



VERSUS[®]

AUTO GAS equipment

VERSUS GAS - NGV/LPG Autogas Parts&Accessories

SGI VERSUS KITS&Parts CATALOGUE

2010



www.versusgas.com

LPG KITS – CONTENT:

A. SGI VERSUS 4-cyl BASIC KITS

1. VERSUS MINI KIT 4-cyl VR-L/FH02-4/F1/PW
2. VERSUS MINI KIT 4-cyl VR-L/4xFH02-1/F4/PW

B. SGI VERSUS 6-cyl BASIC KITS

1. VERSUS MINI KIT 6-cyl VR-L/2xFH02-3/F2/PW
2. VERSUS MINI KIT 6-cyl VR-L SUPER/2xFH02-3/F2/PW

C. SGI VERSUS 8-cyl BASIC KITS

1. VERSUS MINI KIT 8-cyl VR-L SUPER/2xFH02-4/2xF1/PW
2. VERSUS MINI KIT 8-cyl 2xVR-L/2xFH02-4/2xF1/PW

D. MAXI KIT COMPONENTS

E. ECU VERSUS KIT

1. VERSUS Controller
2. VERSUS ECU KIT Components

F. INJECTORS

G. REDUCERS

1. LPG VR-L “STANDARD” Reducer
2. LPG VR-L “SUPER” Reducer

H. FILTERS

I. OTHER Parts



VERSUS MINI KIT 4-cyl VR-L/FH02-4/F1/PW consists of:

1. Electronic Control Unit VERSUS 4-cyl
2. ECU VERSUS Harness 4-cyl
3. Map-sensor
4. Reducer's Temperature Sensor
5. Gas Temperature Sensor
6. Fuse + case
7. Change-over Switch
8. Horn/Buzzer
9. Small Fastening Elements
10. Injectors FH02-4 with calibration nozzles
11. Inlet manifold nozzles
12. Reducer VERSUS VR-L "Standard"
13. Reducer's support
14. Filter 1-1
15. GAS Level Indicator
16. Vacuum T-Fitting



This is only a sample kit composition. Other KIT composition is the subject of negotiation

VERSUS MINI KIT 4-cyl VR-L/4x FH02-1/F4/PW consists of:

1. Electronic Control Unit VERSUS 4-cyl,
2. ECU VERSUS Harness 4-cyl,
3. Map-sensor
4. Reducer's Temperature Sensor
5. Gas Temperature Sensor - "T" type
6. Fuse + case
7. Change-over Switch
8. Horn/Buzzer
9. Small Fastening Elements
10. Injectors FH02-1 with calibration nozzles (x4)
11. Inlet manifold nozzles
12. Reducer VERSUS VR-L "Standard"
13. Reducer's support
14. Filter 1-4
15. GAS Level Indicator
16. Vacuum T-Fitting



This is only a sample kit composition. Other KIT composition is the subject of negotiation

VERSUS MINI KIT 6-cyl VR-L/2xFH02-3/F2/PW consists of:

1. Electronic Control Unit VERSUS 6-cyl,
2. ECU VERSUS Harness 6-cyl,
3. Map-sensor
4. Reducer's Temperature Sensor
5. Gas Temperature Sensor
6. Fuse + case
7. Change-over Switch
8. Horn/Buzzer
9. Small Fastening Elements
10. Injectors FH02-3 with calibration nozzles (x2)
11. Inlet manifold nozzles
12. Reducer VERSUS VR-L "Standard"
13. Reducer's support
14. Filter 1-2
15. GAS Level Indicator
16. Vacuum T Fitting



This is only a sample kit composition. Other KIT composition is the subject of negotiation

VERSUS MINI KIT 6-cyl VR-L SUPER/2xFH02-3/F2/PW consists of:

1. Electronic Control Unit VERSUS 6-cyl,
2. ECU VERSUS Harness 6-cyl,
3. Map-sensor
4. Reducer's Temperature Sensor
5. Gas Temperature Sensor
6. Fuse + case
7. Change-over Switch
8. Horn/Buzzer
9. Small Fastening Elements
10. Injectors FH02-3 with calibration nozzles (x2)
11. Inlet manifold nozzles
12. Reducer VERSUS VR-L "Super" with filter unit
13. Reducer's support
14. Filter 1-2
15. GAS Level Indicator
16. Vacuum T Fitting



