset with specified units of measurement for no additional charge at time of purchase. ~
Tag legend	Specified tag number or application printed onto rear of instrument. ~

~ See accessory datasheet for details

HOW TO ORDER

Model number	Please specify BA378E
Function	Timer or Clock
Input	Type for each input *
Accessories	Please specify if required
Display backlight	Backlight
Control outputs	Control outputs
Scale card	Legend required
Tag	No charge if ordered with instrument. Legend required

* BA378E can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba378e 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.



The **BA574G** is a two input, general purpose field mounting instrument that can be configured as a Timer or as a Clock. As a Timer it is able to measure the elapsed time between external events, or control external events via the status and optional control outputs. When configured as a Clock the instrument can display time in a variety of formats. The BA574G is controlled by two inputs which may be independently configured on-site to operate with a magnetic pick-off, switch contact, proximity detector or a voltage output sensor.

Configuration may be performed on-site via the front panel push buttons using the easy to use and well documented menus. The Timer employs a state and event structure to simplify configuration. The BA574G can be supplied configured to customers requirements including a customer defined printed scalecard for no additional charge.

Applications as a Timer include displaying the time interval between two events detected by one or two sensors. The Timer can also control an external event using the isolated open collector status output. If more than one circuit is to be controlled, dual isolated control outputs are available as a factory fitted option. The Timer is able to perform many common industrial timing applications, such as those associated with dosing or sampling requiring a valve to be regularly opened for a defined time. A powerful cycle function is included which can be configured to repeat the timing function up to 99 times or continuously, with up to 100 hours delay between timed periods.

When configured as a Clock the BA574G can display local time in various twelve or twenty four hour formats, and may be synchronised to a pre-set time via the external reset input. The isolated open collector status output can be configured to switch on and off twice at pre-set times during each twenty four hour period and may be used for repetitive timing functions. If more than one circuit is to be controlled, optional factory fitted isolated dual control outputs are available. Each output may be independently configured to switch on and off twice at pre-set times 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 from the timer or clock, 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 protection is provided by the robust GRP enclosure which has stainless steel fittings, a silicone gasket and an 8mm thick armoured glass window. Ingress and impact protection have been independently assessed by Intertek.

Panel mounting timers or clocks with a variety of display and enclosure sizes are also available, see BA577E, BA577E-SS and BA578E. For applications in hazardous areas certified field and panel mounting timers or clocks are also available.

BA574G

two input timer or clock

General purpose

- ◆ Configurable input: magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ Separate primary and secondary displays.
- ◆ IP66 GRP enclosure
- ◆ Isolated pulse output
- ◆ Simple on-site scale card installation.
- ◆ Optional: Backlight Dual control outputs
- ◆ 3 year guarantee

www.beka.co.uk/ba574g

BEKA

associates

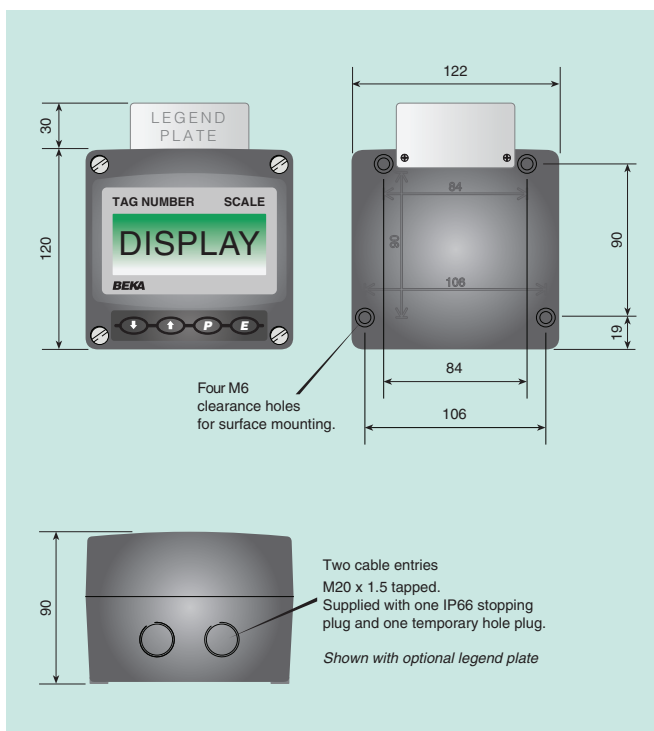
BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

