BCBSP

Features:

DC power source has 36V protection, tolerates above 200V without damage. Below 36V function is normal although the higher the supply voltage the more temperate may result depending on sum total of current load to the BCBSP module.

Pulse input port also has the same extended range of voltage toleration. Furthermore, the module will function normally for pulse-feed of any magnitude (voltage) that is within range.

Estimated accuracy (25˚C) 0.31% @ 1 kHz, 0.32% @ 200 kHz. Tolerance widen at higher frequencies due to quantization, for example, 8.19% @ 1600 kHz (above limit, do not apply pulse as fast as this rate). Tolerance widen at higher temperatures due to oscillator drift. Excessive frequency causes unexpected behavior.

Pulse capture frequency response from 1 Hz to 500 kHz. Where a few percent error is acceptable, response is above 1000 kHz. Sub-Hz pulse edges register correctly although their time interval is not measured.

The firmware employs a Real-time Operating System (RTOS) kernel for reliable and deterministic behavior.

Many IO are available and the MCU has ample free on chip resources therefore within reasonable confines the solution is adaptable.

**Reference**:

<https://www.steel-mate.co.uk/acatalog/Analogue-Speed-Pulse-Interface-50.html>

Steelmate Automotive advertises the “Analogue Speed Pulse Interface” at £23.40 per unit. This product that they sell is similar to our *PB Control Box - SPA*.