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Find the *Martek Power / Spectra Diode Labs SDL 928-25* at our website: *Click HERE*

Martek Power Laser Drive

LASER DIODE DRIVER LDI-928

The Laser Drive LDI-928 Laser Diode Driver can provide up to 150 Amp Peak Quasi-cw for linear or stacked laser diode arrays. The peak current is available at pulse widths from 50 to 1000 µsec. Laser Diode Protection circuits, current limiting and transient control provide reliable diode operation. Variable compliance allows different versions of the LDI-928 to drive 1 to 50 quasi-cw linear arrays in electrical series.





Laser Drive is an innovative international company dedicated to the quality design, manufacture and support of power supplies for various laser and light sources. Laser Drive provides world class designs and support for all your power supply needs.

Some of our laser products include power supplies for Argon, HeNe and Diode Lasers. Our light products include Capacitor Charging Power Supplies for Dye and Excimer Lasers, Deuterium Lamp Power Supplies, CW Arc Lamp Power Supplies, Tungsten Lamp Power Supplies and a variety of Flash Lamp Power Supplies.

Laser Drive has been in business since 1976 and today is a growing international company based in the Pittsburgh, Pennsylvania area. Our manufacturing quality system is ISO 9001:2008 certified and provides the highest quality products available today. We are a full service provider of power supply design, manufacturing and support.

Specifications

- Drives Quasi-cw Linear Arrays in Electrical Series
  - LDI-928-10 is 0-20 volt (1-10 diodes)
  - LDI-928-25 is 2-50 volt (1-25 diodes)
  - LDI-928-50 is 20-100 volt (10-50 diodes)
- Current Limit Range 10 to 150 Amp
- Pulse Width 50 to 1000 µsec
- Transition Time 10 µsec typical
- Pulse Rate 25 to 1000 Hz
- Maximum Average Current
  - LDI-928-10 is 20 Amp (13% @ 150 Amp)
  - LDI-928-25 is 10 Amp (6.7% @ 150Amp)
  - LDI-928-50 is 5 Amp (3.3% @ 150 Amp)
- Trigger In is Positive Edge TTL / 5V
- Trigger Out is Digital Form of Drive Pulse
- Current Monitor is 100 Amp / Volt ±1%
- Temperature Range 10°C to 40°C
- Input Voltage
  - 90-130 VAC
  - 180-250 VAC
- Dimensions 6” x 17” x 17”

The information contained in this document is for reference only and subject to change without notice.

(724) 443-7688 ▪ www.laserdrive.com ▪ lasersales@martekpower.com

LDI-928
SERIES

Specifications

	LDI-928-10	LDI-928-25	LDI-928-50
	Drives 1-10 Quasi-cw Linear Arrays in Electrical Series	Drives 1-25 Quasi-cw Linear Arrays in Electrical Series	Drives 10-50 Quasi-cw Linear Arrays in Electrical Series
Amplitude			
Range	10 to 150 A	10 to 150 A	10 to 150 A
Display Resolution	0.1 A	0.1 A	0.1 A
Accuracy	1 A + 2% of reading. When the laser is off, the displayed value is the amplitude setpoint (or current limit); when the laser is on, the displayed value is the actual current. The specification only applies to the actual current.	1 A + 2% of reading. When the laser is off, the displayed value is the amplitude setpoint (or current limit); when the laser is on, the displayed value is the actual current. The specification only applies to the actual current.	1 A + 2% of reading. When the laser is off, the displayed value is the amplitude setpoint (or current limit); when the laser is on, the displayed value is the actual current. The specification only applies to the actual current.
Current Limit			
Range	10 to 150 A	10 to 150 A	10 to 150 A
Display Resolution	0.1 A	0.1 A	0.1 A
Pulse Width			
Range	50 to 1000 µsec	50 to 1000 µsec	50 to 500 µsec
Display Resolution	1 µsec	1 µsec	1 µsec
Accuracy	4 µsec + 2 % of reading	4 µsec + 2 % of reading	4 µsec + 2 % of reading
Transition Time	10 µsec typical	10 µsec typical	10 µsec typical
Pulse Rate			
Range	25 to 1000 Hz	25 to 1000 Hz	25 to 1000 Hz
Display Resolution	1 Hz	1 Hz	1 Hz
Accuracy	2 Hz + 2 % of reading	2 Hz + 2 % of reading	2 Hz + 2 % of reading
Maximum duty cycle and average current	20% at 100 A, 13% at 150 A. The average current cannot exceed 20 A	10% at 100 A, 6.7% at 150 A. The average current cannot exceed 10 A.	5% at 100 A, 3.3% at 150 A. The average current cannot exceed 5 A.
Trigger In			
Type	Positive edge trigger	Positive edge trigger	Positive edge trigger
Signal Input	Accepts TTL or 5 V CMOS	Accepts TTL or 5 V CMOS	Accepts TTL or 5 V CMOS
Input Impedance	10 k ohms nominal.	10 k ohms nominal.	10 k ohms nominal.
Trigger Out			
Type	Digital form of the drive pulse. Positive slope for triggering.	Digital form of the drive pulse. Positive slope for triggering.	Digital form of the drive pulse. Positive slope for triggering.
Output Impedance	100 ohms nominal, one LSTTL or 5 V CMOS load.	100 ohms nominal, one LSTTL or 5 V CMOS load.	100 ohms nominal, one LSTTL or 5 V CMOS load.
Compliance			
Range	0 to 20 V	2 to 50 V	20 to 100 V
Display Resolution	0.1 V	0.1 V	0.1 V
Accuracy	0.1 V + 1% of reading.	0.1 V + 1% of reading.	0.1 V + 1% of reading.
Current Monitor			
Type	100 A/V, 1 V at 100 A. Typically within 1% of the displayed actual current.	100 A/V, 1 V at 100 A. Typically within 1% of the displayed actual current.	100 A/V, 1 V at 100 A. Typically within 1% of the displayed actual current.
Remote Interlock			
Open Circuit Voltage	5 VDC nominal, referenced to safety ground	5 VDC nominal, referenced to safety ground	5 VDC nominal, referenced to safety ground
Short Circuit Current	1 mA nominal	1 mA nominal	1 mA nominal
Type	Switch contact closure or TTL or 5 V CMOS compatible.	Switch contact closure or TTL or 5 V CMOS compatible.	Switch contact closure or TTL or 5 V CMOS compatible.
General			
Operating temperature	10 to 40 °C, noncondensing	10 to 40 °C, noncondensing	10 to 40 °C, noncondensing
Storage temperature	-40 to 75 °C	-40 to 75 °C	-40 to 75 °C
Power	90-130, 180-250 VAC, 48-66 Hz 750 W maximum @ 120 VAC 1000 VA maximum @ 120 VAC	90-130, 180-250 VAC, 48-66 Hz 750 W maximum @ 120 VAC 1000 VA maximum @ 120 VAC	90-130, 180-250 VAC, 48-66 Hz 750 W maximum @ 120 VAC 1000 VA maximum @ 120 VAC
Size (H x W x D)	6" x 17" x 17" (155 mm x 435 mm x 435 mm)	6" x 17" x 17" (155 mm x 435 mm x 435 mm)	6" x 17" x 17" (155 mm x 435 mm x 435 mm)
Weight	22 lbs.	22 lbs.	22 lbs.

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