Thermal Management Solutions
For Alternative Powertrain Vehicles

Low friction
High flow
Minimum hysteresis

Engineering GREAT Solutions
Engineering GREAT solutions through people, products, innovation and service

IMI Precision Engineering is a world-leader in fluid and motion control. Building close, collaborative relationships with our customers, we gain a deep understanding of their engineering needs and then mobilise our resources and expertise to deliver distinctive products and solutions.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world’s most demanding engineering challenges.

> Reliability
We deliver and support our high quality products through our global service network.

> High performance products
Calling on a world-class portfolio of fluid and motion control products including IMI Norgren, IMI Buschjost, IMI FAS, IMI Herion and IMI Maxseal. We can supply these singly, or combined in powerful customised solutions to improve performance and productivity.

> Partnership & Problem Solving
We get closer to our customers to understand their exact challenges.
Thermal Management Solutions

With the recent technological advances, thermal management solutions play an increasingly important role in improving the overall efficiency of both conventional and alternative powertrain vehicles.

While the impact on fuel consumption is the key metric for thermal management concepts in conventional powertrains, alternative powertrains have a different set of requirements. These include improvements in range, charging times as well as reduction in overall system size, mass and subsequently cost.

Whether all-electric, hybrid or fuel cell, thermal control for the subsystems of the powertrain is critical.

Based on our experience in conventional and alternative powertrain technology, the IMI Buschjost range of motorized valves has been designed to help you improve the performance, reliability and efficiency of such thermal management systems.

IMI Buschjost Valves For Thermal Management Applications

Fuel economy improvements and the reduction of emissions are at the top of our global customers’ agenda.
IMI Buschjost Motorised Valves – Key Features

Precise Proportional Control

3-Way Motorised Valves

High Flow

Product Highlights

- Minimum hysteresis proportional control
- Low power consumption
- Ultra-low friction ball valve technology
- Debris tolerant
- Compact design
- Large temperature range
- High volume flow capabilities
- IP6K9K

- Light-weight and robust
- Chemically compatible with numerous coolants
- Electrochemically neutral
- Oil and grease free options
- High resolution potentiometer
- ECE R10 approved actuator
- Can withstand high pressure peaks
Alternative Powertrain Applications

- H₂ Tank Modules
- Fuel Cell Stacks
- Electric Motor
- HVAC
- Battery Pack
- Power Electronics

Fuel Cell / Hybrid

Full Electric
A Broad Portfolio For On- and Off-Highway Vehicles

**Motorised Valve**
- 12 & 24 VDC versions available
- 22, 28 and 38mm port sizes
- 2- and 3-way configurations
- Flow rates from 1.4 m³/h to 28 m³/h
- -30°C to 110°C temperature range
- 0 – 2.5 bar (~36 psi) MOPD
- Withstands pressure peaks up to 4 bar (58 psi)
- Oil & grease free options
- Optional manual override

**Valve Actuator**
- 12 & 24 VDC versions available
- ECE R10 approved
- 2.5W power consumption
- Does not consume power to hold
- High-resolution potentiometer
- Gold-plated pins for minimum resistance
2-Way Motorised Valves

3-Way Motorised Valves With Manual Override

5-Way Motorised Ball Valves

2-Way Motorised Valves With Manual Override

Buses and Coaches

Medium Duty Trucks

Heavy Duty Trucks

Light and Heavy Rail
IMI Precision Engineering operates four global centres of technical excellence and a sales and service network in 50 countries, as well as manufacturing capability in the USA, Germany, China, UK, Switzerland, Czech Republic, Mexico and Brazil.

For information on all IMI Precision Engineering companies visit
www.imi-precision.com

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