USER'S MANUAL FOR AA1748 AA1760 AA2210 AA1754 AA2909

## COUNT INPUT MODULES FOR MANUAL PRESET INDEXER MODELS:

## CL1710, CL1745 Control Links

DPD65211, DPD70211, DPF65212, DPF70212, DPFHP211, DPT10211, DPD72211, DPF72212 Driver Packs


ANAHEIM AUTOMATION
910 E. ORANGEFAIR LANE ANAHEIM, CA 92801
(714) 992-6990 FAX (714) 992-0471 email: info@anaheimautomation.com http://www.anaheimautomation.com

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A 'CLICK POT' module consists of 10 position (0-9) digital pots mounted on a circuit board. One pot is used per each decade (digit). These units are available in 2, 4, or 6 decades. The user dials in the step count on the pots. Any time the motor is indexed, it will move the number of steps set on the pots. One module is required per axis. The module is connected to the indexer via a supplied 5 lead cable.


PANEL CUTOUT DIMENSIONS \begin{tabular}{|c|c|c|c|}
\hline MODEL NO \& DIM A \& DIM \& DIM C <br>
\hline AA1748-2 \& 1.00 \& $X$ \& $X$ <br>
\hline$A$ \& <br>
\hline

 

\hline AA1748-2 \& 1.00 \& $X$ \& $X$ <br>
\hline AA178-4 \& $X$ \& 2.00 \& $x$ <br>
\hline AA1748-6 \& $X$ \& $X$ \& 3.00 <br>
\hline
\end{tabular}

| MAX. PCB LENGTH |
| :--- |


| MAX. PCB LENGTH |  |
| :--- | :--- |
| AA1748-2 | 2.00 |


| AA1 1748-2 | 2.00 |
| :--- | :--- |
| AA1748-4 | 3.00 |


| AA $17178-4$ | 3.00 |
| :--- | :--- |
| AA $1748-6$ | 4.00 |




These thumbwheel switches provide an attractive way to input a step count. The user dials in the desired count on the thumbwheels, which can be mounted on an enclosure face. The module is available in $2,3,4,5$, or 6 decades. The module is connected via a supplied 5 -lead cable.


FIGURE 2

FIGURE 1

## AA2210 BCD COUNTER MODULE



The AA2210 BCD counter interface module enables the user to select any move length from 0 to 999,999 steps using a standard PLC (programmable logic controller). Selecting the proper inputs creates a count value in steps, resulting in a move distance. The module is connected to the indexer via a supplied 5-lead cable.

Note: All Inputs are active low ( $0-0.8 \mathrm{Vdc}$ ) and must be pulled low at least 2 milliseconds before the index command is given. These inputs must remain low until the index is complete. Once a move is finished, the inputs can be changed as needed for the next move. All unused inputs may be ignored since they are pulled up.

Example: For a move distance of 1234 steps the following inputs should be pulled low.

1's Decade: Bit 4 (TB1, pin 4)
10's Decade: Bit 1 and 2 (TB2, pin 2 and 3)
100's Decade: Bit 2 (TB1, pin 7)
1000's Decade: Bit 1 (TB2, pin 6)
All Other inputs must be open or high (3.5-5Vdc).


## FIGURE 3



The quad board module is a 4-bank version of the clickpot module with each bank having 6 decades. The user can "dial in" 4 different move lengths and then select any one of them as needed. The module is connected to the indexer via a supplied 5 -lead cable.


FIGURE 4

| CONNECTOR | P1(To CL1710) | P2(Expansion) | P3(Select Inputs) |
| :--- | :--- | :--- | :--- |
| Pin 1 | Common | Common | Select \#1 |
| Pin 2 | +5Vdc | +5 Vdc | Select \#2 |
| Pin 3 | Clock | Clock | Select \#4 |
| Pin 4 | Reset | Reset | Key |
| Pin 5 | Key | Key | +5 Vdc |
| Pin 6 | 0Vdc | 0Vdc | OVdc |

The selection of the switch banks is done by switching select lines 1 and 2 on connector P3. The select lines are "low true" meaning that if a select line is pulled low (to 0 Vdc ), it is recognized as being "on" or "true". When a select line is not pulled low it is internally "pulled up" to +5 Vdc and is "off" or "false". The bank select lines must be set at least 1 millisecond before the Index command is given. The select lines must remain in the set state until the index is complete. Once the move is finished, the select lines may be changed as needed.


Select line \#4 is only used if additional count input devices are "daisy chained" to the expansion connector (P2). If select line \#4 is low, that quad board is ignored and the count input device connected to the P2 expansion connector is read. This allows multiple quad boards to be used together. The "daisy chained" count input device does not have to be a quad board; it could be a thumbwheel switch or click pot module.

## AA2909 MULTIPLIER SWITCH COUNTER



This module is similiar to the AA1760 series Thumbwheel Switch Module. It uses a "+Push and -Push" style button to increase or decrease the number on the dial. This unit also includes a single "Rotary Switch" module consisting of 10 positions (0-9), which is used as a multiplier of the Thumbwheel Switch settings.

This rotary switch is mounted on the back side of the circuit board for convenience. Three decades of push switches are available for setting numbers from 1 to 999 . This unit is very useful for setting the move distance in inches or millimeters.
The index number is equal to the number on the push button switches times the number on the red switch. For example, if the red switch is set on ' 7 ' and the push button switches are set on '100', then the index number will be $7 \times 100=700$ steps.


FIGURE 5: AA2909


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