

# GVR50

## Fuel Admission Valve for Large Industrial Engines

### Applications

The GVR50 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 GVR50 then injects fuel based on electronic control signals directly into the intake manifold.

An EFC application uses a GVR50 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 .....28,4mm (1,12in)

Gas Outlet Hole Diameter .....47,63mm (1,875in)

### Specifications

Equivalent Flow Area .....	50mm <sup>2</sup>
Steady State Flow-Rate .....	53,7g/s CNG @
(Contact Hoerbiger for specific application)	P1=4.8barg, P2=ATM
Internal Leakage.....	<0,25% of steady state flow-Rate
Nominal Differential Pressure* .....	.4barg
Maximum Differential Pressure*.....	6barg
Max. Gas Supply Pressure (P1).....	10barg
Max. Air Manifold Pressure (P2).....	9barg
Maximum Backfire Pressure Spike .....	0,5barg
(without backflowing through valve)	
Maximum Housing Pressure .....	12barg
(non-operating)	
Opening/Closing Time** .....	1,5ms max
Response Time** .....	0,5ms max
Voltage Supply .....	12–24V (110V boost)
Peak Current** .....	15amps
Hold Current** .....	2,0amps
Max. particle size within fuel gas.....	<10µm
(integrated protection filter: 60µm)	
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)

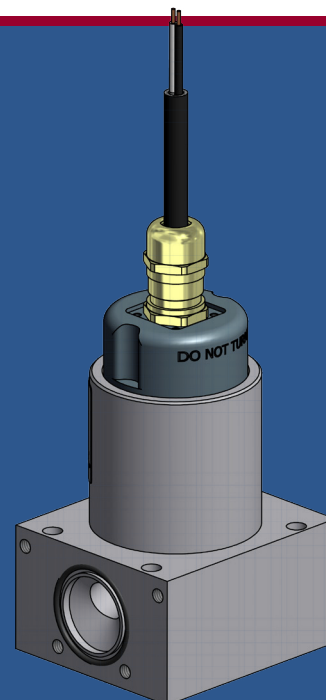
### Regulatory Compliance (Pending)

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

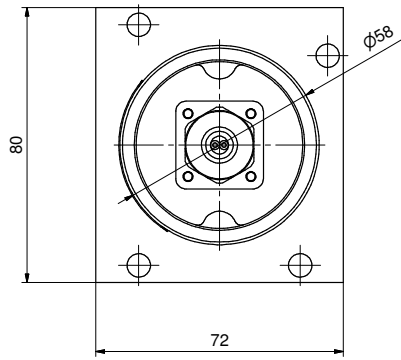
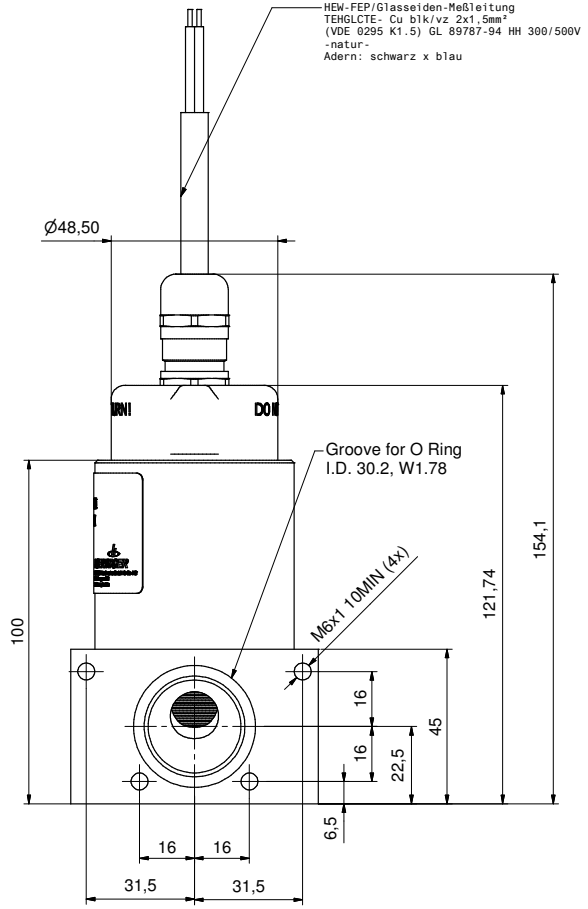
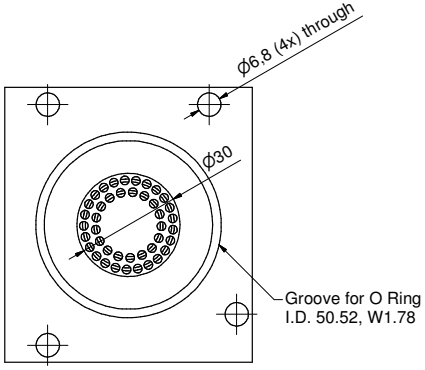
Europe: Zone 2, Category II 3 G, EEx m IIC T4

CE Compliant with ATEX, LVD and MD Directives

Exempt from the Pressure Equipment Directive 97/23/EC per Article 1-3.10



# Outline drawing



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 HOERBIGER Engine Solutions

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