Shown with optional backlight

Proximity detector, magnetic pick-off, voltage pulse, switch contact or open collector sensor

Power 24V dc

BA567E

One input counter

General purpose

◆ **Configurable input:**
   magnetic pick-off, switch contact, proximity detector, open collector or voltage pulse.

◆ **Separate rate and total displays.**

◆ **96 x 48mm DIN enclosure with IP66 front protection.**

◆ **Simple on-site scale card installation.**

◆ **Optional:**
   Backlight
   dual alarms
   or 4/20mA output
   or pulse output

◆ **3 year guarantee**

www.beka.co.uk/ba567e

The BA567E is a general purpose counter with one input housed in a 96 x 48mm DIN enclosure. The counter is easy to use and can be configured on-site to operate with a magnetic pick-off, switch contact, proximity detector, open collector or a voltage pulse sensor. A slide-in scale card shows the units of measurement.

Main application of the BA567E is to count the number of pulses received from a process area sensor such as a 2-wire proximity detector and simultaneously display the rate and total number in engineering units within the process area or control room.

The display has high contrast and a wide viewing angle enabling the counter to be read in most lighting conditions over a wide temperature range. The total number of pulses may be scaled and displayed in almost any units to represent the engineering variable being counted. The total display may be reset using the front panel push buttons or an external contact closure. The pulse rate may be shown in the same or different units per second, minute or hour.

Display backlighting which is internally powered from the counter 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 counter and the instrument panel, allows the BA567E to be installed in areas that will be washed down. To simplify installation and maintenance, the counter has removable terminal blocks allowing panel wiring to be completed before the instrument is installed.

One of the following three isolated outputs may be fitted to a BA567E counter. All are factory fitted options.

Optional open collector pulse output will synchronously retransmit the counter input pulse, or a pulse when the least significant digit of the total display is incremented.

Optional 4/20mA current sink output may be configured to produce an analogue output proportional to any part of the total or rate display.

Optional dual alarms can switch loads such as a sounder or solenoid valve. The two galvanically isolated, solid state, voltage free outputs may be independently conditioned as rate or total alarms with normally open or closed outputs. Annunciators on the BA567E display show the status of both alarm outputs.

A rugged version and a two input counter with a larger display are available in other models within the range. The BA567E-SS is identical to the BA567E except that it is housed in a rugged stainless steel enclosure with a 10mm thick window which is ideal for applications in marine or hostile environments where the front of the instrument may be impacted.

The BA368E is a two input counter with a larger display in a 144 x 72mm DIN enclosure. Both inputs can be displayed separately and, depending upon the configuration, their sum or difference.

For applications in flammable atmospheres the BA367E, which is identical to the BA567E, has international intrinsic safety certification. The BA367NE has Ex nA and Ex tc approval allowing use in Zone 2 or 22 without Zener barriers or galvanic isolators.

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

Frequency
Switch contact	150Hz typical	*Depends upon pulse width*
Other inputs	100kHz max	*and debounce setting.*
All inputs	0.01Hz min	

Display
Type	Liquid crystal
Zero blanking	Blanked apart from 0 in front of decimal point
Total ‡	8 digits 9mm high
Decimal point	1 of 7 positions or absent
Rate ‡	6 digits 6mm high
Decimal point	1 of 4 positions or absent

‡ Rate & Total can be shown on either 6 or 8 digit display

Grand total	Maximum count 10^{16}

Remote reset
Contact closure with resistance less than 10kΩ

Configurable functions
Total scale factor	Adjustable between 0.0001 and 99999
Rate scale factor	Adjustable between 0.0001 and 99999
Rate timebase	Rate may be displayed per second, minute or hour.
Rate display filter	Adjustable digital filter

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 1.5mm² cable, removable
Weight	0.15kg

Accessories
Backlight	Green LED internally powered
Scale card	Blank card fitted to all instruments. Can be supplied printed 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. #

One of the following three output accessories may be factory fitted to each counter. All have isolated outputs.

|	
Pulse output	Isolated open collector
Source & output	Counter input: synchronous pulse output, 5kHz max. or Least significant digit of total display divisible by: 1, 10, 100, 1000 or 10000 Pulse width definable as: 0.1, 0.5, 1, 2.5, 5, 10, 25, 50, 100, 250 or 500ms.
Ron	51Ω + 3V max
Roff	1MΩ min
I max	10mA
4/20mA output	Isolated current sink
Source	Rate or total
Voltage	5 to 30V
Dual alarms	Two alarms each of which may be independently configured as a rate or total, high or low alarm with a NO or NC output.
Outputs	Isolated single pole, voltage free solid state switch.
Ron	5Ω + 0.7V max
Roff	IMΩ min
V max	30V dc
I max	200mA

 # See accessory datasheet for details

DIMENSIONS (mm)

Panel cut-out

Recommended panel cut-out

To achieve an IP66 seal between the instrument and the panel
90 +0.5 / -0.0 x 43.5 +0.5 / -0.0

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

65
7.5
96
48

BEKA   BA567E
DISPLAY   Scale card
↓ ↑   P   E
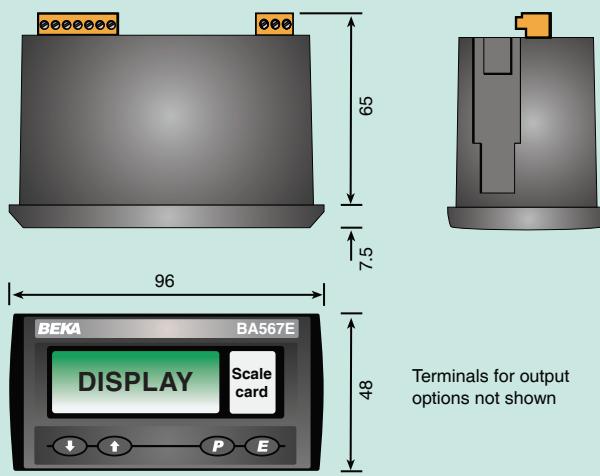
Terminals for output options not shown

TERMINAL CONNECTIONS

A1	A2		A3	A4	**OR**	P1	P2	**OR**	C1	C2	C3	C4
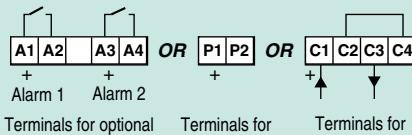
+ Alarm 1   + Alarm 2
Terminals for optional dual alarms

+
Terminals for optional pulse output

+
Terminals for optional 4/20mA output

1	2		RS1	RS2		3	4		5	6

+ Power supply   Reset   Add link to energise pulse input   + Pulse input
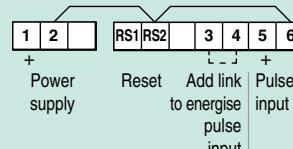
HOW TO ORDER

	Please specify
Model number	BA567E
Input	Type *
Total scale factor	XXXXX *
Rate scale factor	XXXXX *
Rate timebase	Seconds, minutes or hours*

Accessories	**Please specify if required**
Display backlight	Backlight
Scale card	Legend required *No charge if ordered with counter*
Tag	Legend required
Rear cover and sealing kit	BA495

One of following three output options:
Pulse output	Pulse output
or 4/20mA output	4/20mA output
or Dual alarms	Alarms

* Counter can be supplied configured as required for no additional charge. If configuration information is not supplied, instrument will be configured for open collector input with total and rate scaling factors of 1.0 and a timebase of seconds. Can easily be reconfigured on-site.