

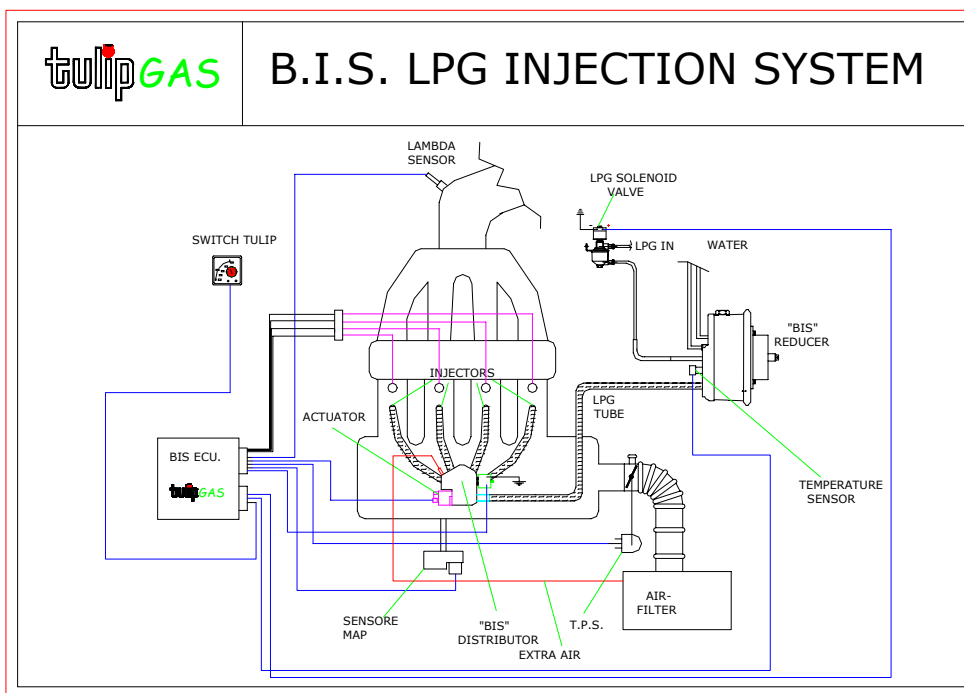
The injection system of TULIP-GAS:

The abbreviation B.I.S. stands for: Best Injection System. This name of a new LPG injection system implies that there is something better than the rest.....

"BIS" is an ingenious electronically controlled continuous LPG injection system for all injection catalytic vehicles up to 300 Hp. It injects the gas near the inlet valves of the engine, always assuring a perfect combustion.

TULIP-GAS has chosen for a stepper-motor controlled injection system to be able to guarantee always the correct functioning of the system, even in cases of polluted LPG. The system is completely maintenance-free and self adapting to the state of the engine and the way of driving of the driver.

BIS system is approved EURO – 4 emission tests also for German market



LPG fuel consumption by the "BIS" system is lower than the other, more conventional systems, because of a better control of the precise quantity of gas needed under all conditions of the engine.



Ufficio Progettazione

"BIS" Injection System - Distributor System -

MANT001rev00

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THINK  TULIP!!

Advantages for the user/driver:

- Low LPG fuel consumption
- High pulling power under all conditions
- Elegant small fuel switch
- Maintenance free system
- Self-adapting to the way of driving
- Stable idle conditions

Advantages for the installer/mechanics:

- Easy mounting
- Wiring harness with waterproof (IP54) connectors to simplify installing
- Waterproof ECU housing, to mount in the engine compartment
- No separate injector emulator needed (integrated in ECU)
- Easy installing of the switch by drilling a hole of 9 mm
- Simulates perfectly up to two lambda sensors, no drifting of the petrol ECU
- No separate EOBD emulator needed in most cases
- Adaptable for various types of level indication sensors
- No separate interface needed for programming / adjusting
- Very easy loading a calibration into the ECU
- Self learning for the basic gas flow table
- Good acceleration controls eliminating stalling of the engine
- Representative graphics and useful options in "TTOOLS"
- Technical Assistance offered by TULIP-GAS
- Self-learning procedure inside of program



The BIS system is composed by the following mechanical components:

- Copper pipe 6mm
- LPG solenoid valve
- "BIS" LPG pressure reducer
- "BIS" Distributor
- Water tubes, T-water
- 16mm LPG tube (R67-01)
- Injector tubes (R67-01) and injectors
- Clamps, fittings and supports

The electronic components of the system are:

- Fuel switch TULIP
- "BIS" wiring harness
- MAP sensor
- Temperature sensor (on reducer)
- Injector harness
- "BIS" Electronic Control Unit (ECU)

For visualisation of the parameters and calibration:

- "TTOOLS " program for normal PC (see presentation TTOOLS)
- Connection cable