



### *Description*

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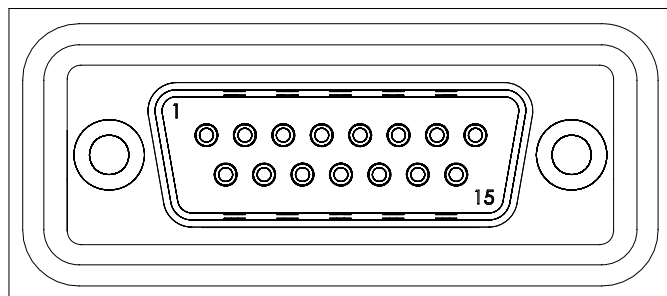
The TLK-E is an enclosure designed for use with Thorlabs' Tunable Laser Kits. This enclosure protects the laser cavity and allows the cavity to be purged with gas to remove absorption lines. Feed through ports are offered for LD/TEC connection (DB15), heater connection (6-pin Hirose), FC/APC fiber connectors, piezo actuator (BNC), and inlet/outlet gas valves. Additionally, a split rubber block is featured for feeding through other cabling, such as that for the laser's DC servo motor. AR-coated windows and steering mirror mounting holes provide excellent configurability.

### *Getting Started*

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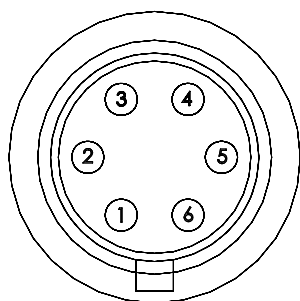
- 1) Open the TLK-E by removing the four M5 cap screws.
- 2) If the laser will be used with a heater (TLK-H), attach the adhesive-backed heater onto the base of the laser. Connect the heater's Hirose connector to the feed through on the enclosure.
- 3) Place a Tunable Laser Kit within the TLK-E, securing the laser to the bottom of the enclosure with three M6 cap screws. There are three mounting positions for the laser in the enclosure. If steering mirrors will be used in the enclosure, the laser should be placed closest to the feed through connectors. Otherwise, the laser can be placed in any of the three locations.
- 4) Connect the 8-way connector from the laser kit to the internal 8-way connector that feeds the enclosure's 15-way connector. The 2-pin connectors require that an optional monitoring photodiode is used within the enclosure. If this is not the case, then these may remain disconnected.
- 5) Connect the ribbon cable included with the TLK-E to the 15-way male connector on the outside of the enclosure to the DB15 connector on the breakout box (included with Tunable Laser Kit). This ribbon cable can be used in either direction.
- 6) Place the DC tuning motor's cable in the split rubber block seal with one piece of the seal below the cable and the other above.
- 7) If the Tunable Laser Kit has a fiber output, connect it to the FC/APC bulkhead.
- 8) If the laser has a free-space output and the beam needs to exit perpendicular to the enclosure, TLK-SM-1 steering mirrors can be mounted within the enclosure. A single steering mirror may be used to steer the beam through the large, rectangular window on the upper part of the enclosure. Two steering mirrors can be used to direct the beam out of the round window.
- 9) If the laser has a piezo actuator (e.g. TLK-PZT1), connect the BNC connector to the internal connection on the enclosure.
- 10) Secure the lid to the enclosure with the four M5 cap screws.
- 11) If the laser cavity will be purged with a gas, connect the source to the MJQC-B4MP connector. Also, an outlet valve with an MNV-1K connector is featured on the enclosure.

## Specifications



Male DB15 Connector for LD and TEC Controller Connections, Front View

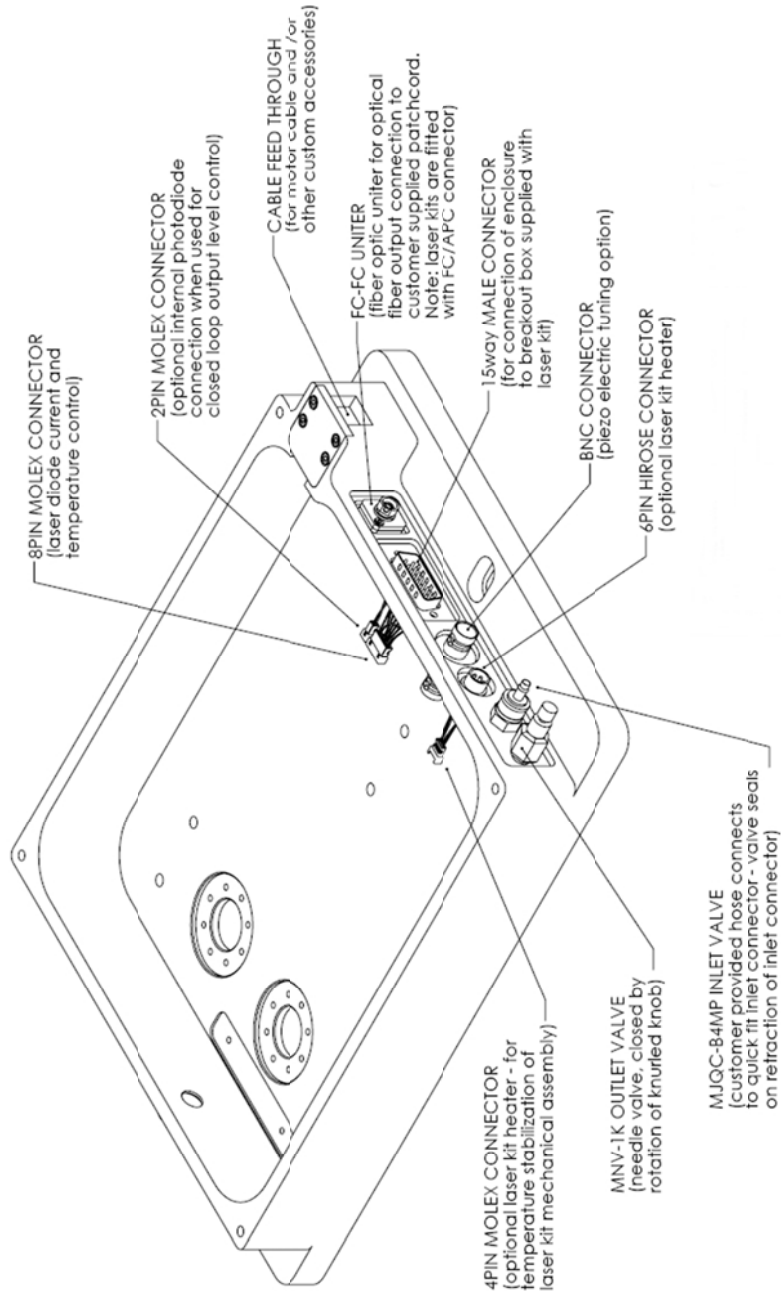
PIN	USE	PIN	USE
1	TEC (+)	9	N/C
2	Thermistor (+)	10	N/C
3	Thermistor (-)	11	N/C
4	Laser Diode Anode	12	N/C
5	Laser Diode Cathode	13	N/C
6	TEC (-)	14	N/C
7	Photodiode Cathode	15	N/C
8	Photodiode Anode		



PIN	USE
1	Heater (+)
2	Heater (Ground)
3	N/C
4	Sensor (+)
5	Sensor (Ground)
6	N/C

Hirose HR10A-7R-6S for TC200  
Heater, Front View

## Drawings (Page 1 of 2)



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## Drawings (Page 2 of 2)

