

RF SHIELDED DOORS Auto-Latching Door System

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This door is designed for installation within new or existing shielded enclosures and provides superior shielding for a variety of industrial, communications, and government applications. The door latching system, when joined with an enclosure, is designed to fulfill a variety of high performance shielding applications in the wireless, telecommunications, electronic security and EMI/RFI testing market segments.

Key Features

- **Automatic Door Latching Mechanism Requires Little or No Force by User**
- **Modular Design Allows Easy Installation and Serviceability**
- **Quiet, Pneumatic Operation Uses Clean, 85 to 90 psi Shop Air or Compressed Air**
- **Provides Highest Level of EMI/RFI Shielding Performance Available, Maintaining Shielding Effectiveness of 100dB @ 10 GHz**
- **Emergency Unlatch Function Allows Easy Exit from Enclosure on a Reserve Air Supply Tank if Main Air Supply is Lost**

Features

Construction

A three-point roller bearing latching system applies uniform pressure of contact fingers on the perimeter of the door to the mating jamb contact surface. A cycle counter is included with each door to provide an easy reference for maintenance scheduling.

Operation

Quiet, easy operation are key features of the auto-latching door System. Its pneumatic operation requires less force to operate than that of other EMI/RFI doors. Push-button access allows operation even when the user's hands are full. The door operates on 85 to 90 psi shop air or compressor air, which is filtered and regulated to 85 psi. The operation sequence from either side of the door is as follows:

1. Push button to unlatch, allowing the cams to disengage.
2. Manually swing door open.
3. Progress through door.
4. Manually swing door closed, using the handle until the latching mechanism activates.
5. Door latches automatically.

All that is necessary is to push or pull the door easily into the closed position, upon which the auto-latching feature activates. Once the auto-latching mechanism is activated, the door maintains a controlled positive seal of the perimeter contact fingers.

Performance

The door has been cycle-tested up to 80,000 operations with no failures. The auto-latching door system provides shielding performance equal to that of a manually operated EMI/RFI door system mounted on the shielded room. The performance will vary according to door system selection and is limited to 10 GHz in frequency range. The auto-latching system may be supplied with a Double Electrically Isolated door, which provides high performance EMI/RFI shielding with excellent attenuation characteristics.

Safety Features

An emergency unlatch function allows egress in the event of an electrical and air supply failure. This function allows the user to push a palm button, unlatch the door, and exit the room using a reserve air supply tank. All moving parts are covered with a protective cover plate for user safety.

