



3204 Rocky River Road, Heath Springs, SC 29058  
 Phone: 803-286-8614 Fax: 803-286-6063

## Signal Follower Card

Model C10032-000

Model C10032-000 Signal Follower Card is designed to handle a multiple of applications in which signal conditioning is required without input or output isolation.

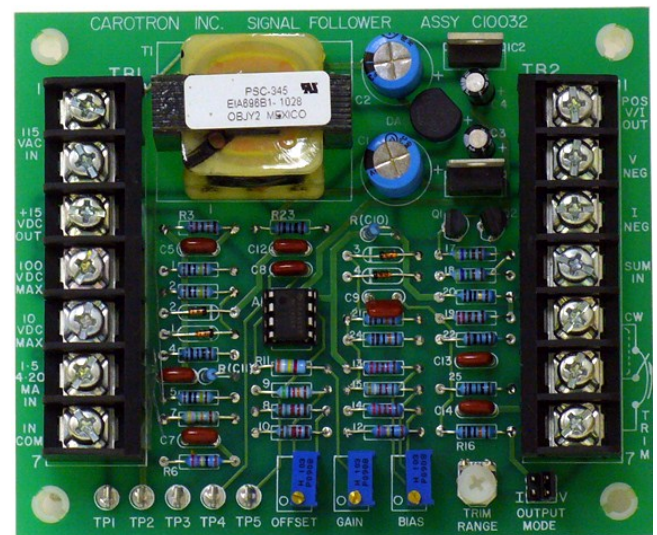
Voltage signals from 0 to 1 VDC through 0 to 100 VDC can be accepted on the input and calibrated for 0 to 10 VDC or 4 to 20 mA on the output. Current signals such as 1 to 5 mA or 4 to 20 mA can be used as inputs and converted to 0 to 10 VDC or 4 to 20 mA on the output. A +15 VDC supply is available on the input terminal strip to source a 10,000 Ohm potentiometer that can also be used as an input reference source. Positive or negative inputs can be applied to the C10032-000 Signal Follower Card. The polarity of the output will be the same as the input signal. A terminal is also provided for an optional Summing Input. The Summing Input is inverted and summed with the main input to modify the output.

Calibration is made simply by the use of three board mounted 20 turn potentiometers. The OFFSET pot. sets the null point with the minimum input from the reference source. The BIAS pot. sets the minimum output level desired with minimum input. The GAIN sets the maximum output level when maximum input is received from the reference source.

An optional external Trim potentiometer can be used to trim the output manually or via a dancer. An on board single turn Trim Range pot. sets the range of trim available from the external Trim pot.

### Standard Features

- Linearity:  $\pm 0.1\%$  of 10 Volt Span
- Voltage input ranges: 0 to 10 VDC or 0 to 100 VDC
- Accepts positive or negative inputs
- Metal film resistors and cermet potentiometers for temperature stability
- + 15 VDC supply available for external pot reference



- Adjustable Trim range for external trim pot
- Self retaining standoffs to simplify mounting
- Selectable voltage or current source output
- Current input ranges: 1 to 5 mA or 4 to 20 mA
- Output polarity identical to input polarity
- 0 to 50° C ambient temperature rating
- 20 turn pots for critical calibration adjustments
- Clamp type terminals for all customer connections
- Test points for ease of circuit access
- Inverting summing input to modify main input

### Specifications

#### SIGNAL INPUTS

- (FOR 0 TO 10 VDC OR 4 TO 20 MA OUTPUT)
- TB1-4: 0 to 10 VDC min.; 0 to 100 VDC max.
  - TB1-5: 0 to 1 VDC min.; 0 to 10 VDC max.
  - TB1-6: 1 to 5 mA min., 4 to 20 mA max.

#### SUMMING INPUT TB1 -4

- $\pm 10$  VDC max. input

#### OUTPUT RANGE

(TYPICAL WITH SPECIFIED INPUT RANGES)

- Voltage Mode: 0 to 10 VDC @ 20 mA Max.
- Current Mode: 0 to 20 mA into 500 OHMS Max.

• NOTE: The Output may be biased to operate from 2 to 10 VDC or 4 to 20 mA by using the internal BIAS adjustment.

**TRIM RANGE**

(TRIM POT = 10 K OHMS, BIAS = 0 VDC)

