1. DESCRIPTION

The BA588E is a two input, general purpose panel mounting Rate Totaliser which can operate with a wide variety of pulse output flowmeters. The instrument can display the output from each flowmeter and, depending upon how it has been configured, the sum or difference between them.

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.

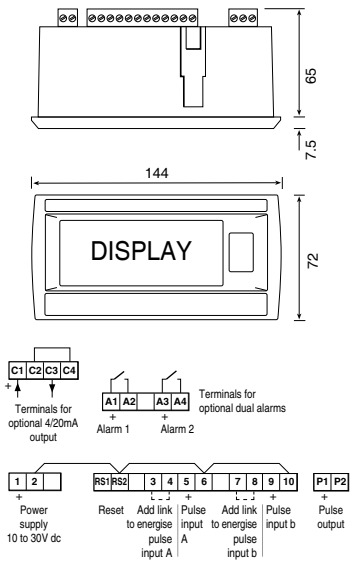
2. INSTALLATION

The BA588E Rate Totaliser has IP66 front of panel protection but it should be shielded from direct sunlight and severe weather conditions. The rear of the instrument has IP20 protection.

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

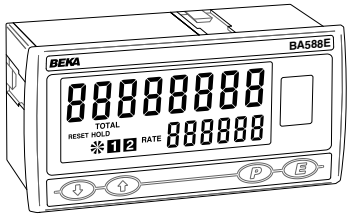


Support panel wiring to prevent vibration damage

Fig 1 Cut-out dimensions and terminals

Abbreviated instructions for

BA588E Two input
General purpose Rate Totaliser



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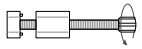
The BA588E is CE marked to show compliance with the EMC Directive 2014/30/EU.

1. Align foot and body of panel mounting clamp by turning screw anticlockwise



2. Position gasket behind instrument bezel

3. Insert instrument into the panel from the front

4. Insert panel clamp into recess and gently pull it onto the dovetail. Engage screw & turn clockwise to tighten the clamp, fit the other clamps. Recommended tightening torque 22cNm (1.95lbf.in) Equivalent to finger tight plus one half turn. DO NOT OVERTIGHTEN

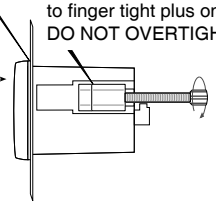
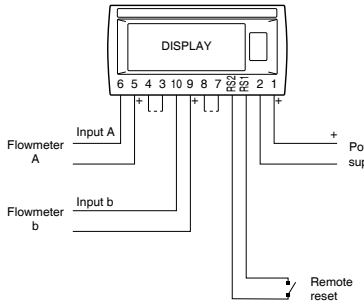


Fig 2 Installation procedure

EMC

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



Flowmeter 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 system

Scale card

The Rate Totalisers 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

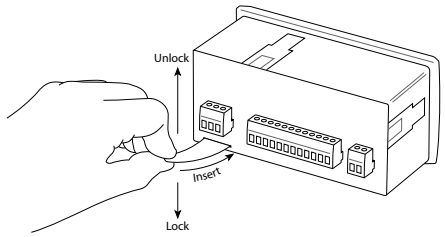
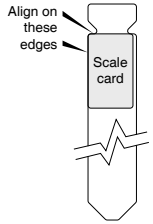


Fig 4 Inserting flexible strip carrying scale card into slot at the rear of Rate Totaliser.

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 Rate Totaliser 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 Rate Totaliser as shown.

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.

[▼] or [▲] 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.

[E] + [▼] Grand total - shows `Lo` followed by the least significant 8 digits.

[E] + [▲] Grand total - shows `Hi` followed by the most significant 8 digits. If buttons are pressed for longer than 10 seconds the grand total will be reset to zero if the grand total reset function `CLr Gtot` is enabled.

To reset the grand total to zero from the operating mode press the [E] + [▲] buttons for ten seconds until `CLr.no` is displayed. Using the [▼] or [▲] button change the display to `CLr.YES` and press [E] which will reset the grand total and restore the original display.

[▼] + [▲] 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 each for 2 seconds:
Firmware number
Function of instrument:
`2CHtotAL`
Options fitted:
- `A` Dual Alarm Outputs
- `C` 4/20mA output.

