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Valcor Scientific

Cryogenic Valve

2-Way, Normally Closed, Floating Seal Design

Model: SV91



INTRODUCTION

Valcor Scientific, a Division of Valcor Engineering, has provided cryogenic solenoid valves for more than forty years. The SV91 is a large orifice, gate valve designed for the stringent requirements of hi-flow liquid nitrogen (LN_2) applications.

DESCRIPTION

The SV91 is designed as a two-way, normally closed, solenoid operated valve with a low mass stainless steel

body, heli-arc welded construction to provide a hermetic external seal and structural soundness. No elastomers are used.

As little as 1 psi differential pressure is all that is required to effectively seal the polyimide disc on the seat.

Standard SV91 series valves are uni-directional flow. Bi-directional and normally open designs are available in the SV91 series. We encourage you to consult with the application

engineers at Valcor Scientific on your specific needs.

APPLICATIONS

Cryogenic valves typically deliver liquid cryogens from a dewar to a closed chamber. Often, large orifice valves are used to transfer replenishment volumes of LN_2 from larger to smaller vessels.

Typical LN_2 applications for the SV91 are:

- Inlet valve to cold chambers
- Shut-off valves for LN_2 dewars
- Hi-volume LN_2 transfer
- LN_2 dewar bleed off valve

Due to the design features of the SV91, non-cryogenic applications involving straight-through flow such as a light gate for lasers or other photo-electric light devices are appropriate.

FEATURES

- Straight through line of sight flow provides for minimum pressure loss, minimum turbulence and maximum flow.
- Floating seal gate design provides self-wiping action across the optically flat seal area.
- Robust construction featuring all welded stainless steel pressure boundary accommodating high pressure.
- Direct acting plunger design.
- No elastomeric seals.
- Mountable in any position.
- Low mass body provides for minimum heat transfer.

