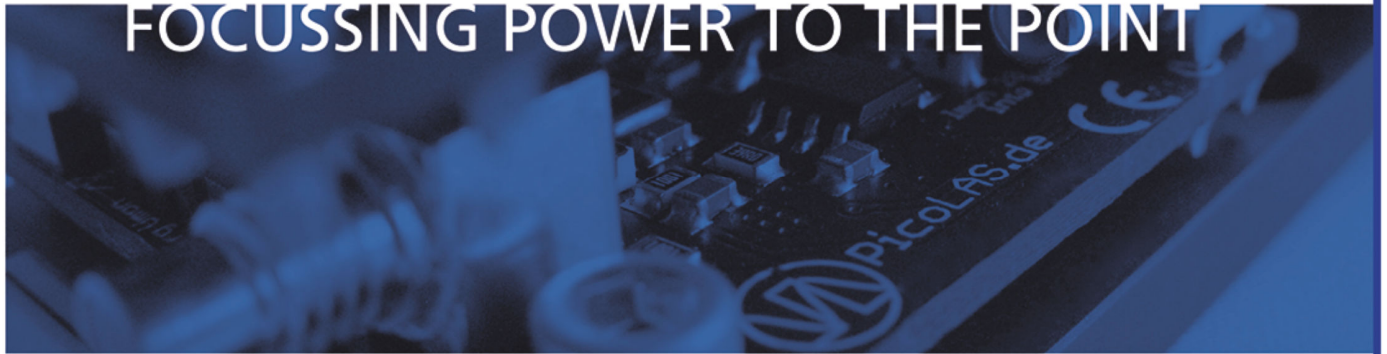


PicoLAS

FOCUSSING POWER TO THE POINT



User Manual

Rev. 1902

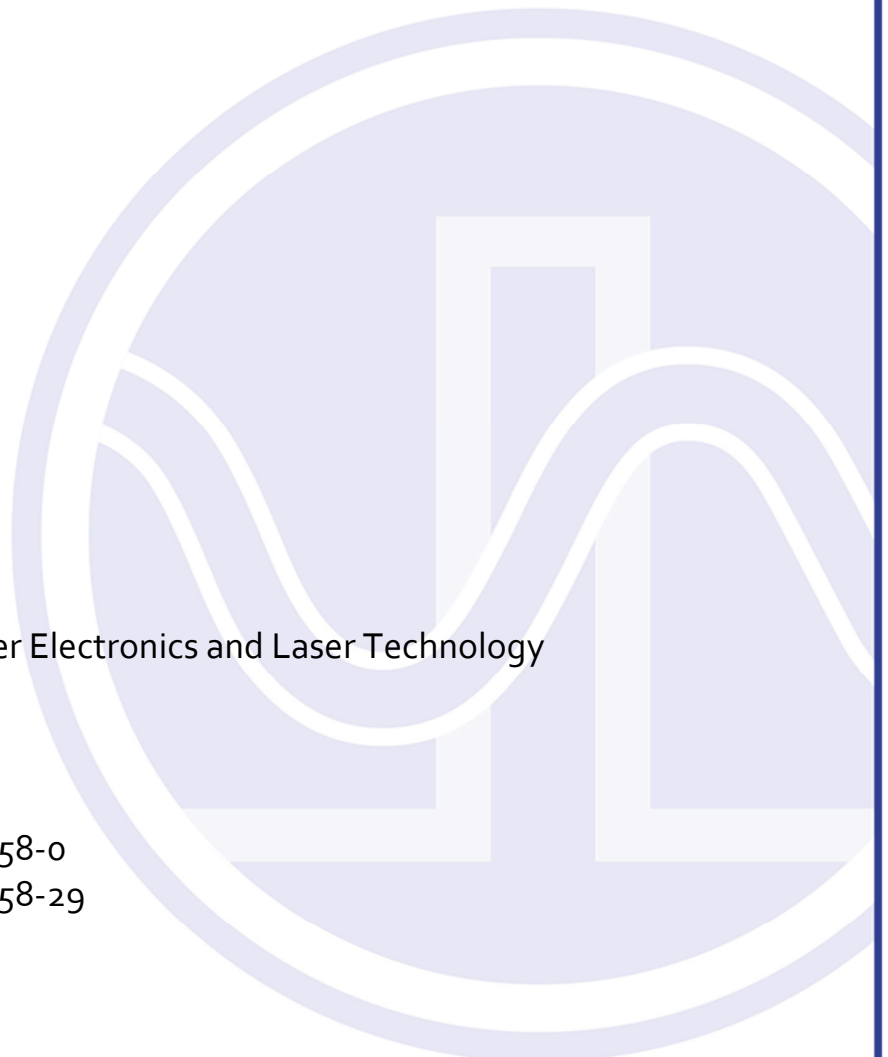
PL-TEC BOB

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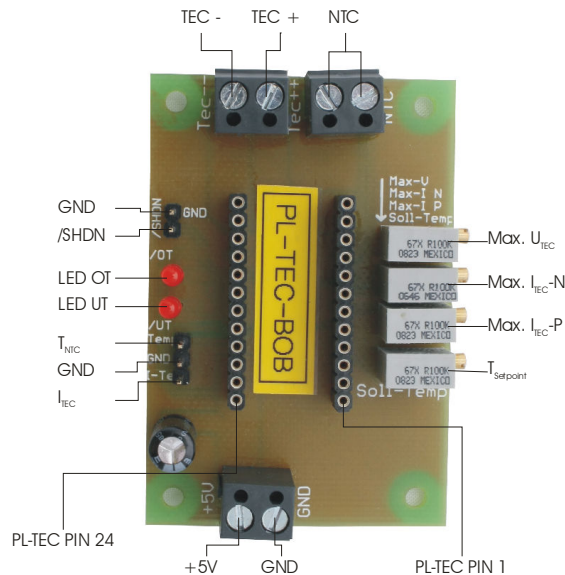
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Elements of the Breakout Board (BOB)

The BOB implements the typical operating environment of the PL-TEC 1-0305 as explained in the user manual. The following graphic gives an overview of all connectors and elements of the BOB.



Power supply connector:	+5V / GND
NTC connector:	Connect to the NTC module. Pay attention to correct polarity
TEC connector:	Connect to TEC module. Pay attention to correct polarity
Poti $T_{Setpoint}$:	Adjusts NTC temperature setpoint
Poti Max. I_{TEC-P} :	Adjusts maximum positive TEC current limit
Poti Max. I_{TEC-N} :	Adjusts maximum negative TEC current limit
Poti Max. U_{TEC} :	Adjusts maximum TEC voltage limit
LED OT:	Indicates overtemperature
LED UT:	Indicates undertemperature
Pin header /SHDN:	Shutdown input
Pin header I_{TEC} :	TEC current monitor output
Pin header T_{NTC} :	NTC temperature monitor output

How to get started

What to do	How to do it
Adjust TEC voltage and current limit potis according to the used TEC module	<ul style="list-style-type: none"> - See PL-TEC manual for the required resistor values. - Connect an ohmmeter between ground and Pin 6, 7 and 17 of the PL-TEC connector respectively. - Adjust potis to the desired values with help of the ohmmeter. - Disconnect ohmmeter.
Mount PL-TEC	Pay attention to the correct alignment (Pin 1).
Connect power supply and apply power	Connect +5 V / 3 A power supply to power connector. Pay attention to correct polarity.
Adjust $T_{Setpoint}$ poti	<ul style="list-style-type: none"> - Connect voltmeter between ground and Pin 3 of the PL-TEC connector. - Adjust $T_{Setpoint}$ poti to the desired setpoint voltage. See PL-TEC user manual for detailed information. - Disconnect voltmeter.
Disconnect power supply	
Connect TEC	Pay attention to correct polarity.
Connect NTC	No polarity required.
Connect power supply and apply power	
Watch I_{TEC} and T_{NTC} outputs	Connect Voltmeter to the according pin header. For detailed information about the scale of the monitor outputs see PL-TEC user manual.