

PCL601USB - Programmable Controller



FEATURES

- **Cost Effective Programmable Controller**
- **Easy to Use Windows Software Included**
- **Stored Program Capabilities**
- **24V Comaptible Inputs**
- **0-5V Analog Input for Speed or Distance**
- **Encoder Feedback with Auto-correction communication**
- **USB**
- **Compact and Rugged Construction**



DESCRIPTION

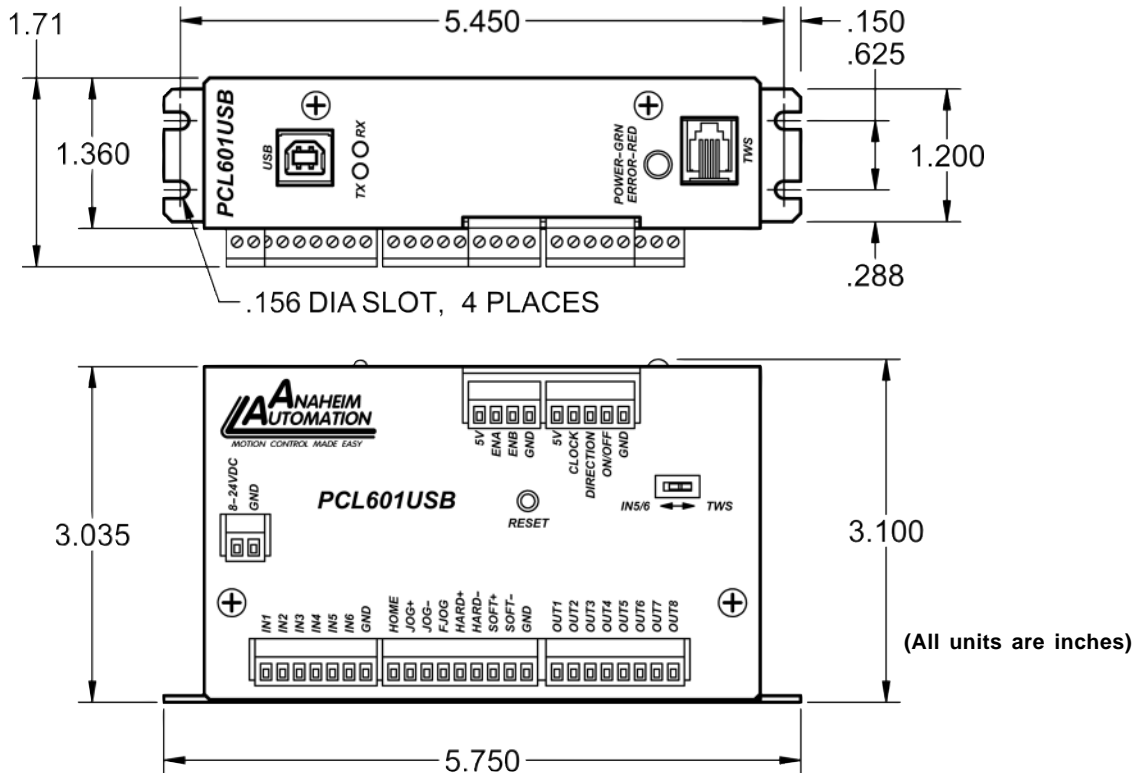
The PCL601USB step motor controller provides independent programming of acceleration/deceleration, base speed (start up speed), max speed (running speed), jog speed, and the number of steps to be taken in both relative and absolute positioning modes. On absolute positioning moves, the PCL601USB automatically determines the proper direction to go and the number of steps to take. The relative positioning will move a number of steps in the direction that the user defines.

The PCL601USB also has specific functions such as index-on-the-fly, which during a slew move will move a predefined number of steps after an input has been triggered. Output-on-the-fly, which will trigger an output on for 50uS during an indexing move at an absolute position and repeat triggering the output on after a given number of steps. An analog input can be used to set either the maximum speed or goto an absolute position based between the upper and lower programmable limits. A seven decade thumbwheel switch can be read for relative indexing.

The controller also has a high level programming command set that includes: branching, looping, conditional statements, time delays, text strings, and I/O which the user can use in the programming mode to fully control all machine functionality. A home input, a set of bidirectional hard and soft limit switch inputs and bidirectional jog inputs are provided for each axis. These features are generally required in most machine control designs. Six testable TTL, CMOS and 24V compatible inputs and 8 programmable open-collector outputs are provided per axis. The I/O may be used for monitoring and controlling machine operation and/or interaxis coordination. The I/O are accessible independent of the busy state of the axis controls. The PCL601USB has a built-in programmable reset circuit. Reset is automatic on power-up, or by pressing the external reset button.

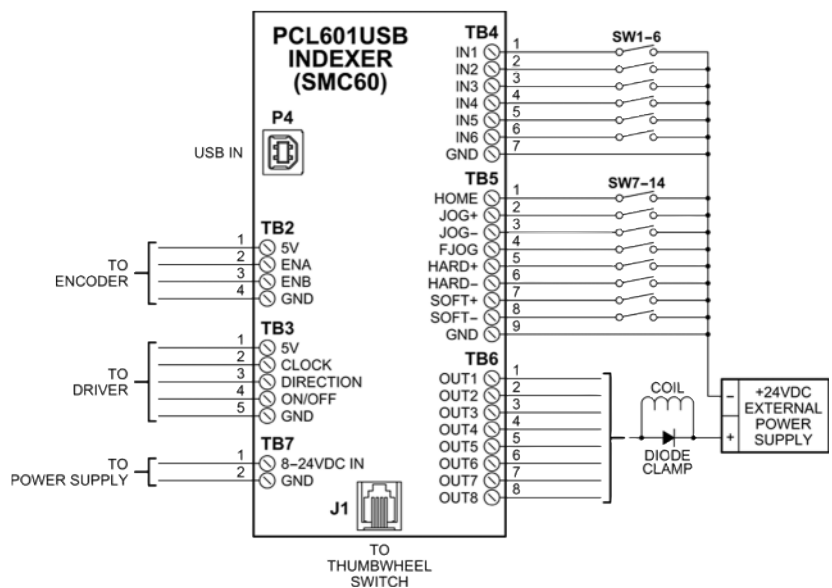
A CD, provided when you purchase the unit, contains this user's manual, along with the SMC60WIN software, windows virtual comport driver and PCL601USB program examples. The software allows you to write and change programs that are to be stored in the PCL601USB for autostart use, and also upload the program that is stored in the PCL601USB itself for editing and viewing. The software also allows you to save the programs onto your computer hard drive, and easily retrieve them when needed.

L010417



DIMENSION

Parameters	Description
Power Requirements:	8-24VDC, 50/60Hz (0.5W Peak Power)
Nonvolatile Memory:	2KB of stored programming space
Baud Rate:	38,400 Baud, Fixed
Data Format:	Half duplex, 1 start bit, 8 data bits, no parity, 1 stop bit
Communication Protocol:	RS232 or RS485 selectable
Encoder Feedback:	Quadrature, CHA, CHB, 5VDC Signal Compatibility
Controller Outputs:	8 Programmable Outputs, Open Drain Type, 40V, 100mA, +5VDC Output, 50mA
Controller Inputs:	6 Programmable Inputs Logic 0: 0 - 0.8VDC Logic 1: 3.5 - 24VDC Analog Input: 0 - 5VDC
Pulse Output Range:	1 - 50KHz, 10µs Negative Going Pulse Width



HOOKUP