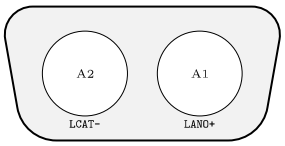
Tabletop Laser & Peltier Controller

Type: ds11-la06v48-pa12v18-t12732-v3-406

Laser max.: 6A, 48V
TEC max.: 12A, 18V
trise tfall < 10us (optional < 3us @Imax)
Supply Voltage: 100~230VAC - 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
- Photo Diode Current Monitor max. 4mA
- Laser Current Monitor
- optional additional TEC-stages

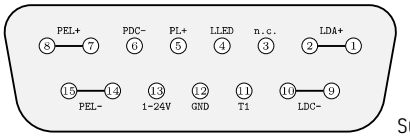
Laser Connector



SubD2W2-female

PIN. No	Abbr.	Function
A1	LANO+	Laser Diode Anode (+)
A2	LCAT-	Laser Diode Cathode (-)

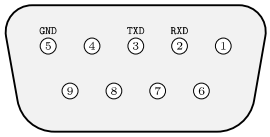
Laser & Peltier Connector



SubD-15 female

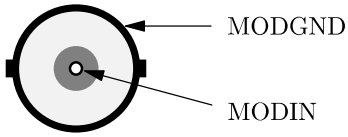
PIN.No	Abbr.	Function
1;2	LDA+	Laser Diode Anode (+)
4	LLED	Laser Active LED (+), ca. 5mA, v.s. GND
5	PL+	Pilot Laser (+), v.s. GND
6	PDC-	Photo Diode Cathode (-), v.s. GND
7;8	PEL+	Peltier element (+)
9;10	LDC-	Laser Diode Kathode (-)
11	T1	Temp. Sensor 1 Input, default NTC10kΩ
12	GND	Common Ground
13	1-24V	1..24V Supply, max. 500mA, vs. GND, supports fan etc.
14;15	PEL-	Peltier element (-)

RS232 Connector



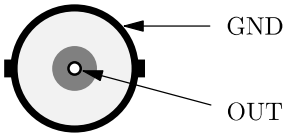
SubD-9 female
Standard RS232-Connector
9600-Baud-8N1
(No Null-Modem Cable !)

AMOD/DMOD-IN Connector



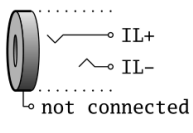
BNC-Socked
Input-Impdanz 10kOhm
Digital Modulation with TTL-Pegel
Analog Mod. 0-4[V] => 0-Imax[A]

MOD-OUT Connector

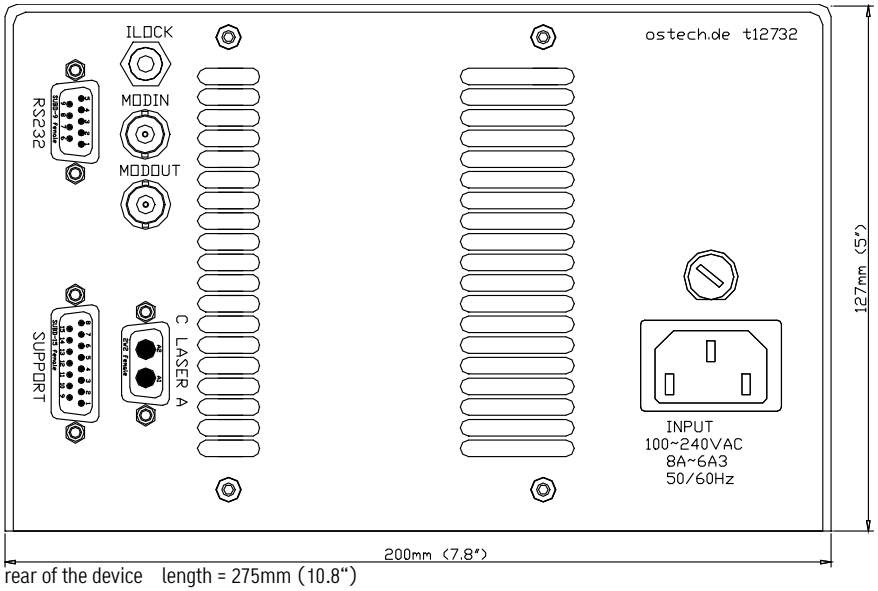


BNC-Socked, current monitor
0-Imax[A] -> 0-4[V]
Take care for laser isolation if you connect GND potential to an oscilloscope f.e.

Interlock Connector



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



rear of the device length = 275mm (10.8")

Revision overview:

2007.10.10: "v0" – derived
2015.01.16: "v1" – temp. sensor input over pin 11 only vs. GND, Photo Diode max. Current increased to 4mA
2017.11.13: "v2" – Software update on Version 2028, LMW down to 1µs, RS232-always online, MOD-OUT signal added
2018.04.30: "v3" – Pinout changed so that laser can be accessed over SubD15

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