SigPro-USB
Signal Processing Module

with USB interface

Frequency to Voltage converter

User-selectable as 0-5V, 1-5V, 0-10V, or 2-10V

Frequency to Current converter

User selectable as 0-20mA, or 4-20mA

Frequency to HTL compatible digital output

Pull to supply HTL-compatible square wave with frequency scaled output



Tachometer

Scaled instantaneous rate, max/min rate and totalised count. User configured high and low alarm outputs. Rate data can be monitored in real-time via USB, max & min rates and total count are retained in memory for later recall.

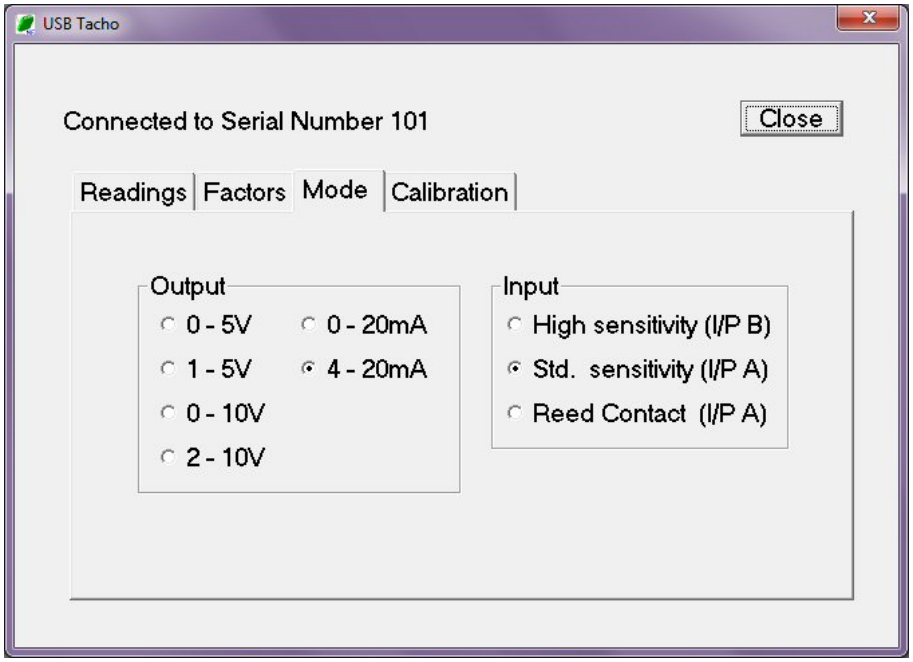
Typical inputs

User-selectable input sensitivity, suitable for a wide range of input devices. Ideal signal conditioner for magnetic pickups, reed switches and Hall effect sensors.

Standard Features

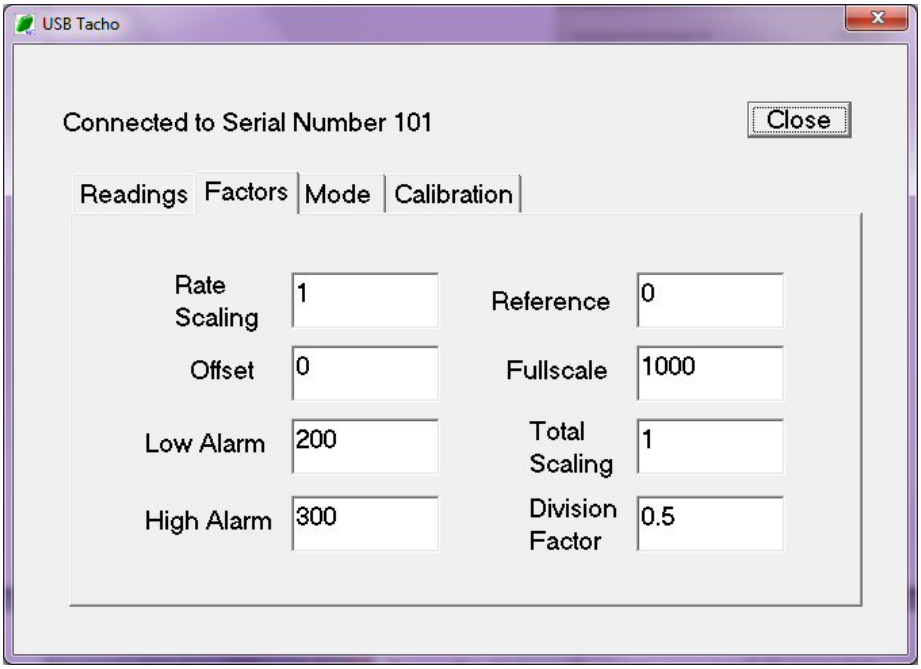
Input options	User selects either high or standard sensitivity or reed relay
Input sensitivity	User adjustment is available via an on-screen slider control
Output options	User selects either the analogue voltage or analogue current option. In either case an additional digital output is provided which is a divided version of the input frequency.
Alarm outputs	User definable high and low alarm (NPN)
Fast update	250 milliseconds

