

Universal Spark Conditioner with Multi-Strike Elimination



Description:

The Universal Spark Conditioner is designed to condition +12V coils primary or low voltage spark signals. This conditioner takes up to all 12 signals and outputs them onto one pulse train. It allows the monitoring/recording of those signals with a variety of data acquisition tools or control systems. Multi-strike elimination output gives the only the first firing of each combustion cycle. Selection of leading or trailing edge is provided through a switch on the side of the module.



Basic Operation:

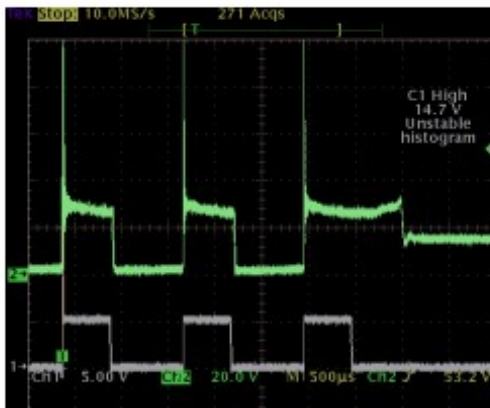
The unit has the ability to select between leading or trailing triggers. There is a one-shot 500 μ s pulse per spark event. This unit works for high or low voltage spark inputs. There is one Transistor to Transistor Logic (TTL), +5V output with multiplexed pulse representing all 12 channels. A second output with multi-strike elimination will output the first strike for each cylinder firing.

Selectable options:

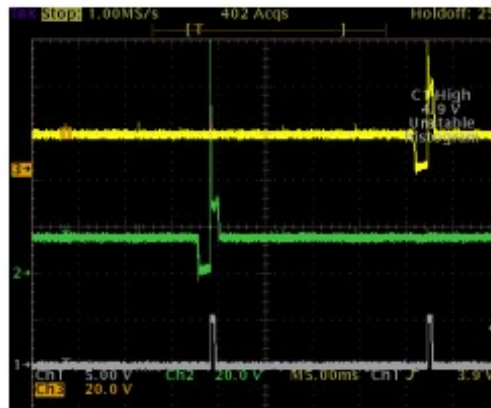
Leading and Trailing edge trigger switch

Other Uses:

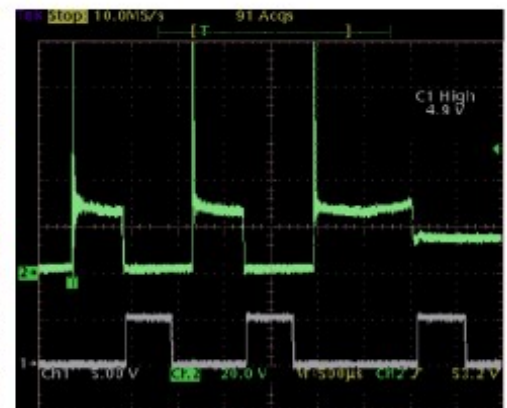
Data collection from any type coil firing event, like solenoids.



Multi Strike Leading Edge Detection



Single Strike Leading Edge Detection

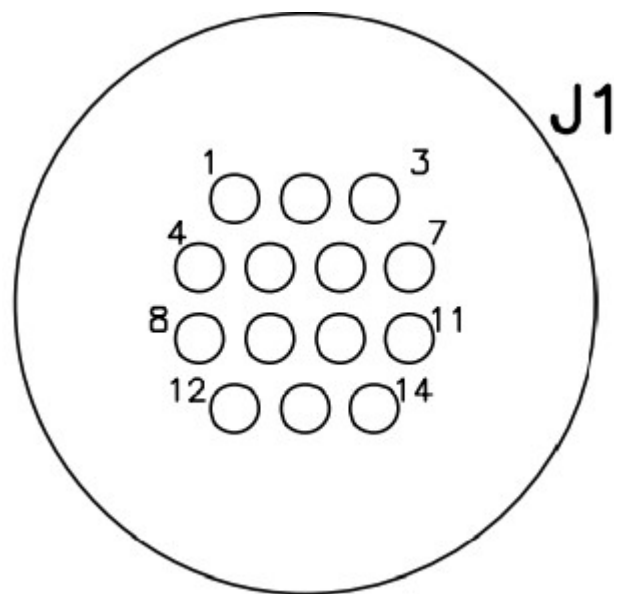


Multi Strike Trailing Edge Detection

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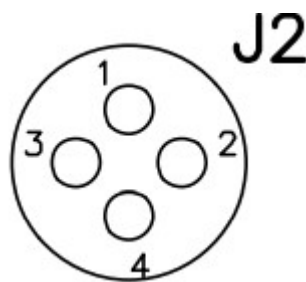
14 Socket Female Connector:

- | | |
|------------|-----------------|
| (1) TACH_1 | (8) TACH_8 |
| (2) TACH_2 | (9) TACH_9 |
| (3) TACH_3 | (10) TACH_10 |
| (4) TACH_4 | (11) TACH_11 |
| (5) TACH_5 | (12) TACH_12 |
| (6) TACH_6 | (13) CAL_SIGNAL |
| (7) TACH_7 | (14) TACH_GND |