This is only a sample kit composition. Other KIT composition is the subject of negotiation

VERSUS MINI KIT 8-cyl VR-L SUPER/2xFH02-4/2xF1/PW consists of:

1. Electronic Control Unit VERSUS 8-cyl,
2. ECU VERSUS Harness 8-cyl,
3. Map-sensor
4. Reducer's Temperature Sensor
5. Gas Temperature Sensor
6. Fuse + case
7. Change-over Switch
8. Horn/Buzzer
9. Small Fastening Elements
10. Injectors FH02-4 with calibration nozzles (x2)
11. Inlet manifold nozzles
12. Reducer VERSUS VR-L "Super" with filter unit
13. Reducer's support
14. Filter 1-1 (x2)
15. GAS Level Indicator
16. Vacuum T Fitting
17. Y Fitting for Filters



This is only a sample kit composition. Other KIT composition is the subject of negotiation

VERSUS MINI KIT 8-cyl 2xVR-L/2xFH02-4/2xF1/PW consists of:

1. Electronic Control Unit VERSUS 8-cyl,
2. ECU VERSUS Harness 8-cyl,
3. Map-sensor
4. Reducer's Temperature Sensor
5. Gas Temperature Sensor
6. Fuse + case
7. Change-over Switch
8. Horn/Buzzer
9. Small Fastening Elements
10. Injectors FH02-4 with calibration nozzles (x2)
11. Inlet manifold nozzles
12. Reducer VERSUS VR-L "Standard" (x2)
13. Reducer's support (x2)
14. Filter 1-1 (x2)
15. GAS Level Indicator
16. Vacuum T Fitting
17. Y Fitting for Filters



This is only a sample kit composition. Other KIT composition is the subject of negotiation

MAXI KIT COMPONENTS:

4-cyl MAXI KIT Components:	6-cyl MAXI KIT Components:	8-cyl MAXI KIT Components:
<ol style="list-style-type: none"> 1. Copper pipe $\varnothing 6$ mm – 6m 2. Water hose $\varnothing 16$ mm – 1,6 m 3. LPG $\varnothing 12$ mm hose – 0,8 m 4. LPG $\varnothing 5$ mm pressure hose – 1 m 5. LPG Injection Rail – inlet manifold pressure hose $\varnothing 5$ mm – 0,8 m 6. Sub-pressure hose $\varnothing 5$ mm – 1,5 m 7. Water T-fitting $\varnothing 16$ mm – 2 pcs 8. LPG/water clamps – 12 pcs 9. LPG pressure hose clamps – 12 pcs 10. Sub-pressure clamps – 2 pcs 11. Copper pipe support + screws – 10 pcs 	<ol style="list-style-type: none"> 1. Copper pipe $\varnothing 6$ mm – 6m 2. Water hose $\varnothing 16$ mm – 2,0 m 3. LPG $\varnothing 12$ mm hose – 1,5 m 4. LPG $\varnothing 5$ mm pressure hose – 1,5 m 5. LPG Injection Rail – inlet manifold pressure hose $\varnothing 5$ mm – 1,2 m 6. Sub-pressure hose $\varnothing 5$ mm – 1,5 m 7. Water T-fitting $\varnothing 16$ mm – 2 pcs 8. LPG/water clamps – 14 pcs 9. LPG pressure hose clamps – 14 pcs 10. Sub-pressure clamps – 2 pcs 11. Copper pipe support + screws – 10 pcs 	<ol style="list-style-type: none"> 1. Copper pipe $\varnothing 8$ mm – 6m 2. Water hose $\varnothing 16$ mm – 2,0 m 3. LPG $\varnothing 12$ mm hose – 1,8 m 4. LPG $\varnothing 5$ mm pressure hose – 1,5 m 5. LPG Injection Rail – inlet manifold pressure hose $\varnothing 5$ mm – 1,6 m 6. Sub-pressure hose $\varnothing 5$ mm – 1,5 m 7. Water T-fitting $\varnothing 16$ mm – 2 pcs 8. LPG/water clamps – 18 pcs 9. LPG pressure hose clamps – 16 pcs 10. Sub-pressure clamps – 2 pcs 11. Copper pipe support + screws – 10 pcs



RSUS

ECU VERSUS KIT:

ECU VERSUS (Electronic Control Unit) has been designed based on the most recent methods of processing electronic impulses in CNG/LPG dosage systems.

