



Instrumentation Components and Systems for Trucks and Buses

Alternative Fuel Solutions



ENGINEERING YOUR SUCCESS.

Alternative fuels (CNG, LNG, H₂) are emerging as strong and viable alternatives to traditional fuels in the trucks and buses market. Natural Gas Vehicles (NGV) are cleaner, safe to drive and economical.

Parker's proven, multi technology subsystems and components in fluid management, motion and fluid control, filtration, and temperature control provide natural gas solutions that offer faster development, improved service life, reduced risk, and greater value.

Parker Instrumentation's Group range of components for NGVs include tube fittings, valves and regulators, meeting global certifications and quality standards.

PARKER

A NATURAL FOR NATURAL GAS

**CERTIFIED TO INDUSTRY STANDARDS
AND ORGANIZATION APPROVALS**

**IATF TS 16949
ISO 15500
ECE R110
EC NO 79 - pending
CSA GROUP**



LNG is a cryogenic state of natural gas (primarily methane with small amounts of other hydrocarbons). Due to its characteristics as a cleaner fuel, LNG is suitable for heavy-duty road transportation as well as city buses, waste trucks and mining trucks.



CNG is a natural gas fuel that has been compressed to less than 1% of its volume. CNG is used in medium and heavy-duty trucks, buses, waste trucks and cement trucks.

What is key to the choice between LNG and CNG as transportation fuel? Go to parker.com.ipd to find out.





HELPING CREATE A SUSTAINABLE FUTURE

NATURAL GAS (NG) BENEFITS:

- Natural gas (NG) is relatively inexpensive and available worldwide
- NG produces 30% fewer greenhouse gas emissions than gas or diesel
- NG is safer, with a low chance of flammability
- Supply of NG is expected to exceed demand, keeping prices depressed
- NG vehicles offer longer vehicle life with less long-term expense for the consumer
- Quieter engines

**Parker's fuel
regulation components
help OEMs and integrators
build better systems with fewer
emissions.**

DELIVERING INNOVATION

Engine & Mounting Equipment

REGULATION

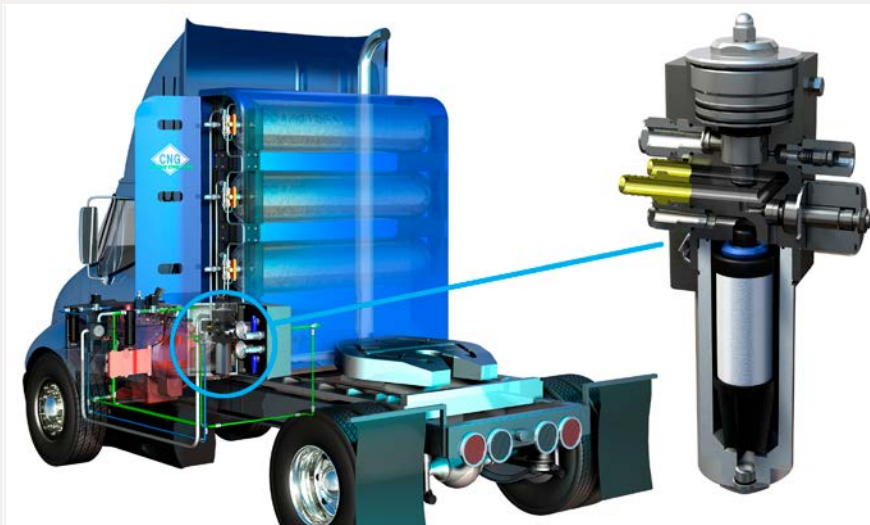
ON BOARD FUEL REGULATION MODULE (FM80)

Parker's fuel regulation module – available with multiple options – is an integrated system that provides advanced fuel handling performance. It withstands variations in temperature, flow, vibration, supply pressure, and gas composition. Parker's piston regulator design offers better control, fewer connections, longer range, and higher performance, increasing fleet productivity as it decreases cost and risk.

- Optimized for 5 to 12 liter engines
- Stable, precise pressure control of CNG from 225 psi (15 bar) through 3,600 psi (248 bar) inlet pressure
- Tested and designed for extreme environmental operating conditions
- Extreme -40 F (-40 C) and +248 F (+120 C) ambient temperature
- Superior flow pressure-characteristics compared to other products available in the market with a 20 psi (1.4 bar) delivery pressure envelope
- Maintains stable pressures and high flow to the downstream components across the full operating range of CNG vehicles tank pressures of 3600 psig to 225 psig (250 bar to 15 bar)
- Integrated high pressure filter, high and low pressure sensors, lock-off solenoid available as options
- Made of durable anodized aluminum and incorporates a piston-style single stage regulator with an integrated heat exchanger and pressure relief valve.

