EVO-AMI
Compact two-axis positioning and rate table

EVO-AMI is a compact, two-axis positioning and rate table which features all required performance parameters for test and calibration of MEMS or FOG based inertial navigation systems or optronic payloads.

**Benefits**
- Best price/performance ratio on the market
- Compact size
- Maintenance free
- Automated testing
- Lowest cost of ownership
- Can operate within climatic chambers for temperature and motion simulation

**Track Record**
iXblue leverages 60 years of unique experience in the design and manufacturing of advanced position/rate tables and motion simulators. This includes over 15 years of expertise combining direct drive brushless electric motors and optical encoders. This unique experience allows iXblue to build the most accurate, stable and dynamic systems, meeting all the requirements for testing of inertial and optronic payloads.

**Advanced Performance**
EVO-AMI is designed with key components chosen for having the best quality. Brushless motors, optical encoders and slip-ring capsules are critical to the performance of the complete system. Every EVO-AMI comes with iXblue nGine controller and ProaXe Graphical User Interface, which are the most advanced control electronics in terms of performance, efficiency and safety.

**Scalability**
EVO-AMI can evolve with your process. The compact, two-axis test-table may be combined with an EVO-10M single-axis test-table to create a three-axis solution.

**Table Features**
- Direct drive brushless electric motors
- High accuracy optical encoders
- Horizontal outer axis configuration can independently simulate three axes of motion.
- Correct orientation of axes for full 6 DOF IMU calibration

**Controller Features**
- iXblue nGine controller including:
  - Patented auto-tuning of controller parameters
  - Patented adaptive sine bandwidth enhancement
  - Auto tuned anti-cogging
  - Real-time built-in-test
  - Advanced unbalance and fault detection
- iXblue ProaXe Graphical User Interface (GUI)
### Payload definition
- Nominal payload mass: 12 kg
- Maximum payload mass: 20 kg
- Dimensions (L x W x H): 280 x 190 x 170 mm

### Mechanical specifications (both axes)
- Angular freedom: Unlimited
- Position accuracy: ≤ ±10 arc sec
- Position repeatability: ≤ ±2 arc sec
- Wobble: ≤ 15 arc sec
- Orthogonality between axes: ≤ 20 arc sec

### Dynamic specifications (both axes)
- Rate range: ±300 deg/s
- Maximum acceleration: 150 deg/s²
- Bandwidth at ±1 dB and ±5 deg-phase (adaptive sine): > 5 Hz
- Slew profiling: Rate and acceleration limited
- Rate stability over 360 deg: 0.005 % (50 ppm)
- Rate command resolution: ±0.001 deg/s

### Environmental specifications
- Power voltage: 115/230 VAC 50/60 Hz
- Operating temperature: -40°C to +85°C

### Table interfaces
- Mechanical interface (tabletop): Custom tabletop adapters according to end-user (Unit Under Test)
- Standard slip-ring: 20 ways: 2 A, 240 VAC
- Alternative slip-rings: Customer specified

### nGine controller interfaces
- Remote communication interfaces: Standard: RS-232 and Ethernet
  Optional: IEEE-488.2 (GPIB) or USB
- Inputs and outputs: Scalable analog inputs and outputs for position and rate
  Digital inputs for control and trigger
  Digital outputs
  Event pulse generation
- Graphical User Interface: ProaXe GUI software supplied for user PC

### Options
- Mechanical Limit Option: Both axes ± 180 deg
  Electromechanical brakes

### Physical characteristics
<table>
<thead>
<tr>
<th></th>
<th>Table</th>
<th>Rack</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>35 kg</td>
<td>6 kg</td>
</tr>
<tr>
<td>Dimensions (L x H x W)</td>
<td>549 x 272 x 503 mm</td>
<td>426 x 360 x 127 mm</td>
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