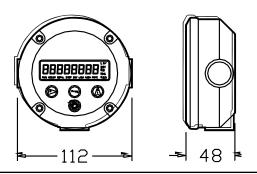
## METRA-SMART DATA SHEET

5 Digit rate indication 8 Digit total 8 digit accumulated total **IS** option **Analogue** output 2 flow alarms Dual input A+B, A-B, A/B Simple programming **10 point linearisation** Scaleable pulse output IP67 (Nema 4X) **Clear 9mm LCD display** Remote/local reset **Long battery life** -20 to 80 °C Operation Low battery indicator

Ideal for Production lines Fuel consumption



The *Metra-smart* was specifically designed for computing & displaying rates and totals as well as giving an analogue output proportional to flow. It can also give two pre-set flow switch points and calculate differential rates from two input sensors. strument will display Re-settable Total, Accumulated Total and Flow Rate in engineering units as programmed by the user. Simple PIN protected flow chart programming with English prompts guide you through the entire programming routine greatly reducing the need to refer to the instruction manual. The pulse output can be selected to act as an input pulse repeater serving as a signal conditioner module or may be programmed as a scaled pulse output for remote metering. There is a ten point linearisation for non-linear sensors. The analogue output and flow switch functions requires an external 8 - 24Vdc power supply. The robust housing is purposed designed to suit harsh indoor & outdoor industrial and marine environments. It is weatherproof to IP67 (Nema 4X) standards, UV resistant and uses glass reinforced nylon mouldings with stainless steel screws & viton 0-ring.



## **Specification**

The drawing below shows all of the segments on the LCD display illuminated at approximately full size. This occurs for five seconds whenever the program mode is entered.

**Display** 

Custom

multifunction LCD

Signal inputs

Universal pulse-

frequency input

Signal output

4-20 mA

Flow set points High & low flow

switches

Power

Battery and/or external 8-24Vdc (Up to 10 year battery life)

**Pulse output** 

Scalable

**Enclosure** 

IP66 (NEMA 4X).

K Factor range 0.001 to

9,999,999.999

Rate time base Seconds, minutes, hours or day

**Dual input** 

A+B, A-B or A/B

5 digit rate display has flashing time The 8 digit Total display is base enunciation on the first 3 charfront panel re-settable and acters and is programmable for up to can be programmed for up three "floating" decimal places to three decimal places Advanced power 黑黑黑黑黑黑 handling techniques Engineering units with three display selected during settings, "power save", "Standby" & the initial programming routine. "continuous" Low & high flow switch Accumulative total. Up indicators show when output Battery condition indicator shows to 3 decimal places transistor is activated. Rate. only when the battery is low Reset through a PIN set in program mode. Battery life can be up to 10 years protected security code.

The LCD 8 digit alpha-numeric display has 9mm high main characters with engineering units & mode indicators plus a low battery indicator. Displays rate, total and accumulative total all with independently programmable decimal point positions. The programming prompts scroll in plain English for ease of use. The inputs are compatible with reed switch, Hall effect detector, magnetic coil (20mV P-P), Voltage pulse & Namur proximity detectors. Maximum input frequency 500 to 5Khz depending on sensor type, minimum 0Hz, (0.1Hz when used on internal power and for rate indication). A loop power of 4 to 20mA can be spanned anywhere within the flow range,  $12\sim24$  V dc into  $750\Omega$  loop load. Accuracy is ±0.1% FSD. A test output is activated during programming for a system function check. The two set points are NPN/PNP pulse outputs with selectable FET transistors programmable as high and low set points with dead bands. Maximum power is 100mA at 24V dc. Internal 3.6V Ultra lithium battery is used for internal battery powered use. There is an additional scalebale pulse output selectable NPN or PNP it has a maximum frequency of 100 Hz. @ 1A maximum. The housing is high impact glass reinforced nylon with a self drill cable gland in the base or rear. Operating temperature range -20°C to +80°C. When the unit is measuring flow rate the first 2 or 3 digits show the time base i.e. SEC, MIN, Hr or DAY.

## Mat'ls of construction

**UV** resistant glass reinforced nylon case, polycarbonate cover, viton seals and stainless steel screws.

## Order codes

380-101 Metra-smart

Wall mounting bracket -380-103

Intrinsically safe

Metra-smart 380-101 IS

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