

Laser Controller

Type: ls11-la64v24-t19203c-v4-532



Laser max.: 64A, 24V trise, tfall < 30µs

supply voltage: 100~230VAC - 50/60Hz

- External, Internal, Analog and Digital Modulation
- Current Monitor
- Bias Current option
- Pilot Laser Supply
- External Fan Support
- optional additional TEC-stages

Laser Connector



PIN.No	Abbr.	Function
A3; A4	LDA+	Laser Diode Anode (+)
A1; A2	LDC-	Laser Diode Cathode (-)
A5	n.c.	

RS232 Connector

GND OUT

BNC-Socket, TTL- 0-2,0V → low, 2,5V-5,0V → high

MOD-IN Connector



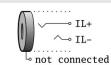
BNC-Socked Input-Impdanz 10kOhm Digital Modulation with TTL-Pegel Analog Mod. 0-4[V] => 0-Imax[A]

MOD-OUT Connector



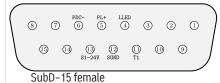
BNC-Socked, current monitor 0-Imax[A] -> 0-4[V] Take care for laser isolation if you connect GND potential to an oscilloscope f.e.

Interlock Connector



Jack Connector 3.5mm Laser runs only if closed (ca. 5mA over 2V -> R <= 400R)

Support Connector



)	PIN.No	Abbr.	Function
	4	LED	Laser-RUN LED
	5	PL+	Pilot Laser+, vs. GND
	6	PDC-	Photo-Diode Cathode, vs. GND
	11	T1	Temperature Sensor Input, default $ntc10k\Omega$, vs. GND
	12	GND	Common Ground
	13	S124V	124V Supply, max. 800mA, suppor for fan etc., vs. GND



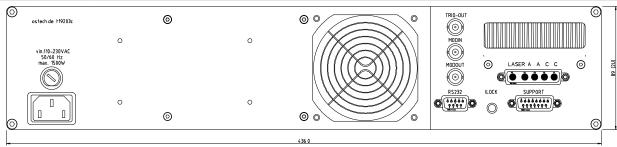
Laser Controller

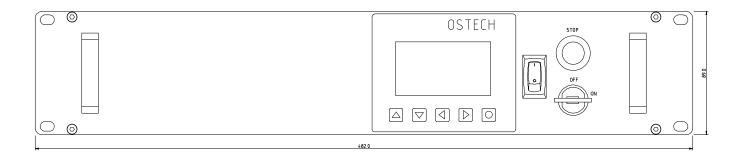
Control and RS232 (isolated Interface)



SubD-9 female

PIN.No	Abbr.	Function	
1	PLON	Pilot Laser ON if TTL-High	
2	RXD	RS232 RX	
3	TXD	RS232 TX	
4	IL1	Interlock 1 has to be closed to XGND	
5	XGND	External GND	
6	SYSOK	System OK output +5V over 4k7	
7	LON	Laser ON (ready signal) TTL High	
8	LR	Laser Run (start signal) TTL High	
9	IL2	Interlock 2 has to be closed to XGND	





Revision overview:

2020-10-28: "v2"- new housing configuration for ae1500 as well as added MODOUT connector 2024-01-01: "v3"- new Laser Connector and removal of the industial interface 2024-10-11: "v4"- new housing code and ds01xx board

References:

http://www.ostech.de/en/products/laser-drivers/ds11-t192 http://www.ostech.de/en/downloads/manuals/ds-en.pdf http://www.ostech.de/en/downloads/labview

Accessories

- acc-converter-usb-to-rs232-1m5-iso-417 RS232 to USB converter optical isolated with FTDI-Chip cable 1.5m - kab-la60-2pol-M4RL-oe-1.5m-1101 cable 2x6qmm to open ends length 1m5