

## Heavy Duty Natural Gas Vehicle Regulator

The ITT Conoflow HPNGV Series Fuel Regulator has earned a reputation for world class reliability and performance. Over a decade of service in the most demanding applications has proven the HPNGV Regulator is the choice for OEM vehicle, engine and fuel systems. Certified to ECE R110, the HPNGV Regulator is proven to be a safe and reliable pressure control element. Certifications and Approvals pending are for ISO15500, ANSI/AGA NGV3.1 and ARAI Type Approval AIS-037.

### Standard Specifications

**Regulated Media:**

Compressed natural gas

**Inlet Pressure:**

250 to 3600 psig (1.72 MPa to 24.84 MPa) to meet all performance specifications.

**Nominal Output Pressure Range:** Factory preset 45-150 PSIG (0.31-1.03 MPa) Set Point. The typical range of delivery pressure is +15 / -10 psi from specified setting throughout the range of inlet pressure, temperature and flow.

**Gas Flow Rate:**

Up to 165 lbs/hr (0-82 kg/hr) (flow varies by application, consult the factory for data)

**Internal Filtration:**

40 Micron Corrosion Proof Sintered Element

**Leakage (Ambient and Valve):**

Bubble Tight

**Moisture Tolerance:**

To 7 lbs Water per Million Standard Cubic Ft.

**Temperature Range (Ambient, Inlet and Coolant):**

-40°F to +257°F (-40°C to 125°C)

**Vehicle Applications:**

Normally aspirated or Turbocharged EFI Spark Ignition Engines

**Porting:**

**Gas Inlet:**

SAE-6 (9/16-18 Thread) per SAE Specification J1926

**Gas Outlet:**

SAE-8 (3/4-16 Thread) per SAE Specification J1926

**Standard Coolant:**

3/8" Hose Connection per SAE Specification J962

**Mounting Threads:**

M8 x 1.25 x 18mm, 2 Places 45.7mm Apart Suitable for 20mm Bolts

**Weight:**

Refer to the table on page 4

**Approvals:**

ECE R110

**Pending:**

ISO15500  
ANSI/AGA NGV3.1  
ARAI Type  
Approval AIS-037

**U.S. Patents:**

5,890,512  
and 5,443,083



### Ordering Sequence — Select desired option for each category

**REGULATOR MODEL BREAKDOWN (CEO CODE)**

TEXT POSITION 1 through 6	OPTION CODE HPNGV2	DEFINITION OF CHARACTER Natural Gas Vehicle Fuel Pressure Regulator
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<b>REGULATOR BONNET OPTIONS</b>		
7	S	Standard Bonnet (No Map Bias Fitting)
	C	Captured Bonnet (3/16" Straight Hose Barb Bias Fitting)
	E	Captured Bonnet (1/4" Hose Elbow (Polyflo Tubing Type) Bias Fitting)

<b>SENSOR PORT (for Inlet Pressure Transducer) OPTIONS</b>		
8	X	No Sensor Port (standard)
	3	SAE-3 Sensor Port (Note 1)
	4	SAE-4 Sensor Port (Note 1)
	W	Sensor (Installed) - 0.25 to 4.75 Volt Output (Notes 2,3)
	Y	Sensor (Installed) - 0.50 to 4.50 Volt Output (Notes 2,3)
	<b>NOTES:</b>	1. Regulators with sensor port will be shipped with this port open. 2. See drawing for electrical connection 3. Sensor output with 5.0 volt DC Excitement for 5000 psig span

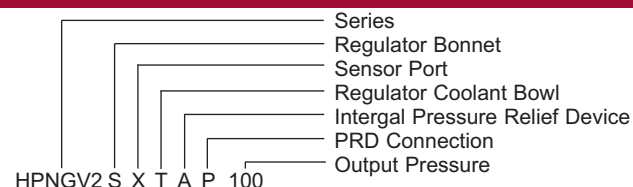
<b>REGULATOR COOLANT BOWL OPTIONS</b>		
9	T	Thermostat
	H	No Thermostat
	<b>NOTES:</b>	Coolant connections are for 3/8" (9.5 mm) ID hose.