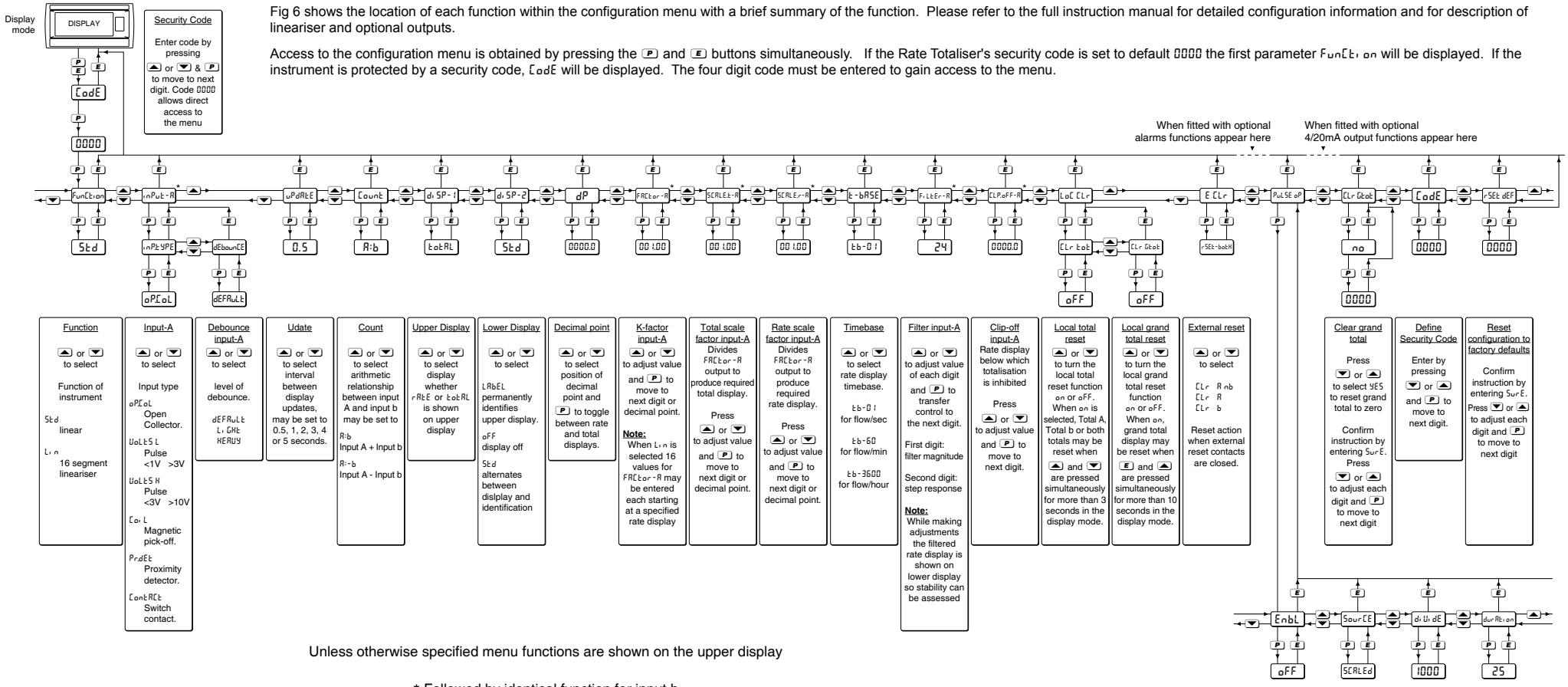
[P] + [▲] Provides direct access to the alarm setpoints when the Rate Totaliser is fitted with optional alarms and the `ACSP` (access setpoints) has been enabled.

4. CONFIGURATION

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 linearisers and optional outputs.

Access to the configuration menu is obtained by pressing the P and E buttons simultaneously. If the Rate Totaliser's security code is set to default 0000 the first parameter FunCti on 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.



Unless otherwise specified menu functions are shown on the upper display

* Followed by identical function for input b

Manuals, certificates and data-sheets can be downloaded from http://www.beka.co.uk/ba588e

Fig 6 Configuration menu