1. DESCRIPTION

The BA514G is a field mounting general purpose Tachometer which will function with a wide variety of sensors. The instrument displays speed plus the run-time of the machinery being monitored.

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.

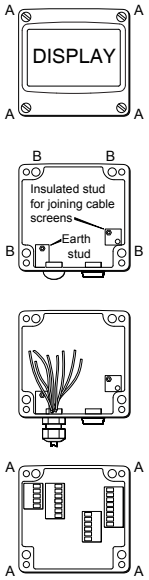
2. INSTALLATION

The BA514G Tachometer has a robust IP66 glass reinforced polyester (GRP) carbon loaded enclosure incorporating an armoured glass window and stainless steel fittings. It is suitable for exterior surface mounting in most industrial environments, or pipe mounting using an accessory kit.

If the enclosure is not bolted to an earthed post or structure, the earth terminal on the cable entry bonding plate, which may be assembled on the inside or outside of the enclosure, should be connected to local earthed metalwork or to the plant's potential equalising conductor.

Terminals A1, A2, A3 and A4 are only fitted when the Tachometer includes optional alarms. Similarly terminals C1, C2, C3 and C4 are only fitted when the instrument has an optional 4/20mA output. See full manual for details.

The BA514G is CE marked to show compliance with the EMC Directive 2014/30/EU. It is also UKCA marked to show compliance with UK Electromagnetic Compatibility Regulations UKSI 2016:1091 (as amended)



Step A
Unscrew the four captive 'A' screws and separate the indicator assembly and the back-box.

Step B
Secure the enclosure back-box to a flat surface with M6 screws through the four 'B' holes. Alternatively use a pipe mounting kit.

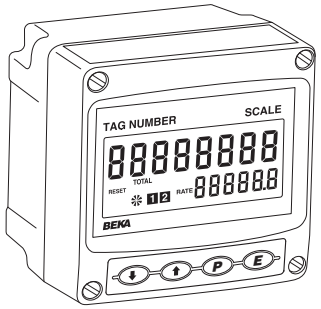
Step C
Remove the temporary hole plug and install an appropriate IP rated cable gland or conduit fitting. Feed the field wiring through the cable entry.

Step D
Terminate field wiring on the instrument assembly. Replace the assembly on the enclosure back-box and tighten the four 'A' screws.

Fig 1 BA514G installation procedure

Abbreviated Instruction for

BA514G general purpose field mounting Tachometer



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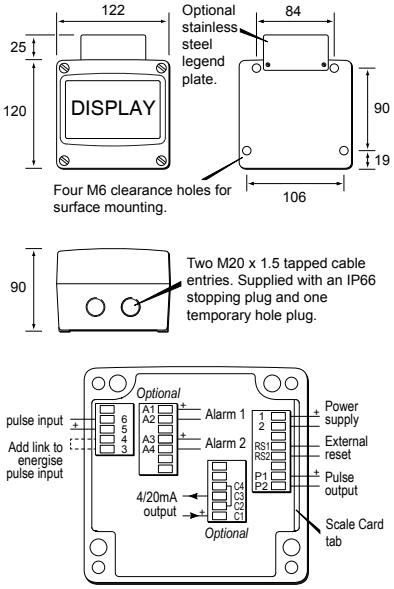

Fig 2 Dimensions and terminal connections

EMC

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

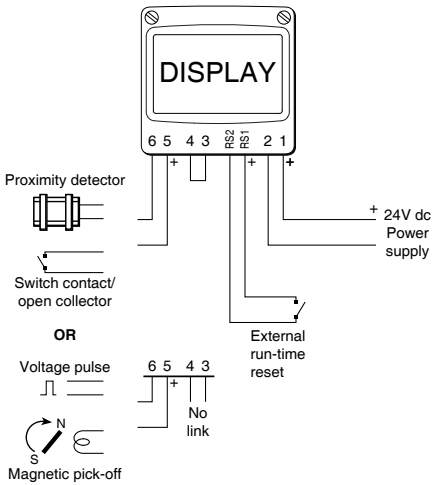

Fig 3 Typical speed measurement loop

Scale card

The instrument's units of measurement and tag information are shown above the display on a slide-in scale card. New instruments are fitted with a scale card showing the information specified when the instrument was ordered, if this was not provided a blank scale card will be fitted which can easily be marked on-site. Custom printed scale cards are available from BEKA associates.

To remove the scale card carefully pull the tab perpendicularly away from the instrument assembly. See Fig 2 for the location of the scale card tab.

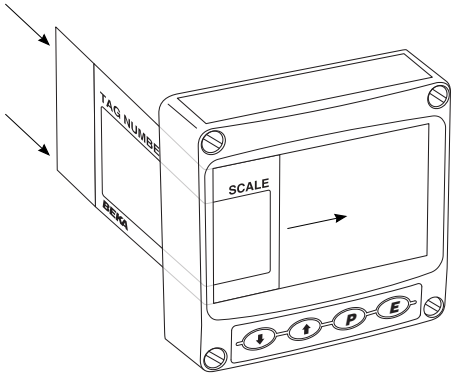

Fig 4 Inserting scale card into instrument assembly

To replace the scale card carefully insert it into the slot shown in Fig 2. Force should be applied evenly to both sides of the scale card to prevent it twisting. The card should be inserted until about 2mm of the transparent tab remains protruding.

