



## Product

## Custom-Designed XS Brakes

## Application

## Aircraft Seat Adjustment Systems

### Highlights

- Electrically-released, spring-set holding brakes
- Statically engaged/disengaged
- Optimized torque levels in the smallest space at the lightest weight
- Fully customized adaptor flange to meet individual customer-specific mounting requirements
- Compact size fits small envelope
- Low cycle rate stopping action in emergency situations
- Economical design
- Six standard sizes

A global aerospace equipment manufacturer required a quiet, lightweight holding brake solution for use in their line of first and business-class aircraft seating systems. Each seat features a series of actuators that allow a passenger to adjust the seat including recline, headrest, and footrest positioning. The brakes are mounted on the actuators and securely hold the seat in the passenger-selected positions.

The OEM was very pleased with the quality and performance of the current brakes and service provided by Warner Electric but asked the Warner engineering team if they could develop a new brake for their next generation seating system. Since weight and space are key factors in the aerospace industry, the OEM wanted a compact brake that weighed less than 60 g with a torque rating higher than 15 Ncm and an operating noise level below 55 dBA.

To meet the challenging application specifications, Warner Electric engineers designed a new X-Small (XS) electrically-released, spring-set holding brake. The Warner engineering team collaborated extensively with the OEM throughout the product development and comprehensive testing phases.

The new model XSB29S statically engaged/disengaged holding brake is more cost-effective, lighter and quieter than competitor permanent magnet brake solutions. XS brakes provide optimized torque levels in the smallest space at the lightest weight. All units feature a customized adaptor flange to meet individual customer-specific mounting requirements. The brakes provide low cycle rate stopping action in emergency situations.

An audit was performed at the Warner Electric plant to ensure that aerospace industry single-supplier delivery expectations could be met.

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