

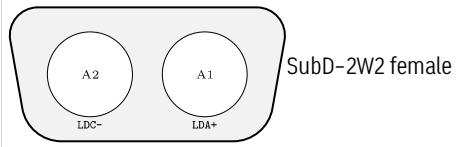
Tabletop Laser & Peltier Controller

Type: ds11-la20v30-pa12v18-t12781-v1-467



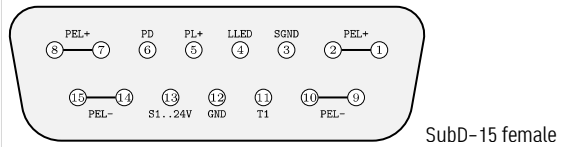
- Laser max.: 20A, 30V
- TEC max.: 12A, 18V
- trise-fall < 25us (optional < 5us)
- Supply Voltage: 90~230VAC - 50/60Hz
- External, Analog and Digital Modulation
- Internal Pulse Generator
- Pulses and Bursts internally and externally triggered
- Bias Current option
- Pilot Laser Supply
- External Fan Support
- Current Monitor
- optional additional TEC-stages

Laser Connector

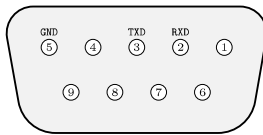
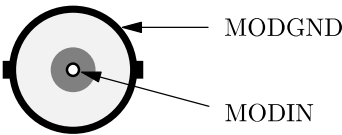
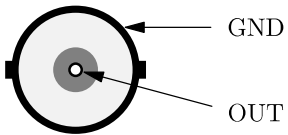
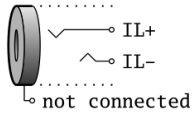


PIN. No	Abbr.	Function
A1	LDA+	Laser Diode Anode (+)
A2	LDC-	Laser Diode Cathode (-)

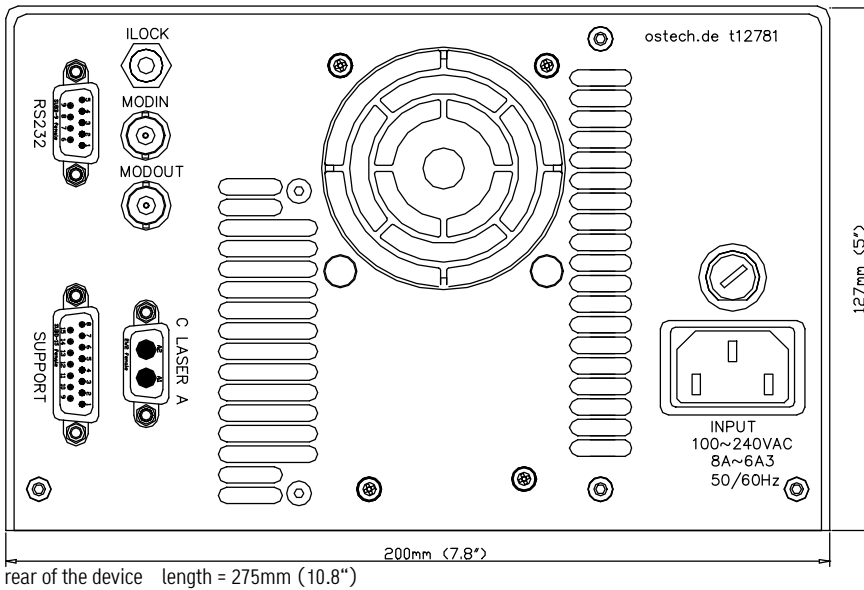
Support & Peltier Connector



PIN.No	Abbr.	Function
1;2;7;8	PEL+	Peltier element (+)
4	LLED	Laser ON LED
5	PL+	pilot laser supply (5V), vs. GND
6	PD	photo diode cathode (-) input, vs. GND
9;10;14;15	PEL-	Peltier element (-)
11	T1	Temperature Sensor Input, vs. GND, default NTC10kΩ
12	GND	Common Ground
13	S1..24V	1..24V Supply, max. 800mA, vs. GND, supports fan etc.

RS232 Connector	AMOD/DMOD-IN Connector	MOD-OUT Connector	Interlock Connector
			
SubD-9 female Standard RS232-Connector 9600-Baud-8N1 (No Null-Modem Cable !)	BNC-Socket Input-Impdanz 10kOhm Digital Modulation with TTL-Pegel Analog Mod. 0-4[V] => 0-Imax[A]	BNC-Socket, current monitor 0-Imax[A] -> 0-4[V] Take care for laser isolation if you connect GND potential to an oscilloscope f.e.	Jack Connector 3.5mm Laser runs only if closed (ca. 5mA over 2V -> R <= 400R)

Tabletop Laser & Peltier Controller



Power consumption:

- All together max. Power 1040W
- or $(P_{\text{Laser}} + P_{\text{TEC}}) \times 1.2 + 60W = P_{\text{max}}$

Revision overview:

- 2014.10.10: - "v0" first setup
- 2017.02.06: - "v1" MODOUT BNC-socked supported now, $V_{\text{out}}=0..4[V] \leftarrow 0..I_{\text{max}}[A]$

References:

- <http://www.ostech.de/en/products/laser-drivers/ds11-t127>
- <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-lpa08-16pol-subd15m-oe-1.5m-39
cable 16x0.35qmm / subd15-Gold-6,5A per pin to open end / length-1m5
- kab-la40-2pol-2W2male-oe-1.5m-286
cable 2x4qmm / imax-40A subd-2W2m-male to open-ends / length-1m5