<b>INTEGRAL PRESSURE RELIEF DEVICE (PRD) OPTIONS</b>		
10	A	200 PSI (± 40 PSI) PRD
	B	270 PSI (± 60 PSI) PRD - Standard
	C	350 PSI (± 60 PSI) PRD
	<b>NOTES:</b>	1. A 200 psi PRD is not recommended for regulator output pressures above 120 psig. 2. The regulator PRD is not suitable as a stand alone safety relief valve. Other downstream protection strategies must be employed for a robust system design.

<b>PRD CONNECTION OPTIONS</b>		
11	X	PRD Vents to Atmosphere - Standard
	P	1/4" NPT Male Capture Pipe PRD
	T	1/2" Tube Stub PRD
	<b>NOTES:</b>	If regulator is located in a hazardous location, a PRD capture pipe must be used to route discharge gas to a remote location.

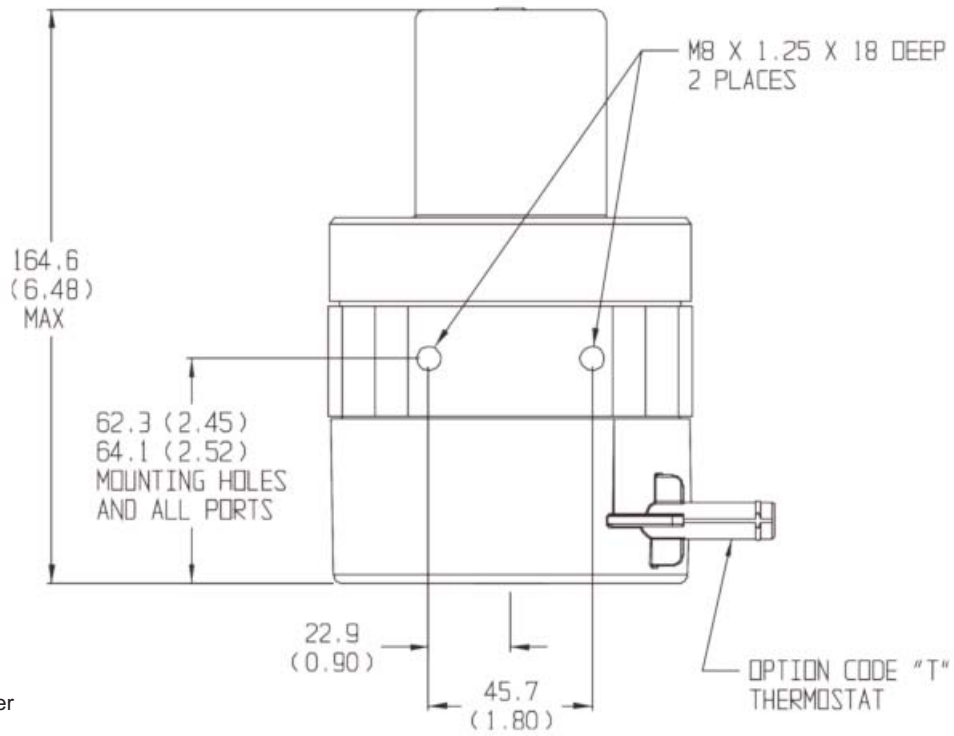
<b>OUTPUT PRESSURE SELECTION</b>		
12 - 14	XXX	Output pressure setting (psig). For values less than 100, use OXX format.
	<b>NOTES:</b>	Regulator can be factory set from 45 to 150 psig.

