1. DESCRIPTION

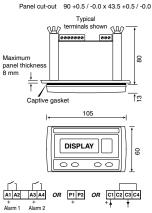
The BA537E-SS is a general purpose, one input rate totaliser housed in a rugged 316 stainless steel panel mounting enclosure. primarily intended for use with pulse output flowmeters.

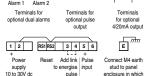
This abbreviated instruction sheet is intended to assist with installation, a comprehensive instruction manual describing system design and configuration may be downloaded from the BEKA website or may be requested from the BEKA sales office.

2. INSTALLATION

Cut-out dimensions

Mandatory to achieve an IP66 seal between instrument and panel.





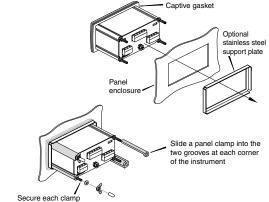
input Support panel wiring to prevent vibration damage

instrument is mounted

Fig 1 Cut-out dimensions and terminals

Abbreviated instructions for

BA537E-SS Rugged one input General purpose Rate Totaliser



with a stainless steel washer and wing nut. tighten 22cNm (1.95lbf in) min. Finally fit protective caps.

Fig 2 Installation procedure

EMC

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

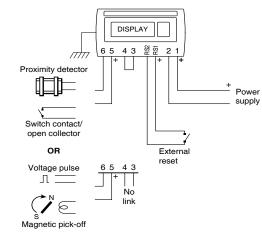
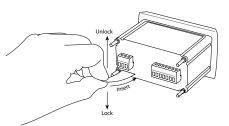


Fig 3 Typical system

Scale card

The Rate Totaliser'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



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

New Rate Totalisers are supplied with a printed scale card showing the requested units of measurement, if this information is not supplied when the instrument 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.

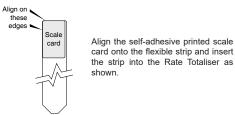


Fig 5 Fitting scale card to flexible strip

3. OPERATION

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

- **P** + **E** Access to configuration menu.
- + Grand total shows Lo followed by least significant 8 digits of the 16 digit grand total.
- Grand total shows H, followed by the most significant E + 🛋 8 digits of the 16 digit grand total.
- **()** + **(**) If Local Total Reset [Lr Lot in the configuration menu has been activated, operating the 💌 + 🛋 buttons for three seconds will reset the total display to zero and clear any pulses stored in the optional pulse output. The Grand Total is not reset.
- ▶ + ▼ Shows in succession, firmware version number. instrument function LoLAL, SE and any output accessories that are fitted:
 - 8 Dual Alarm Outputs
 - P Pulse output
 - E 4/20mA output.
- When optional alarms are fitted provides direct access P + 🔺 to the alarm setpoints if R5EP (access setpoints) in the configuration menu has been enabled.



The BA537E-SS is CE marked to show compliance with the European EMC Directive 2014/30/EU. It is also UKCA marked to show compliance with UK Electromagnetic Compatibility Regulations UKSI 2016:1091 (as amended)

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

4. CONFIGURATION

ΠC

Rate Totalisers 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 the lineariser and optional outputs.

Access to the configuration menu is obtained by pressing the
and
buttons simultaneously. If the Rate Totaliser's security code is set to default DDD the first parameter Function 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.

Display mode	Security Co Enter code pressing or a & to move to n digit. Code D allows dire access to the menu	by next 1000 oct	Unless otherwise specified menu functions are shown on the upper display								When fitted optional alarms, pulse output and 4/20mA output functions appear here.						
₽ ₽	È		É	È	È	È	È	È	Ē	Ē	Ē	È	É		Ē	É	É Í
		► ← dEbounCE ↓ dEFRuLE															
Eunction To select Function of rate totaliser SEd Linear Line 16 segment lineariser	Input To select Input type aP.CaL Open Collector. UoLE5 L Pulse <1V >3V UoLE5 M Pulse <3V >10V Con L Magnetic pick-off. Pr.dEL Switch contact.	Debounce To or to select level of debounce. dEFAult HERUS L, GHE	Update To select interval between display updates, may be set to 0.5, 1, 2, 3, 4 or 5 seconds	Upper Display to select whether rREf or tok RL is shown on the upper display	Lower Display To r to turn lower display on of oFF	Decimal point To or to select position of decimal point and to to toggle between rate and total displays	K-factor value and to select value and to next digit or decimal point Note: When L n is selected 16 values for FRELor may be entered	Total scale factor Divides FRELor to produce total display Press ♥ or ▲ to adjust value and ♥ I to move to next digit or decimal point	Bate scale factor Divides FR[Lor to produce rate display Press ♥ or ▲ to adjust value and ♥ to move to next digit or decimal point	Timebase To select rate display timebase Lb-01 for flow/sec Lb-50 for flow/min Lb-3500 for flow/hour	Eilter To or To adjust value of each digit and To to transfer control to other digit First digit: filter magnitude second digit step response Note: While making adjustments the filterad rate display is shown on lower display so stability can be assessed	Clip off Rate display below which totalisation is inhibited Press To ar a to adjust value of each digit and T to move to next digit	Local total reset or or to turn the local total reset function on or of eFF. When on, total display is reset to zero when or and are are operated simultaneously in display mode for more than 3 seconds	Local grand total reset or or toturn the local grand total reset function on or of eFF. When on, grand total display may be reset to zero when E and A simultaneously in display mode for more than 10 seconds	Clear grand total Press ♥ or ▲ to select ¥55 to reset grand total to zero Confirm instruction by entering Sur E. Press ♥ or ▲ to adjust each digit and ₱ to move to next digit	Define Security Code Enter by pressing To a and T to move to next digit	Beset configuration to factory defaults Confirm instruction by entering Sur E. Press To adjust each digit and P to move to next digit



Manuals, certificates and datasheets can be downloaded from http://www.beka.co.uk/ba537e-ss