1. DESCRIPTION

The BA368E is a two input, intrinsically safe panel mounting Counter which will function with a wide variety of sensors.

This abbreviated instruction sheet is intended to assist with installation, a comprehensive instruction manual describing safety certification, system design and configuration may be downloaded from the BEKA website or may be requested from the BEKA sales office.

The BA368E Counter has IECEx and ATEX intrinsic safety certification for use in flammable gas atmospheres. ETL and cETL approval permits installation in the USA and Canada. The certification information label, which is located on the top of the instrument enclosure, shows the certification number and codes. Other certifications may be shown. Copies of certificates may be down loaded from the BEKA website.

Typical certification information label

Special conditions for safe use

The ATEX and IECEx certificates have an 'X' suffix indicating that special conditions apply for safe use.

WARNING

To avoid an electrostatic charge being generated instrument enclosure should only be cleaned with a damp cloth.

2. INSTALLATION

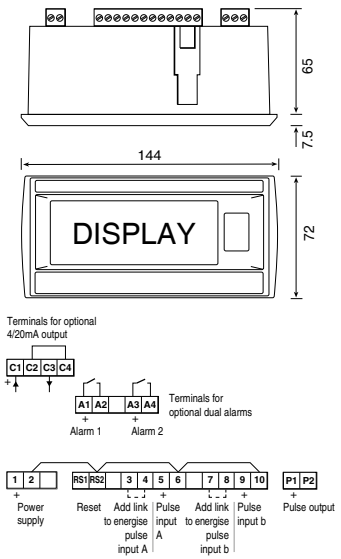
The BA368E has IP66 front of panel protection but they should be shielded from direct sunlight and severe weather conditions. The rear of both models have IP20 protection.

The BA368E is CE marked to show compliance with the ATEX Directive 2014/34/EU and the EMC Directive 2014/30/EU.

Cut-out dimensions

Recommended for all installations. Mandatory to achieve IP66 seal between instrument and panel.

136 +0.5/-0.0 x 66.2 +0.5/-0.0

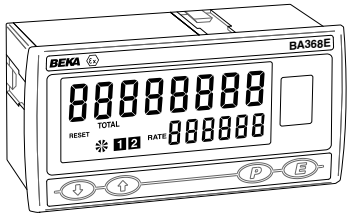


Support panel wiring to prevent vibration damage

Fig 1 Cut-out dimensions and terminals

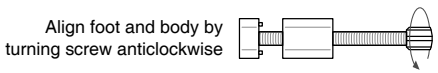
Abbreviated instructions for

BA368E two input, intrinsically safe panel mounting Counter



Issue 2
19th September 2016

BEKA associates Ltd. Old Charlton Rd, Hitchin, Hertfordshire, SG5 2DA, UK Tel: +44(0)1462 438301 Fax: +44(0)1462 453971
e-mail: sales@beka.co.uk web: www.beka.co.uk



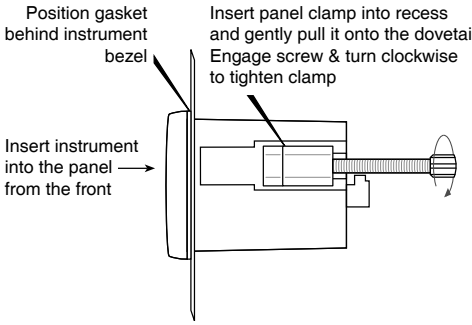
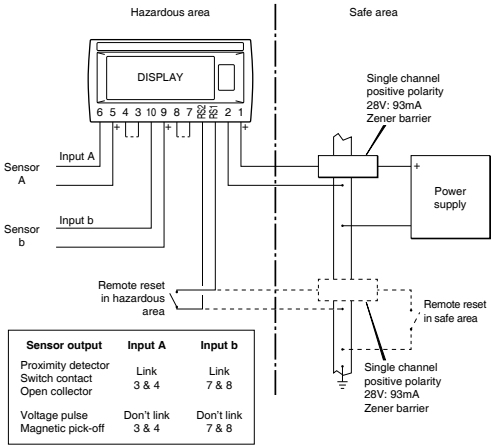


Fig 2 Installation procedure

EMC

For specified immunity all wiring should be in screened twisted pairs with screens earthed at one point within the safe area.