### Example

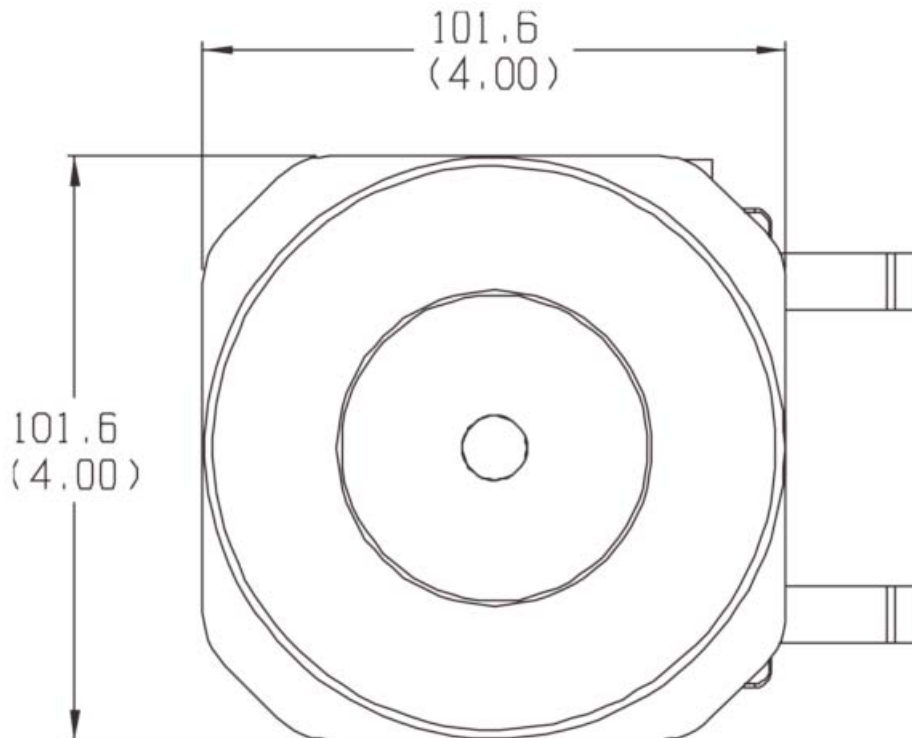


# Series HPNGV2

## Dimensional Views



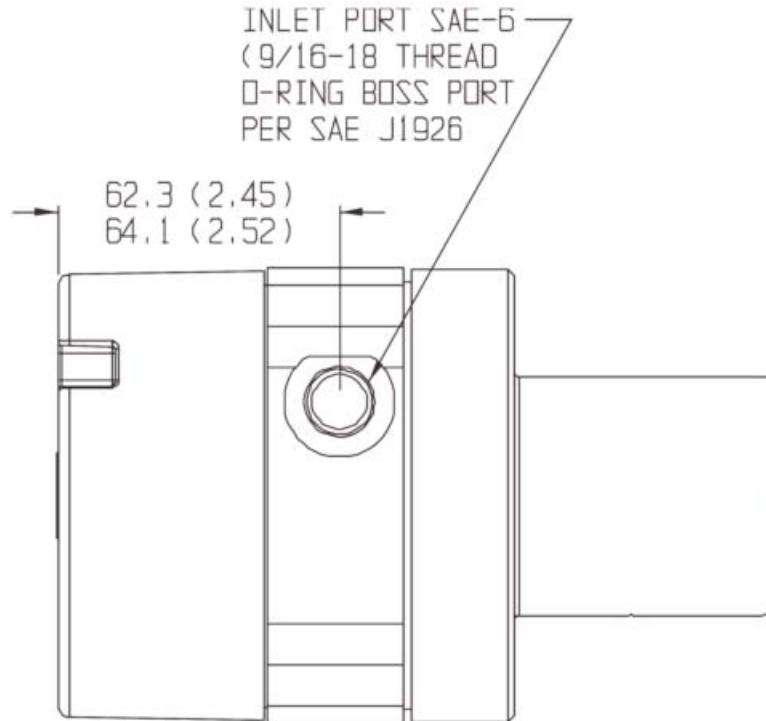
Dimensions in Millimeter  
(Dimensions in Inches)



