

## 1.01 Automated Yoke

### A. General

1. The acceptable unit shall be a Right Arm™ automated yoke manufactured by Apollo Design Technology, Inc., or equal.
2. The device shall be a single arm yoke device used to reposition on pan and tilt axes.

### B. Performance

1. The device shall accommodate lighting fixtures, video cameras, video projectors, etc. up to 40 pounds.
2. The device shall be capable of balancing attached loads to reduce demands on the motor and provide smooth and repeatable movement.
3. The device shall be backed by a comprehensive technical services department.
4. The device shall have a full tilt range of 270° and a full pan range of 340°.
5. The pan and tilt ranges of the device shall be capable of being limited to values below the full range through selectable controls on the device.
6. The device shall utilize optical sensors for reliable and accurate initialization of the position.

### C. Mechanical

1. The device without attachments shall weigh 29 pounds.
2. Along with actual material necessary, the unit shall have a powder coated black wrinkle exterior finish.
3. Provision shall be made to attach a safety cable from the device to a truss or pipe. Provision shall be made to attach a safety cable from the attached fixture to the device.
4. The device shall be fitted with internal slipping safety clutches on both pan and tilt axes.

### D. Electrical and Data

1. The device shall have both male and female 5 pin XLR type connectors to facilitate daisy chaining a DMX512 control signal to multiple devices.
2. The device shall accept input line voltage found worldwide from 100 volts to 240 volts alternating current at 50/60 Hz. The device shall require less than .5 amps to operate.
3. The device shall be controlled using DMX512 protocol.

4. The device shall have two output ports using 4 pin XLR connectors with a pin out configuration of #1 – CD common, #2 – DMX data-, #3 – DMX data+, and #4 – 24 volts DC.
5. The device shall be fully DMX512 addressable at each unit.
6. The device shall operate using either 8 bit or 16 bit resolution data for movement through selectable controls on the device.
7. Irrespective of the choice made on control resolution, internal movement processing and motor movement shall be 16 bit precision at all times.
8. An additional DMX512 channel input shall be provided for speed control.

**E. Environmental and Agency Compliance**

1. The device shall have CE and TUV certification and be so marked.