

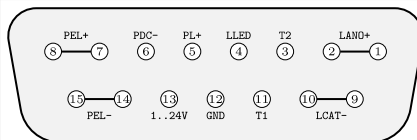
Laser & Peltier - TEC - Controller

Type: ds11-la14v14-pa08v14-t8545-v1-002



- Laser max. : 14A - 14V
- 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

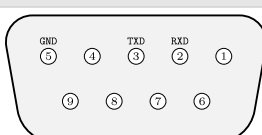
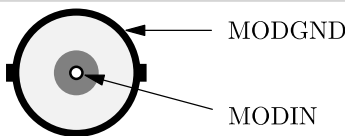
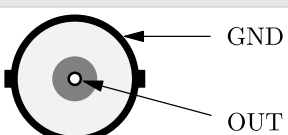
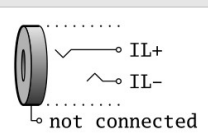
Laser & Peltier Connector



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-I _{max} [A] | BNC-Socket, current monitor 0-I _{max} [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) |

Laser & Peltier - TEC - Controller

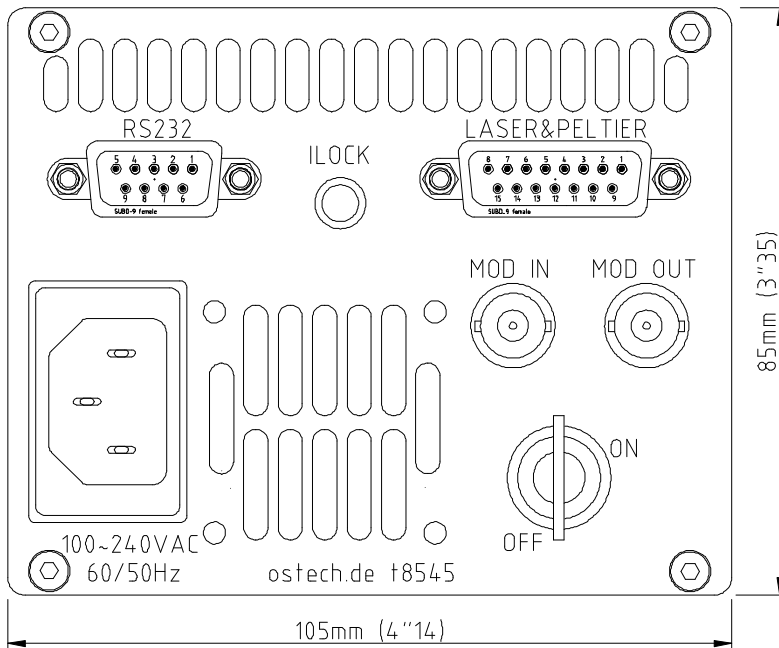


fig: ds11-o85-rear; length 200mm (7"8)

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"

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