

# MULTI-MODE FREQUENCY METER & COUNTER

THE SEM1600F HAS THREE DIFFERENT SOFTWARE MODES AND PROVIDES SIGNAL CONDITIONING AND TRIP OUTPUTS AS A PACKAGE UNIT, PROVIDING FLEXIBILITY AND SIMPLICITY FOR A WIDE RANGE OF APPLICATIONS .

The unit will take various pulse inputs and convert them to a scaled or linearized analogue output. 15 V or 8 V excitation can be provided by the SEM1600F to power suitable input sensors where needed. The input of the unit can be set to any value of frequency (simulated) as an aid to diagnostics and commissioning.

The SEM1600F has the additional benefit of a 240 Vac rated relay that can be used in the various modes for input value, rate, total, differential maths functions and count alarm trips. The relay also has a latch option with a remote reset.

Configuration in any mode is attained via a standard USB lead and the free Status USB SpeedLink software.

**BASIC FREQUENCY MODE** - Input frequency range is taken, any values within the maximum (0 to 65) KHz can be used, and converted to an analogue output. The analogue output can be (0 to 20) mA, (4 to 20) mA, (0 to 10) V, (-10 to 10) V or any part of the output range that is required.

A cut low and cut high setting is provided to help improve signal integrity and can remove the problem of under or over flow readings with some types of sensor.

**ADVANCED FREQUENCY MODE** - For more complex applications it gives the user the option to scale the input frequency to an engineering unit either by interpolation or by the use of the sensor k factor.

Up to 15 point sensor correction can be applied if a calibration certificate for a turbine or similar is available, this function can also be used to apply a user non linearization curve (input A only).

In advanced mode a totalized value based on the input is available. A second input channel can be used to start/stop/reset a total count. The totalized value can be reset to zero or a pre-set number with a batch counter function monitoring resets.

The second input can also be used as a process value input and can also be totalized. The two inputs or the totalized values can be compared for A+B, A-B, highest, or lowest value and the trip or analogue output controlled by the result. This can be used for comparisons in flow applications.

**COUNTER MODE** - Input value (s) will be based on the number of input pulses and not the pulse frequency.

The counter mode can be used for monitoring, such as door open/close counting , the ratio of pulses per count is also adjustable by software so can be used to count up a multi pulse cycle.