- Min. Range: 80 to 100% of Output
- Max Range: 0 to 100% of Output

**POWER REQUIREMENT**

115 VAC  $\pm$  10% 50/60 HZ, 1.2 VA Max.

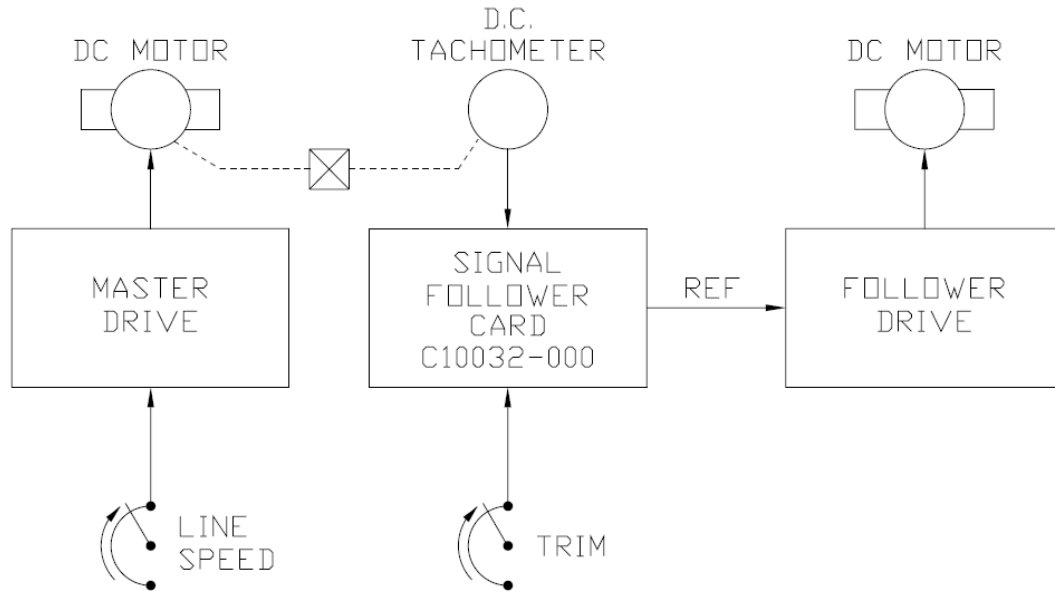
**POWER SUPPLY TB1 -3**

+ 15 VDC  $\pm$  5% @ 2mA MAX.

**LINEARITY**

$\pm$ 0.1% of 10 VDC Span

**Application Example**



**Dimensions**

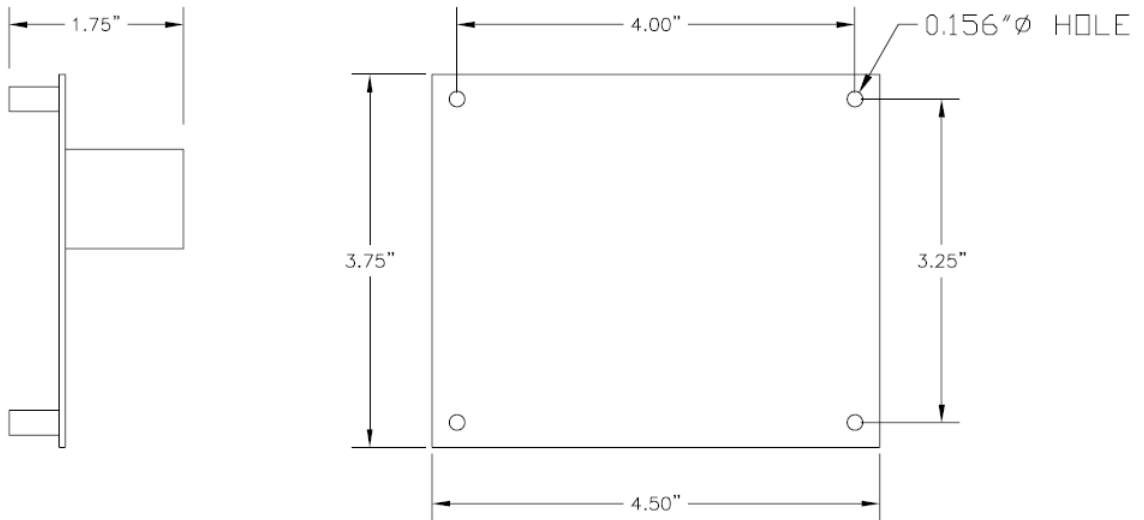


Fig. A.2

## Connections

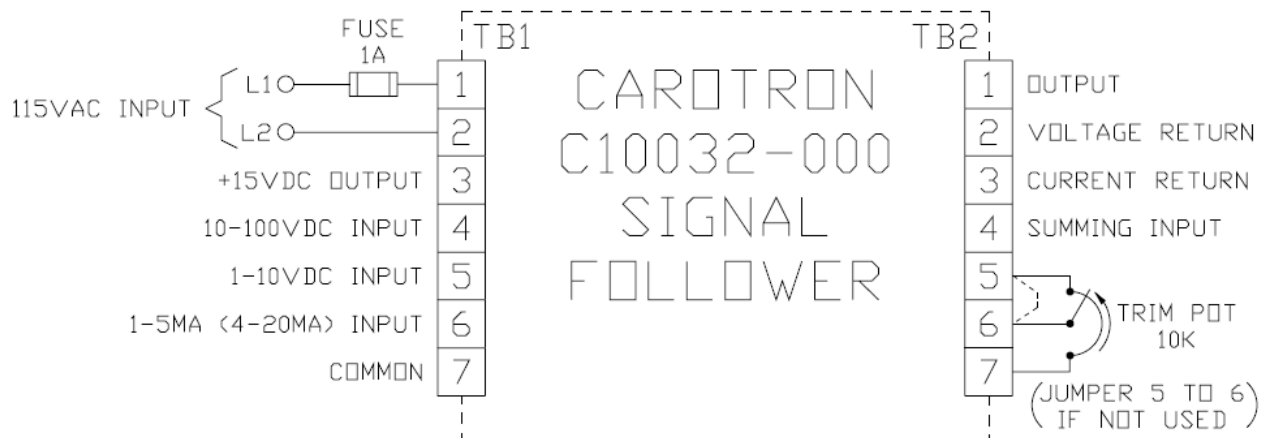


Fig. A.3

## Signal Follower Card Model C10032-000

View or download the complete C10032-000 Instruction Manual (MAN 1013-00) from [www.carotron.com](http://www.carotron.com).



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 Phone: (803) 286-8614 Fax: (803) 286-6063  
 Email: [saleserv@carotron.com](mailto:saleserv@carotron.com) Web: [www.carotron.com](http://www.carotron.com)  
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