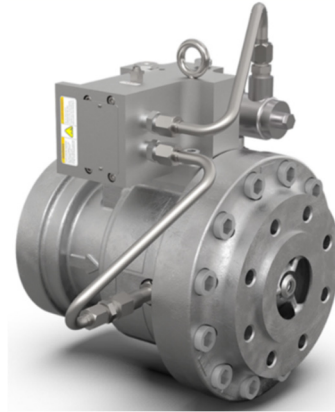


GSOV80

Gas Shutoff Valve

Applications

The GSOV80 High Speed Shutoff Valve is the latest version of shutoff valves from Woodward incorporating decades of field experience in aeroderivative and small industrial gas turbines. The failsafe design with low differential pressure drop and fast closing times make this the standard shutoff valve for OEM's and end users. Durability and extended operating ranges (temperature and pressure), along with NACE and SIL functionality allows the product to operate across power generation and oil and gas markets.



Description

The GSOV80 valve is a normally closed three-stage device, designed to terminate fuel flow in less than 0.100 seconds after the electrical supply current is interrupted. Valve closure is due to the stored energy of a mechanical spring in each stage driving each piston into a durable "soft seat" for Best-in-Class seat leakage. A limit switch provides reliable confirmation of valve position. Input solenoid voltages of 24 VDC (18-32 VDC) or 125 VDC (90-140 VDC) allow for easy integration to most fuel and control systems.

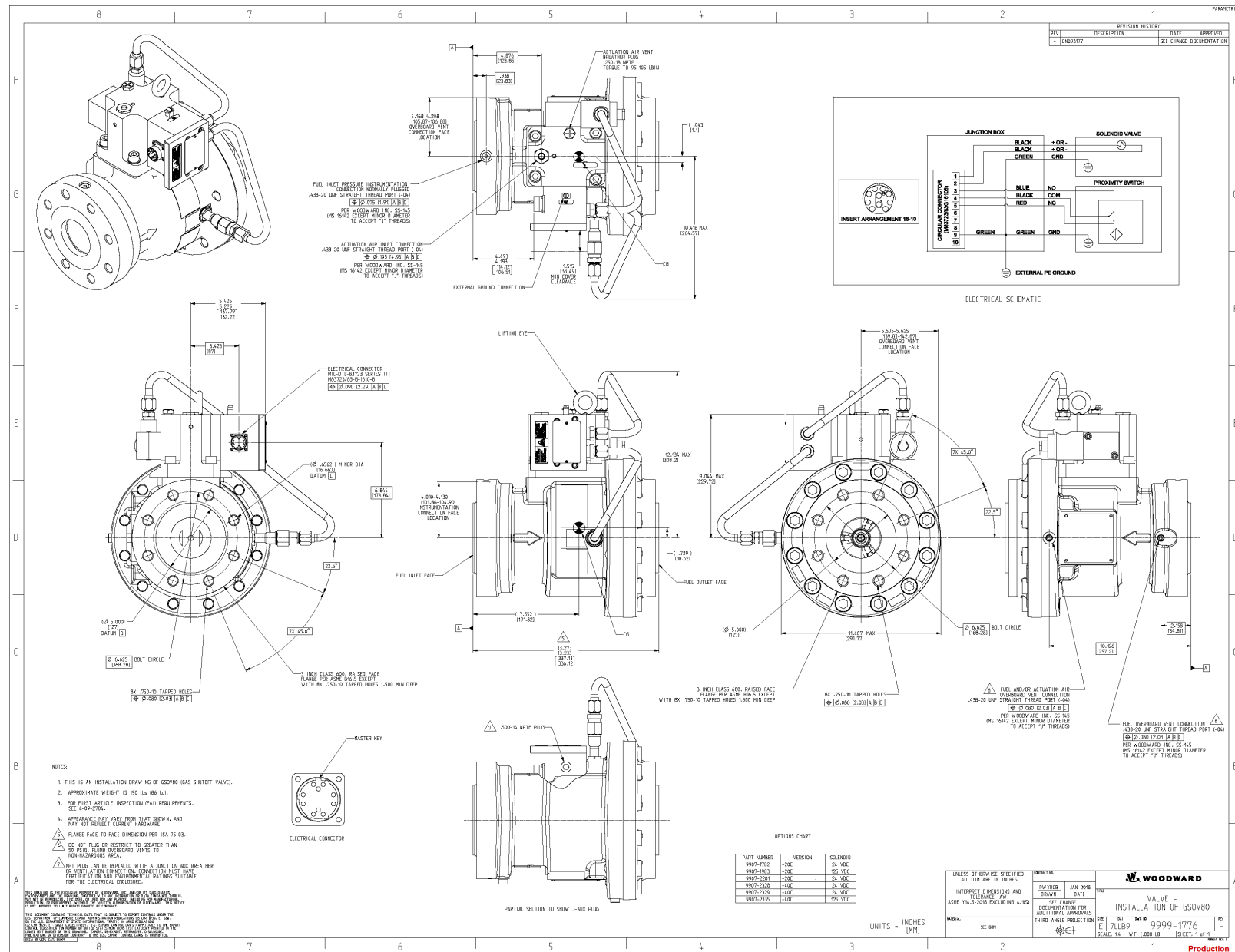
The GSOV80 is a mostly stainless-steel construction that can be used with most gas fuels and is NACE compliant per NACE MR0175/ISO 15156, petroleum and natural gas industries - materials for use in H₂S-containing environments in oil and gas production. The unique seat design enables both forward and reverse seat leakage to meet the ANSI/FCI 70-2 Class VI Leakage.