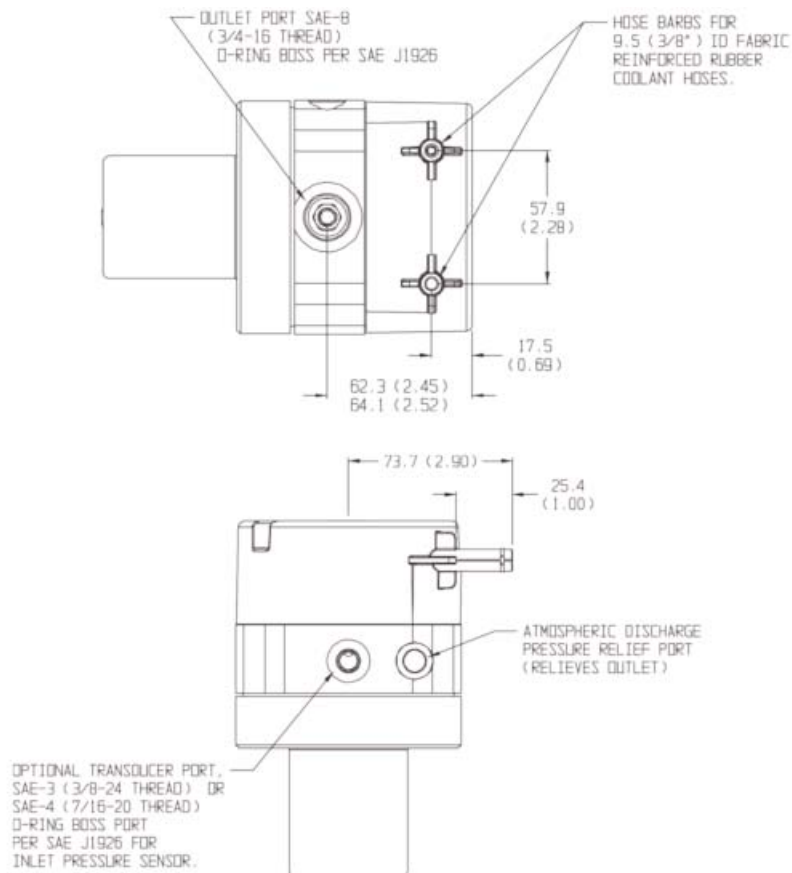
Dimensions in Millimeter  
(Dimensions in Inches)