4 Pin Male Connector:

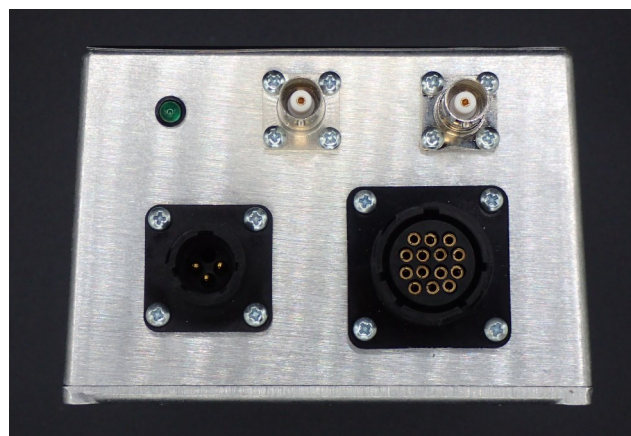
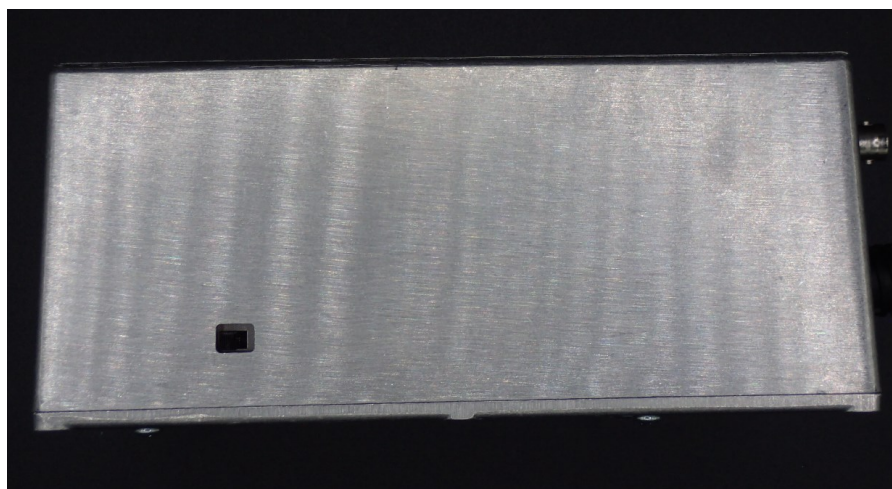
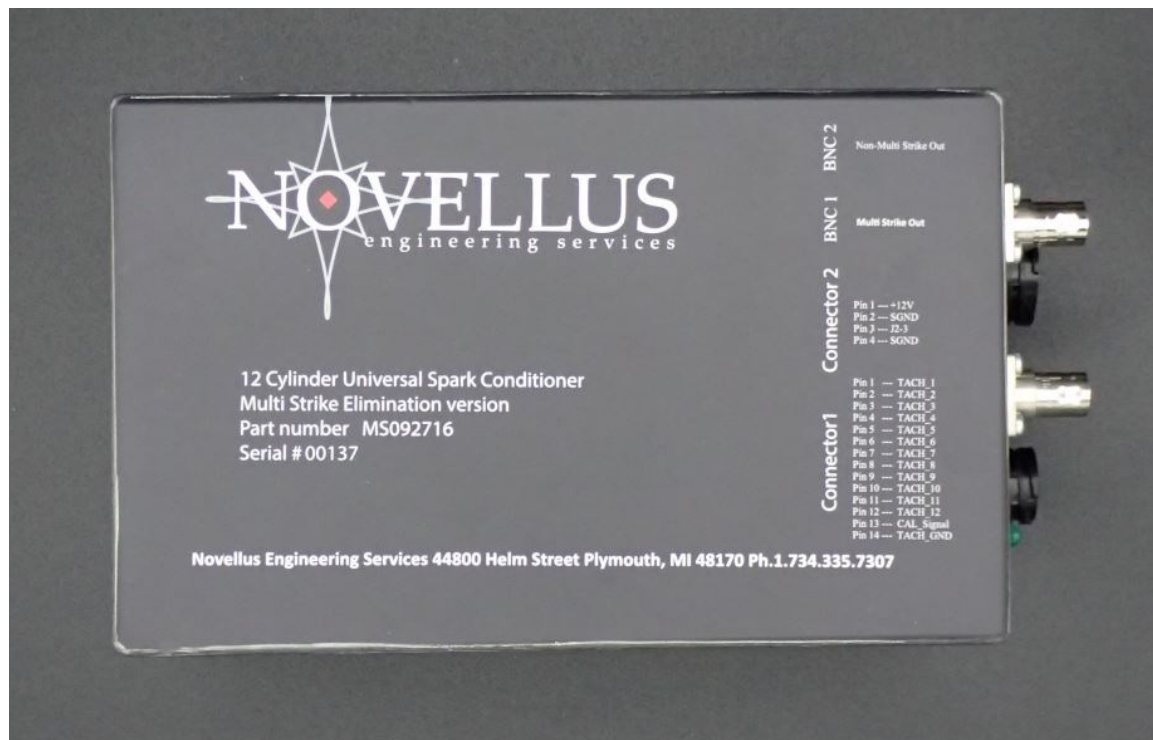
- (1) +12V
- (2) SGND
- (3) J2-3
- (4) SGND



Electrical Specifications:

Signal	Minimum	Maximum
Signal Input Voltage Range	+4 VDC	+400 VDC
Channel Count	1	12
Output Signal Voltage	0.5 VDC	4.75 VDC
Output Signal (Per Event)	475 μ s	525 μ s
Multi-strike window	150 μ s	5 ms
Input Supply Voltage	+6 V	+20 V
Input Supply Current		50 mA
Operating Temperature	-25°C	+85°C

Dimensions LxWxH: (200x114x84)mm



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