

H-TV-70 Series

HEAVY DUTY 70 MPa CRASHWORTHY INTERNAL SOLENOID TANK VALVE

Key Features

GFI continues evolving their innovative internal tank solenoid technology within the 70 MPa tank valve family. Mounting the solenoid inside the tank protects it from external impacts and risk of environmental and corrosion exposure. It also resolves structural challenges by placing it within the pressurized space as opposed to externally.

A temperature sensor is also mounted inside the tank space for fuel dispenser feedback and fuel gauge accuracy.

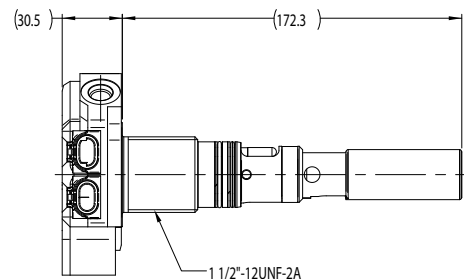
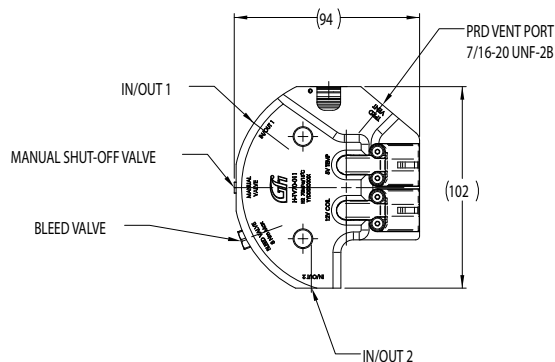
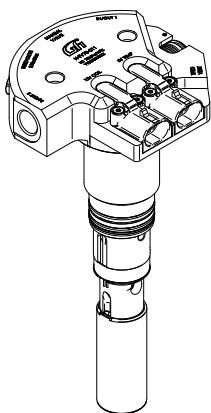
Other integrated features include, PRD, manual shutoff valve, bleed valve, excess flow valve, filter and check valve function.

- Low-profile design to maximize tank package length
- In-tank solenoid for improved crashworthiness and environmental protection
- 12 V and 24 V solenoid options
- Nominal working pressure of 70 MPa
- Working temperature -40 °C to +85 °C
- 1-1/2-12 and M45x2 tank neck geometry
- Integrated solenoid and manual shutoff valves, temperature sensor, PRD, bleed valve, excess flow valve, filter and check valve function
- Light-weight aluminum design
- Optional pressure sensor and live ports
- Compliant/approved to EC79; ECE R134 pending



SPECIFICATIONS

H-TV-70 Series		
GENERAL INFORMATION		
APPLICATION	Hydrogen Tank Valve	
DESIGN	Automatic valve, internal solenoid	
BODY MATERIAL	Aluminum, anodized	
FUEL TYPE	Hydrogen per SAE J2719 and ISO 14687	
NOMINAL WORKING PRESSURE	70 MPaG	
MAX WORKING PRESSURE	87.5 MPaG	
WORKING TEMPERATURE	-40 °C to +85 °C	
FLOW COEFFICIENT (Cv)	Fueling and defueling: > 0.18	
T-PRD OPERATION	110 +/- 5 °C	
T-PRD ORIFICE	up to 4 mm equivalent diameter	
CHECK VALVE FUNCTION (FILL PATH)	Opening Pressure < 0.3 MPa	
EXCESS FLOW VALVE	Integrated; activation point customer specified	
FILTER	Integrated; 40 micron or 10 micron	
ELECTRICAL		
COIL NOMINAL VOLTAGE	12 V	24 V
NOMINAL COIL RESISTANCE AT 20°C	3.5 Ω	13.2 Ω
CONTROL	Peak & Hold	
THERMISTOR R25C	2.7 k or 10 k ohms +/- 2%	
THERMISTOR TYPE	NTC	
CONNECTIONS / OPTIONS / CERTIFICATIONS		
SOLENOID	Mating connector: AMP Superseal 1.5, 2 pin; 282080-1	
TEMPERATURE SENSOR	Mating connector: Delphi Metripack 140, 2 pos; 12052644	
CYLINDER CONNECTION	1 1/2-12 UNF or M45x2	
INLET/OUTLET PORT TYPE	Customer defined	
PRD VENT THREAD TYPE	7/16-20 UNF (others possible)	
PRESSURE SENSOR PORT (OPTIONAL)	Customer defined	
LIVE PORT (OPTIONAL)	Customer defined	
OPTIONS	A) Pressure sensor port: Customer defined B) Live port: Customer defined	
CERTIFICATIONS	EC79, ECE R134 & HGV3.1 Pending	



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