The valve comes standard with a separate supply connection requiring instrument air (80-140 psig) for actuation. An integral 40 µm (nominal) filter screen protects the first and second stage components from damage due to particulate contamination.

The valve is operated (open and closed) through the electrical input to a solenoid interface. Two voltage options are available to match most application requirements. Energizing the solenoid will open the valve and de-energizing the solenoid will close the valve.

- 3 inch size (80 mm)
- ANSI 600# RF Flange Connections
- Compatible with all types of gaseous fuels
- <0.100 seconds closing time
- ANSI/FCI 70-2 Class VI Seat Leakage
- Fuel temperature range
(-40 to +193)°C / (-40 to +380)°F
- Ambient temperature range
(-40 to +93)°C / (-40 to +200)°F
- SIL 2/3 certified
- NACE MR0175/ISO 15156 compliant

Installation



Specifications

GSOV80

Valve Sizes:	3 inch (80 mm)
Closing Time:	Less than 0.100 seconds in all conditions
Opening Time:	Less than 1 second in all conditions
Minimum Allowed Actuation Pressure:	552 kPa (80 psig)
Maximum Allowed Actuation Pressure:	965 kPa (140 psig)
Maximum Allowed Operating Pressure:	9.93 MPa (1440 psig)
Valve Proof Pressure:	15 MPa (2175 psig)
Valve Burst Pressure:	49.6 MPa (7200 psig)
Maximum Allowed Vent Port Back Pressure:	345 kPa (50 psig)
Maximum Allowed Reverse Pressure:	49.6 MPa (750 psig)
Valve Leakage Rating:	ANSI/FCI 70-2-2013 Class VI, forward and reverse
Maximum Allowed Overboard Vent Leakage:	20 cm ³ /min as new Up to 300 cm ³ /min at end of life At ambient temperatures below -4°F (-20°C) leakage may be higher
Internal Filtration for Solenoid:	40 µm (nominal) (1 st and 2 nd stage only)
Maximum Allowed Solid Particle Contaminants in Fuel:	Less than or equal to 10 µm, 30 ppm by volume maximum Greater than 10 µm, 0.3 ppm by volume maximum
Valve Weight:	88 kg (194 lb)
Fuel Compatibility:	Natural gas, propane, ethane, methane, or other typical gas fuels
Ambient Temperature Range:	(-40 to +93)°C / (-40 to +200)°F
Fuel Temperature Range:	(-40 to +193)°C / (-40 to +380)°F
Nominal Pipe/Flange Size:	3 inch (80 mm) Class 600#, raised face per ASME B16.5, except with 8X 0.750-10 tapped holes
Proximity Switch Contact Ratings:	0.5 A, 125 VDC
Solenoid Voltage:	24 VDC nominal (18 to 32 VDC) 125 VDC nominal (90 to 140 VDC)
Solenoid Power Consumption:	17 W at 20°C, max voltage 10 W at 20°C, nominal voltage
Ingress Protection Rating:	IP66 per IEC 60529
Installation and Operation Manual:	35189

Regulatory Compliance

European Compliance for CE Marking:

Pressure Equipment Directive: Directive 2014/68/EU of the European Parliament and of the Council of 15 May 2014 on the harmonization of the laws of the Member States relating to making available pressure equipment available on the market.
Gas Shutoff Valve, 3 inch: PED Category II
PED Module H – Full Quality Assurance,
CE-0062-PED-H-WDI 001-22-USA. Bureau Veritas SAS (0062)
8 Cours du Triangle, 92800 Puteaux – La Defense, France

