SHIELDING PNEUMATIC SLIDING DOOR

PNEUMATIC SLIDING DOOR (PSD)

- Ultra-high Performance Shielding Exceeding MIL-STD-285, NSA 65-5, NSA 94-106, and CID/09/12A
- Maintains 120+ dB Attenuation Over a Broad Frequency Range from 400 Hz to 40 GHz
- Pneumatic Logic System Utilizing Exclusive Technology Allowing Versatility for Design Implementations in Compliance with Warning, Operational and Safety Requirements
- Control Panels for Safe Semi- or Fully-Automatic Sliding Door Operation for Personnel, Equipment or Emergency Exit Access
- Operates on Clean Oil-free Shop Air 80 to 120 PSI
- Flush Threshold on Door Sill for Easy Equipment Transport
- Unique Low-maintenance, Arc Sprayed Metal-to-metal Sealing Method Eliminating the Use of RF Gaskets and Contact Fingers
- Operational Automatic Threshold Cover Plate which is Lowered and Raised with Door Operation Cycle or Lightweight, Removable Threshold Cover Plate

ETS-Lindgren's Pneumatic Sliding Door (PSD) System is a versatile, high-performance sliding door system engineered to provide unmatched RF shielding and durability, ensuring compliance and reliability in demanding environments.

Features
Applications

The PSD Model is expertly designed for all-welded RF shielded enclosures, secure facilities, and anechoic chambers. Its precision sliding operation makes it an ideal solution for high-traffic environments or locations with limited space that cannot accommodate a swing-type door.

PSD Construction

The all-welded PSD is constructed from low-carbon, hot-rolled steel for superior durability and performance. The structural tube steel door frame is machined for flatness, treated with a pure tin coating, and welded in place, providing a robust base for the pocket assembly. The door leaf incorporates two thermally bonded, tin-coated shielding skins securely attached to a leaf frame of either aluminum or steel.

Bolt-on inspection and service panels are strategically installed on the door pocket, allowing easy access for adjustments, maintenance, or pneumatic system repairs. During pneumatic operation, rubber composite bladders within the door frame inflate, compressing the thermally bonded tin-coated surfaces to create a secure, airtight RF seal.

Oversized doors can be customized to accommodate vehicles, aircraft, or large industrial equipment, with a full range of tailored size options available.

Typical Performance

The PSD Model delivers ultra-high attenuation levels, tested in accordance with MIL-STD-285, and surpasses the requirements of NSA 65-5, NSA 94-106, and CID/09/12A. Configurations provide 120 dB attenuation across frequencies from 400 Hz to 40 GHz, ensuring optimal shielding performance.

Semi-Automatic Operation

Semi-automatic operation is ideal for low- to medium-traffic areas. The door opens and closes manually using inset handles on both the interior and exterior skins. The RF sealing process is controlled by a valve or button mounted on control panels on either side of the door. A fail-safe limit valve ensures the pneumatic seal activates only when the door is fully closed.

Fully Automatic Operation

Fully automatic operation is ideal for high-traffic personnel areas, controlled entrances, and oversized doors. The opening process can be activated via push buttons, rotary switches, floor mats, or infrared sensors. Pressure switches or sensing devices enable door closure. Upon activation, the pneumatic bladder deflates, and the door retracts to the open position. Closure is triggered by reversing this process, ensuring seamless operation.

Safety Features

The PSD Model incorporates advanced safety features to meet stringent local, state, and federal requirements. Emergency override and dump valves allow for the pneumatic system to be safely deactivated when necessary. In the event of pneumatic failure, the door defaults to manual operation. An optional safety bumper on the leading edge of the door retracts it upon encountering an obstruction during closing, further enhancing safety.

Interface Capabilities

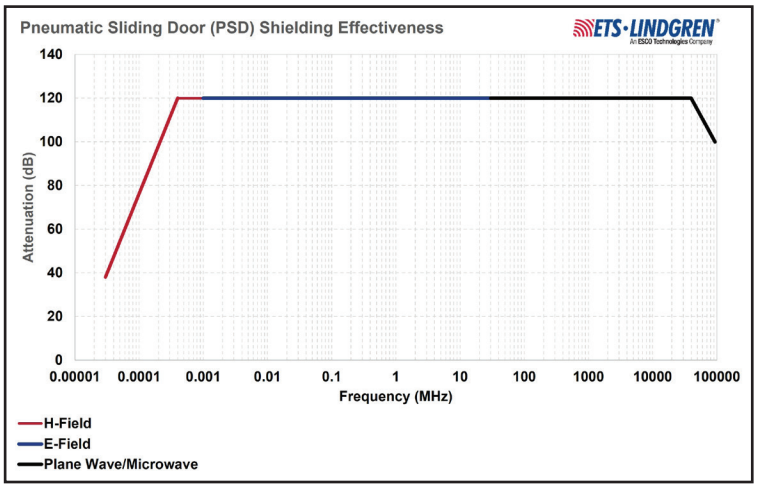
The PSD seamlessly integrates with various security systems, fire detection systems, and cipher locks. It can also support auto-latching mechanisms, locking hasps, and quick-release opening systems. Additional options, such as auto ramps and flush or semi-flush door sills, can be incorporated to meet specific requirements.

Warranty

ETS-Lindgren offers a standard 1-year warranty covering parts and labor from the installation date. Extended warranties ranging from 1 to 5 years, as well as maintenance agreements, are available to ensure long-term performance and peace of mind.

Technical Specifications

Performance	
Magnetic	38 dB @ 30 Hz; 120 dB @ 400 Hz
Electric	120 dB @ 1 KHz to 30 MHz
Planewave	120 dB @ 30 MHz to 1 GHz
Microwave	120 dB @ 1 GHz to 40 GHz, 100 dB @ 94 GH



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