

# ROTARY TABLE - 5" GLOBE

## Description:

Rotary stage with integral DC brush motor, gear head and primary output gears, brake and hall effect sensor. Uses: ceramic turning, remote camera panning, closed loop servo control with optional quadrature encoder.

## Dimensions:

Mounting flange diameter: 5.625".

Mounting flange thickness: 0.200".

Output stage diameter: 4.625".

Output stage thickness: including mounting flange 1.825".

DC motor and gear head diameter: 1.50".

DC motor and gear head length: 5.125".

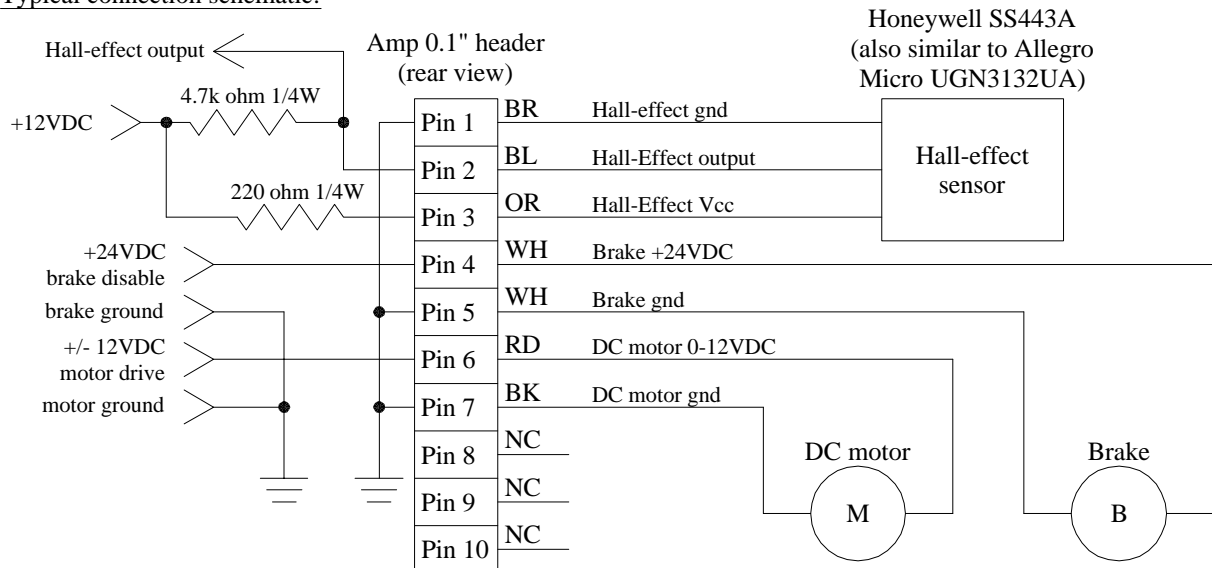
## Electrical requirements:

Brake: 24VDC.

DC motor: 0-12VDC.

Hall Effect sensor: 4.5 to 24VDC.

## Typical connection schematic:



## Typical implementation:

The Hall-effect sensor can be used in a closed loop speed control system. This will allow constant rotational velocity regardless of load variations. A brush DC motor driver with a Hall-effect input will accomplish this.

Two methods can be used for applications requiring precise CNC control of position from zero to maximum RPMs.

1. The existing brake and Hall-effect sensor can be removed and a low resolution optical quadrature encoder can be attached to the end of the DC motor shaft. A DC motor driver with a quadrature encoder input is required for this implementation. These DC motor controllers usually have a 0-10Vdc input, a direction and an enable input which is compatible with most analog CNC controllers from Bridgeport, etc.
2. The brake and Hall-effect sensor can be removed as in #1 but a small to medium stepper motor can be attached in place of the quadrature encoder. The DC motor would not be powered, it would simply be a bearing block support and mount for the stepper motor. The DC motor and stepper motor can be coupled with a light weight timing belt and pulleys or directly to the end of the DC motor shaft. In this example a standard stepper motor and stepper motor driver can be connected to a step-and-direction output of a PC based CNC controller.