



High Speed Counter Modules with PLS Outputs

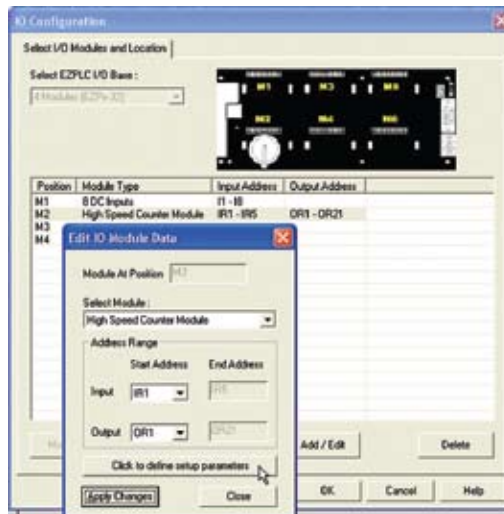
Delivery Code
3DAY

EZIO System supports two High Speed 24 bit Counter Modules with PLS outputs that accept quadrature encoder inputs. The PLS outputs compare the counter value to two on/off presets and turn on outputs within 100µs of position change. Presets can be loaded into the counter modules from EZPLC. All inputs and outputs are optically isolated. In addition, PLS outputs are 0.5A short circuit proof DC outputs.

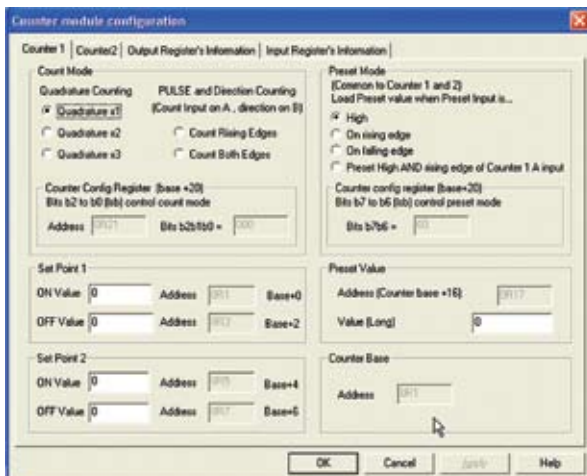
The counters have various preset/reset and inhibit modes as shown on the following page.

Configuring your High Speed Counter Module is EZier than Ever!

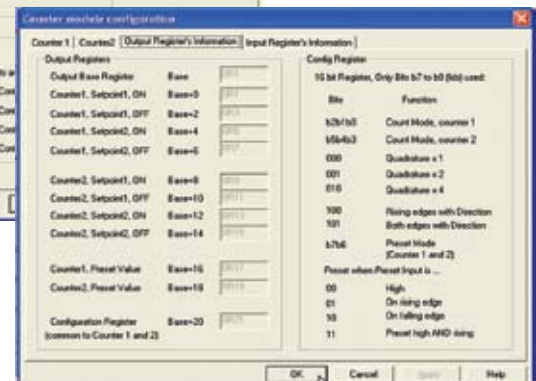
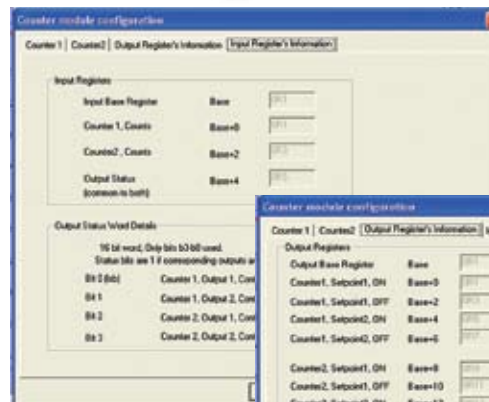
- 1 In EZPLC's I/O configuration specify the range of registers to be used for input and output.**



- 2 Configure pulse, direction, quadrature counting, set points, preset values and preset mode**



- 3 Detailed information for input and output registers**



| 2 Counter Pin Out | |
|-------------------|---------------------------|
| Pin No. | EZIO-HSCM1 (dual counter) |
| 1 | Quad A encoder 1 |
| 2 | Quad B encoder 1 |
| 3 | Quad A encoder 2 |
| 4 | Quad B encoder 2 |
| 5 | Common |
| 6 | Preset |
| 7 | Counter 1 Output 1 |
| 8 | Counter 1 Output 2 |
| 9 | Counter 2 Output 1 |
| 10 | Counter 2 Output 2 |
| 11 | Vs+ |

| 1 Counter Pin Out | |
|-------------------|-----------------------------|
| Pin No. | EZIO-HSCM2 (single counter) |
| 1 | Quad A encoder 1 |
| 2 | Quad B encoder 1 |
| 3 | Inhibit |
| 4 | Reset |
| 5 | Common |
| 6 | Preset |
| 7 | Counter 1 Output 1 |
| 8 | Counter 1 Output 2 |
| 9 | Counter 1 Output 3 |
| 10 | Counter 1 Output 4 |
| 11 | Vs+ |