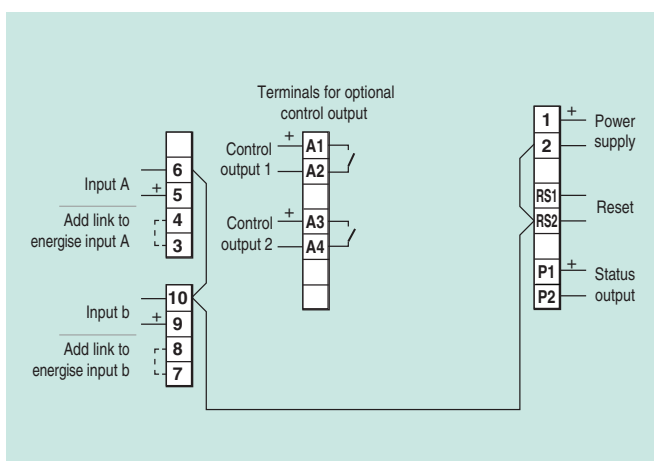
Power supply			
Voltage	10 to 30V dc		
Current	16mA max plus 16mA for optional backlight		
Input	Lower	Upper	switching thresholds
Switch contact	100Ω	1kΩ	
Proximity detector (NAMUR)	1.2mA	2.1mA	
Open collector	2kΩ	10kΩ	
Magnetic pick-off	0	+40mV	
Voltage pulse (low)	1V	3V	30V max
Voltage pulse (high)	3V	10V	30V max
Display			
Type	Liquid crystal		
Primary	18mm high		
Secondary	12mm high		
Format	hh:mm:ss ; hh:mm ; mm:ss or s		
Timer reset or Clock sync	Contact closure with resistance less than 10kΩ		
Status output			
Ron	51Ω + 3V max		
Roff	1MΩ min		
Vmax	30V dc		
I max	10mA		
Timer			
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 ⁶ h maximum		
Clock			
Accuracy	Less than ±0.43s error per day over operating temperature range.		
Environmental			
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	GRP		
Material	IP66		
Ingress	Complies with 2014/30/EU		
EMC			
Mechanical			
Terminals	Screw clamp for 0.5 to 1.5mm ²		
Weight	1.1kg		
Accessories			
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		
Vmax	30V dc		
I max	200mA		
Scale card	Blank card fitted to all instruments. Can be supplied printed with specified units of measurement and tag information for no additional charge at time of purchase. #		
Legend plate	316 stainless steel plate laser engraved with tag number or application information attached to rear of the instrument, visible from the front. #		
Pipe mounting kit	BA393G 316 stainless steel #		
Panel mounting kits	BA394G 316 stainless steel not sealing # BA494G GRP sealing #		
# See accessory datasheet for details			

See accessory datasheet for details

DIMENSIONS (mm)



