

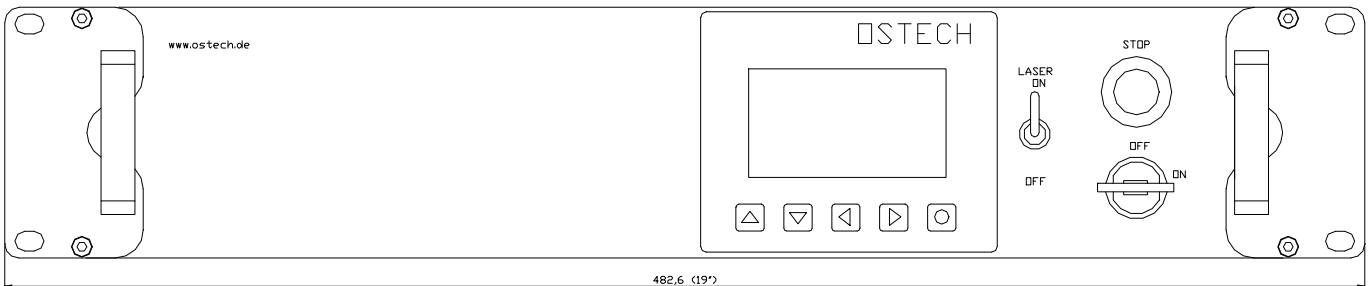
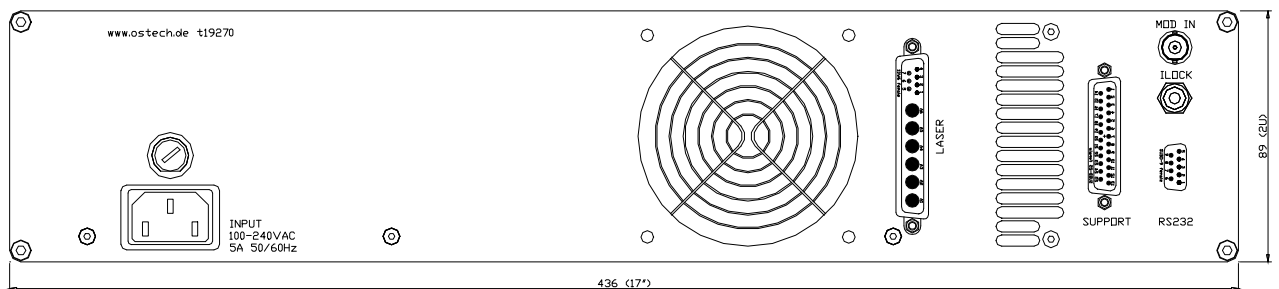


Laser Driver

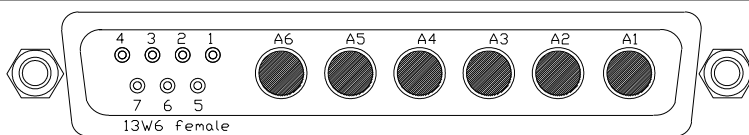
Type: ls11-la90v12-t19270-v0-478



Laser Current max.: 90A
 Laser Voltage max.: 12V
 trise, tfall < 29µs
 Vin: 100~230VAC - 50/60Hz
 Analog or Digital Modulation
 Bias Current option
 Pilot Laser Supply
 External Fan Support



Laser Connector

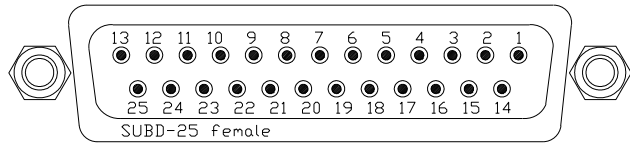


Sub-D 13W6, female Type as viewed from backside

PIN.No	Abbr.	Function
A4 A5 A6	ANODE	Laser Anode
A1 A2 A3	CATHODE	Laser Cathode
1	LEDA+	Laser Run LED-Anode (+) ILED ca.5mA ref. to GND
5	TSEN	Temperatur Sensor (default NTC10k)
6	GND	Common Ground
7	1..24V	1..24V adjustable Supply - fan supply, max. 800mA ref. to GND
2	PL+	Pilot Laser Supply
	SCR	Common Screen

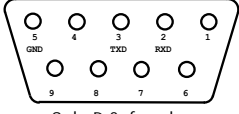
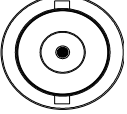
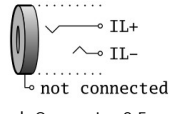
Laser Driver

Support Connector - Isolated Industrial Interface



Sub-D25 female Type as seen from backside
isolated RS485 or USB optional

PIN.No	Abbr.	Function
1	XO ILOCK	Interlock Output max. 12V 100mA
2	XO LON	Laser On - TTL- Output High = Laser On (pull-up resistor at 5V with 270R for LED f.e.)
3	XO SYSOK	System Ok - TTL-Output High = Laser, Temp. & System OK (pull-up resistor at 5V with 270R)
5	X5VREF	External Reference 5V +-1% max. 20mA - as potentiometer supply f.e.
6	XSUP-12	External Supply Output -12V max. 250mA for free usage
7	XSUP+12	External Supply Output+12V max. 250mA for free usage
8	XSUP5V	External Supply Output 5V max. 250mA for free usage
9	XI MODE0	TTL-Input - multipurpose mode select input
10	XI MODE1	TTL-Input - multipurpose mode select input
11	XI LaserOff	TTL-Input - Laser ON - TTL-Low = Laser On - internally pulled up
12	optional SUP FAN	Universal Supply - 2V..22V up to 800mA for external Fan etc. (! not isolated)
13	optional SUP GND	Universal Supply GND (! not isolated)
14	XI ILOCK	Interlock Input - has to be connected to XO ILOCK
15	MOD DMOD	Modulation Digital Input TTL
16	MOD GND	Modulation GND
17	MOD ANALOG	Modulation Analog Input 0-4V → 0A-I _{max} (R _i =10kOhm for 0-10V signal put 15kOhm in series)
18	XTX	RS232-Tx
19	XRX	RS232-Rx
20,21	XGND	Xternal GND
4,22,23,24,25	n.c.	Reserved pins, do not connect!

RS232 Connector	AMOD/DMOD Connector	Interlock Connector
 <p>Sub-D 9, female</p>	 <p>BNC Coaxial Connector</p>	 <p>Jack Connector 3.5mm</p>
Standard RS232-Connector connected to PC (No Null-Modem Cable !)	Input-Impdanz 10kOhm Digital Modulation with TTL-Pegel Analog Modulation 0-4[V] => 0-I _{max} [A]	Interlock - Laser runs only if closed (ca. 5mA over 2V → R _{Interlock} ≤400R)