# Series HPNGV2

## Dimensional Views

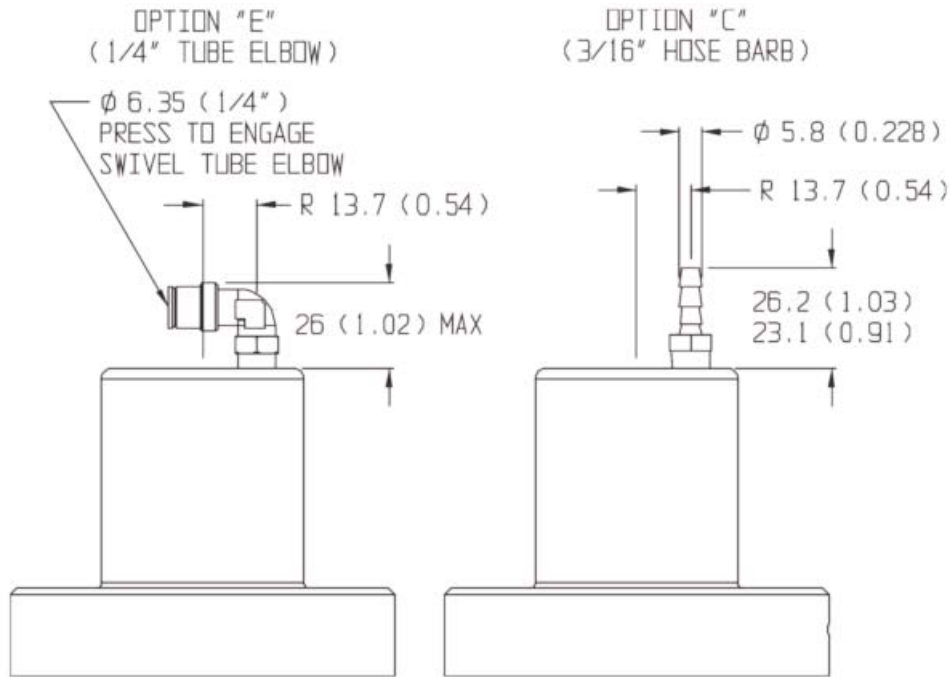


Dimensions in Millimeter  
(Dimensions in Inches)



# Series HPNGV2

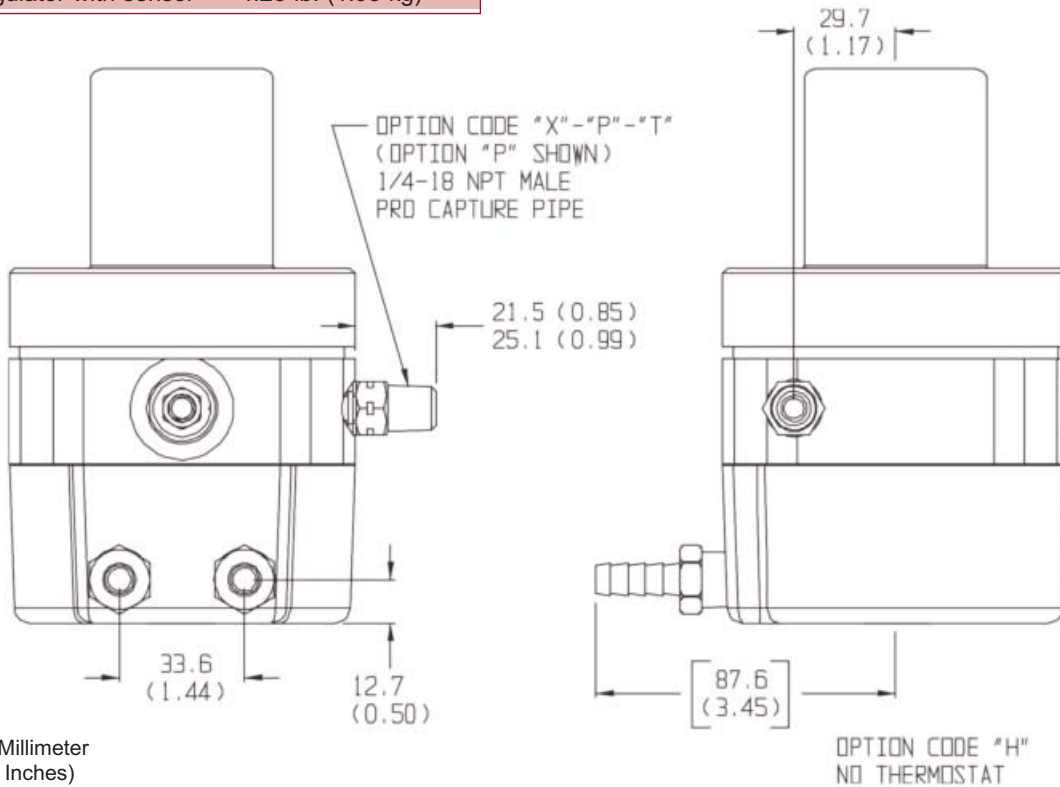
## Dimensional Views - Manifold Bias



Dimensions in Millimeter  
(Dimensions in Inches)

## Dimensional Views - PRD and Coolant Bowls

HPNGV2 Regulator Weight	
HPNGV2 Regulator	4.03 lb. (1.88 kg)
HPNGV2 Regulator with sensor	4.25 lb. (1.93 kg)



Dimensions in Millimeter  
(Dimensions in Inches)