Sensor output	Input A	Input b
Proximity detector Switch contact Open collector	Link 3 & 4	Link 7 & 8
Voltage pulse Magnetic pick-off	Don't link 3 & 4	Don't link 7 & 8

Fig 3 Typical control loop

Scale card

The Counter's units of measurement are shown on a printed scale card visible through a window at the right hand side of the display. The scale card is mounted on a flexible strip that is inserted into a slot at the rear of the instrument as shown below

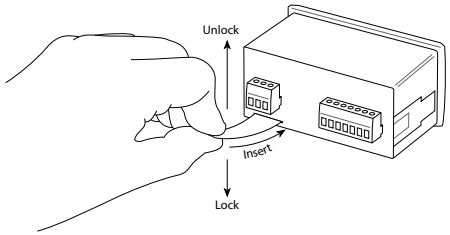
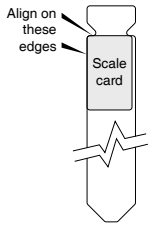


Fig 4 Inserting flexible strip carrying scale card into slot at the rear of Counter.

Thus the scale card can easily be changed without removing the Counter from the panel or opening the instrument enclosure.

New Counters are supplied with a printed scale card showing the requested units of measurement, if this information is not supplied when the counter is ordered a blank card will be fitted.
A pack of self-adhesive scale cards printed with common units of measurement is available as an accessory from BEKA associates. Custom printed scale cards can also be supplied.

To change a scale card, unclip the protruding end of the flexible strip by gently pushing it upwards and pulling it out of the enclosure. Peel the existing scale card from the flexible strip and replace it with a new printed card, which should be aligned as shown below. Do not fit a new scale card on top of an existing card.



Align the self-adhesive printed scale card onto the flexible strip and insert the strip into the indicator as shown.

Fig 5 Fitting scale card to flexible strip

3. OPERATION

The Counter is controlled by four front panel push buttons. When in the operating mode they have the following functions:

