

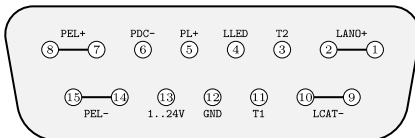
# Laser & Peltier - TEC - Controller

Type: ds11-la14v06-pa08v14-t8545-1069



- Laser max. : 14A - 6V
- TEC max. : 8A - 14V
- t-rise-fall <20µs (optional <2µs)
- Supply Voltage: 100~230VAC - 50/60Hz
- External, Analog and Digital Modulation
- Internal Pulse Generator
- Continuouse Pulses, Single Pulse, Pulse Bursts,
- Internal or External Triggered
- Bias Current option
- Pilot Laser Support
- External Supply max. 1..22V - 800mA for Fan etc.
- Photo Diode Current Monitor max. 4mA
- optional additional TEC stage

## Laser & Peltier Connector



SubD15-female

PIN.No	Abbr.	Function
1;2	LANO+	Laser Diode Anode (+)
3	T2	Temperature Sensor 2 Input, default NTC10kΩ, v.s. GND
4	LLED	Laser Active LED - Anode (+), 5V over 470R, v.s. GND
5	PL+	Pilot Laser (+), v.s. GND
6	PDC-	Photo Diode Cathode (-) ʹ
8	PEL+	Peltier element (+)
9;10	LCAT-	Laser Diode Kathode (-)
11	T1	Temperature Sensor 1 Input, default NTC10kΩ, v.s. GND
12	GND	Common Ground
13	1-24V	1 to 24V Supply, max. 500mA, vs. GND, supports fan etc.
15	PEL-	Peltier element (-)

Annotation: The laser ignores by default the 2nd temp. sensor state. If you want to activate this you need to send "2SMC4" command over the RS232.

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)

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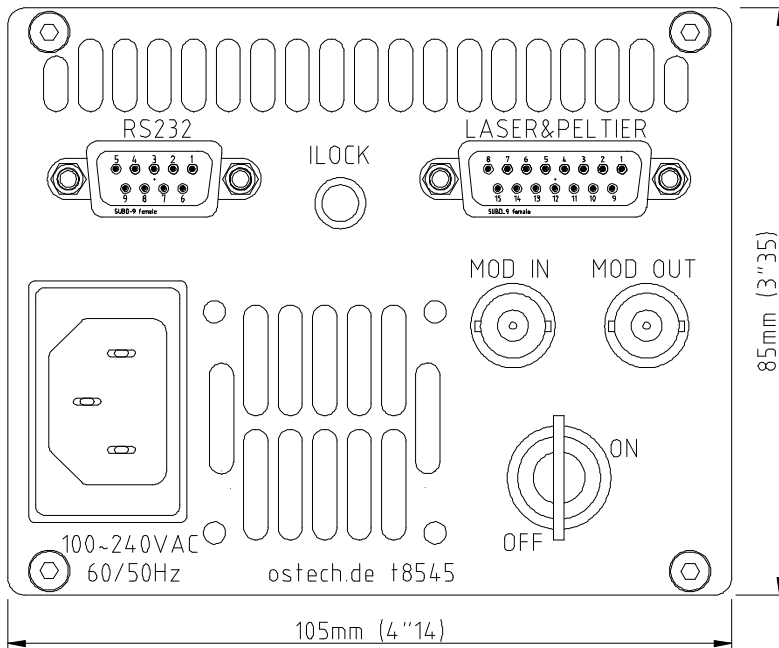


fig: ds11-o85-rear; length 200mm (7"8)

### Revision overview:

2011-04-28: "v0"-derived from Type 38, Photo Diode max. current increased from 2mA to 4mA  
 2019-03-20: "v1"-max. Laser Voltage increased to 14V, new controller with sequencer option "v2031"  
 2023-01-01: "v2"-new configuration laser voltage 6V "software 2034"

### References:

<http://www.ostech.de/en/products/laser-drivers/ds11-t85>  
<http://www.ostech.de/en/downloads/manuals/ds-en.pdf>  
<http://www.ostech.de/en/downloads/labview>

### Accessories

- kab-lpa08-16pol-subd15m-oe-1.5m-39  
cable 16x0.35qmm SUBD15-Gold-6,5A/Pin to open end length 1m5
- acc-converter-usb-to-rs232-1m5-iso-417  
RS232 to USB converter optical isolated with FTDI-Chip cable 1.5m
- hsp-06-btf-v0-631  
butterfly-mount for-btf14-housing, including-passive-cooler-block with integrated-fan, layout-0 Qmax-6W rth-2,2°C/W