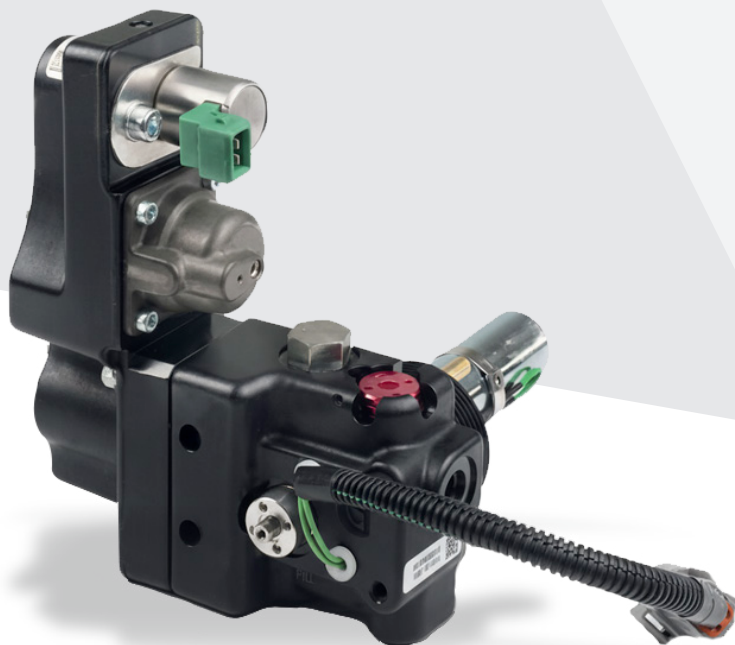




Integrated Tank Valve with Regulator (ITVR)

H-ITVR



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.

DESIGN

- Two-stage regulator for stable, accurate outlet pressure
- Regulated low pressure output direct from tank
- Low and high pressure solenoid-operated valves
- Thermally Activated Pressure Relief Device (T-PRD)
- In-tank temperature sensor
- Manual service valve for maintenance flexibility
- Multiple SAE J1926 ports for optional PRDs and sensors

PERFORMANCE & OPTIONS

- Serviceable high-pressure regulator and filter components
- Compatible with both 12 V and 24 V electrical systems
- Configurable to match various system layouts
- Certified to ECE R134, HPRD1, GB/T 35544, UN GTR 13, EU 535, ISO 19882



SPECIFICATIONS

GENERAL INFORMATION

FUEL TYPE	Compressed Hydrogen
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PERFORMANCE

TANK VALVE SERVICE PRESSURE	35 MPa (5,000 psi)
MAX TANK VALVE WORKING PRESSURE	43.8 MPa (6,250 psi)
REGULATOR MINIMUM INLET PRESSURE	1,000 kPa (145 psi)
REGULATOR ARCHITECTURE	DUAL Stage: piston + diaphragm
REGULATOR OUTLET PRESSURE SETPOINT	Configurable from 40 to 1000 kPa (g)
REGULATOR OUTLET FLOW RATE	0-0.4 g/s (Hydrogen) standard; up to 1.6 g/s available
TEMPERATURE-PRD ACTIVATION	110 °C ± 5 °C
TEMPERATURE-PRD ORIFICE DIAMETER	UP to 5.7 mm equivalent
SERVICE TEMPERATURE	-40 °C to 85 °C
VIBRATION	As per HGV 3.1-2015
TEMPERATURE SENSOR	2,700 Ω ± 2% @ 25 °C NTC curve Y
FILTER EFFICIENCY	99.9%
MASS	1.9 kg
ENDURANCE	Regulator: 500,000 operational cycles Tank valve: 50,000 fill cycles

COIL MODEL

	High pressure SOV		Low pressure injector (PWM required)	
NOMINAL VOLTAGE	12 V	24 V	12 V	24 V
NOMINAL CURRENT DRAW	0.62 A	0.33 A	1.14 A	1.25 A
CONNECTOR	Deutsch DTM06-4S OR bare leads		AMP 282189	

APPROVALS

CERTIFICATIONS	ECE R134, HPRD1, GB/T 35544, UN GTR 13, EU 535, ISO 19882
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