3. OPERATION

The BA514G is controlled and configured via four front panel push buttons. In the display mode i.e. when the instrument is displaying speed the push button functions are:

▼ + ▲ Resets run-time display to zero.
This is a configurable function.

E + ▲ Run-time grand total.
If buttons are pressed for ten seconds or longer grand total run-time is reset to zero. This is a configurable function.

P + ▼ Shows in succession, firmware version number, instrument function tACHo and any output accessories that are fitted:
- -A Dual alarm outputs
- -P Pulse output (Always fitted)
- -C 4/20mA output

P + ▲ Provides direct access to the optional alarm setpoints when the Tachometer is fitted with optional alarms and the ACSP setpoints function has been enabled.

P + E Access to configuration menu

4. CONFIGURATION

Tachometers 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 5 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 Tachometer'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.

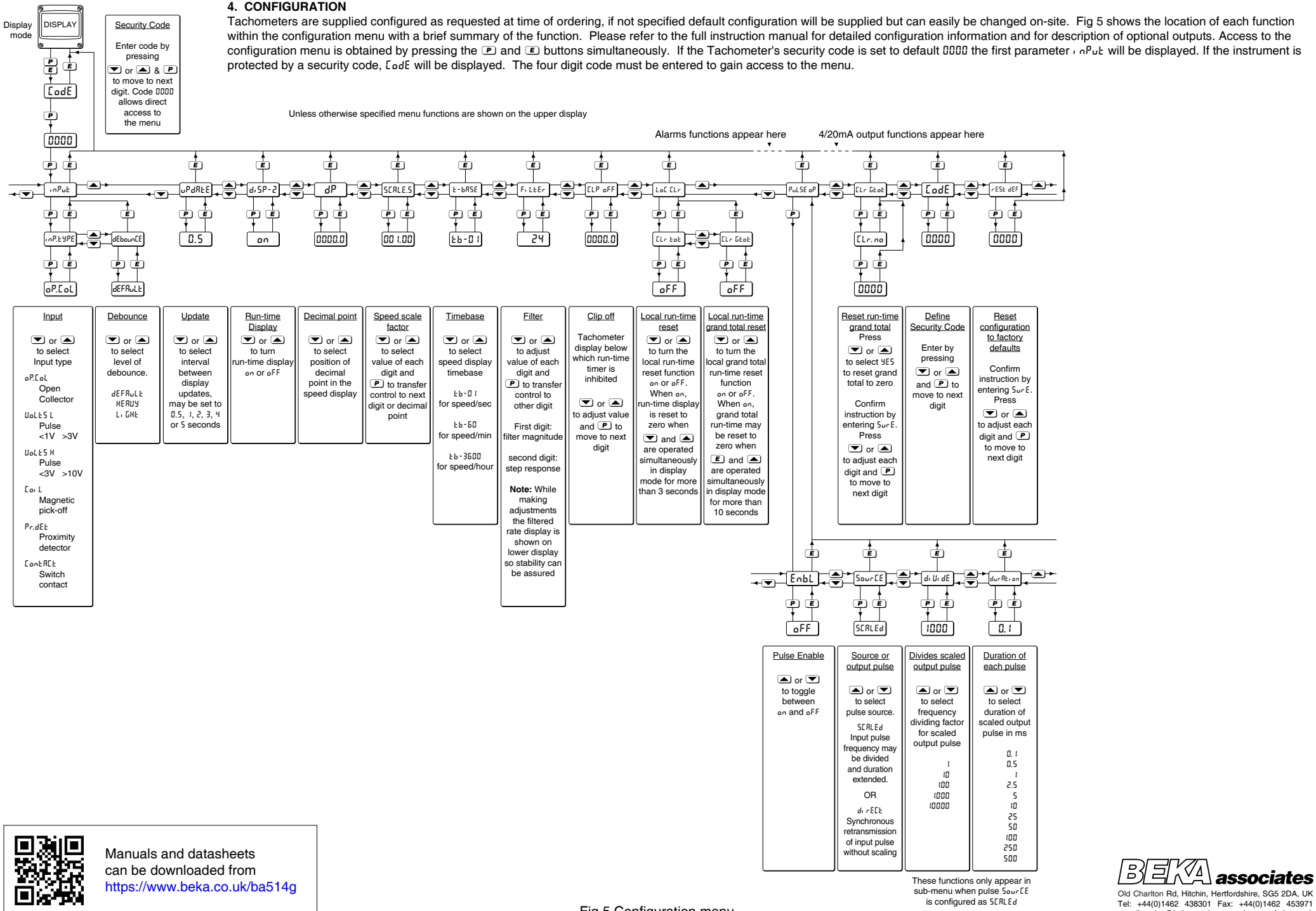

Fig 5 Configuration menu

Manuals and datasheets can be downloaded from https://www.beka.co.uk/ba514g

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