

# TESCOM™ Series HV-7000 Hydrogen Onboard Regulator



## Moving Hydrogen Mobility Forward



### Pressure control for maximum hydrogen vehicle fuel efficiency and service life

**Stable pressure supply** – Secure optimal hydrogen pressure delivery for fuel cell or engine across the full range of required flow conditions with dual-stage pressure reduction, positive seal and accurate pressure setting features.

**Assembly efficiency** – Compact, lightweight, easy-to-install design reduces assembly time and costs, especially compared to other pressure regulation technologies.

**Uptime with longer service intervals** – Tested to EC79 requirements, the TESCOM HV-7000 contamination-resistant design with redundant seal and tied valve stem features keeps vehicles on the road for longer distances with minimum maintenance.

**Global partner to scale operations** – Emerson's local manufacturing and support allows customers to get vehicles on the road quickly with reliable operations throughout the vehicle's lifecycle.

TESCOM™




  
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# Stable Pressure Supply Improves Fuel Cell Efficiency.




The TESCOM HV-7000 provides stable fuel pressure control for hydrogen vehicles with tanks rated to 700 bar (10,150 psi), optimizing efficiency and minimizing downtime.

## High Energy Efficiency, Low Costs




### Stable Pressure Control

-  **Dual stage design** minimizes decaying inlet characteristic
-  **Positive seal** counteracts seat contamination
-  **Accurate outlet pressure** setting delivers optimal pressure to fuel cell or engine

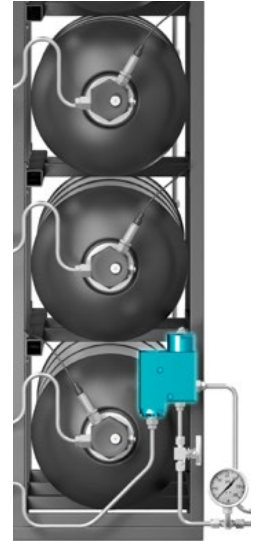
### Long Service Life

-  **Inline filter** prevents contamination damage to soft goods\*
-  **Redundant seal** extends regulator cycle life with extra seals
-  **Tied valve stem** protects against over-pressurization of downstream components

### Easy to Scale Operations

-  **Body shape** and **mounting holes** minimize assembly costs for integrators
-  **Wide outlet pressure range** meets setpoint needs of various vehicle types
-  Emerson's **global manufacturing footprint** offers an agile supply chain

*\*Only protects against contamination from initial system assembly. Additional upstream filter required for normal operation.*



## TESCOM HV-7000 Series Onboard Regulator

Specification	Description
Function	Two-Stage Pressure Reducing Regulator
Nominal Inlet Service Pressure	700 bar / 10,150 psi
Maximum Inlet Rated Pressure	875 bar / 12,691 psi
Minimum Inlet Pressure	At least 150% of outlet pressure
Outlet Pressure	10 – 30 bar / 145 – 435 psi
Leakage	Bubble-tight
Operating Temperature	-40°F to +185°F / -40°C to +85°C
Flow Capacity	Cv=0.17; 5 g H <sub>2</sub> / sec
Filter	10 μm

TESCOM HV-7000 Installed Onboard a Hydrogen Powered Heavy-Duty Truck



All information and technical details

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