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Multiplier Module

Model MUL270-000

Model MUL270-000 Multiplier Module is designed for industrial applications where the multiplication of DC voltage signals is required. The module has two voltage inputs (X & Y). Each voltage input has an associated Teach terminal that can be used to calibrate the minimum and maximum input levels. In its most basic setup, the module multiplies

INPUT X by INPUT Y: $Output = InputX \times InputY$

A calibrated 100% signal on Input X and on Input Y would nominally produce a full-scale output signal. The multi-turn GAIN and BIAS potentiometers can be used to set the maximum and minimum output levels. Typical output levels are 0-10V, 0-20mA, or 4-20mA.

Input Y also has a TRIM RANGE potentiometer that can be used to limit the minimum range of INPUT Y. This functionality is typically used in the dancer trim and torque takeup/letoff applications. An internal jumper allows selection of a voltage or current output. Onboard EEPROM is used to backup and retain the calibration values during a power loss.

Electrical Specifications

D.C. Power Input

- 24 VDC $\pm 10\%$, 60mA max, internally fused

+15VDC Reference Output

- 20mA max

X & Y Inputs

- Range: 0-10VDC
- Input Impedance: $10^{12} \Omega$

Potentiometers

- Turns: 15

Temperature Range

- 0-55° C



Signal Output

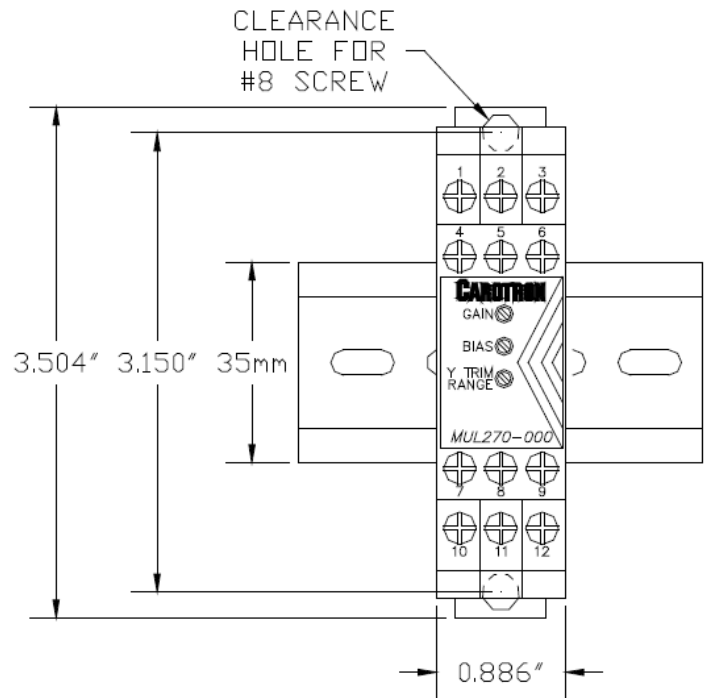
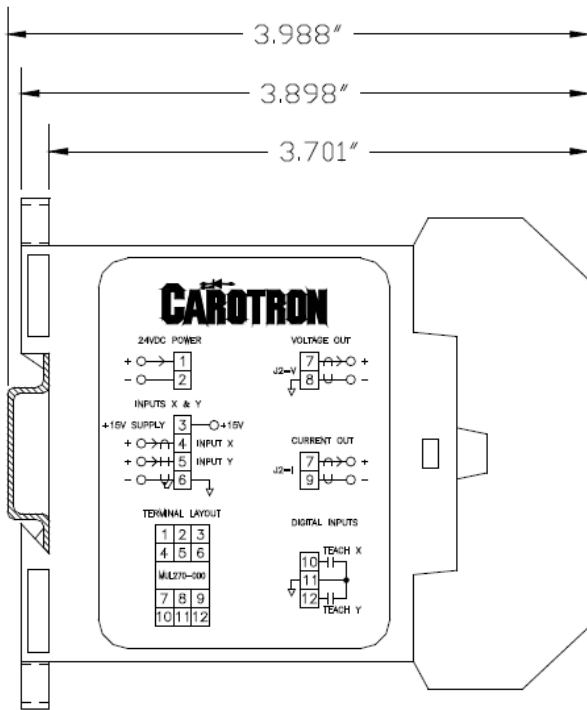
- **Voltage Output**

Selected by position V on J2. This circuit allows the output to source a voltage level of up to +10 VDC into a minimum resistance of 600 Ohms. If resistance is too low, output linearity may be affected.

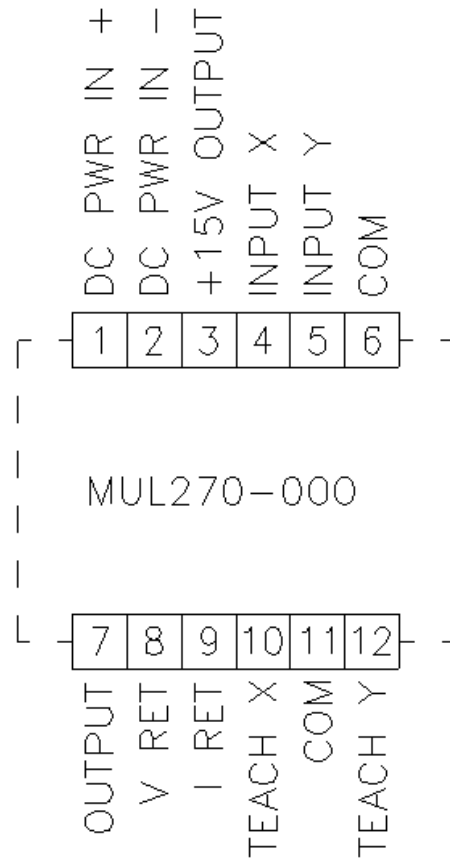
- **Current Output**

Selected by position I on J2. This circuit allows the output to source a regulated current up to 20mA into a maximum resistance of 500 Ohms. Using the BIAS pot, the output can source a 4 to 20mA signal.

Physical Dimensions



General Connections



Multiplier Module MUL270-000

Physical Specifications

3.504" H x 0.886" W x 3.898" D

Shipping Weight: 2 lbs.

View or download the complete Multiplier Module Instruction Manual (1059-0B) from www.carotron.com .



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FLY1031-0A Issued 05-09-2012