

Description:

The FC1 Frequency Clamp is designed to condition the output of frequency based air flow meters such as those used on late model GM cars and Karman Vortex. Under normal operating conditions, the FC1 outputs a signal that is identical to the flow signal present at its input. When the frequency of the flow signal reaches the internally set clamp level, the FC1 maintains a constant output frequency at the clamp level as the input frequency rises.

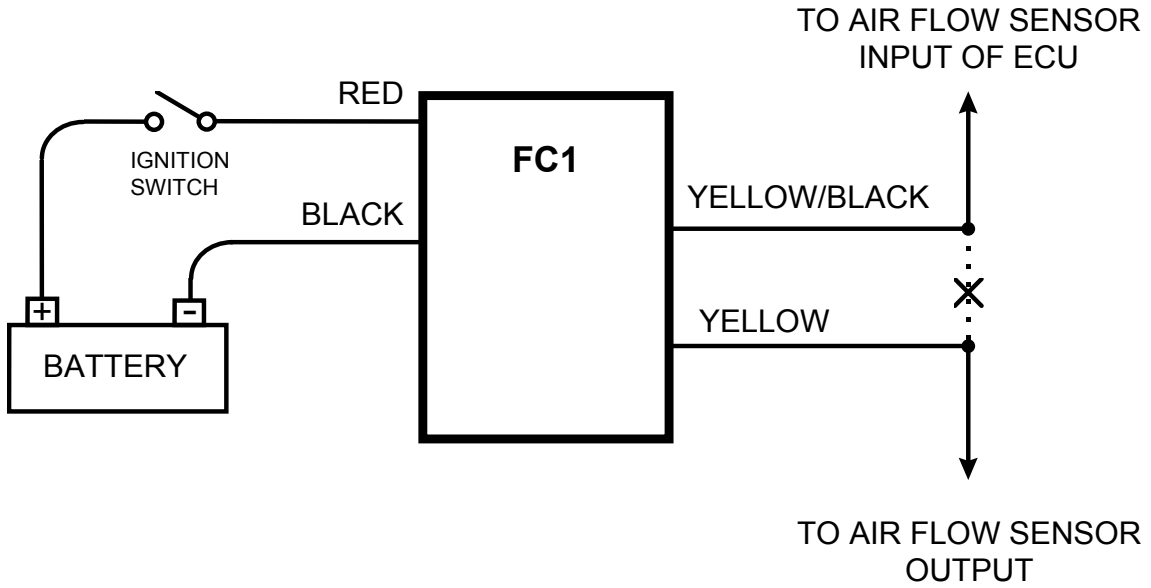
The FC1 is especially useful for forced induction conversions where a supercharger or turbocharger is fitted to an engine which is normally naturally aspirated. Under boost the engine can generate higher flow levels than normal. The clamping function of the FC1 maintains the air flow input to the ECU within normal levels. Throughout its entire tracking and clamping range, the FC1 always produces a clean, undistorted signal which the ECU can reliably read.

The FC1 allows the conversion to forced induction on engines with modern fuel injection including those with OBDII on-board diagnostics. The stock ECU programming may be used without activation of fault codes under boost.

Features:

- Avoids fault codes due to excess flow readings
- Compatible with OBDII systems
- Versions available for different frequency clamp levels
- Clean, undistorted output signal
- Internal transient voltage suppression for high reliability

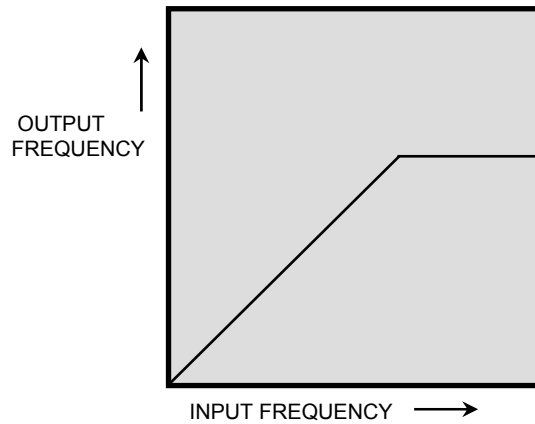
Typical Connections:



Wire Assignments:

WIRE COLOR	CONNECT TO	LABEL
Red	Switched battery positive (+12V)	BATT+
Black	Battery negative (chassis ground)	BATT -
Yellow	Air flow sensor output	FLOW IN
Yellow/Black	Air flow sensor input to the ECU	FLOW OUT

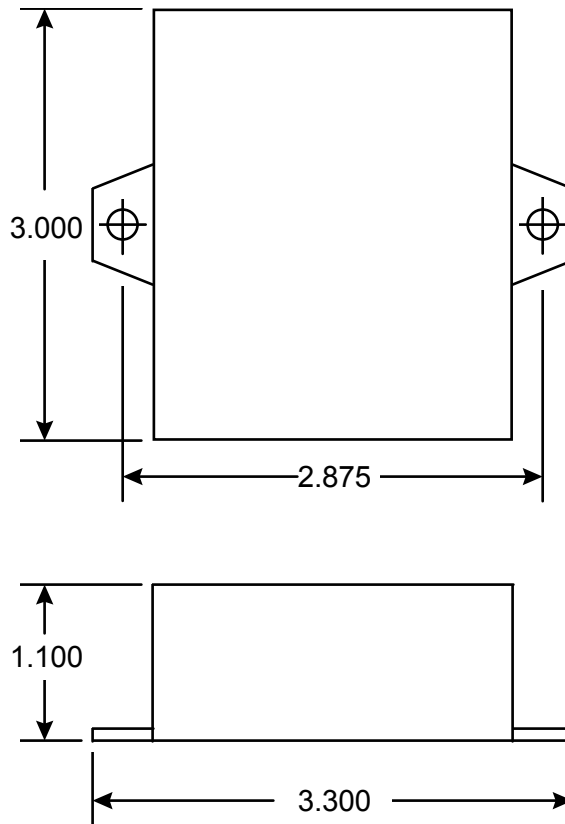
Clamp Function (Fixed Internally):



Electrical Characteristics:

PARAMETER	CONDITIONS	MIN	TYP	MAX	UNITS
Supply Voltage	BATT+ to BATT-	10	13.5	16	V
Input Voltage	Signal Input to BATT-		5		V
Input Resistance	Signal Input to 5V		1		k Ω
Output Resistance	Output low voltage		100		Ω
Supply Current	BATT+ To BATT-		20		mA

Mechanical Characteristics:



(dimensions in inches)



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