

HT-275 Series

Features and Benefits

- Feedback possible
- Mounts Directly on Bosch 'P' and 'RP 21' Fuel Injection Pumps in Place of a Mechanical Governor*
- Able to Control Up to 16 Cylinder Pumps
- Outstanding Reliability- No Sliding Parts, Completely Sealed
- Connects Directly to the Fuel Rack Bellows
- Includes Manual Rack Return Mechanism
- Position Feedback Transducer & Heavy Duty Bearing Retention Options Available
- Optimum Performance for Inline Pumps



Integrated Pump Mounted Electric Actuator

The HT-275 Series Electric Actuator is designed to mount directly on Bosch 'P' and 'RP 21' Fuel Injection Pumps in place of the mechanical governor. When the HT-275 Series is installed on the fuel pump, an integral high performance fuel control system without external linkages or brackets results. An external fuel rack return lever is provided to manually override the actuator's control. Also provided is an adjustable internal maximum fuel limit for calibration.

The HT-275 Series, a second generation design that is more powerful than its predecessor, is able to control up to 16 cylinder pump-arrangements. The actuator was designed with two isolated chambers that eliminates the possibility of any magnetic particles collecting and jamming the actuator. The upper chamber, which contains spray-oil, houses the actuator linkage and the lower chamber houses the electro-magnetic components. The 275 Series typically outlasts the life of a diesel engine's.

Huegli Tech has a complete line of Camshaft Bearing Retainer Kits available for the HT-275 Series to ensure an appropriate fit and prevent leakage. The HT-275 Actuator can also be installed on Bosch 'MW' and 'A' Pumps. For the most common HT-275 Series' variations and kits available see TABLE 1.

Actuator Variations Available	
P/N	Description
EC-1300	Mating Connector
Associated kits	
KT-275-3000-MT	Adaptor Kit - Bosch 'P' 3000 Pump
KT-275-7001-MT	Adaptor Kit - Bosch 'P' 7000 Pump
KT-278 -1	Adaptor Kit - Bosch RP21 Pump

Table 1.

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 into 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.

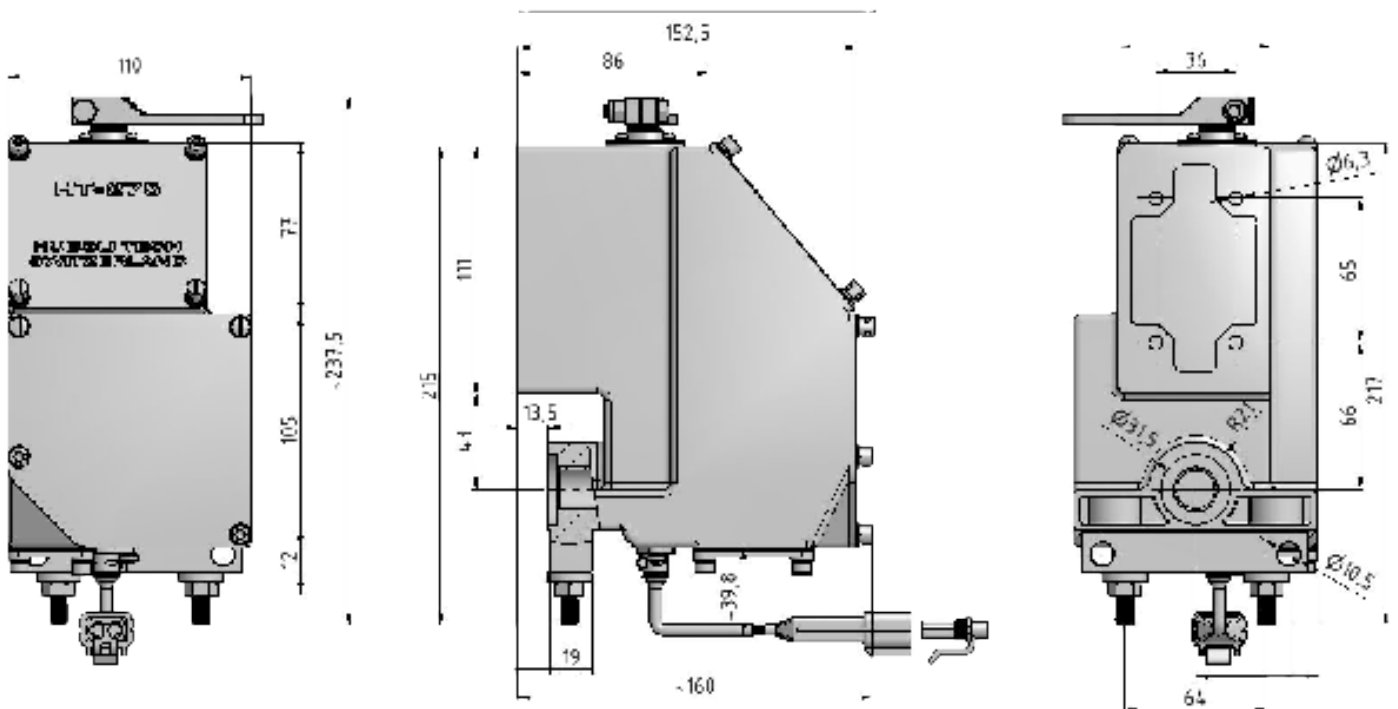
The rotation of the actuator shaft will then adjust the fuel to the engine and cause the engine speed to be equal to the preset engine speed setting.

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 results.

A single compression spring is used to improve reliability. No maintenance is necessary.

Outline Drawing 1.



Specification

Performance

Force.....13.2 lb. max (58.7 N)
Operating Stroke..... 0.79 in max (20mm)

Input Power

Operating.....12 or 24 VDC
Normal Operating Current..... 3A at 12 VDC
..... 1.5A at 24 VDC
Maximum Current (Continuous)..... 9A at 12 VDC
..... 4.5A at 24 VDC

Environment

Operating Temperature Range.....-40°to +185°F (-40°to -85°C)
Relative Humidity..... up to 100%
All Surface Finishes.....
.....Fungus Proof and Corrosion Resistant

Physical

Dimensions.....See Diagram 1.
Weight..... 11 lb. (4.9 kg)
Mounting..... Directly on 'RP 21', 'P' 3000 and
.....'P' 7000 Bosch fuel injection pumps in
.....place of the mechanical governor.
..... Requires camshaft bearing retainer kit.

Reliability

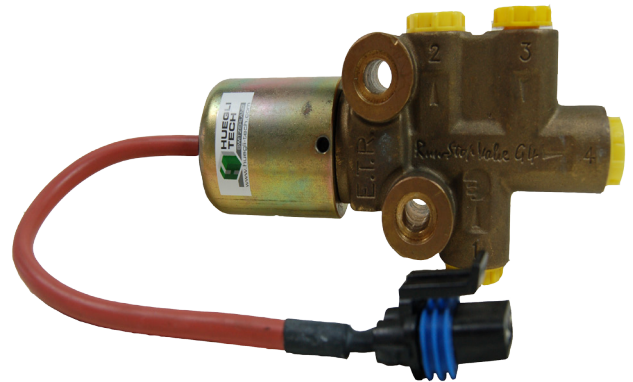
Testing.....100%

Mating Hardware

Connectors..... EC-1300
Shut off lever..... HT-LE-1400-4
Wiring Harness.....CH-1230 4 meter

Note

A secondary stop device (Emergency Stop) is recommended such as either a stop solenoid or the G-4 fuel stop valve.



Local Distributor / Partner:



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