



ISO 9001 CERTIFIED

## FOR METERING NATURAL GAS FUEL ON GAS ENGINES **GV2 ELECTRONIC GAS FUEL VALVE**

**Natural Gas/ Propane / Bio-Fuels**

### **BENEFITS**

**FUEL AUTHORITY  
FUEL CONTROL**

**EXTREMELY FAST  
ACTING**

**USE WITH A VARIETY  
OF AFR'S**

**CAN BE CONTROLLED  
WITH A PLC/ECS**

**FAST VARIABLE  
PRESSURE CONTROL**

**SIZED FOR ENGINES  
50hp TO 500hp  
(DEPENDENT ON  
SUPPLY PRESSURE)**

**WORKS WITH  
TURBOCHARGE OR  
NA ENGINES**

**USE WITH EXSISTING  
CARBURETOR OR  
VENTURI**

**GOOD FOR  
ALTERNATIVE FUELS  
(BIOGAS, LAND FILLS  
GAS, FIELD GAS)**

**LOW COST**

### **THE CONTINENTAL CONTROLS SOLUTION**

All gas engines are now required to precisely control the ratio of air and fuel (AFR) to lower emissions and improve engine efficiency. The electronics to control this are either integrated into a stand-alone driver/controller or included in an Engine Control System (ECS) or possibly a PLC. In either of these cases, a common problem in the past has been how to quickly and accurately control the amount of fuel to the engine; based on changes in load, gas quality, and several other factors.

Often the solution has been to select a valve that was designed for another application or even another media (not necessarily for natural gas). Many times the valve was not designed for the specific flows and pressure of a specific stationary gas engine. This often resulted in unreliable valves that offered only a limited range of control and valves that often would stick or malfunction. The GV2 is designed specifically to control gaseous fuels for small to midsized gas engines. It is designed to be easily adapted to work with a wide variety of AFR controls and carburetors or mixers.

The GV2 offers advanced electronic fuel control to allow fuel flow ranges that include LHV/Low BTU flare gas, biogas, and landfill gas.





## OEM

The valve can be modified with inlet and outlet adapters to meet most OEM requirements.

## CLOSED LOOP PRESSURE CONTROL

The GV2 electronic pressure regulation consists of an internal pressure transducer, internal electronics, and a high-speed servo-coil actuator.

The valve transducer measures the gas injection pressure. The valve electronics compare the gas injection pressure to its set point, and adjusts the current to the servo-coil actuator to regulate the gas flow in order to maintain the pressure at its point. The control project provides integral or "rest" control of the pressure, i.e. there is no droop in the pressure as the flow increases.

Generally variable pressure control is regarded as one of the most effective techniques for controlling air fuel ratio to a gas engine. The pressure downstream of the GV2 can be continuously monitored via the 4-20ma pressure feedback signal.

## COMMAND/ I/O

4-20ma Pressure Control Input

4-20ma Pressure Feedback Output

RS232 ModBus

CAN Bus J-1939

## GAS SUPPLY PRESSURE

The GV2 can operate from 0psi to about 2psi above boost pressure (for turbocharged applications).

## OPERATING TEMPERATURE

From -40 to 185 degrees F

## PERFORMANCE

Response <30 ms full stroke

Statistic Accuracy .2" w.c.

## CONFIRGURATION DATA

9-32vdc Input Power

28 psig Max Turbo Boost Pressure

1/4" NPT Port for Turbo Reference Line

## HAZARDOUS ENVIRONMENT

Designed to be Class 1


Div 2 compliant

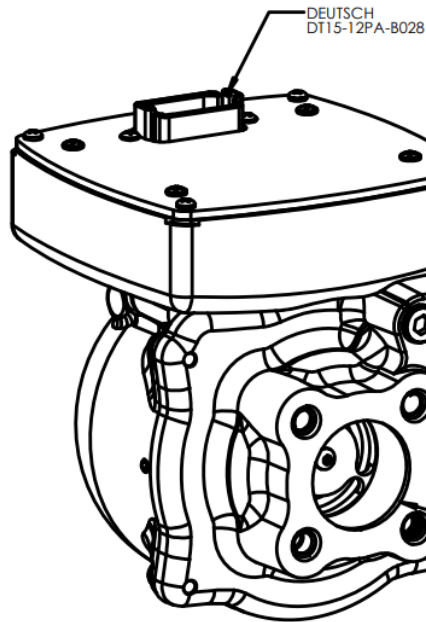
CSA Class I div. 2

*The GV2 Electronic Gas Fuel Valve is servo-coil actuated which makes it very fast and smooth acting with low maintenance and high MTBF. the valve will stroke with minimal friction and virtually no hysteresis.*



