

# GV80

## Fuel Admission Valve for Mid-sized Industrial Engines

### Applications

The GV80 is designed for OEM PFI (Ported Fuel Injection) applications but can also be used as a retrofit PFI or EFC (Electronic Fuel Control) application.

In the case of retrofit PFI applications, the mechanical fuel system is disabled/removed and one or more PFI valves is mounted just before the engine intake on the air manifold. The GV80 then injects fuel based on electronic control signals directly into the intake manifold.

An EFC application uses a GV80 valve in addition to the mechanical fuel system to electronically control injection timing.

### Construction

**Materials** All parts exposed to the gas are resistant to corrosion and stress corrosion cracking

**Mounting** May be mounted in any configuration, however, a vertical orientation (valve inlet facing upwards) is preferred.

Gas Inlet Hole Diameter .....28mm (1,10in)

Gas Outlet Hole Diameter .....30mm (1,18in)

### Specifications

Equivalent Flow Area .....	80mm <sup>2</sup>
Steady State Flow-Rate .....	48,2g/s CNG @
(Contact Hoerbiger for specific application)	P1=2,5barg, P2=ATM
Internal Leakage.....	<0,25% of steady state flow-Rate
Nominal Differential Pressure* .....	2,5barg (35psig)
Maximum Differential Pressure* .....	3,5barg (50psig)
Max. Gas Supply Pressure (P1) .....	12barg (170psig)
Max. Air Manifold Pressure (P2).....	4barg (58psig)
Maximum Backfire Pressure Spike .....	0,5barg (7psig)
(without backflowing through valve)	
Maximum Housing Pressure .....	35barg (500psig)
(non operating)	
Opening/Closing Time** .....	0,8ms–1,2ms**
Response Time** .....	0,5ms
Voltage Supply .....	12V–24V (110V boost)
Peak Current** .....	14-18amps
Hold Current** .....	1,5-3,0amps
Max. particle size within fuel gas.....	<10µm
(integrated protection filter: 20µm)	
Max. particle concentration: .....	1ppm
Ambient Temperature: .....	-20–95°C (-4–203°F)
Fuel Gas Temperature:.....	-20–80°C (-4–176°F)

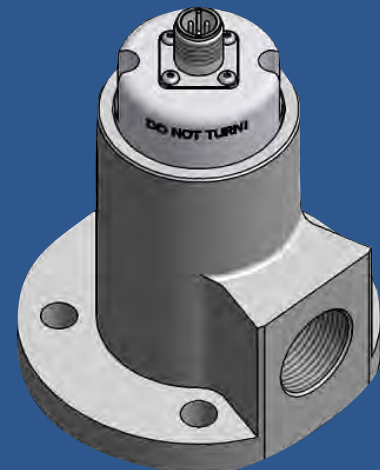
\* Pressure differential between fuel gas and intake manifold

\*\* Is differential pressure dependant and assumes the use of a HOERBIGER SDM (Solenoid Driver Module)