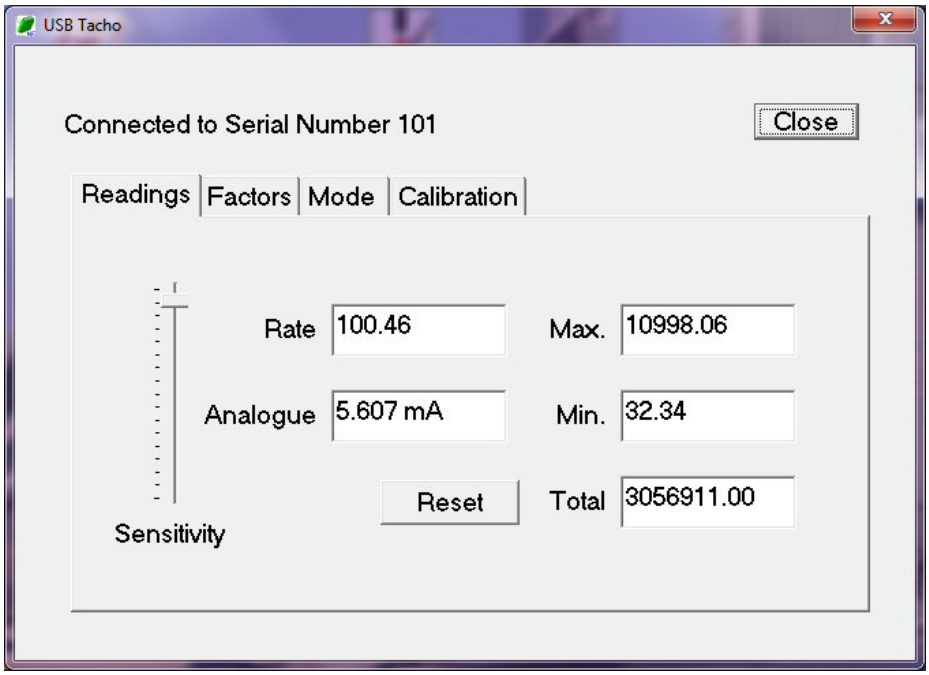
Installation	The module is housed in a compact universal TS35 and TS32 DIN rail mounting plastic box for rapid and simple clip-in installation
Power supply	12V to 30V DC power can be connected via the terminal block or via a standard 2.5mm power connector
Connections	Via clearly labelled terminals
Setting up	Modules can be supplied factory pre-set to your operational parameters. Alternatively, connect to a PC or Laptop for simple and rapid initial set-up during installation
Software	The application software is supplied free of charge



The required input and output functions are selected by just two clicks of a button

All required operational parameters, such as scaling factor, high and low alarms, etc. are entered via on-screen dialogue boxes, and once entered are stored in non-volatile memory.





In use the device will operate as a stand-alone module.

