

NetGain Controls WarP-Drive Hall-Effect Throttle Assembly (HETA)

The WarP-Drive Hall-effect throttle assembly represents a significant improvement over conventional electric vehicle throttle inputs such as 0-5kohm “potbox” assemblies. This unit is designed to connect to the existing throttle cable in vehicles that already have a throttle pedal and cable installed. The HETA comes with a high-quality swage connector that provides a secure connection to a steel thread cable. Some of the features of the HETA include:

- Fully redundant, dual output Hall-effect electrical sensor integrated into assembly.
- Dual load/return force generation in compliance with FMVSS 124
- Self adjusting hysteresis control
- Waterproof connectors included
- Compatible with the NetGain Controls WarP-Drive controller

Installation

When deciding on a mounting location for the HETA, keep in mind that the lever arm moves towards the baseplate. The cable will need to come from “below” (or from the baseplate direction), so overhanging the entire assembly over a strut tower or engine mount rail might be considered. Securely mount the throttle assembly using all three mounting holes on the pedal assembly. Do **not** use anything less than the three mounting holes to secure the unit!

To install the swage connector, follow the directions that come with the connector. Leave about ¼” slack in the cable with the connector installed. Ensure that the cable is not putting tension on the HETA lever arm unless pressure is being applied to the throttle pedal.

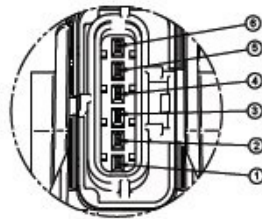
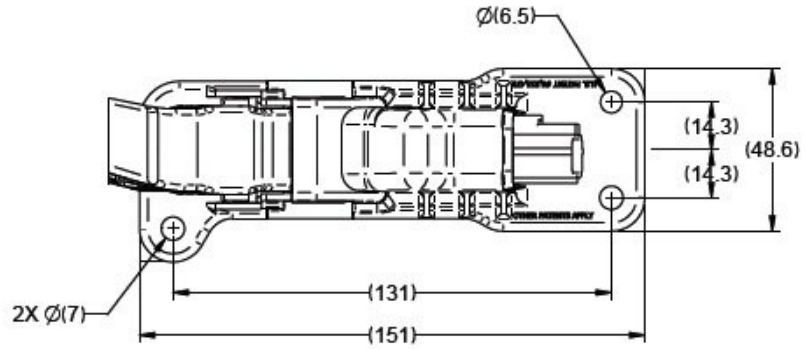
Route the connector from the HETA to the WarP-Drive controller. If the cable must pass through metal such as a firewall or bulkhead, ensure that proper relief (such as a rubber grommet) is used to prevent chaffing of the cable.

Once the pedal is installed and connected, verify proper function with the controller turned on.

Specifications

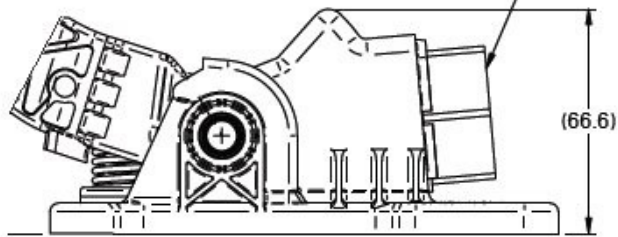
- Electrical
 - Linearity (absolute): see Figure 1
 - Rotation (electrical): 0 to 17 degrees
 - Rotation (mechanical): 0 to 18 degrees
 - Input voltage: 5VDC
- Mechanical
 - Internal end-stop strength: 900N
 - Sideload strength: 300N
- Durability
 - Operating temperature range: -40 to 80 Celsius
 - Life cycles: 3 million cycles
 - Vibration: 5 to 100 Hz @ 0.2 to 1.6g; 8 hrs. each plane
 - Thermal shock: -40 to 80 Celsius; 1000 cycles
 - ESD (powered): +/- 15kV, terminal discharge
 - EMC: 100 V/m; 1Hz – 1GHz
- Environmental
 - Salt Spray: 24 hours (5% NaCl)
 - Humidity: 144 hours @ 95% RH

DIMENSIONAL DETAILS:



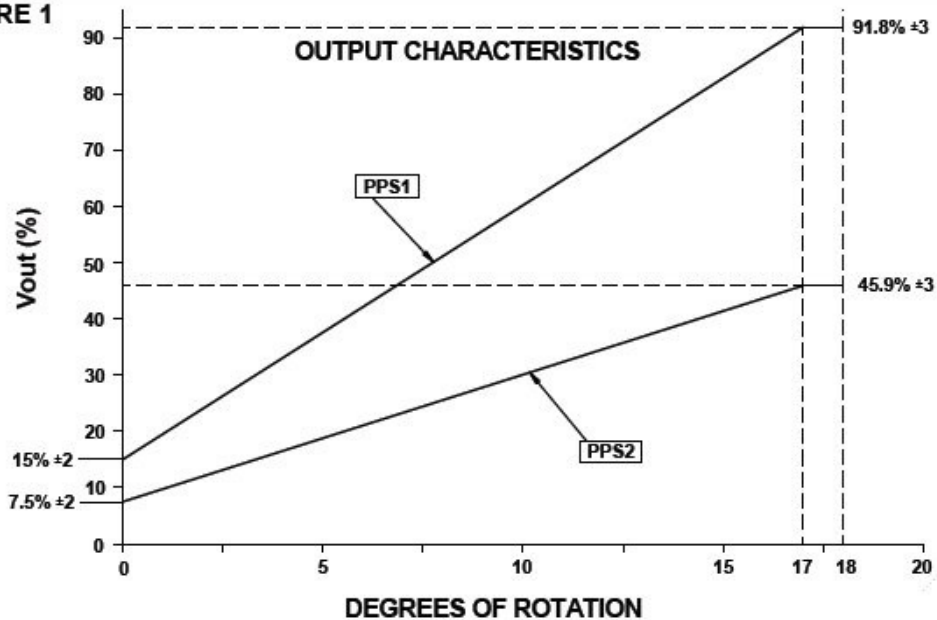
PIN NUMBER	DESIGNATION
1	OUTPUT PPS2
2	GROUND PPS2
3	SUPPLY +5V ±0.2 PPS2
4	OUTPUT PPS1
5	GROUND PPS1
6	SUPPLY +5V ±0.2 PPS1

COMPLIES WITH TYCO /AMP
DWG. C-92-4072-2303.
MATES WITH TYCO/AMP
CONNECTOR P/N 184060-1.



TYPICAL ELECTRICAL OUTPUT:

FIGURE 1



All dimensions metric (mm) unless otherwise indicated