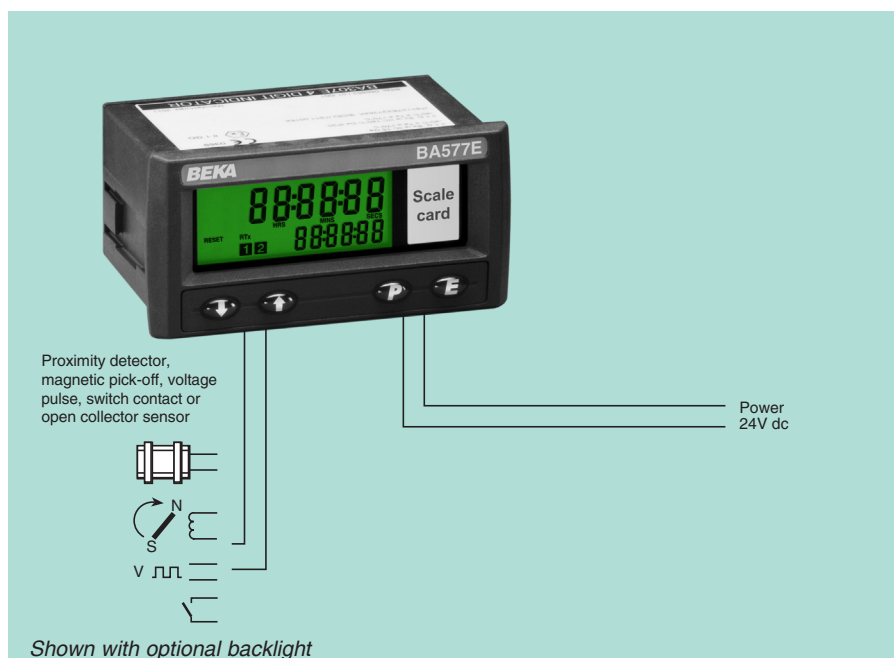
TERMINAL CONNECTIONS



HOW TO ORDER

Model number	BA574G
Function	Timer or Clock
Input	Type *
Accessories	
Display backlight	Backlight
Control outputs	Control outputs
Scale card marking	Legend required
Units	Legend required
Tag	No charge if ordered with instrument
Stainless legend plate	Legend required
Pipe mounting kit	BA393G
Panel mounting kit	BA394G or BA494G

* BA574G can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba574g for details. If configuration information is not supplied, instrument will be configured as a Timer with open collector inputs. Can easily be reconfigured on-site.



The **BA577E** is a general purpose instrument with one input that may be configured as a Timer or as a Clock. As a Timer it is able to 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 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 can be supplied configured to customers requirements including a customer defined printed slide-in scale card 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 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 neoprene gasket to seal the joint between the instrument and the instrument panel, allows the BA577E 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 conditioned with normally open or closed outputs. Annunciators on the BA577E display show the status of both control outputs.

If a larger display is required the BA578E is a two input Timer or Clock housed in a Noryl 144 x 72mm DIN enclosure. For installations in marine or hostile environments the BA577E-SS is functionally identical to the BA577E but is housed in an impact resistant rugged stainless steel enclosure with a 10mm thick toughened glass window.

For applications in flammable atmospheres the BA377E, which is identical to the BA577E, 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

One input timer or clock

General purpose

- ◆ 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
- ◆ 96 x 48mm DIN enclosure with IP66 front protection.
- ◆ Simple on-site scale card installation.
- ◆ Optional: Backlight
Dual control outputs
- ◆ 3 year guarantee

www.beka.co.uk/ba577e

BEKA
associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

Power supply

Voltage	10 to 30V dc
Current	16mA max plus 22.5mA for optional backlight.

Input

	Lower	Upper	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

Display

Type	Liquid crystal
Primary	9mm high
Secondary	6mm high
Format	hh:mm:ss ; hh:mm ; mm:ss or s

Remote Timer reset & Clock sync.

Contact closure with resistance less than 10kΩ

Timer

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 ⁶ hours maximum

Clock

Timekeeping accuracy	Less than ±0.43s error per day over operating temperature range.
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Environmental

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	Noryl SE1GFN3
Protection	Front IP66, rear IP20
EMC	Complies with EMC Directive 2014/30/EU

Mechanical

Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable.
Weight	0.15kg

Accessories

Backlight	Green LED internally powered
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Control outputs	Two outputs each of which may be independently configured as a NO or NC output.
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Outputs	Isolated single pole, voltage free solid state switch.
Ron	5Ω + 0.7V max
Roff	1MΩ min
V max	30V dc
I max	200mA