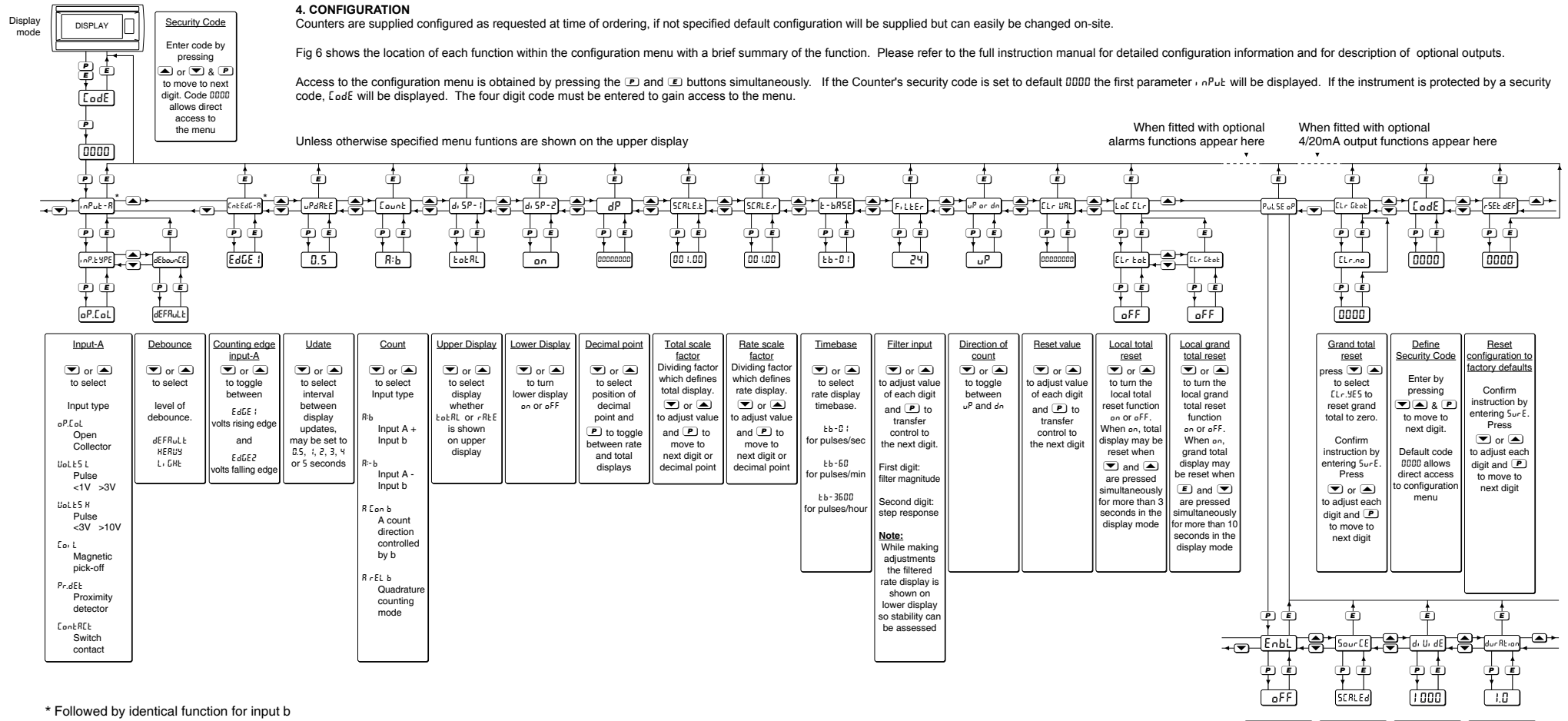
- P + E — Access to configuration menu
- E + ▼ — Grand total - shows `Lo` followed by least significant 8 digits of the 16 digit grand total.
- E + ▲ — Grand total - shows `Hi` followed by the most significant 8 digits of the 16 digit grand total.
  If Local Grand Total Reset `CLr Gtot` in the instrument configuration menu has been activated, operating the E and ▲ buttons simultaneously for ten seconds will result in `CLr.no` being displayed with the no flashing. Operating the ▲ or ▼ button will change the display to `CLr.YES`, the E button will then reset the grand total to zero which will be confirmed by a brief display of `Gt CLrd`.
- ▼ + ▲ — If the Local Total Reset function `CLr tot` in the instrument configuration menu is enabled, operating the ▼ and ▲ buttons simultaneously for more than 3 seconds allows total A, total b or both totals and any stored pulses in the pulse output to be reset to zero by operating the E push button.
- P + ▼ — Shows in succession, firmware version number, instrument function `Count` and any output accessories that are fitted:
  - `A` Dual Alarm Outputs
  - `C` 4/20mA output.
- P + ▲ — When optional alarms are fitted provides direct access to the alarm setpoints if `ASCP` (access setpoints) has been enabled in the configuration menu.

4. CONFIGURATION

Counters are supplied configured as requested at time of ordering, if not specified default configuration will be supplied but can easily be changed on-site.

Fig 6 shows the location of each function within the configuration menu with a brief summary of the function. Please refer to the full instruction manual for detailed configuration information and for description of optional outputs.

Access to the configuration menu is obtained by pressing the P and E buttons simultaneously. If the Counter's security code is set to default 0000 the first parameter inPut will be displayed. If the instrument is protected by a security code, CodE will be displayed. The four digit code must be entered to gain access to the menu.



* Followed by identical function for input b

Unless otherwise specified menu functions are shown on the upper display

SCALEd is not available when A:-b is selected in the Count function.

Manuals, certificates and data-sheets can be downloaded from http://www.beka.co.uk/ba368e

Fig 6 Configuration menu