



## CANvu Interface Module

### The Upgrade Solution

The CANVU Interface Module is a compact, encapsulated interface module that translates resistive sender and frequency signals into SAE J1939 CANbus data.

The Interface Module permits the quick and simple integration of non-ECU 'mechanical' engines into modern CANbus systems. Older engine fleets or smaller engines that operate without an ECU can now be rapidly and cost effectively upgraded to take advantage of modern digital instruments, controls and telemetry, and the development of a standard control panel for both ECU and non-ECU engines becomes possible.

The Interface Module is compact and light enough for inclusion into an engine wiring harnesses and can also be surface mounted. The case is fully sealed in epoxy resin for high impact and environmental resistance and an LED gives an indication of the operating mode and the level of CANbus activity.

The Interface Module has three resistive sensor inputs and a frequency input, in addition to its two outputs.

The resistive inputs are typically used for oil pressures, coolant temperatures and fuel levels and the frequency input used for engine speed. Total engine running hours can be calculated, when over 50Hz is received on the frequency input and operating voltages measured internally from the power leads.

Input signals are translated into SAE J1939 CANbus messages with proprietary PGN, data scaling and transmission rates. The outputs operate as latches, controlled by the CANbus signals and the DIP switches give a selection of source address's so multiple CIM's can be installed on a single CAN bus.

### HIGHLIGHTS

- Integrates mechanical, non-ECU engines and sensors into CANvu instrument systems
- Inputs for one speed sensor, and three resistive senders
- Two outputs that can be used for alarm and/or engine stop
- Compact, sealed epoxy-filled case
- Easily integrated into an existing engine wiring harness

Signal	Wire Colour	PGN	PGN Tx Rate	Data 0	Data 1	Data 2, 3, 4, 5, 6	Data 7
Frequency Input	YL/GN + VI	FF00	10ms	RPM_lo	RPM_hi	0xFF	0xFF
Resistive Input One	OR	FF01	100ms	Res_lo	Res_hi	0xFF	0xFF
Resistive Input Two	WH	FF02	100ms	Res_lo	Res_hi	0xFF	0xFF
Resistive Input Three	GY	FF04	100ms	Res_lo	Res_hi	0xFF	0xFF
Voltage	Internal	FF03	100mS	Volt_lo	Volt_hi	0xFF	0xFF
Engine Hours	Internal	FF05	1000ms	as per J1939	above 50Hz input		
Output 1	BL	FF06	RX	0=Off, Else On	FF	FF	FF
Output 2	BR	FF06	RX	FF	FF	FF	0=Off, Else On
Part Number	9199127						

## Specifications

### Power supply

Operating voltage: 7 to 35 VDC

Current consumption: 25mA (typ.)

### Inputs

Maximum operating range: -2 to +35 VDC max.

Resistive – uses 1K pull-up to an internal Vref. Do not apply any voltage sources.

Frequency - connect violet wire to magnetic pick-up or speed sensor signal output. Connect yellow/green to speed signal return or batter negative on a ground/negative return system. This input is opto-isolated and requires a speed signal of 3-30 VAC rms.

### Outputs (all ratings non-reactive)

Two: negative DC (open collector transistor), 250mA max.

CANbus: SAE J1939 protocol, 120 Ohm terminating resistor not fitted

### Adjustments

DP1 and DP2 are used to set the source address. The source address must match the Engine Source address set in the CANvu EM. This allows multiple CIM's to be connected to a common CAN network.

### Physical

Case material: high impact ABS, epoxy filled

Dimensions: see diagram below.

Weight: approx 60 g / 0.13 lb

Operating temperature: -20 to +85 °C / -4 to +185 °F

Environmental sealing:

IP65 case (with DIP switch protective film intact), exposed