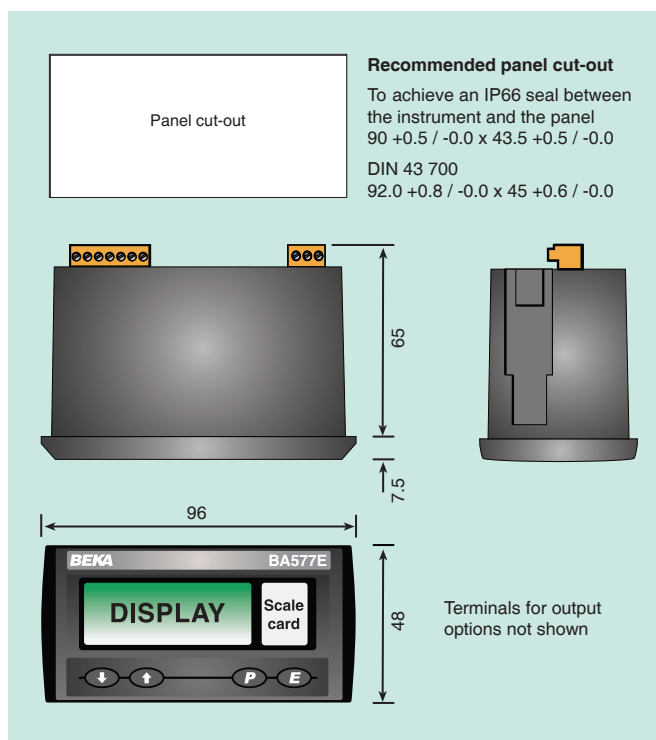
Scale card	Blank card fitted to all instruments. Can be supplied printed with specified units of time for no additional charge at time of purchase. #
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Tag legend	Specified tag number or application printed onto rear of instrument. #
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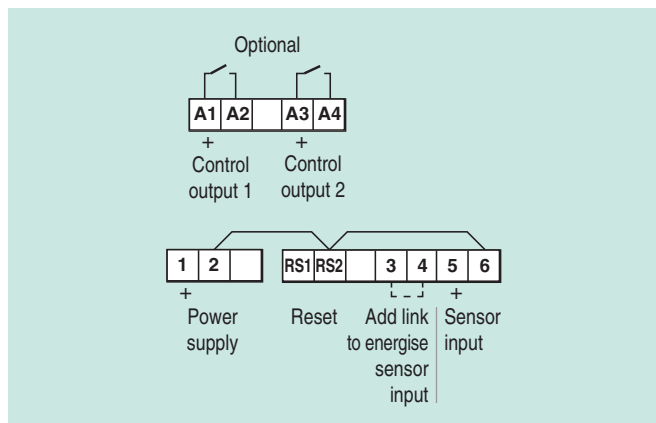
BA495 rear cover and sealing kit	Provides impact and IP66 protection for rear of instrument. #
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See accessory datasheet for details

DIMENSIONS (mm)



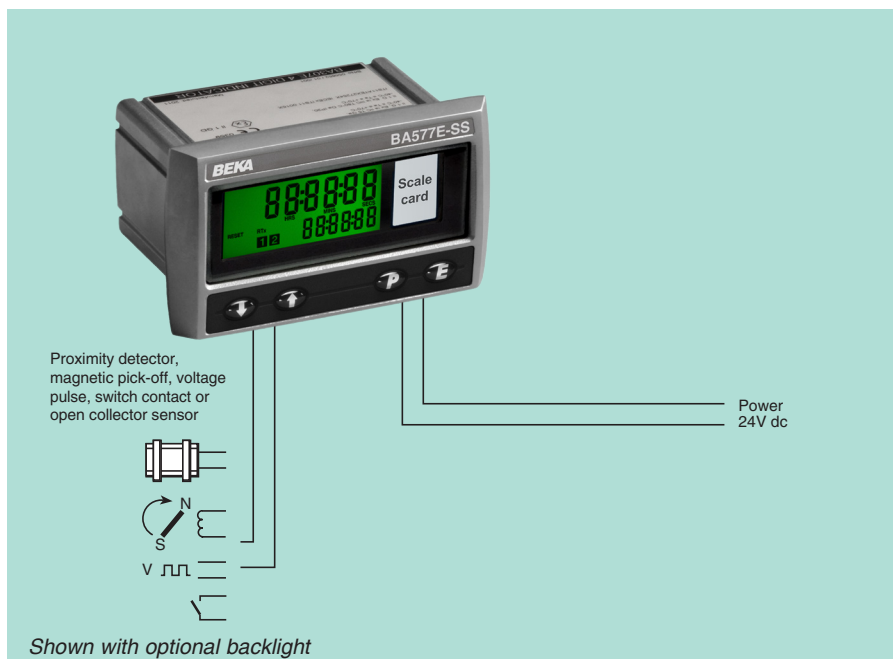
TERMINAL CONNECTIONS



HOW TO ORDER

Model number	BA577E
Function	Timer or Clock
Input	Type *
Accessories	Please specify if required
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 can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba577e 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.



