

1 Introduction

The Martini is a fast-acting pneumatic valve, designed to provide a rapid discharge of inert gas when triggered by 12VDC input signal.

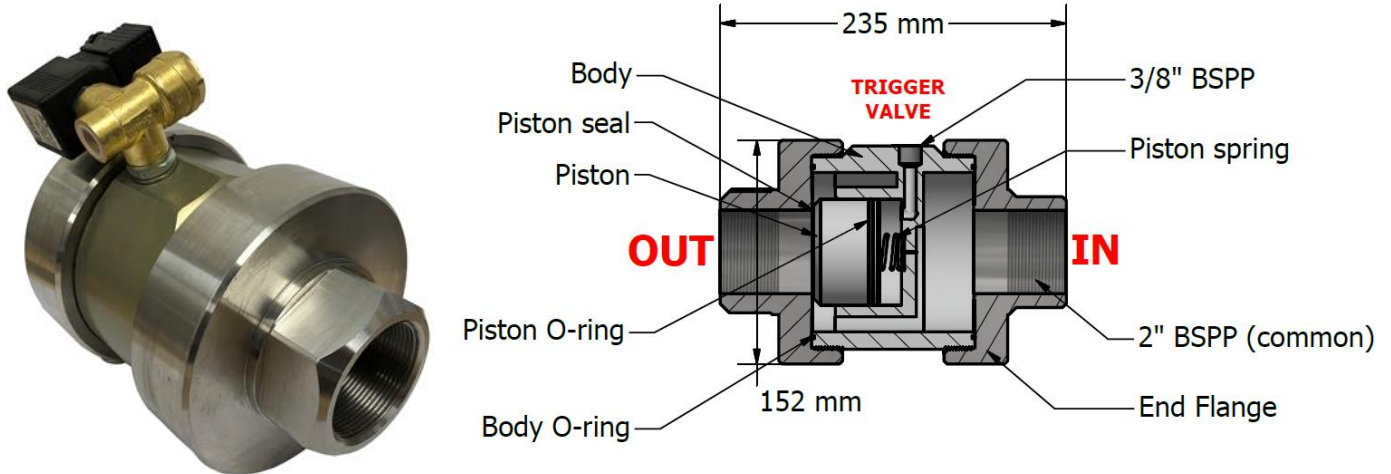


Figure 1 Martini and Section through Valve

2 Safety

Compressed gas equipment is dangerous when operated incorrectly. This equipment should only be used by competent persons, operated in accordance with local regulations for air equipment and with appropriate safety assessments. It is essential that the operator fully reads and understands these notes prior to operating the System.

The valve should be operated with the minimum pressure required to achieve the desired effect. Prior to using the valve in a new application, tests should be performed to determine the required pressure. The absolute maximum operating pressure is 60 bar (870psi).

The Martini is a valve and only one component part of your system. The whole system should be designed to operate safely and should incorporate safety features such as a pressure relief valve to prevent any system component exceeding its rated pressure.

3 Operation

The valve may be operated with any a gas such as Air, Nitrogen or CO₂. Exposure to very low temperatures, such as CO₂, may cause the piston seal to harden. This may prevent complete sealing until the valve warms up.

Care should be taken to prevent debris or contamination from entering the valve as this may prevent the valve from sealing properly or may cause it to jam.

The valve is opened by releasing gas pressure from the side port of the valve. The Martini is supplied fitted with a solenoid valve for this purpose. To operate at different voltages, the solenoid coil can be changed.

4 Inspection, Maintenance and Spare Parts

This System should only be operated by persons competent in the use of Compressed gas equipment and inspected in accordance with local regulations necessary for Air Equipment. At all times it is important to ensure that the System is discharged and isolated from an Air Supply before any maintenance or servicing.

The Martini is designed to be durable when handled and stored in an appropriate manner, it should not need routine maintenance unless abused. The System should always be cleaned and dried after use and stored in a dry environment to ensure water does not condense in the System.

The Solenoid Exhaust Valve and Piston assembly must be kept clean to ensure the system does not leak. Care should be taken to prevent debris or contamination from entering the system. It is important that the Solenoid Exhaust Valve does not leak as when the System is charged with air, any leakage past this piston may trigger the System. Prior to use it is recommended that the system is charged to a low pressure and checked for air leakage.

If the Piston or Solenoid suffers from leakage it can be dis-assembled and serviced; once dis-assembled the Body, O-rings, the Piston Seal and mating face should be cleaned before being lightly oiled and re-assembled. If any of the parts show signs of damage these should be replaced using the parts identified in Table 1, these can be ordered direct from the manufacture.

Figure 1 shows the section through the valve identifying the parts listed in Table 1 and the direction of valve operation.

Table 1 Spare Parts List

Description	Quantity	Manufacturer	Part Number	Notes
Piston O-ring	1	Polymax	65x3N70	-
Body O-ring	2	Polymax	113x2.5N70	-
Piston Spring	1	Lee Spring Limited	LC 095L 04 M	-
3/8" BSP Trigger Valve	1	Red Dragon Limited	CL15DR87T (12VDC)	Valve 'In' port to Martini body
Body	1	Event Horizon	EHPN022	-
Piston	1	Event Horizon	EHPN024	-
End Flange	2	Event Horizon	EHPN023	-

5 Further information

5.1 Updates to the User Manual

Prior to operation the User should check the Event Horizon website for any updates to the User Manual and any product changes: http://www.precisionenergetics.co.uk/Docs/EH16034R001_User_Manual.pdf



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5.2 Contact Details

For additional information or replacement parts please contact: Event Horizon on +0044 (0)1458 210 280; info@precisionenergetics.co.uk; or by post to 'The Old Brewery, Stagman Lane, Ashcott, Somerset, TA7 9QW. UK.'

<http://www.precisionenergetics.co.uk/>