## 2000 MKII Series Counters



## Family features

- Dedicated range of Counters with many variations available or to special order
- Six decade and sign easily read display
- Microprocessor controlled
- Easy to set up and operate
- Scaling factor from 0.000001 to 999999 (+ or -)
- Offset facility (+ or -)
- Programmable decimal point
- Non volatile count (count is retained if power is lost)
- Counts up to 4,000,000,000 pulses (suitable for use with a small scaling factor e.g. for flow measurement applications)
- Half DIN panel mounting case ( $96 \mathrm{~mm} \times 48 \mathrm{~mm}$ )
- Choice of supply 115V AC / 230V AC / 24V DC


## Standard options

- High sensitivity input ( 12 mV rms - suitable for use with flow measurement devices with low amplitude output signals)
- Analogue input
- Serial output
- Fully scalable analogue output ( $0-1 \mathrm{~V}, 0-5 \mathrm{~V}, 0-10 \mathrm{~V}, 0-20 \mathrm{~mA}$ or $4-20 \mathrm{~mA}$ )
- Higher voltage output for transducer supply ( 24 V DC @ 50 mA max)
- 5 V to 35 V DC supply (suitable for use with vehicles operating on 24 V batteries)
- Count up and count down inputs
- Facility for external Start, Stop and Reset switches
- Compatible with quad bidirectional signal
- Batch and pre-batch outputs
- Combined Counter/Tachometer version (also known as a Totaliser/Ratemeter)
- Splashproof cover


## Special options

- Customised design or operation to suit unusual or dedicated applications - call our Sales Office to discuss your requirements


## Typical applications

- Production counter
- Length measurement
- Flow totaliser (scaled in litres, ml etc.)
- Cut to length systems
- Batch counting with slow down signal at pre-batch


## Technical specification

| Display | 6 decade and sign, 10 mm , seven segment high brightness red LED |
| :--- | :--- |
| Decimal point | User programmable |
| Scaling | User programmable and retained in EEPROM (non volatile memory) |

## Signal inputs

 specified)Sensitivity User adjustable from 200 mV to 10 V (protected to 100 V ). (Factory fitted High Sensitivity option allows low input level of 12 mV minimum).

Impedance 15 k ohm minimum.

## Control inputs

Start, Stop and Reset (require sink to OV of 220 ohms maximum)

## Outputs

d.c. voltage

10 V to 12 V DC unregulated @ 80mA maximum
Alarm Open collector 200mA 60V maximum (see Relay option below)

## Connections

Power requirements
Screw terminals on the rear panel.
Factory selected at 115 V AC or 230 V AC $50 / 60 \mathrm{~Hz}$. Loading 3VA (Factory fitted option to operate from 24 V DC supply is available to order)

## Temperature range

Operating : $\quad 0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
Storage $\quad-20^{\circ} \mathrm{C}$ to $+80^{\circ} \mathrm{C}$
Dimensions $96 \times 48 \times 104 \mathrm{~mm}$ (panel cut-out $92 \times 43 \mathrm{~mm}$ )
Weight
0.5 kg (standard mains version)

## Ordering guide

Please use the following order codes - if in doubt call our Sales Office for assistance:


## REQUIRED

C Standard Counter
BC Batch Counter
CT Combined Counter/Tachometer
QC Quadrature Counter (Bi-directional)

OPTIONAL
HS High Sensitivity input option
HV Higher transducer supply voltage

OPTIONAL
IF RS232 Interface


OPTIONAL ANALOGUE OUTPUT
$020 \quad 0-20 m A$ analogue output
420 4-20mA analogue output
1V $0-1 \mathrm{~V}$ analogue output
5V $0-5 \mathrm{~V}$ analogue output

Note the analogue output option cannot normally be fitted if a DC supply is used to power a Counter. If you need this facility, contact our Sales Office for a quote to supply a modified instrument.

REQUIRED
F Full switch option
S Single switch option (only the FUNC switch is instantly accessible - the other switches are hidden behind the front panel)

REQUIRED
115 115V AC power supply
230 230V AC power supply
24 24V DC power supply

Optional Enhancements for the 2000 Series Range (Order Separately)

| SPC4 | Splash-proof cover |
| :--- | :--- |
| A_IN1V | Analogue input module $(0-1 \mathrm{~V})$ |
| A_IN5V | Analogue input module $(0-5 \mathrm{~V})$ |
| A_IN10V | Analogue input module $(0-10 \mathrm{~V})$ |
| A_IN020 | Analogue input module $(0-20 \mathrm{~mA})$ |
| A_IN420 | Analogue input module $(4-20 \mathrm{~mA})$ |
| RMOD | Relay Module |

## Examples:

$2000 \mathrm{C} / \mathrm{F} / 115$ Standard Counter with full switch set, to operate on 115 V AC mains supply
$2000 \mathrm{BCHS} / \mathrm{S} / 230 \quad$ Batch Controller with High Sensitivity option, single switch, to operate on
230 V AC
$2000 \mathrm{QC} / 420 \mathrm{~S} / 230$ Quadrature Counter with $4-20 \mathrm{~mA}$ analogue output, single switch option, to
operate on 230 V AC

