



2000Xc Micro Actuator

General Description

The 2000Xc 40kHz Micro Actuator combines a small physical size, precise and consistent high quality welds, and the process control needs of today's manufacturing environment. The micro actuator's narrow width (70mm) and low height (660mm) optimizes the 2000Xc welding system for space limited applications. The mounting flexibility of the 2000Xc allows for either integration into an automation system or when used with the micro base and column, setup as a stand-alone welder.

The 2000Xc system offers multiple weld modes including: distance (absolute and weld collapse), energy, time, and peak power. The process setup is locked in with fully electronic welder settings, authority level password protection, and Ethernet connectivity access. These security features help ensure compliance with medical manufacturing regulations, including FDA 21 CFR Part 11.

The 2000Xc system offers secure process controls and detailed weld data to meet the global compliance, traceability and the security needs of

today's medical, automotive, and business and consumer electronics markets.

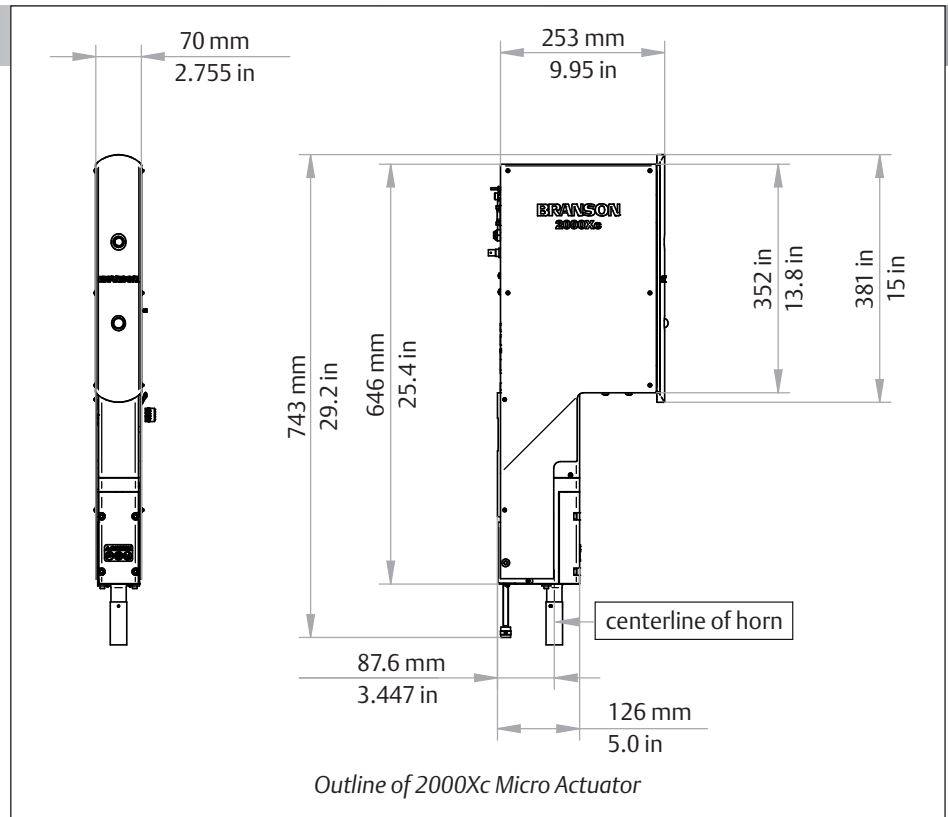
Key Actuator Features

- **Compact actuator envelope** – 70mm width and 660mm height
- **Optional Micro base and column** for benchtop mounting
- **40mm (1.57") or 32mm (1.26") bore air cylinder** for better control of clamp force in low force applications
- **40kHz ultrasonic frequency at 800W output power**
- **Multiple weld modes** - Time, energy, peak power, ground detect, collapse, or absolute distance
- **Electronic programmable actuator down speed and pressure** can be set and stored in a weld recipe for process control, weld force profiling, and security
- **Barcode Scan ability** for recording Part ID and recalling weld recipes
- 1,000 nameable presets for ease of setup and changeover of applications
- **Authorized access and passwords** – User names, passwords, authority levels (4 levels), and active status are created and saved in the 2000Xc

- Small Footprint
- Low-force Applications
- Multiple Weld Modes
- Amplitude Stepping
- Superior Process Control and Monitoring
- Enhanced Communications
- Process Diagnostics
- Automation Friendly
- Dynamic Follow-Through
- Rapid Traverse
- Force Profiling

Ultrasonic Welding

- **Weld history and retention** – Part ID, User ID, and date stamp are recorded with the weld process characteristics. The last 100,000 welds are saved in a non-volatile memory
- **Audit trails** – The event history records time stamp and user ID for all changes made to the system configuration and validated weld recipes
- **Validation** – Weld recipes can be validated and locked assuring no unauthorized changes are made to a recipe
- **No operator accessible** controls ensuring a validated processes remains unchanged



2000Xc 40kHz Power Supply & Micro Actuator Specifications

Output power:	800 watts
Line voltage:	100-240VAC/ 200-240VAC 50/60Hz
Max. current:	14/7 amps max.
Frequency:	40 kHz
Max. cycle rate:	80 cpm (application dependent)
Ambient temp. range:	41-122° F (5-50°C)

Micro Actuator Model	aec 32	aec 40
Active Stroke length	15-65mm/0.6-2.5"	
Max clamp force on part at 690kPa (100psi)	112lbs/500 N	180lbs/800 N
Dynamic triggering range	5-112lbs/22-500 N	5-180lbs/22-800 N
Dynamic follow-through range	5-112lbs/22-500 N	5-180lbs/22-800 N

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