

Pump Mounted Actuator

176 SERIES

For Bosch-Style 'A' Pumps

GAC's 176 Series Pump Mounted Actuators are field proven proportional actuators mounted directly to fuel injection Bosch-style "A" pumps, creating an integrated proportional servo fuel package. Benefiting from sealed components and no sliding parts, the design demonstrates outstanding reliability with no maintenance required. The availability of numerous options and mounting kits renders GAC's versatile design adaptable to a wide range of fuel pumps.



FEATURES

- Adjustable Fuel Limits
- Manual Shut-Off Mechanism
- Left-Hand Rack (Right-Hand Rack Available Soon)*
- In Place of Mechanical Governor
- Feedback Position Sensor Available
- Fast Response < 35 msec (10 90%)
- Connects Directly to the Injection Pump

SELECTION CHART

	12 VOLT	24 VOLT	WITH SHUT-OFF LEVER	WITH COLD START	WITH MATING CONNECTOR	WITHOUT MATING CONNECTOR
ADD176A-12	•		•			•
ADD176A-24		•	•			•
ADE176A-12	•		•		•	
ADE176A-24		•	•		•	
ADE176AA-12	•			•	•	
ADE176AA-24		•		•	•	

^{*} Contact GAC For Availability

ACCESSORIES

Mating Connector & Cable Harness



EC107 Packard - Cold-Start Mating Connector EC1300 Packard - Electronic Actuator Mating Connector

EC1515 Packard - Feedback Mating Connector

CH1215 Packard - 6' Actuator Mating Cable Harness CH1515

Packard - 6' Feedback Mating Cable Harness

KT176A

EC1300

Adaptor Kits

KT176A Camshaft Bearing Retainer Kit



CH1215

SPECIFICATIONS

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Force	6.2 ft-lb (27.5N)
Operating Stroke	0.80 in (21mm)
Response Time (10-90% 2-19mm)	35 msec
Internal Sealing Pressure	2 bar (29 psi)

Environmental Operating Temperature -40° to 95°C (-40° to $+200^{\circ}$ F) **Relative Humidity** up to 100% 20G, 20 - 500 Hz Vibration 20 G @ 11msec Shock **All Surface Finishes Fungus Proof and Corrosion Resistant**

Operating Voltage	12 VDC or 24 VDC
Coil Resistance	1.7 ± 0.2 0hms (12 VDC)
	7.2 ± 0.5 0hms (24 VDC)
Nominal Operating Current	4.0 A (12 VDC)
	2.0 A (24 VDC)
Maximum Current	5.8 A (12 VDC)
	3.1 A (24 VDC)
Cold Start Minimum Operating Voltage (Dedicated Coil)	6.0 V (12 VDC)
	12.0 V (24 VDC)
Nominal Operating Current	$1.3 \pm 0.2 \text{A} \text{ (12 VDC)}$
	$4.0 \pm 0.2 \text{A} (24 \text{VDC})$

Physical

Dimension	Approx 4.25in x 4.63in x 6.77in (106.0mm x 117.6mm x 171.9mm)
Weight	4.94 lbs. (1.84 kg)

OPTIONS

ESD5100 Series **Analog Speed Controls**



- Adjustable PID
- Accessory Input
- Speed Ramping
- Auxilary 10V Power System

The electronic ESD5100 Series speed control unit delivers a quick and precise response to transient load changes. When coupled with a proportional electric actuator and a magnetic speed sensor, the ESD will control a wide variety of engines operating in an isochronous or droop mode. Armed with high quality components, the ruggedly designed ESD will endure the harshness of any industrial engine environment.

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