

Military Unmanned Aerial Vehicle

The tactical UAV system consists of four air vehicles and the associated ground equipment, from where the operators have full control over the UAVs and their sensors. The vehicle is equipped with a GPS navigation system for fully autonomous operation, and can be controlled using both LOS (Line-Of-Sight) and non-LOS datalinks. The UAV's tasks include day/night reconnaissance, surveillance, target acquisition and bomb damage assessment.



Pump Description:

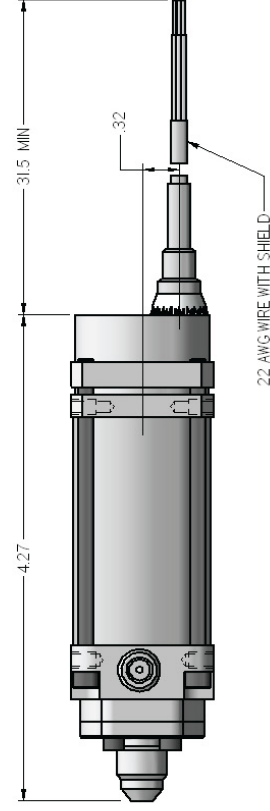
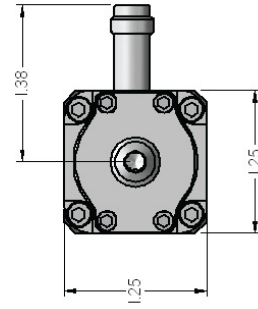
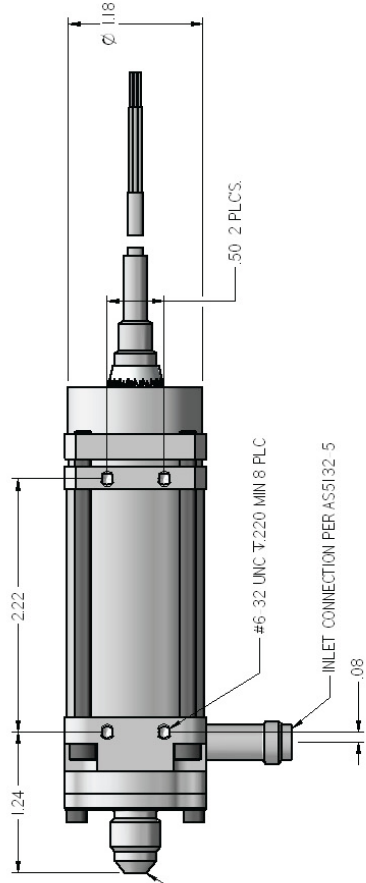
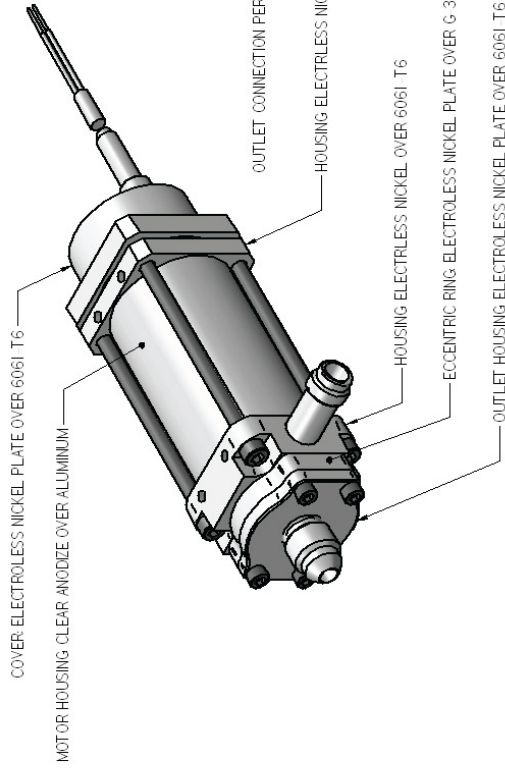
The electronic fuel metering pump is designed for use with electronic fuel injection (EFI) systems on military Unmanned Air Vehicle (UAV) applications. At the heart of the system is a proprietary rotor design featuring pressure compensating, rolling contact components constructed of tool steel. The pumping element is driven by an 8-pole brushless dc motor featuring a high-energy neodymium permanent magnet rotor. The motor rotor and pumping element are supported by a single hardened steel shaft supported by sealed ball bearings. The entire rotor assembly runs wetted, in the fuel, and is statically sealed from the stator and motor controller. The assembly contains an ASIC based integral motor controller for precise flow control through a proportional 0-5 vdc input command signal.



Selected Performance Data:

Fluids	Jet A, JP4, JP8, K1, 100LL
Flow Metering Range	2.5 lph to 55 lph
Operating Pressure Range	5 – 75 psig, 100 psig (intermittent)
Supply Voltage	22-32 vdc, 28 vdc nominal
Operating Temp. Range	-46 degC to +71 degC
Environmental Conditions	Per MIL-STD-810E
EMI	Per MIL-STD-461
Weight	<400 grams
Power Consumption	<30 watts @ max output





CASE STUDY CS-151 FUEL PUMP