





# LDY-600/1000/1500 Interface

CONNECTOR TYPE: 15 PIN D-SUB FEMALE

Pin #	LDY Pin Name	Functional Voltage Level	Description
1	<b>Enable</b> (input)	High = RUN = +5V to +15V Low = OFF = 0V	The <b>Enable</b> function turns the output section of the power supply ON and OFF. When the power supply is enabled, current is delivered to load as programmed via <b>Iprogram(+)</b> , Pin 7, if the <b>Pulse Control</b> , Pin 8, is High and the <b>Interlock</b> , pin 3 is connected to interface <b>GND</b> . Rise times resulting from <b>Enable</b> are approximately 25msec. For pulsing, the <b>Enable</b> function should be set to ON, and the <b>Pulsing Control</b> , Pin 8, should be used.
2	<b>Crowbar Status</b> (output)	High = Crowbar OFF = +5V Low = Crowbar ON = 0V	The <b>Crowbar Status</b> reports the status of the shorting crowbar clamp across the output. The crowbar will short the output under two conditions: 1) When the output is not <b>ENABLED</b> via Pin 1, or, 2) if the output is <b>ENABLED</b> via pin 1 but the control circuitry has detected a no-load condition or a voltage requirement on the output that exceeds the maximum voltage rating of the unit. A TTL+5V signal on Pin 2 reports that the crowbar is shorting the output. To turn the crowbar off, an appropriate load must be connected to the LDD and the output must be turned off and on via Pin 1, <b>ENABLE</b> .
3	<b>Interlock</b> (input)	Open = OFF Connect to GND = RUN	The <b>Interlock</b> function must be connected to <b>GND</b> in order for output current to be delivered. It can be used for external interlock functions such as door or overtemp switches.
5	<b>*Vout Monitor:</b> (output)	0 - 10V = 0 - Vout <sub>max</sub>	The output voltage of the supply can be monitored by <b>Vout Monitor</b> . For LDY's with a maximum rated output voltage less than 10V, <b>Vout Monitor</b> = Vout. For output voltages greater than or equal to 10V, 0-10V = 0 - Vout <sub>max</sub> .
6	<b>Iout Monitor:</b> (output)	0 - 10V = 0 - Iout <sub>max</sub>	The output current of the supply can be monitored by <b>Iout Monitor</b> .
7	<b>Iprogram(+):</b> (input)	0 - 10V = 0 - Iout <sub>max</sub>	The power supply output current is set by applying a 0-10V analog signal to <b>Iprogram(+)</b> .
8	<b>Pulse Control</b> (input)	TTL High = On TTL Low = OFF <b>Default = Off</b>	The output may be pulsed by applying a TTL signal to <b>Pulse Control</b> , pin 8. The amplitude of the output current pulse is determined by the voltage programmed via Pin 7, <b>Iprogram(+)</b> . Rise fall times of <1msec are typical. Rise fall times of 500usec can be achieved with special order. <b>When using the LDY as a CW diode driver, pin 8, the Pulse Control, must be set to TTL High in order for output current to be delivered. Pin 10, +5V, would be a convenient connection point for this. No output current will be delivered with pin 8 left unconnected.</b>
10	<b>+5V @ 0.5A</b> (output)		Auxiliary +5V power supply for user. Up to 0.5A output current capability.
11	<b>Over-Temp Warning</b>	TTL High = High Temp TTL Low = Temp OK	When temperature of main heat sink exceeds 65 Deg C, Pin 11, the <b>Over-Temp Warning</b> , will go to a TTL High to indicate unit is in danger of shutting down due to over-temperature condition. <b>When temperature of main heat sink exceeds 75 Deg C, unit will shut down.</b>
12	<b>-15V @0.5A</b> (output)		Auxiliary -15V power supply for user. Up to -0.5A output current available.
13,14	<b>+15V @0.5A</b> (output)		Auxiliary +15V power supply for user. Up to 0.5A output current available.
4,9,15	<b>GND</b>		Interface return

TABLE 1: LDY Interface

\* If maximum compliance voltage is less than 10V, **Vout Monitor** will read output voltage directly. If maximum compliance voltage is greater than 10V, then **Vout Monitor** will be scaled such that 0-10V = 0-Vout<sub>max</sub>.

# LDY Outline Drawings