Main features of ECU VERSUS:

- Efficient processor that supports automatic recognition of engine parameters
- Clear, simple, user friendly interface allowing for time efficient service.
- The software used for the ECU Versus has an option for the calibration of the system under a full load during driving. This allows for performance nearly identical to gasoline. All complicated feeding application processes are under micro-controller responsibility.
- Simplicity in service, configuration and diagnostics of the system
- Environment friendly - complies with exhaust emission standards EURO 4
- Fully automatic operations including automated switching from GAS to Gasoline when the tank is empty.
- Additional functions allow for self-diagnostics of the system and correction of problems when necessary.
- ECU Versus is extremely versatile so that it allows for various configuration of the components making it suitable to be used with almost any car on the market.



ECU VERSUS has E67R-01 approval LPG and E110R approval CNG

Other components of Electronic Control Unit VERSUS:



Map – sensor



Harness



GAS Temperature Sensor



Reducer Temperature Sensor



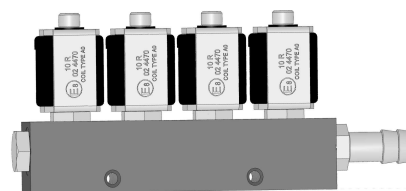
Waterproof Fuse Box



Switch, Buzzer

FH02 Technical data:

Fuel: CNG/LPG
 Voltage: 12V
 Working Pressure: 0,5-2,5 bar
 Maximum working pressure: 4,5 bar
 Opening/closing time: 3.0 msec/2.5 msec
 Resistance of the coil: 3 Ohm $\pm 4\%$, other upon request
 T. range (°C): -30 / +120
 GAS Inlet (external): 12 mm, other upon request
 Standard Valve seat diameter: 4 mm
 Calibration nozzle sizes available: 1,5 - 3,5 mm (0,25 mm step)
 Body composition available: 1-cyl, 2-cyl, 3-cyl, 4-cyl
 Normally: closed
 Approvals: ECE 67R-01 0953, ECE 110R-00 0040



FH02-1 Injector



FH02-2 Injector



FH02-3 Injector



FH02-4 Injector

Packaging style: groupage carton box 27/35/19 cm

FH02-1 Injector: 100 pcs of the injector inside

FH02-2 Injector: 40 pcs of the injector inside

FH02-3 Injector: 20 pcs of the injector inside

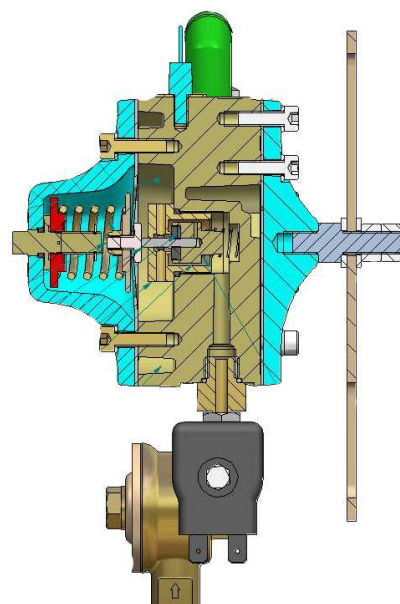
FH02-4 Injector: 20 pcs of the injector inside

LPG VR-L “STANDARD” Reducer:

FHT Offers new series of VR-L type of pressure regulators. The latest VR-L reducer was designed on the basis of the most actual engineers knowledge.

It has been tested in extreme conditions. Due to that factor we managed to obtain the most efficient temperature exchange values as well as optimal pressure performance.

The "Standard" reducer is fitted with LPG Solenoid so the valve does not need to be installed separately in the circuit.



