

# H-ITVR

## HYDROGEN FUEL DELIVERY MODULE 压缩氢气调压器

### Key Features

The H-ITVR simplifies fuel cell systems and reduces costs by providing a regulated low pressure output directly from the tank. The two stage regulator architecture provides stable and precise outlet pressure and the solenoid-operated valves are engineered for reliability in a safety critical system.

- Regulated low pressure output direct from tank
- Low and high pressure solenoid-operated valves
- Includes Thermally Activated Pressure Relief Device (T-PRD)
- Includes in-tank temperature sensor for fast-fill
- Includes manual valve for service flexibility
- Multiple SAE J1926 ports available for optional pressure relief valves and sensors
- Serviceable regulator
- Serviceable high pressure filter
- 12V or 24V options available

### 主要特性

H-ITVR把气瓶的高压氢气直接调压到低压氢气，简化燃料电池系统，减少系统成本。两级式减压结构设计可以保证稳定和精准的出口压力，电磁切断阀可以满足要求极高的系统安全要求。

- 直接从氢气瓶高压气体减压到低压；
- 高、低压电磁阀；
- 集成温度型压力释放阀(T-PRD)；
- 集成气瓶内温度传感器，允许快充；
- 集成手动切断阀，便于维修；
- 多个满足SAE J1926标准的接头，满足不同压力释放阀和传感器；
- 可拆卸维修；
- 可更换式高压滤清；
- 支持12V或者24系统。



*Engineered to meet International Standards and Regulations*

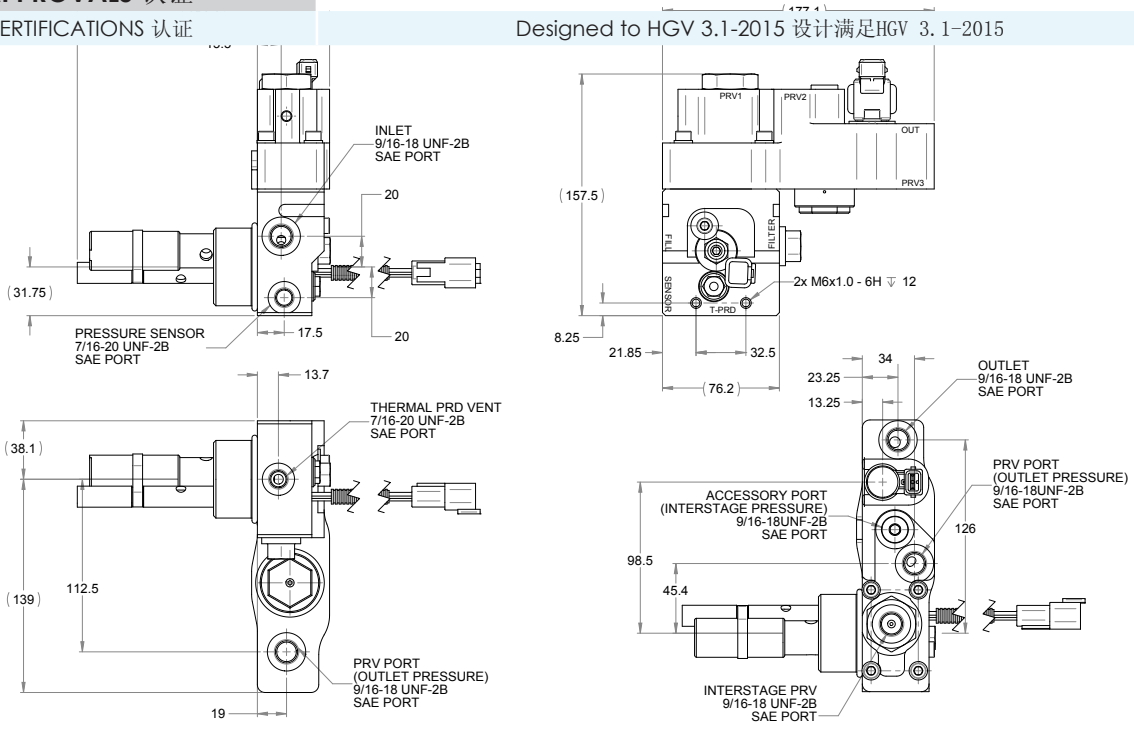
- Including ANSI HGV 3.1/HPRD 1, ECE R134, EC 79/2009, and UL 2267.

*All designs are subjected to rigorous qualification testing*

- Including long-term endurance cycling, severe vibration, and accelerated cyclic corrosion.

# SPECIFICATIONS 技术参数

H-ITVR				
GENERAL INFORMATION 基本参数				
FUEL TYPE 燃气类型	Compressed Hydrogen 压缩氢气			
PERFORMANCE 性能				
TANK VALVE SERVICE PRESSURE 工作压力	35 MPa (5,000 psi)			
MAX TANK VALVE WORKING PRESSURE 最大工作压力	43.5 MPa (6,250 psi)			
REGULATOR MINIMUM INLET PRESSURE 最小入口压力	1,000 kPa (145 psi)			
REGULATOR ARCHITECTURE 内部结构	Dual stage: piston + diaphragm 两级: 活塞+膜片			
REGULATOR OUTLET PRESSURE SETPOINT 出口压力范围	85 kPa standard; 50 to 200 kPa available 推荐85kpa, 50~200kpa可调			
REGULATOR OUTLET FLOW RATE 流量	0-0.4 g/s (Hydrogen) standard; up to 1.6 g/s available 0~0.4 g/s, 最大可到1.6g/s			
TEMPERATURE-PRD ACTIVATION 温度型泄压阀	110° C +/- 5° C			
TEMPERATURE-PRD ORIFICE DIAMETER 泄压阀孔直径	up to 6.0 mm			
SERVICE TEMPERATURE 工作温度	-40° C to 85° C (-40° F to 185° F)			
VIBRATION 振动	As per HGV 3.1-2015 满足HGV 3.1-2015			
ENDURANCE 耐久	Regulator: 500,000 operational cycles 瓶阀5万次充/放气循环 Tank valve: 50,000 fill cycles			
COIL MODEL 线圈型号	High pressure SOV 高压电磁切断阀		Low pressure injector (PWM req'd) 低压喷嘴 (PWM)	
NOMINAL VOLTAGE 额定电压	12 V	24 V	12 V	24 V
NOMINAL CURRENT DRAW 额定电流	0.62 A	0.33 A	(0.63 A)	(1.25 A)
CONNECTOR 接插件	Deutsch DTM06-4S OR bare leads		AMP 282189	
TEMPERATURE SENSOR 温度传感器	2,700 Ω +/- 2% @ 25° C NTC curve Y			
INTERNAL LEAKAGE 内部泄漏	<10 <sup>-3</sup> mBar l/s Helium			
EXTERNAL LEAKAGE 外部泄漏	<10 <sup>-4</sup> mBar l/s Helium			
FILTRATION SIZE 滤清精度	40 μm			
EFFICIENCY 效率	99.9%			
MASS 重量	1.9 kg			
APPROVALS 认证				
CERTIFICATIONS 认证	Designed to HGV 3.1-2015 设计满足HGV 3.1-2015			



ISO/TS 16949:2009 registered  
ISO 9001:2008 registered