

**ALTERNATIVE  
FUEL SYSTEMS**

**Prins**



*Quality, innovation and customer care, it's in our nature*

## VSI-DI SYSTEM

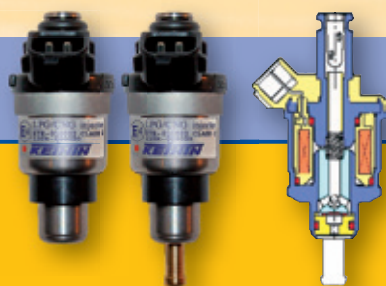


- VSI-DI is an abbreviation for "Vapour Sequential Injection- Direct Injection". The VSI-DI system is the first available system on the market which makes it possible to convert Direct Injection (DI) vehicles to LPG. With the VSI-DI system it is possible to drive on LPG with the latest DI engines, there is no difference between driving on petrol or on LPG.
- The VSI-DI system is fully integrated by way of a "master - slave" method with the vehicle ECU, making it (E)OBD compatible, therefore signal emulation is not required.
- The key components of the system are all of OEM quality and specially designed for LPG applications. All components comply with the strictest regulations and certifications. The installation of the components is very easy due to the compact design of the components.
- The dedicated diagnostic software is unique and enables fine tuning the VSI-DI system for optimal performance and emission reduction.
- For the storage of the LPG there are different tank options available.

## REDUCER

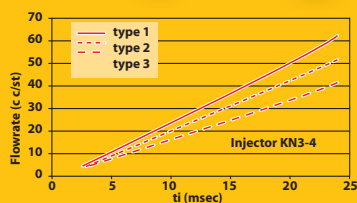


- Single stage
- Large capacity (14gr/s)
- Stable dynamic characteristics
- Adjustable pressure range with anti-tamper seal
- Map independent system, due to excellent LFR of injector
- Map function, optional if required
- Integrated OEM coolant sensor
- Complies with R67-01 homologation with 5 bar pressure relieve valve
- Complete with electronic lock off valve, liquid filter, and magnet
- Compact design for ease of installation



## KEIHIN OEM INJECTOR

- Developed by Keihin Corp, Japan, one of the worlds' leading injector manufacturers, in cooperation with Prins, ensuring quality and reliability
- Excellent linear flow rate (LFR = linear behaviour from minimum to maximum flow)
- Linear from 2,5 ms
- Model range available to cater for small and large engine displacement
- OEM quality injectors, performance guaranteed and long durability (290 million cycles)



## INJECTOR RAIL



- Easy fitting
- Assembled and leak tested at factory prior to dispatch
- 2/3/4/5/6 cylinder assemblies



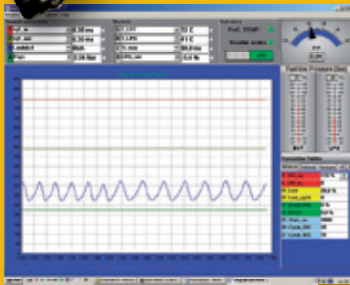
## FILTER UNIT

- Compact design with single or dual delivery outlets
- Fitted with 10-micron (B10 > 75) dry gas filter protecting the fine tolerance of the injectors, from gaseous pollutants
- Combined gaseous temperature and pressure sensor



## VSI ECM

- ECM injector driver capability up to 6 cylinders
- Injector drivers based on "closed loop peak & hold current control"
- Injector diagnostics constant monitoring:
  - No load
  - Overload
  - Driver temperature
  - Short circuit
- Diagnostics, service and parameter load software operates from Windows 98 / 2000 / XP / Vista / 7 applications
- CAN-controller (2.0b) communication possible with OEM CAN-bus
- Complete wiring harness: colour coded, with text and numbering to ensure simple and efficient installation



## DI INJECTION MODULE

- Individual interruption and simulation for each petrol DI-injector
- Gas correction related to petrol pressure
- 4- and 6 cylinder versions available
- Fast Power-FET based control



## FUEL SELECTOR SWITCH

- Small and compact design suits all cabin interiors
- Fuel select: via smart touch control, informs operator of LPG tank contents, audible buzzer to alert low level switching or fault codes, illuminated fault code warning with LED



## TANK DIMENSIONS

- Cylindrical tanks available: 30ltr. – 230 ltr.
- Torodial space saving tanks available to suit all applications: 51ltr. - 95 ltr.
- Spare wheel covers and flat tyre repair available



## Layout LPG VSI-di system