VR-L “Standard” Technical Data:

Type of GAS: LPG
Body: Aluminum die cast
Homologations: ECE 67R 01
Gas Outlet Pressure: 1 bar
Maximum Power: 150 kW
Working Temperature Range ($^{\circ}\text{C}$): -30 /+120
Gas Outlet External Diameter: 12 mm
Gas Inlet: 6 mm
Engine Cooling liquid Outlet/Inlet: 16 mm
Shut-off Valve: supplied
Vacuum nozzle: Present
Solenoid Valve Nominal Voltage: 12V
Overall dimension: 135/190/130 mm
Body Diameter: 100 mm
Weight: 1,0 kg

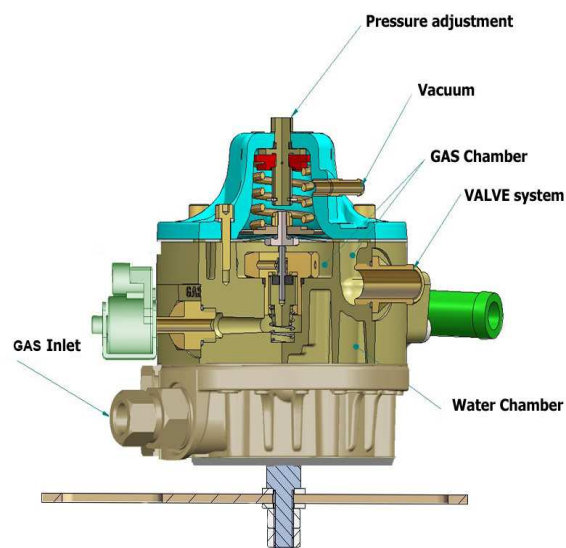
Packaging style: carton box 19/19/12cm
Groupage carton box dimension: 40/60/25cm
12 pcs of the reducer inside

LPG VR-L “SUPER” Reducer:

FHT offers new series of VR-L "SUPER" type of pressure regulators. The latest VR-L "SUPER" reducer was designed to be used in the most sophisticated engines taking into consideration their power efficiency.

It is supplied with advanced Liquid Phase Heating System. Due to that it ensures stable pressure in spite of outside temperature.

The reducer can be installed in engines up to 220 KW power. It is also integrated with Coil Group Valve that so there is no need to install any additional valve in the circuit.



VR-L “SUPER” Technical Data:

Type of GAS: LPG
Body: Aluminum die cast
Liquid Gas Heating System "LGHS": supplied
Homologations: ECE 67R 01
Gas Outlet Pressure: 1,2 bar
Maximum Power: 220 kW (300 HP)
Working Temperature Range ($^{\circ}\text{C}$): -30 /+120
Gas Outlet External Diameter: 14 mm
Gas Inlet: 8 mm
Engine Cooling liquid Outlet/Inlet: 16 mm
Shut-off Valve: integrated
Vacuum nozzle: Present
Solenoid Valve Nominal Voltage: 12V
Overall dimension: 135/190/130 mm
Body Diameter: 100 mm
Weight: 1,3 kg

Packaging style: carton box 19/19/12cm
Groupage carton box dimension: 40/60/25cm
12 pcs of the reducer inside

FILTERS:**Filter 1-1:**

Characteristic: one inlet, one outlet

Variation of inlets: \varnothing 11, 12, 14, 16

Variation of outlets \varnothing 11, 12, 14, 16

Filtration surface: $0,03 \text{ m}^2$

Body: Aluminum

Cartridge inside: paper

Overall dimensions: 108 mm, diameter of the body 45 mm

Approvals: E2067R 01, E20110R 00

**Filter 1-2:**

Characteristic: one inlet, two outlets

Variation of inlets: \varnothing 11, 12, 14, 16

Variation of outlets \varnothing 11, 12, 14, 16

Filtration surface: $0,03 \text{ m}^2$

Body: Aluminum

Cartridge inside: paper

Overall dimensions: 130 mm, diameter of the body 45 mm

Approvals: E2067R 01, E20110R 00

**Filter 1-4:**

Characteristic: one inlet, four outlets

Variation of inlets: \varnothing 11, 12, 14, 16

Variation of outlets \varnothing 10, 12

Filtration surface: $0,03 \text{ m}^2$

Body: Brass

Cartridge inside: paper

Overall dimensions: 72 mm, diameter of the body 46 mm

Approvals: E2067R 01, E20110R 00

**Liquid phase filters:**

Characteristic: all types available

Cartridge inside: paper

Covers: plastic or aluminum



Other SGI VERSUS Accessories:**LPG Level indicator VERSUS 1050:**

Main characteristic: 1050 (-) Negative standard

Type of the signal: resistive

**Rubber Hoses:**

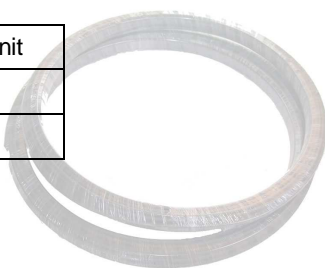
Notification: produced according to E67R