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

www.beka.co.uk/ba577e-ss

BEKA
associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

Power supply

Voltage	10 to 30V dc
Current	16mA max plus 22.5mA for optional backlight.

Input

	Lower	Upper	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

Display

Type	Liquid crystal
Primary	9mm high
Secondary	6mm high
Format	hh:mm:ss ; hh:mm ; mm:ss or s

Remote Timer reset & Clock sync.

Contact closure with resistance less than 10kΩ

Timer

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 ⁶ hours maximum

Clock

Timekeeping	Less than ±0.43s error per day accuracy over operating temperature range.
-------------	---

Environmental

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

Mechanical

Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable.
Weight	0.85kg

Accessories

Backlight	Green LED internally powered
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Control outputs	Two outputs each of which may be independently configured as a NO or NC output.
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Outputs	Isolated single pole, voltage free solid state switch.
Ron	5Ω + 0.7V max
Roff	1MΩ min
V max	30V dc
I max	200mA

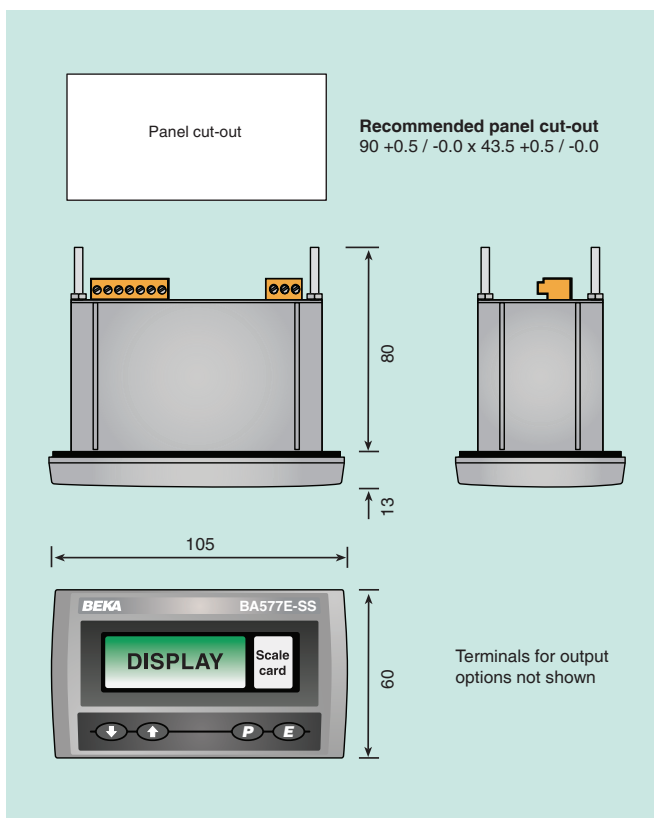
Scale card	Blank card fitted to all instruments. Can be supplied printed with specified units of time for no additional charge at time of purchase. #
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Tag legend	Specified tag number or application printed onto rear of instrument. #
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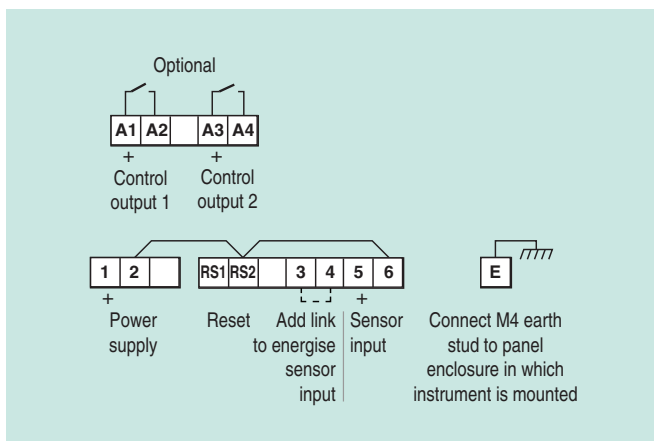
BA495 rear cover and sealing kit	Provides impact and IP66 protection for rear of instrument. #
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See accessory datasheet for details

