

Type: ls11-la35v60-t19213-seq-v0-853



Laser max.: 35A, 60V  
 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  
 - including current sequencer

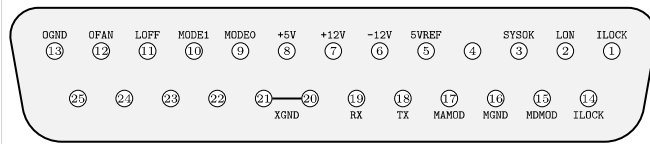
Laser Connector

	PIN.No	Abbr.	Function
<p>SubD-7W2, female Type as viewed from backside</p>	A1	LDC-	Laser Diode Cathode
	A2	LDA+	Laser Diode Anode
	1	PILOT	Pilot Laser Supply
	2	PHD	Photo Diode Cathode vs. GND
	3	T1	Temp. Sensor 1 vs. GND
	4	GND	
	5	LUF	Supply 800mA 2..24V for fan vs. GND

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

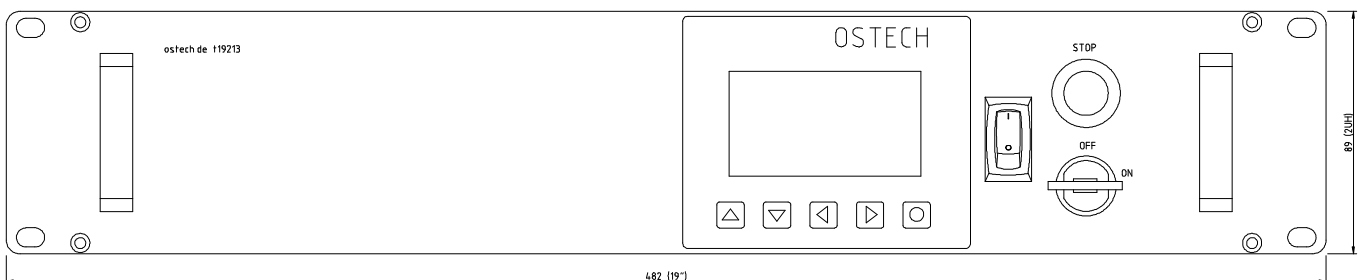
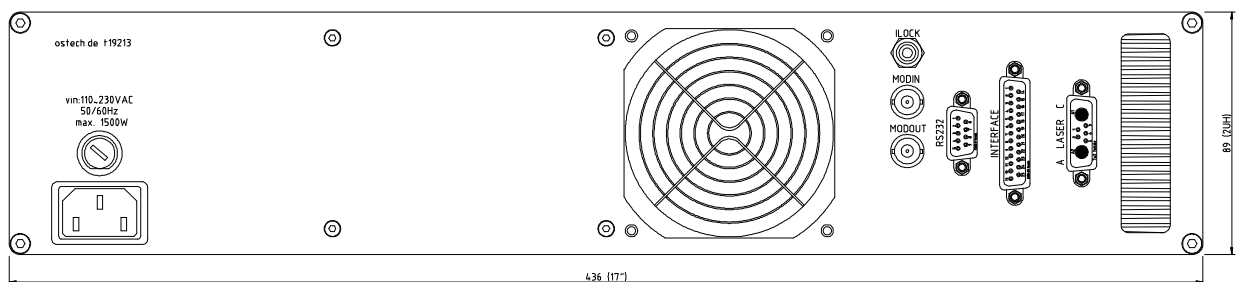
# Laser Controller

## Support Connector - Isolated Industrial Interface - 1st version



SubD-25 female

PIN.No	Abbr.		Function
1	ILOCK	out	Interlock Output max. 12V 100mA
2	LON	out	Laser On - TTL- Output High = Laser On (pull-up resistor at 5V with 270R for LED f.e.)
3	SYSOK	out	System Ok - TTL-Output High = Laser, Temp. & System OK (pull-up resistor at 5V with 270R)
4	n.c.		
5	5VREF	sup	External Reference 5V +-1% max. 20mA - as potentiometer supply f.e.
6	-12V	sup	External Supply Output -12V max. 250mA for free usage
7	+12V	sup	External Supply Output+12V max. 250mA for free usage
8	+5V	sup	External Supply Output 5V max. 250mA for free usage
9	MODE0	in	TTL-Input - multipurpose mode select input
10	MODE1	in	TTL-Input - multipurpose mode select input
11	LOFF	in	TTL-Input - Laser OFF = TTL-High (internally pulled up)
12	OFAN	sup	optional Universal Supply - 2V..22V up to 800mA for external Fan etc. (! not isolated)
13	OGND	sup	optional Universal Supply GND (! not isolated)
14	ILOCK	in	Interlock Input - has to be connected to XO_ILOCK
15	MDMOD	in	Modulation Digital Input TTL-high=Laser ON (ref. to MGND)
16	MGND	sup	Modulation GND
17	MAMOD	in	Modulation Analog Input 0-4V → 0A-I <sub>max</sub> (ref. to MGND)
18	TX	in	RS232-Tx
19	RX	out	RS232-Rx
20,21	GND	sup	GND
22,23,24,25	n.c.		





## Laser Controller

### Revision overview:

2019-05-27: "v0"- first derivation setup

### 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