SAFE. ROBUST. RELIABLE. PRECISE

In a CNG vehicle, fuel is stored at high pressures (3600 PSI) to achieve manageable energy storage densities and storage volumes. Using a piston-style regulator design proves advantageous because of its stable pressure delivery and control through the full range of extreme engine and environmental operating conditions.



The On Board Fuel Regulation Module (FM80) features a machined body gas regulator with any or all of the following options:

- Integrated high pressure filter
- High and low pressure sensors
- Lock-off solenoid valve
- Heat exchanger
- Pressure relief device M80

Advantages for OEMs:

- ✓ Less risk
- ✓ Lower cost
- ✓ Higher margins
- ✓ Increased sales
- ✓ Greater customer satisfaction

Advantages for Fleets:

- ✓ Less maintenance
- ✓ Reduced downtime
- ✓ Greater vehicle range
- ✓ Increased uptime
- ✓ Higher productivity



REGULATION

BESTOBELL LNG PRESSURE REGULATOR

The Parker Bestobell cryogenic pressure regulator features combined pressure build-up, regulator and economiser regulation functions within one valve.

- High flow characteristics – for closer control of tank pressure
- Operates on liquid or gas – to suit every installation
- Single adjustment for both functions – for simpler tank setting
- High accuracy/low deadband allows higher tank pressure – reduced boil-off in pipelines
- Dual thermal relief valve action – for added system protection
- Strainer fitted as standard on inlet and outlet
- Ball check fitted to economiser outlet as standard.



TUBE FITTINGS

A-LOK® TUBE FITTINGS

Two ferrule tube fittings of precision engineered parts designed to provide secure, leak-proof connections on vehicle.

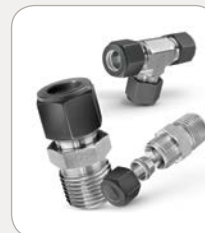
Manufactured to the highest quality standards. Proven in CNG applications around the globe. Available in a broad range of sizes, materials, and configurations.



CPI™ TUBE FITTINGS

Single ferrule tube fittings of precision-engineered parts designed to provide secure, leak-proof connections on vehicle.

- Suparcase® ferrule design works well in vibration-prone applications due to its unique “bowing” action between the body seat.
- Proven in thousands of critical vibration and pressure applications, including CNG
- Molybdenum coated nut with fine pitch threads ensures no galling
- Single pre-swaged ferrules minimize chances of incorrect assembly.



VALVES FOR REFUELING & DEFUELING

BALL VALVES - B SERIES

- Manually, pneumatically, and electrically actuated two-way B Series ball valves provide quick, 1/4 turn, on-off control of natural gas.
- Certified by CSA for Natural Gas Vehicles (NGV) applications such as bulk containers and manual shutoff on vehicle fuel systems as per NFPA 52
- Proven and used on trucks, buses and cars around the globe.



BALL VALVES - HB SERIES

Provide reliable shutoff or switching functions. Upper and lower trunnion bearings enhance the resistance of the trunnions against seizure, and increase the valve life in extreme applications.

- Compact and rugged design
- Spring-loaded seats for high cycle life and low operating torques at pressures up to 10,000 psig (689 bar)
- Perfect for diverter applications such as fueling / defueling vehicles.



WITH QUALITY COMPONENTS

THE PARKER ADVANTAGE

INDUSTRY RECOGNITION

Parker's range of instrumentation components and systems designed for leak-free performance enjoy world-leading recognition for quality, reliability and value.

Rewarded in 2019, IATF 16949 certification—one of the most stringent indicators of manufacturing quality in the bus and truck transportation supply chain - highlights Parker's robust approach to quality management and reinforces its position as the global leader in motion and control technologies.



CUSTOMISED SOLUTIONS

Parker has the unique ability to integrate multiple technologies into robust, customer-focused solutions, such as the On Board Fuel Regulation Module (FM80).



A FOCUS ON INNOVATION

Parker's commitment for developing further solutions for natural gas vehicles contributes to efforts of achieving near-zero emissions by the automotive industry.