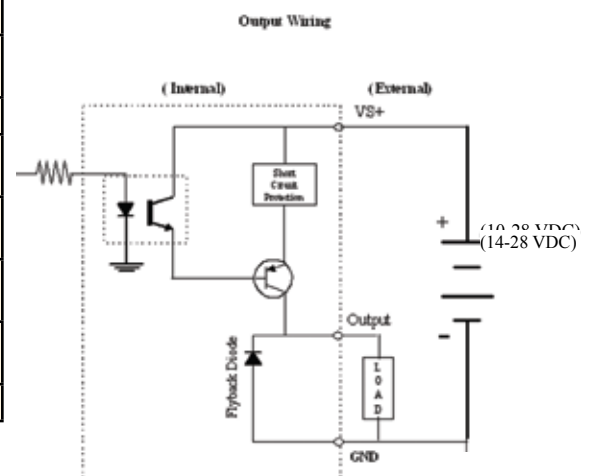
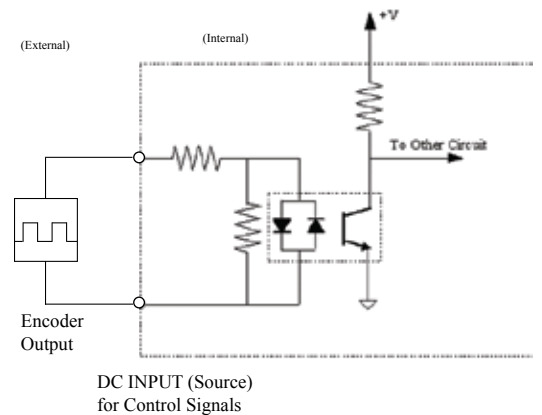
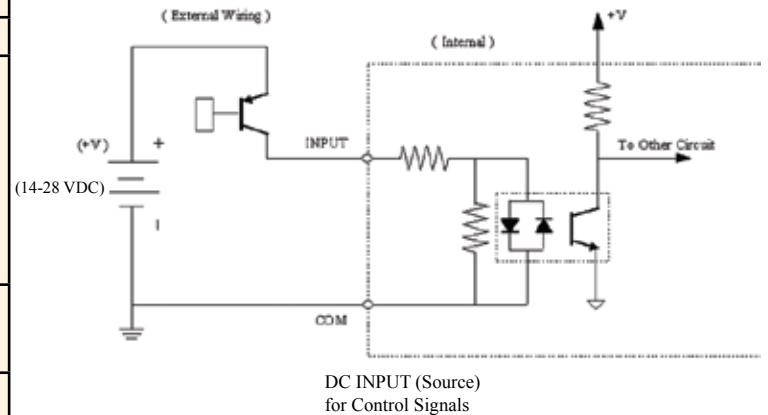
High Speed Counter Module Specifications

| Module Specifications | | |
|-------------------------|---|--|
| Feature | EZIO-HSCM1 (dual) | EZIO-HSCM2 (single) |
| Module Type | Intelligent High Speed Dual Counter Module | Intelligent High Speed Single Counter Module |
| Maximum Input Frequency | 100KHz after 1X, 2X or 4X Multiplication | 60KHz after 1X, 2X or 4X Multiplication |
| Minimum Pulse Width | 5 μ s | |
| Resource Options | 1X, 2X, or 4X Quadrature, Up or Down Counter, Reset | |
| Counter Range | 16 million (24 bits) | |
| Preset Modes | 1. This mode will preset the counter to the preset value while preset is held high. While the preset signal is high, no new count signals will be counted. 2. This mode will create an interrupt on the rising edge of the reset signal to set the counter to the preset value. 3. This mode will create an interrupt on the falling edge of the preset signal to set the counter to the preset value. 4. This mode will create a preset pulse every time that there is a rising edge of signal A and the preset signal is high. | |
| Reset Modes/Input | None | Same as Preset except the reset input sets the counter value to zero |
| Inhibit Input | None | Inhibits the counter from counting when high |

| PLS Output Specifications | | |
|-------------------------------------|--|-----------------------------|
| Feature | EZIO-HSCM1 (dual counter) | EZIO-HSCM2 (single counter) |
| Number of Outputs | 2 Source outputs for each counter | 4 Source outputs |
| Response Time | 100 μ s | |
| PLS Setpoints | 1 on/off pair for each output | |
| Peak Voltage | 50.0 VDC | |
| Maximum Steady State Output Current | 0.5A per output, 1.0A max per module @ 50°C | |
| Maximum Leakage Current | 100 μ A @ 50 VDC @ 50°C | |
| ON Voltage Drop | 2 VDC @ 0.5A | |
| Maximum Inrush Current | 0.8A for 10ms | |
| OFF to ON Response | < 2 μ s | |
| ON to OFF Response | <10 μ s | |
| Status Indicators | Red LED for each output | |
| +V Terminals & Commons | One V*, 1 Common | |
| Short Circuit Protection | 1 Amp per module, turns off outputs upon short circuit detection | |
| Optical Isolation | 2500 Volt | |

| Counter Input Specifications | | |
|------------------------------|------------------------------------|-----------------------------|
| Feature | EZIO-HSCM1 (dual counter) | EZIO-HSCM2 (single counter) |
| Number of Inputs | 5 | |
| Input Voltage Range | 14-28 VDC | |
| Peak Voltage | 40 VDC | |
| Input Current | 2.5 mA @ 14 VDC 5.0 mA @ 28 VDC | |
| Maximum Input Current | 5 mA @ 28 VDC | |
| Input Impedance | 5.6K Ω min. @ 14-28 VDC | |
| ON Voltage Level | > 14 VDC | |
| OFF Voltage Level | < 2 VDC | |
| Min. ON Current | 2.5 mA | |
| Min. OFF Current | 0.2 mA | |
| OFF to ON Response | < 2 μ s | |
| ON to OFF Response | < 3 μ s | |
| Status Indicators | Red LED for each input | |
| Commons | 1 point | |

| General Specifications | |
|------------------------|---------------------------------------|
| Optical Isolation | 2500 Volt |
| Wires | 1 of 14 AWG, 2 of 18 AWG, 4 of 22 AWG |
| Operating Environment | 0-60°C, Humidity non-condensing 5-95% |



For EZ-LINK cables and Terminal boards look at page 9-4