

Specifications for: MCU-04-115

Power Requirements:

115VAC @ .02A, 50/60Hz w/1000v magnetic isolation

Outputs:

4 normally open relay contacts unprotected, no leakage current  
5Amps @ 230VAC ( resistive load ), 250 VA ( inductive load ).  
Response time: 10ms operate / 5ms release  
Rated life: 5 million ( mech ) / 200,000 @ 3A ( resistive load )

Inputs:

6 self powered, 12-14 VDC @ 10ma. w/ 1000v optical isolation.  
Maximum leakage of input device: 0.5ma  
Response time: all are factory set at 10ms, the user may change  
any input to between 0 to 255ms using the Setup Menu.

Auxiliary Supply:

10 - 14vdc @ 100ma., thermal overload protected.

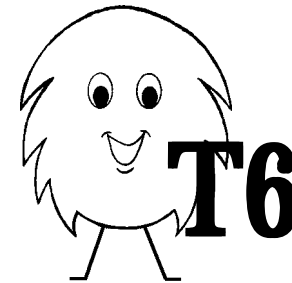
Physical:

Size	2.9" ( 75mm ) x 2.2" ( 55mm ) x 4.3" ( 110 mm )
Mounting	DIN rail or panel ( with two #6 screws )
Weight	10 oz. ( 284 grams )
Temp	0 - 140° F, 90% r. humidity ( no condensation )
Origin	Designed and assembled in the USA.

Communication Ports:

Expansion	Twin RJ-11, IIC bus @ 100khz max.
PC Prog.	3.5mm, RS-232C @ 19200 Hi / 9600 Lo

Main  
Control  
Unit



Installation guide for part number:

MCU-04-115

Visit our web site at [www.trolsystems.com](http://www.trolsystems.com) for  
latest information about the T6 control system.

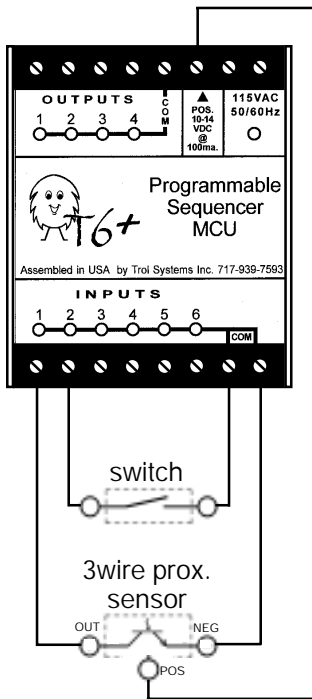
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## Wiring the Inputs:

The inputs of the T6 are self-powered and optically isolated to offer high noise immunity. The input voltage is +12vdc, which allows the inputs to interface to a wide variety of switches and sensors. The device wired to the input must be able to carry a minimum current of 10 milliampere. Input devices are wired between the input number and either of the two common terminals on the input side of the unit. This is illustrated below.



Electromechanical devices such as magnetic reed switches, limit switches, push button switches and pressure switches are wired with no regard to polarity ( positive/negative ).

Electronic devices such as magnetic hall effect transistors, photo-transistors, and DC proximity sensors must meet the following criteria:

- It must be of an open collector NPN ( like symbol in illustration ). This is often referred to as being in a sinking configuration.
- It cannot have an off current ( leakage ) greater than .5 ma ( .005 amp ).
- It must NOT be of a PNP or sourcing configuration.

Note on three wire sensors:

The Auxiliary DC power supply terminal can be used to support sensors that require up to 100ma of current. If more current is needed, an external DC power supply is required ( see optional equipment manual ). The Auxiliary supply measures between 10-14 volts, which is suitable for most 3 wire proximity sensors.

Note: An MCU-04 can be used as a direct replacement of a MCU-01 to MCU-03 controller. It has an additional Auxiliary power supply terminal.

**Warning!** The inputs are self-powered and can be damaged if connected to an outside power source! Use a converter block ( see the Optional Equipment booklet ) if the input device is not of a dry contact or of a sinking configuration as required.

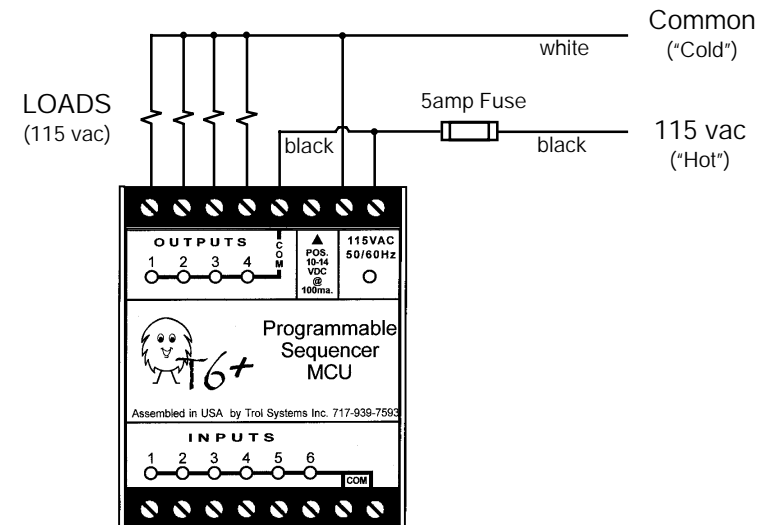
## Wiring the supply:

The T6 MCU requires a 115VAC supply. It is good practice for the supply to be fused. Connect the supply to the two terminals marked "115VAC" on output side of unit, as shown below.

## Wiring the outputs:

Each output consists of a normally open relay contact that can switch up to 5 amps at 230vac. These contacts share a common terminal marked "COM". If the loads are the same voltage as the supply, install a jumper to the "Hot" side of the 115vac as shown below. If the loads require a different voltage than the supply, connect the common terminal of the outputs to a power supply suitable for the load devices.

Noise transients, caused when an inductive load is de-energized, may cause erratic behavior of electronic equipment as well as greatly shorten the life of relay contacts. The use of a load suppressor, is recommended ( see the Optional Equipment booklet ). Below is a typical 115vac load configuration.



Note: The T6 Optional equipment manual is available on-line at [www.troisystems.com](http://www.troisystems.com). In the literature index choose to download the T6 Optional Equipment booklet.