Destination	Diameter	Packaging unit	Weight of unit
LPG	Ø4 mm	50 m coil	4,6 kg
LPG	Ø5 mm	50 m coil	5,2 kg
vacuum	Ø5 mm	25 m coil	1,6 kg
LPG	Ø12 mm	25 m coil	5,5 kg
Water	Ø16 mm	25 m coil	7,1 kg
LPG	Ø19 mm	25 m coil	10,15 kg

**Copper Pipe:**

Notification: produced according to E67R

Diameter	Packaging unit	Weight of unit
Ø6 mm	50 m coil	7,5 kg
Ø8 mm	50 m coil	10,15 kg

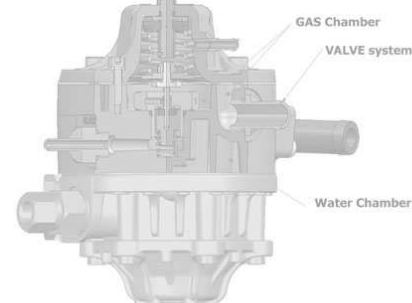
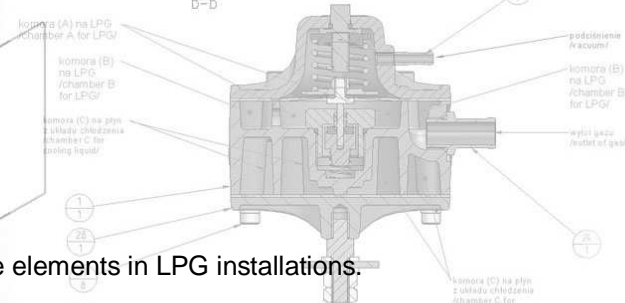
**T Fitting for Water:**

Variants of dimensions:

a) 16/16/16 mm

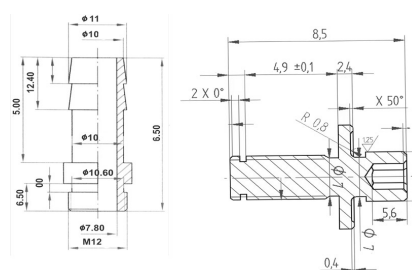
b) 19/16/19 mm





All kind of copper/brass made elements in LPG installations.

Our engineers are ready to prepare any personalized design in that area (nozzles, nuts, other parts) upon request.



We offer full assortment of LPG Parts & Accessories.

Terms of cooperation with its rules are the subject of negotiation and are given individually.

We strongly believe that in any business development should be no limitations. VERSUS hereby invite its potential partners to try and discover Polish technology of innovations and functionality.

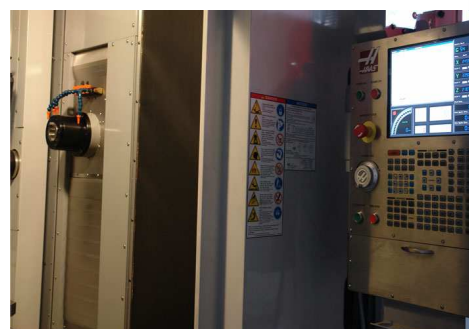
We are certain that there are a lot of opportunities for cooperation that there are many institutions and companies that could be our potential partners. We pay our attention to long-standing cooperation and warrant satisfaction to any institution that pays attention to the same.

Should you have any vision for our cooperation, that would be our pleasure to meet your expectations. We will try to find a way to implement and come your proposals into force.

For more information we encourage you to visit our website

www.versusgas.com

FHT Export-Import
05-300 Minsk Mazowiecki
Szczecińska 16G Street
PL – POLAND
tel: +48 25 759-42-61
info@versusgas.com
www.versusgas.com



FHT Export-Import reserves the right to make any modification/improvements into its products at any time on the basis of its own assessment without prior notice. The pictures, text description, nameplates, technical data that are contained in this catalog are the property of FHT. Copying of this property without FHT prior written permission is prohibited.

