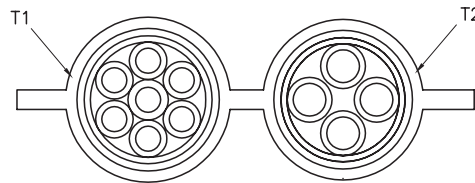


Connecting the LTA-V6 in a vacuum chamber to a Newport controller

Although the LTAHLPPV6 and LTAHSPV6 actuators are vacuum compatible, the SUB-D25M connector supplied with the actuators is **not** vacuum compatible or intended for use in a vacuum environment. Therefore, **customers are responsible** for cutting the supplied cable into 2 sections and making connections to a vacuum feedthrough/bulkhead coupling to connect the LTA-V6 actuator to a Newport controller. This note describes the steps for this procedure.

1. Cut the supplied cable into 2 sections.

The cable consists of 2 bundles, “T1” and “T2”. T1 contains 7 wires and T2 contains 4 wires, as shown in this cross-section:



Each wire’s bundle, color, function, wire gauge and pin # on the SUB-D25M connector is described in this table:

| Bundle | Color | Function | AWG | SUB-D25M Pin # |
|--------|--------|-----------------|-----|----------------|
| T1 | Green | 0 V | 27 | 22 |
| T1 | Brown | +5V Supply | 27 | 21 |
| T1 | Black | Encoder Phase B | 27 | 20 |
| T1 | Violet | Encoder Phase A | 27 | 19 |
| T1 | Grey | Negative Limit | 27 | 18 |
| T1 | Pink | Positive Limit | 27 | 17 |
| T1 | Blue | Origin | 27 | 13 |
| T2 | White | + Phase 2 | 26 | 5 |
| T2 | Orange | – Phase 2 | 26 | 7 |
| T2 | Red | + Phase 1 | 26 | 1 |
| T2 | Green | – Phase 1 | 26 | 3 |

Note: Both T1 and T2 bundles contain a green wire. Be sure to identify and distinguish each wire for appropriate connections.

2. Connect the flying leads of the cable section attached to the LTA-V6 (inside the vacuum chamber) to the feedthrough.
3. Connect the flying leads of the cable section attached to the SUB-D25M connector to the feedthrough portion outside the vacuum chamber. **IMPORTANT:** Keep the SUB-D25M connector attached to the cable. All EEPROM data is stored in the connector, allowing for quick detection of the stage without manual configuration.
4. Connect the SUB-D25M connector to the appropriate Newport controller.

For more information about the LTA Series Actuators, please see the [LTA User’s Manual](#).