



70 MPa

Hydrogen Pressure Regulator

H-P70 Series



Designed for hydrogen applications up to 70 MPa (10,000 psi), the H-P70 Series Regulator delivers stable outlet pressures under varying flow demands and inlet pressures.

This two-stage piston regulator is a reliable and cost-effective solution to feed any engine or fuel cell. It can also be offered as a first-stage piston with a second-stage diaphragm for even greater outlet pressure performance and stability.



DESIGN

- 2-stage piston design for a cost-effective solution
- Optional first-stage piston and second-stage diaphragm configuration
- Nominal working pressure of 70 MPa (10,000 psi)

PERFORMANCE & OPTIONS

- Optional integrated high and low pressure sensors
- High flow design capable of greater than 4 g/sec H₂
- Integrated high flow Pressure Relief Valve (PRV)
- Wide range of factory-set output pressures available



SPECIFICATIONS

GENERAL INFORMATION

APPLICATION	Hydrogen regulation / pressure reduction
DESIGN	Two-stage piston, First-stage piston with second stage-diaphragm also possible
BODY MATERIAL	Aluminum, anodized
FUEL TYPE	Hydrogen per SAE J2719 and ISO 14687

PERFORMANCE

NOMINAL WORKING PRESSURE	70 MPaG
MAX WORKING PRESSURE	87.5 MPaG
OPERATING TEMPERATURE	-40 °C to +85 °C
OUTLET PRESSURE	Factory-set, commonly between 0.8 MPaG and 5 MPaG
FILTER	10 micron and 40 micron options available
FLOW RATE	Outlet pressure dependent, capable of > 4g/sec H ₂

CONNECTIONS

INLET PORT	Can be customized for application (Swagelok FK Series, Voss and Usui commonly used)
OUTLET PORT	Can be customized for application (3/4" commonly used)
OPTIONAL HIGH AND LOW PRESSURE SENSOR PORT	Customer defined (based on sensor choice)
PRV OUTLET PORT	Can be customized for application (3/4" to 1-1/16" commonly used)

INTEGRATED FEATURES

EXCESS FLOW VALVE (EFV) ACTIVATION SETPOINT	Can be customized for application
PRESSURE RELIEF VALVE (PRV) ACTIVATION SETPOINT	Factory-set, depends on outlet pressure
OPTIONAL HIGH AND LOW PRESSURE SENSORS	Customer defined

APPROVALS

CERTIFICATIONS	HGV 3.1 and EC 79 pending
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