

## HT-225 Series

### Features and Benefits

- Easy Installation
- Universal Design
- Internal Return Spring
- Rapid Response to Transient
- Multiple Mounting Positions
- Maintenance Free
- Proven Reliability



## The Integral Electric Actuator for external use

The HT- 225 Series electric actuator is a rotary output, linear torque, proportional servo. This electromechanical actuator is typically used as an engine fuel control positioning device. An internal spring provides fail safe operation by forcing the actuator to the fuel shut off position when the actuator is de-energized. This design combines fast operation, multi voltage usage, wider rotation angles, and proven reliability. The actuator can operate directly from 12 and 24 volt battery supplies.

The speed of operation of the actuator is typically faster than competitive units, thus it provides more stable and rapid response to transient conditions.

Applications include most block pumps, with or without mechanical governors, distributor type pumps, and medium sized carbureted engines. The 25 degrees of rotation expands the application to a wider variety of engines.

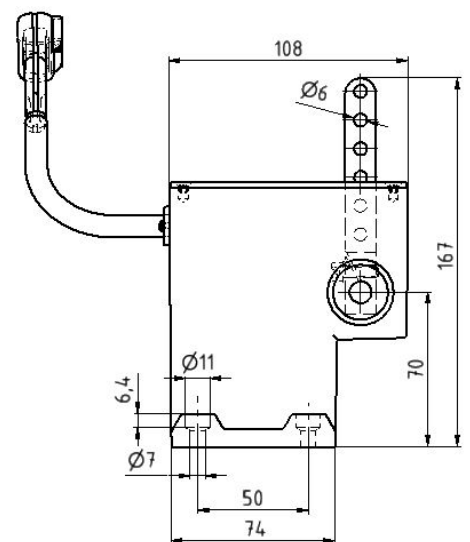
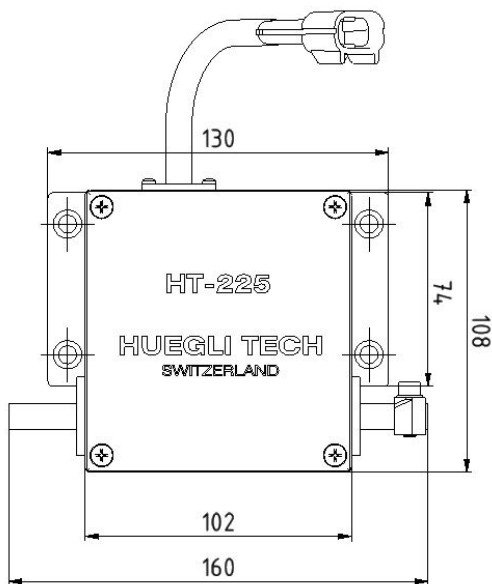
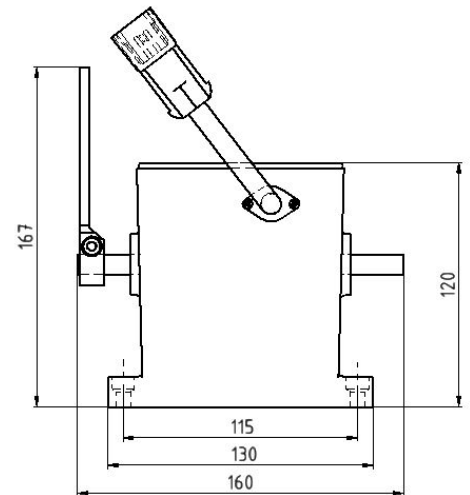
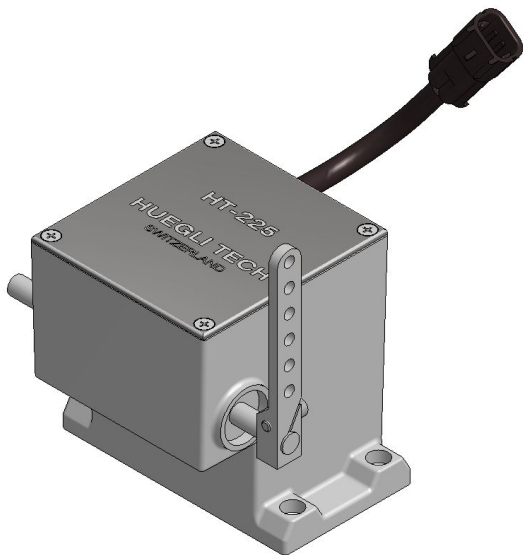
### Description

The actuator is an electromagnetic servo device which can be integrated into a closed loop control system. An engine control system can be described as follows. An electrical signal is generated by a magnetic speed sensor which is proportional to engine speed. This signal is sent to the electronic speed control unit which compares it to the preset engine speed setting. If the magnetic Speed sensor signal and the preset engine speed setting are not equal, a change in current from the speed control unit to the actuator will change the magnetic force in the actuator.

The rotation of the actuator shaft will then adjust the fuel to the engine to cause the engine speed to be equal to the preset engine speed setting. Shaft rotation is proportional to the amount of actuator current and counterbalanced by the internal spring.

Since the design has no sliding parts and is totally sealed, outstanding reliability is achieved. A single compression spring is used to improve reliability. No maintenance is necessary.

### Diagram 1: Outline and Dimensions



## Specification

### Performance

Available Torque.....Max 2.2 lb-ft (2.7 Nm)  
Maximum Operating Shaft Angular Travel.....  
.....25 ±1 degree CW/CCW

### Power Input

Operating voltage.....12, 24VDC  
Normal Operating Current.....3 A at 12 VDC  
.....1.5 A at 24 VDC  
Maximum Current-Continuously Rated.....8 A at 12 VDC  
.....4 A at 24 VDC

### Environmental

Ambient Temperature..... -65°F to 200°F (-54°C to +95°C)  
Relative Humidity.....up to 100%  
All Surface Finishes...Fungus proof and corrosion resistance

### Physical

Dimensions.....See Diagram 1  
Weight.....8.25 lb. (3.75 kg)

### Reliability

Vibration.....up to 20G, 50-500 Hz  
Testing.....100% Tested

### Local Distributor / Partner:



HUEGLI TECH AG (LTD)  
Murgenthalstrasse 30  
4900 Langenthal Switzerland  
Phone: +41 62 916 50 30  
Fax: +41 62 916 50 35

e-mail: [sales@huegli-tech.com](mailto:sales@huegli-tech.com)  
[www.huegli-tech.com](http://www.huegli-tech.com)