### Regulatory Compliance\*\*\*

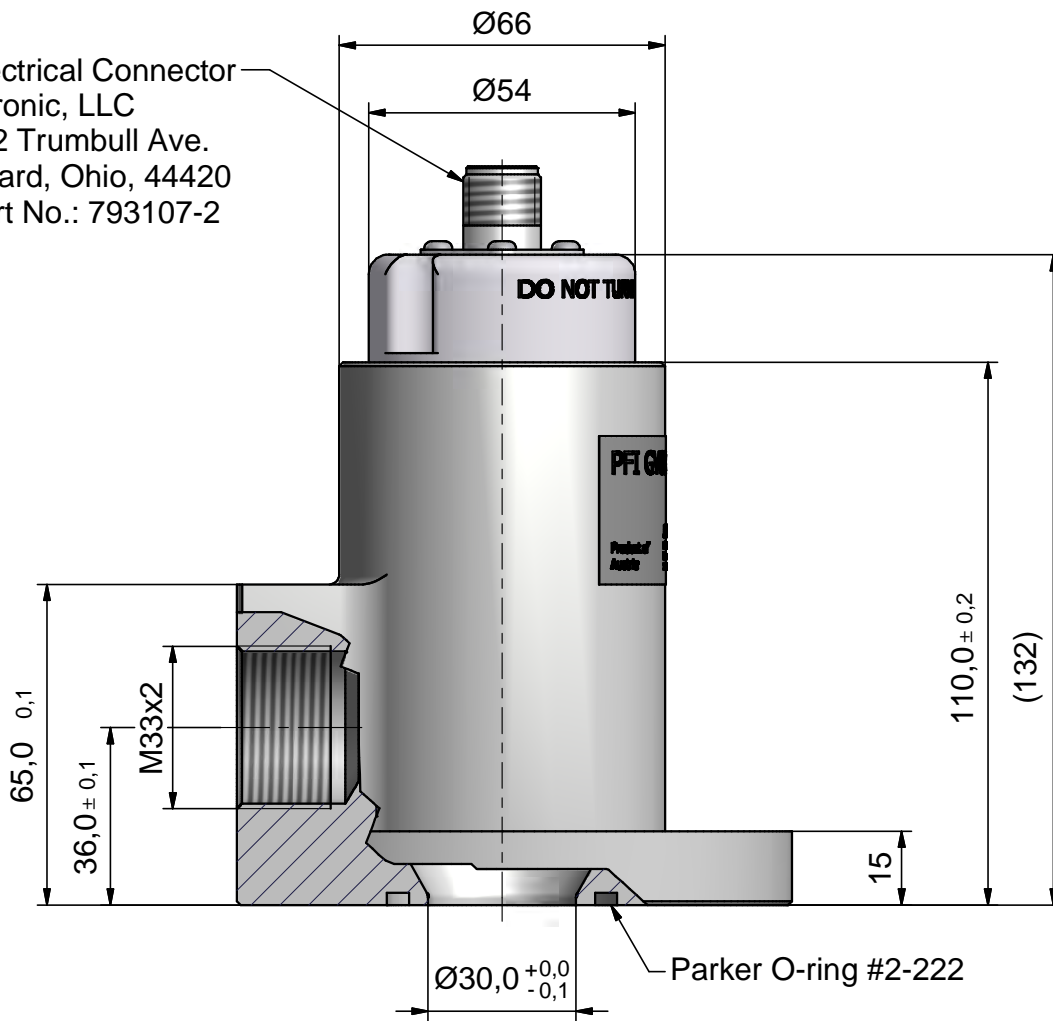
North America: CSA Class I, Division 2, Groups C & D

\*\*\*application pending



## Dimensions

Electrical Connector  
Altronic, LLC  
712 Trumbull Ave.  
Girard, Ohio, 44420  
Part No.: 793107-2



## Connector and Cable Specification

### Connector Specifications

Type: Standard MIL-C-5015

Connection type: Threaded

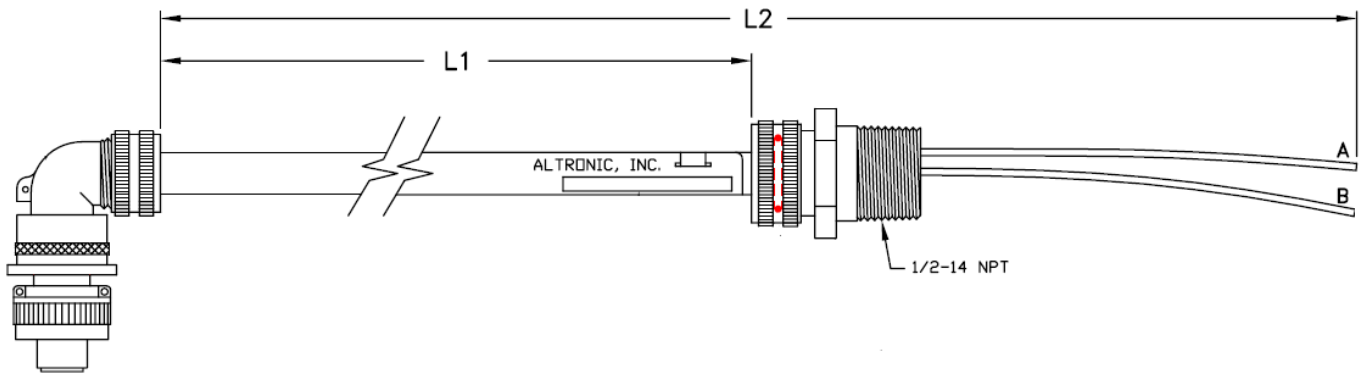
Tighten specification: Hand tight/lightly plier tightened