## SPECIFICATION

<b>Flow Capacity:</b>	Pre-Turbo: 120 scfm Natural Gas Post-Turbo: 215 scfm Natural Gas
<b>Fuel:</b>	Natural Gas, Propane Gas, Other Gaseous Hydrocarbons
<b>Maximum Operating Pressure:</b>	65 psig (differential pressure between fuel and air reference should not exceed 8 PSID)
<b>Minimum Filtration Requirements:</b>	50 Microns Absolute
<b>Operating Temperature:</b>	-40°C (-40°F) to +85°C (+185°F)
<b>Response Time:</b>	Less than 45 milliseconds 10% -90% Stroke
<b>Fuel Demand Signal [to Valve]:</b>	PWM, CAN Bus J1939, or Stepper Motor
<b>Fuel Feedback Signal [to Valve]:</b>	J1939 CAN Bus
<b>Power Input:</b>	10-30VDC, 5 amp
<b>Electrical Interface:</b>	Deutsch 12 Pin. DT series Connector
<b>Communication Interface:</b>	RS232 Modbus RTU, J1939 CAN Bus
<b>Valve Materials:</b>	-Body: 6061-T6 Anodized Aluminum -Wetted Components: 300 Series Stainless Steel, 6061-T6 Anodized Aluminum, Polyetherimide and Silicon -Seals: Nitrile, Teflon, Fluorosilicone
<b>Flanges:</b>	1-1/2" Pipe, Face Seal Flange
<b>Dimensions:</b>	6.84" x 5.65" x 6.78"
<b>Approximate Weight:</b>	6.90 pounds
<b>Certifications:</b>	 US Class I, Division 2, Group D: T4

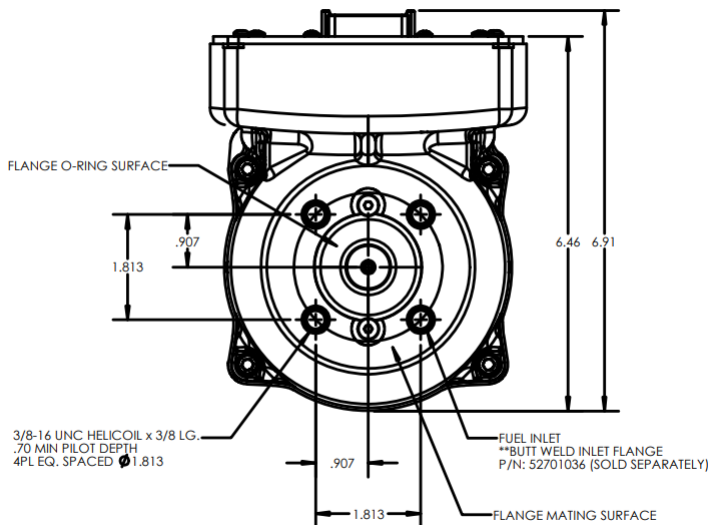
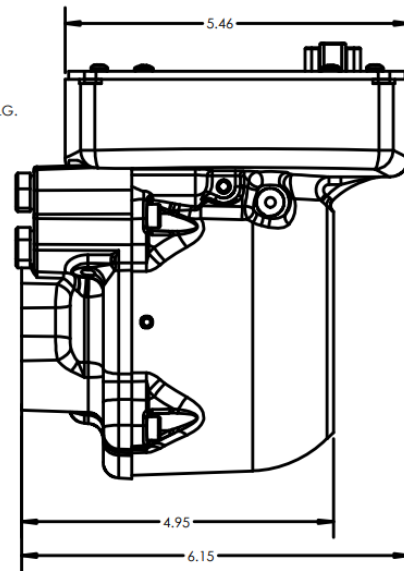
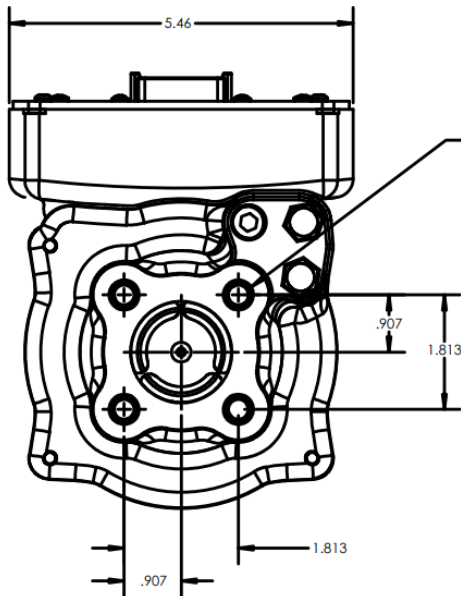


EXTERNAL PRESSURE CONTROL LINE, 1/4" NPT  
\*CONSULT CCC ENGINEERING

AIR REFERENCE, PRESSURE SENSOR, 1/4" NPT  
\*IF INSTALLED POST-TURBO, REFERENCE  
TURBO BOOST. MUST HAVE IT'S OWN SEPARATE  
SENSING LINE.

AIR REFERENCE, CONTROL HOUSING, 1/4" NPT  
\*IF INSTALLED POST-TURBO, REFERENCE  
TURBO BOOST. MUST HAVE IT'S OWN SEPARATE  
SENSING LINE

FUEL OUTLET  
\*\*BUTT WELD OUTLET FLANGE  
P/N: 52701036 (SOLD SEPARATELY)



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