

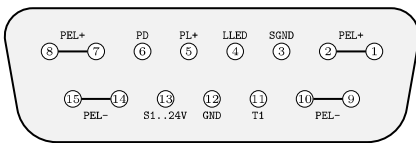
# Laser & Peltier Controller

Type: ds11-la70v05-pa07v48-t19202-v3-296



Laser max.: 70A, 5V  
 TEC max.: 7A, 48V  
 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

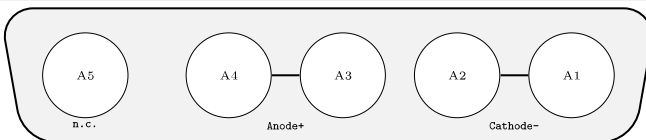
## Peltier Connector



SubD-15 female

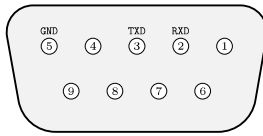
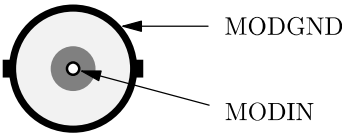
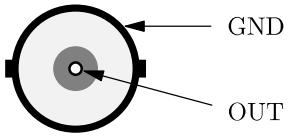
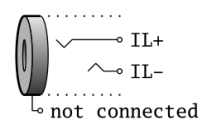
PIN.No	Abbr.	Function
1;2;7;8	PEL+	Peltier TEC positive Output
3	SGND	Supply Ground
4	LLED	Laser ON LED Anode (+) ILED ca.5mA, vs. GND
5	PL+	Pilot Laser (+), vs. GND
6	PD-	Photo Diode Cathode (-) Input
11	T1	Temperature Sensor Input, vs. GND (default NTC10k)
12	GND	Common Ground
13	S1-24V	1-24V adjustable Supply, max. 500mA, vs. GND, for fan etc.
9;10;14;15	PEL-	Peltier TEC negativ Output

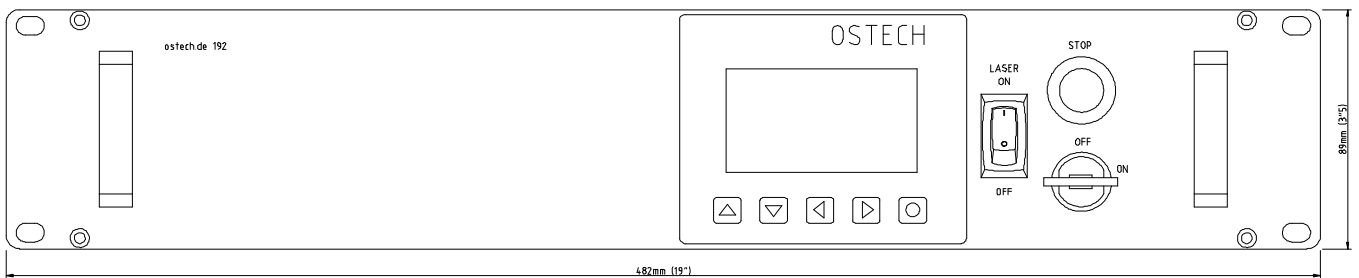
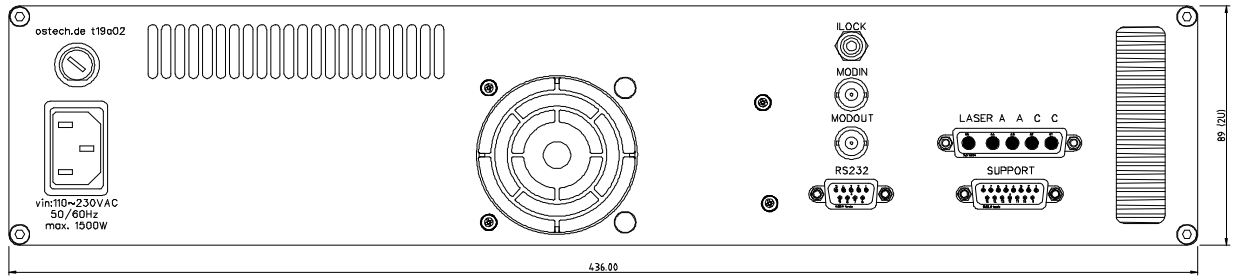
## Laser Connector



SubD-5W5 female

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

RS232 Connector	AMOD/DMOD-IN Connector	MOD-OUT Connector	Interlock Connector
			
SubD-9 female Standard RS232-Connector (No Null-Modem Cable !)	BNC-Socked Input-Impdanz 10kOhm Digital Modulation with TTL-Pegel Analog Mod. 0-4[V] => 0-Imax[A]	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.	Jack Connector 3.5mm Laser runs only if closed (ca. 5mA over 2V -> R <= 400R)



**Revision overview:**

2017.10.10: "v2" - single pin temp.-sensor input and separated supply ground pin  
 2019.02.19: "v3" - new housing 192a02, improved ripple and noise

**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-lpa08-16pol-subd15m-oe-1.5m-39  
 cable 16x0.35qmm / subd15-Gold-6,5A per pin to open end / length-1m5
- kab-la80-2x10qmm-5w5-oe-1.3m-141 / 2.5m- 657 / 5.0m- 660  
 cable 2x10qmm coaxial imax 80A SUBD-5W5 to open ends length 1m3 / 2m5 / 5m0