

The Omnitek CNG60 Compressed Natural Gas Pressure Reducer

The CNG60 natural gas pressure reducer offers excellent performance and value. The CNG60 reduces the gas pressure of up to 200 bar to atmospheric pressure under all working conditions. The reducer uses technology that regulates the gas pressure extremely accurately and can respond to changes in driving conditions and gas demand very quickly. The innovative stabilizer technology guarantees precise gas flow even at very low supply pressure. The CNG60 features a controlled-coolant-flow heating circuit that assures constant gas temperature (electric heater available) and can be used on engines up to 12 liter and 300 horsepower.

Adherence to even the strictest emissions requirements is assured when used in combination with the Omnitek CLCS600 Closed-Loop Control System.

- CNG60R – up to 4 Liter Engines and 220 Horsepower
- CNG60L – up to 12 Liter Engines and 300 Horsepower
- Gas Pressure Stabilizer Technology for Precise Gas Flow
- 12 Volt Electronic Safety Valve
- Dual Gas Outlet for Large Displacement Engines
- Overpressure Safety Valve
- Positive Pressure Idle Circuit for Easy Starting
- Integrated Sinter Metal Filter
- Controlled-Coolant-Flow Heating Circuit
- Electric Heater Optional
- Pressure Gauge and Indicator Optional

	CNG60R	CNG60L
For Engines	4 Liter / 220 Hp	12 Liter / 300 Hp
Gas Flow	55 L/Hr	65 L/Hr
Working Temp.	-25° C to 100° C	
Voltage	12 V	
Gas Inlet	6 mm	
Gas Outlet	2 Male 17 mm	
Coolant Inlet/Outlet	Male 12 mm	
Idle Screw	Yes	
Shut-Off Solenoid	Yes	
Safety Valve	Yes	
Electric Heater	Optional	
Certification	ISO 15500	



Function

- The compressed natural gas enters the reducer at up to 200 bar (3000 psig) pressure. The optional manometer displays the actual pressure of the gas.
- The gas enters the 1st stage of the reducer where the pressure is reduced to 3.8 – 4.8 bar. The gas pressure stabilizer technology is active.
- The gas enters the 2nd stage of the reducer where the pressure is reduced to 0.8 – 1.5 bar.

- The gas enters the 3rd stage past the electric solenoid valve, which is open only when 12 Volts are applied.
- A small amount of gas bypasses the 3rd stage for easy starting and idle control (adjustable needle valve). This unique feature guaranties easy starting and virtually eliminates the risk of backfire.
- In the 3rd stage, intake manifold vacuum moves the membrane according to engine load and RPM. A dampener provision stabilizes the flow and prevents excessive erratic movement of the metering membrane, assuring smooth engine operation and lowest exhaust emissions. On large engines the atmospheric side of the membrane is connected to the air cleaner for additional dampening.

Installation

- Secure the reducer to the vehicle bodywork.
- Install away from heat sources.
- Install below the minimum level of the coolant recovery reservoir.
- Install upright and parallel to the driving direction of the vehicle.
- The supply hose between the reducer and the mixer must be as short as possible.
- Protected reducer against possible acid leaks from battery.
- Possible leaks from the safety valve must be routed outside the engine bay (ECE 67/01).

Adjusting Reducer

Start the engine and wait for the engine to warm up. (The engine is warm when the electric fan has turned on at least twice.)

CARBURETTOR AND NON-CATALYST INJECTION VEHICLES

- 1) Close screw "A" until engine starts running lean.
- 2) For carburettor vehicles: Turn the Multiplex switch to Neutral and wait for the carburetor to empty completely then turn the switch to Gas.
For injection vehicles: Run the vehicle at idle and turn the switch to Gas. Accelerate/decelerate to switch to gas. (Follow Multiplex Instructions).
- 3) Accelerate the engine to 3000 or 3500 RPM until the best possible fuel adjustment setting is obtained by turning the Power-Screw on the "T".
- 4) Let the engine idle and adjust screw "A" until the best possible fuel adjustment setting is obtained.
- 5) Check the vehicle performance on the road, ensuring that it does not stall when driving around corners and when making turns.
Should the engine stop running or exhibits rough idle due to a lean mixture:
- 6) Slightly unscrew the idle adjustment screw "A" until the best fuel adjustment setting is obtained.
- 7) Repeat from 3) if necessary.