DIMENSIONS (mm)



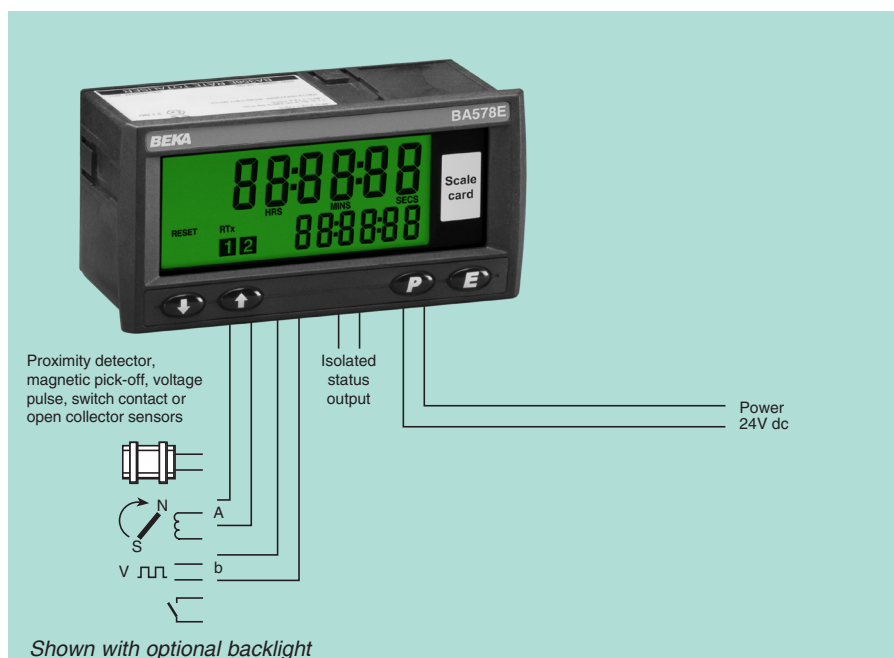
TERMINAL CONNECTIONS



HOW TO ORDER

Model number	BA577E-SS
Function	Timer or Clock
Input	Type *
Accessories	Please specify if required
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 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.



The **BA578E** is a two input general purpose instrument that may be configured as a Timer or as a Clock. As a Timer it is able to measure and display the elapsed time between external events, or control external events via the status and optional control outputs. When configured as a Clock the instrument can display time in a variety of formats. The BA578E is controlled by two inputs which may be independently 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 the easy to use and well documented menus. The Timer employs a state and event structure to simplify configuration. The BA578E can be supplied configured to customers requirements including a customer defined printed scale card for no additional charge.

Applications as a Timer include displaying the time interval between two events detected by one or two sensors such as 2-wire proximity detectors. The Timer can control an external event using the isolated open collector status output if only a single output is required. If it is required to switch more than one circuit, additional dual isolated control outputs are available as a factory fitted option. The Timer is able to perform common industrial timing application such as those associated with dosing or sampling where a solenoid valve is required to be regularly opened for a defined time. The Timer includes a powerful cycle function which can be configured to repeat the 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 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 neoprene gasket to seal the joint between the instrument and the instrument panel allows the BA578E to be installed in areas that will be washed down.

Optional control outputs can switch process area 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 BA578E display show the status of both control outputs.

When panel space is limited the BA577E single input Timer or Clock provides similar features in a smaller 96 x 48mm DIN enclosure. For installations in marine or hostile environments the BA577E-SS is functionally identical to the BA577E but has a rugged stainless steel enclosure with a 10mm thick window.