AVAILABILITY

WORLDWIDE DISTRIBUTION
SALES FORCE AND SERVICE

SUSTAINABILITY

PROTECTING PEOPLE AND
ENVIRONMENT

RELIABILITY

MINIMIZING DOWNTIME AND
OPTIMIZING PERFORMANCE

FLEXIBILITY

SOLUTIONS FOR GLOBAL AND
REGIONAL CHALLENGES

Parker Worldwide

Europe, Middle East, Africa

AE – United Arab Emirates, Dubai

Tel: +971 4 8127100
parker.me@parker.com

AT – Austria, Wiener Neustadt

Tel: +43 (0)2622 23501-0
parker.austria@parker.com

AT – Eastern Europe, Wiener Neustadt

Tel: +43 (0)2622 23501 900
parker.easteurope@parker.com

AZ – Azerbaijan, Baku

Tel: +994 50 2233 458
parker.azerbaijan@parker.com

BE/LU – Belgium, Nivelles

Tel: +32 (0)67 280 900
parker.belgium@parker.com

BG – Bulgaria, Sofia

Tel: +359 2 980 1344
parker.bulgaria@parker.com

BY – Belarus, Minsk

Tel: +48 (0)22 573 24 00
parker.poland@parker.com

CH – Switzerland, Etoy

Tel: +41 (0)21 821 87 00
parker.switzerland@parker.com

CZ – Czech Republic, Klecany

Tel: +420 284 083 111
parker.czechrepublic@parker.com

DE – Germany, Kaarst

Tel: +49 (0)2131 4016 0
parker.germany@parker.com

DK – Denmark, Ballerup

Tel: +45 43 56 04 00
parker.denmark@parker.com

ES – Spain, Madrid

Tel: +34 902 330 001
parker.spain@parker.com

FI – Finland, Vantaa

Tel: +358 (0)20 753 2500
parker.finland@parker.com

FR – France, Contamine s/Arve

Tel: +33 (0)4 50 25 80 25
parker.france@parker.com

GR – Greece, Piraeus

Tel: +30 210 933 6450
parker.greece@parker.com

HU – Hungary, Budaörs

Tel: +36 23 885 470
parker.hungary@parker.com

IE – Ireland, Dublin

Tel: +353 (0)1 466 6370
parker.ireland@parker.com

IL – Israel

Tel: +39 02 45 19 21
parker.israel@parker.com

IT – Italy, Corsico (MI)

Tel: +39 02 45 19 21
parker.italy@parker.com

KZ – Kazakhstan, Almaty

Tel: +7 7273 561 000
parker.easteurope@parker.com

NL – The Netherlands, Oldenzaal

Tel: +31 (0)541 585 000
parker.nl@parker.com

NO – Norway, Asker

Tel: +47 66 75 34 00
parker.norway@parker.com

PL – Poland, Warsaw

Tel: +48 (0)22 573 24 00
parker.poland@parker.com

PT – Portugal

Tel: +351 22 999 7360
parker.portugal@parker.com

RO – Romania, Bucharest

Tel: +40 21 252 1382
parker.romania@parker.com

RU – Russia, Moscow

Tel: +7 495 645-2156
parker.russia@parker.com

SE – Sweden, Spånga

Tel: +46 (0)8 59 79 50 00
parker.sweden@parker.com

SK – Slovakia, Banská Bystrica

Tel: +421 484 162 252
parker.slovakia@parker.com

SL – Slovenia, Novo Mesto

Tel: +386 7 337 6650
parker.slovenia@parker.com

TR – Turkey, Istanbul

Tel: +90 216 4997081
parker.turkey@parker.com

UA – Ukraine, Kiev

Tel: +48 (0)22 573 24 00
parker.poland@parker.com

UK – United Kingdom, Warwick

Tel: +44 (0)1926 317 878
parker.uk@parker.com

ZA – South Africa, Kempton Park

Tel: +27 (0)11 961 0700
parker.southafrica@parker.com

North America

CA – Canada, Milton, Ontario

Tel: +1 905 693 3000

US – USA, Cleveland

Tel: +1 216 896 3000

Asia Pacific

AU – Australia, Castle Hill

Tel: +61 (0)2-9634 7777

CN – China, Shanghai

Tel: +86 21 2899 5000

HK – Hong Kong

Tel: +852 2428 8008

IN – India, Mumbai

Tel: +91 22 6513 7081-85

JP – Japan, Tokyo

Tel: +81 (0)3 6408 3901

KR – South Korea, Seoul

Tel: +82 2 559 0400

MY – Malaysia, Shah Alam

Tel: +60 3 7849 0800

NZ – New Zealand, Mt Wellington

Tel: +64 9 574 1744

SG – Singapore

Tel: +65 6887 6300

TH – Thailand, Bangkok

Tel: +662 186 7000

TW – Taiwan, Taipei

Tel: +886 2 2298 8987

South America

AR – Argentina, Buenos Aires

Tel: +54 3327 44 4129

BR – Brazil, Sao Jose dos Campos

Tel: +55 800 727 5374

CL – Chile, Santiago

Tel: +56 2 623 1216

MX – Mexico, Toluca

Tel: +52 72 2275 4200