ATEX – Potentially Explosive Atmospheres Directive: Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres.
Zone 2, Category 3, Group II G, Ex ec nC IIC T3

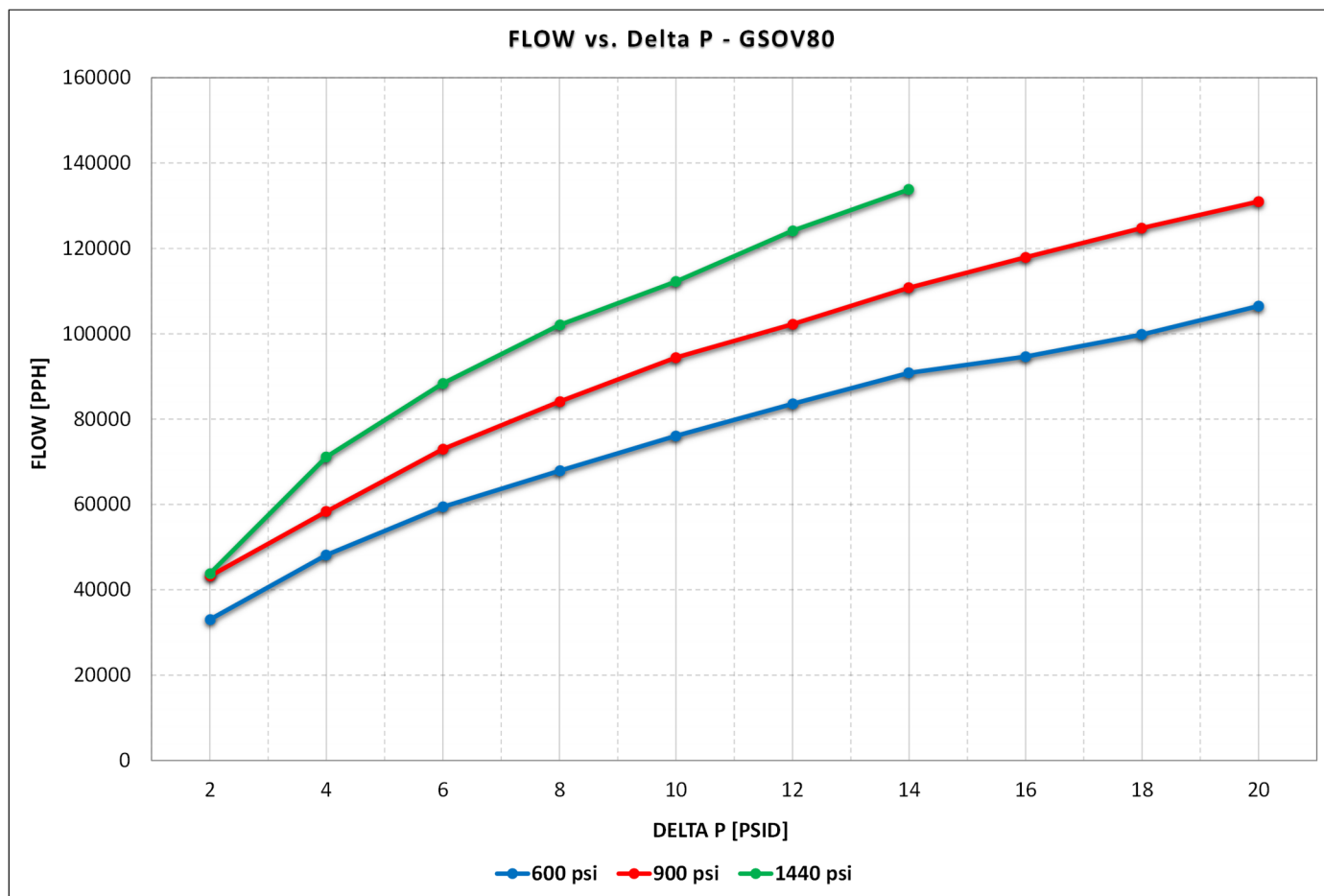
Other European and International Compliance:

Compliance with the following European Directives or standards does not qualify this product for application of the CE Marking:

Machinery Directive: Compliant as partly completed machinery with Directive 2006/42/EC of the European Parliament and the Council of 17 May 2006 on machinery.

North American Compliance:

CSA: CSA Certified for Class I, Division 2, Groups A, B, C, and D, T3 at 93 °C Ambient.
For use in Canada and the United States. Certificate 70184121.



PO Box 1519, Fort Collins CO 80522-1519, USA
1041 Woodward Way, Fort Collins CO 80524, USA
Phone +1 (970) 482-5811
Email and Website—www.woodward.com

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