For applications in flammable atmospheres the BA378E, which is functionally identical to the BA578E, has international intrinsic safety certification. The one input BA377E also has intrinsic safety certification and the rugged BA377NE has Ex nA and Ex tc allowing installation in Zones 2 or 22 without Zener barriers or galvanic isolators.

BA578E

Two input timer or clock

General purpose

- ◆ May be configured as a Timer or as a Clock.
- ◆ Configurable inputs: magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.
- ◆ Two Separate displays
- ◆ 144 x 72mm DIN enclosure with IP66 front protection.
- ◆ Isolated status output
- ◆ Optional: Backlight
Dual controls outputs
- ◆ 3 year guarantee

www.beka.co.uk/ba578e

BEKA
associates

BEKA associates Ltd. Old Charlton Rd.
Hitchin, Hertfordshire, SG5 2DA, U.K.
Tel. (01462) 438301 Fax (01462) 453971
e-mail sales@beka.co.uk www.beka.co.uk

SPECIFICATION

Power supply

Voltage	10 to 30V dc
Current	22mA max plus 16mA for the optional backlight.

Input A & b

	Lower	Upper	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

Display

Type	Liquid crystal
Primary	18mm high
Secondary	12mm high
Format	hh:mm:ss ; hh:mm ; mm:ss or s

Remote Timer reset & Clock sync.

Contact closure with resistance less than 10kΩ

Timer

Status output	Isolated, voltage free, open collector
Ron	51Ω + 3V max
Roff	1MΩ min
I max	10mA

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 10⁶ hours maximum

Clock

Timekeeping accuracy. Less than ±0.43s error per day over full operating temperature range.

Environmental

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	Noryl SE1GFN3
Ingress	Front IP66, rear IP20
EMC	Complies with EMC Directive 2014/30/EU

Mechanical

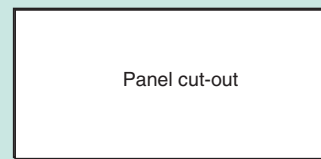
Terminals	Screw clamp for 0.5 to 1.5mm ² cable, removable.
Weight	0.35kg

Accessories

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. ~

~ See accessory datasheet for details

DIMENSIONS (mm)

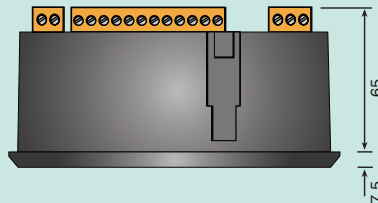
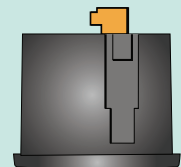


Recommended panel cut-out

To achieve an IP66 seal between the instrument and the panel 136.0 +0.5/-0.0 x 66.2 +0.5/-0.0 Four panel mounting clips must be used

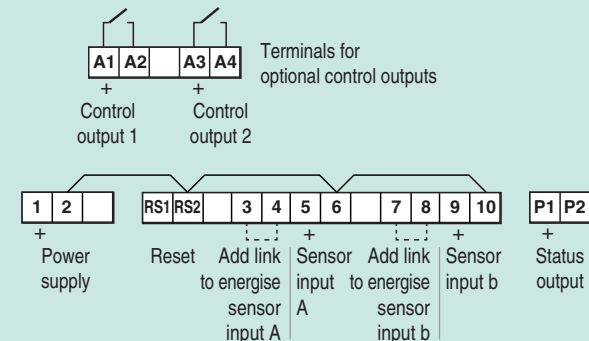
DIN 43 700

138.0 +1.0/-0.0 x 68.0 +0.7/-0.0



Terminals for output options not shown

TERMINAL CONNECTIONS



HOW TO ORDER

Model number
Function
Input

Please specify

BA578E
Timer or Clock
Type for each input *

Accessories

Display backlight
Control outputs
Scale card

Please specify if required

Backlight
Control outputs
Legend required
No charge if ordered with instrument
Legend required

Tag

* BA578E can be supplied configured as required for no additional charge, see instruction manual, which can be downloaded from www.beka.co.uk/ba578e 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.