However, by connecting to the USB port, users can access an on-screen display that shows current operational status and the input sensitivity setting.

Additionally, maximum (peak-hold) and minimum rates and a cumulative scaled input pulse total are displayed.

These three values can be reset by clicking on the Reset button or by applying an external signal on the terminal block.

Specification

Power Supply — 12V DC (clean) @ 180mA nominal (11.5V minimum, 30V maximum, reverse polarity protected). If power is not available from the installation, Logitech can provide a suitable low-cost stand-alone-mains powered unit – contact our Sales Office for details

Signal Inputs

- **High sensitivity** — User-adjustable from 10mV to 1V (protected to 100V)
- **Standard sensitivity** — User-adjustable from 150mV to 13.5V (protected to 100V)

(Measurable frequency range on High and Standard sensitivity inputs — 0.5Hz - 30kHz)

- **Impedance** — 15kΩ (minimum)
- **Reed Relay** — Bounce protected. Input frequency 200Hz maximum

Signal Outputs (>15 bit resolution)

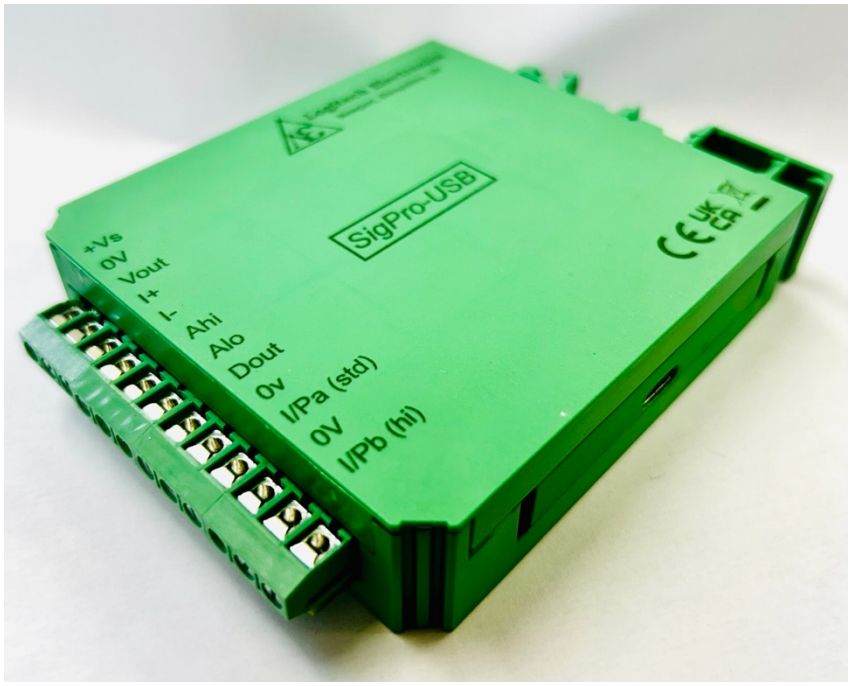
- **Analogue voltage output** — User-selectable as 0-5V, or 1-5V, or 0-10V, or 2-10V
- **Analogue current output** — User-selectable as 0-20mA, or 4-20mA (into 500Ω max.)
- **Digital output** — Pull to supply HTL compatible square wave, frequency scaled output
- **Frequency out** — K x frequency in. K = 0.0000001 to 1.

Alarm Outputs — User-definable Low and High alarms – open collector (200mA 60V DC maximum)

Calibration — Factory set to fully traceable National Standards

Connections

Power supply	Screw terminals on top face or via dedicated connector in side face (mating line connector – not supplied – 2.1mm low voltage power supply plug, e.g. Lumberg NES/J21 or equivalent)
Inputs and outputs	Clearly labelled external screw terminals on top face
USB 2.0	USB port in side face
Dimensions	22.5mm wide x 82mm high x 90mm deep (98mm including terminals)
Weight	100g nominal
Operating temperature	0°C to +70°C



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