### Connect Booster Output

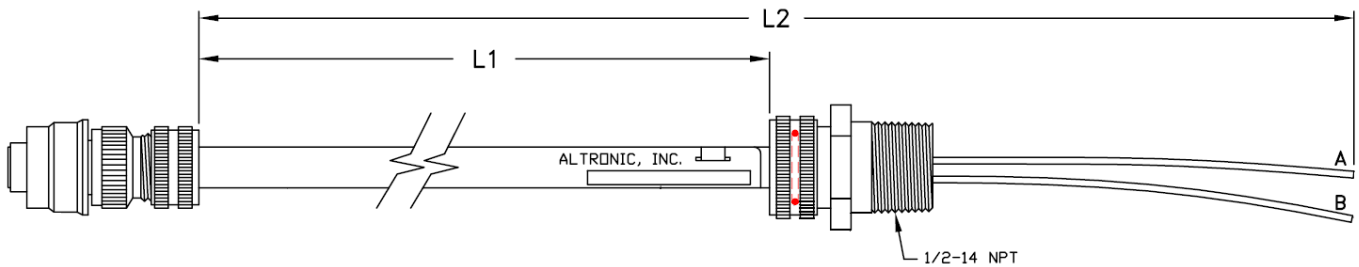
Pins A & B (polarity not relevant)

### Standard Connection Cables

90° connector – PN: 593027



Straight connector – PN: 593022



\* Both cables CSA-Certified (LR#34575-6) Class 1, Group D, Division 2

\*\* These products are not shipped with GV80 Valve

## How to order

For 90° connector: 593027-XXX

For straight connector: 593022-XXX

XXX - Conduit length L1 as shown in following table

### Available Lengths

L1 (inches)	6	9	12	15	18	24	30	36	42	48	54	60	72	84	96	108	120	135	138	150
L2 (inches)	42	42	42	42	42	42	42	60	60	60	60	96	96	96	180	180	180	180	180	180

## Piping/Hose Size Recommendation

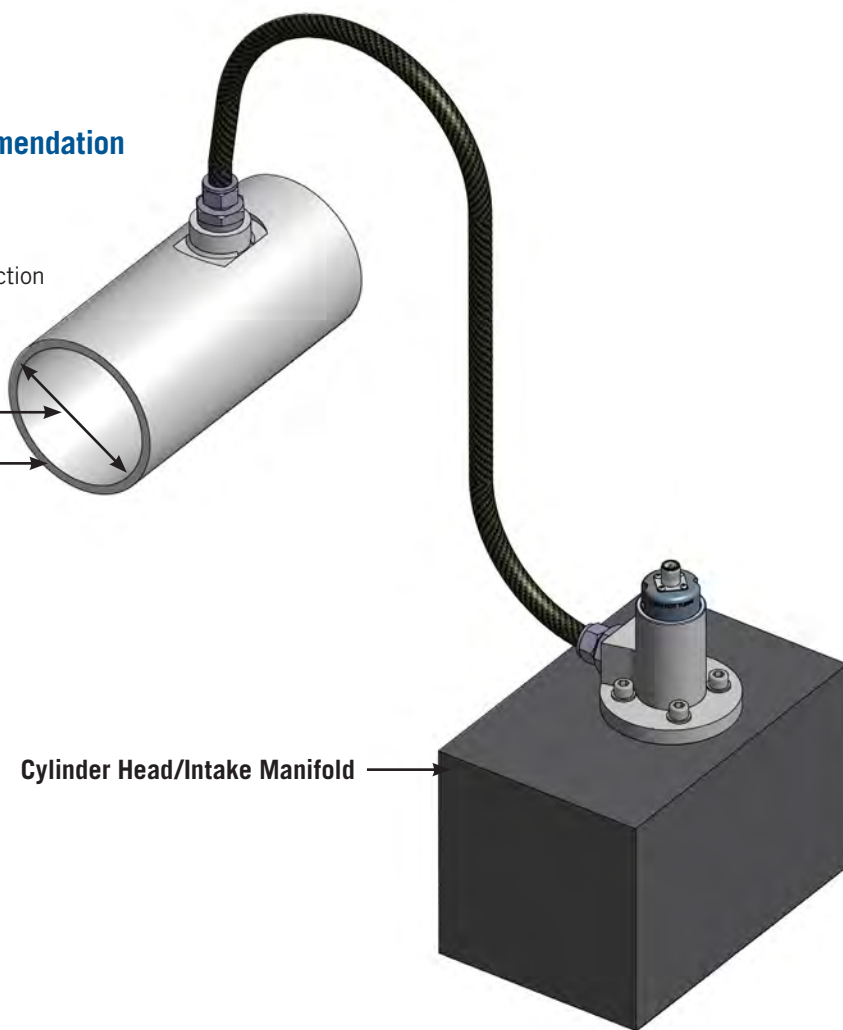
### Hose Installation

Minimum hose: ID 24mm (1in)  
Check minimum fitting cross section

### Minimum 50mm (2in)

Dependent on cylinder count  
and firing sequence

### Main Fuel Supply Rail



**altronic**

HOERBIGER Engine Solutions

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