

ALTERNATIVE
FUEL SYSTEMS

Prins

VSI CNG
Vapour Sequential Injection®

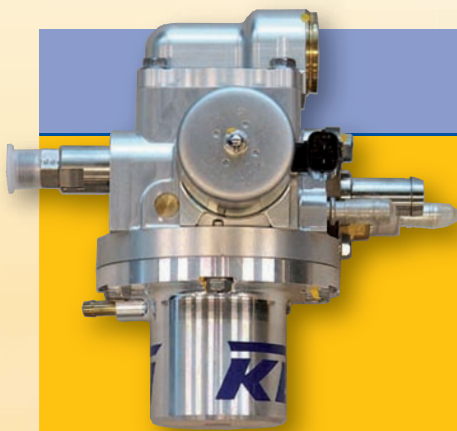


Quality and innovation, its in our nature



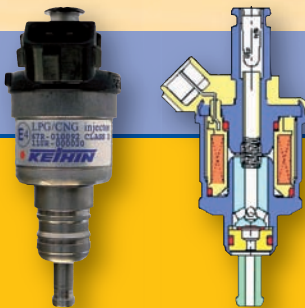
VSI - CNG

- VSI - CNG: Vapour Sequential Injection - Compressed Natural Gas
- Fully integrated "master - slave" management system
- EOBD compatible (no signal emulation required)
- System diagnostics by monitoring vital signals and components
- Emission strategy functions for optimisation
- System communication via CAN-bus prepared
- Available for LPG and CNG configurations
- LPG performance comparable to petrol
- R67-01 and R 110 homologated
- Corrosion protected



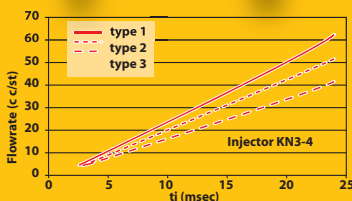
Keihin CNG Pressure Regulator

- Precision built 'Single Stage' regulator developed in cooperation with PRINS and KEIHIN based on OEM technology.
- Integrated cut off valve and relief valve.
- Small pressure drop level as equivalent to two stage regulator.
- Manifold reference function.
- Does not affect in tank Pressure.
- Performance at cold temperature is same as Normal temperature.
- Engine size can range from 660cc ~ 1350cc.



Keihin OEM injector

- Developed in cooperation with Prins by Keihin Corp, Japan one of the worlds leading injector manufacturer, ensuring quality and reliability
- Excellent linear flow rate (LFR = linear behavior 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 rails available in three / four /and six fitting configurations



Injector rail

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



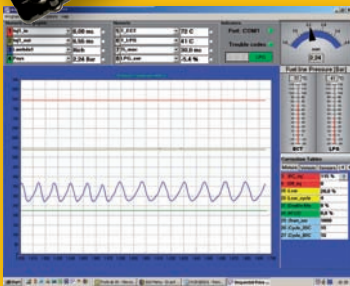
Filter unit

- 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 8 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 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
- All electronic components are R67-01, R110 and 10R homologated



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
- Manometer



Tank steel & composite

- Steel cylindrical CNG tanks available.
- Composite cylindrical CNG tanks available.
- Standard ISO 11439



