

## MAGPOWR Spyder Plus Tension Control



Designed for precise tension control, MAGPOWR's cost-effective Spyder Tension Control is capable of controlling web tension in closed-loop, open-loop, unwind, rewind, point-to-point or dancer applications. It measures tension from one or more MAGPOWR load cells and outputs a corrective analog signal to control a torque device. Its reduced size means it can be hidden away in an enclosure or underneath the machine.

With its Ethernet connection, the easy-to-use Spyder can be viewed on a web browser for remote troubleshooting, programming and/or data collection. Additionally, the Spyder provides an analog input for Manual Level setpoint, control inputs for Run/Stop, Auto/Manual: Tension On/Off, and E-Stop, and a 0-1 mADC meter output proportional to measured tension.

Spyder Plus has the ability to control open loop applications, advanced features for dancer applications, and the ability to interface and share data remotely. Spyder Plus now has powerful features for dancer applications that were once only available with more expensive controls. Dancer mode now allows the unique ability to use load cells to monitor web tension, while remote setpoint adjustment improves efficiency, especially when multiple controls are used in the same application. Spyder Plus also works with third party ultrasonic or laser sensors to determine roll diameter.

### Key Features:

- Powerful tension control at an affordable price used to control clutches and brakes, or interface directly with a drive
- Troubleshooting and parameter access via a web browser
- Share data remotely with a PLC or remote PC via Ethernet with Modbus/TCP
- Advanced features for Dancer applications including Dancer Mode and Remote Setpoint Adjustment
- Adjustable taper tension
- User-friendly keypad and display
- Versatile control for unwind, rewind, point-to-point or dancer applications
- Compatible with any 3rd party ultrasonic or laser sensor (0 to 10 Vdc signal required)
- UL and CE Approved

# Specifications:

**Supply Voltage:** 24 VDC,  $\pm 10\%$ , 250 mA, 6 VA

**Enclosure:** IP-20 (IEC529)

**Temperature Range:**

Operating: - 0° C to 50° C

Storage: -30° C to +80° C

**Inputs (from load cell or dancer position):**

**Load cell:** 2.1 mV/V using +5 VDC and -5 VDC across one 350 ohm sensor or two 350 ohm sensors in parallel

**Tension Setpoint, Manual Setpoint:** 0 VDC to +10 VDC, 0.25 mADC maximum, or 1k to 10k ohm potentiometer

**E-Stop, Run/Stop, Tension Off, Auto/Manual:** switch closure or 5 VDC or 24 VDC active high/low logic, 8 mADC maximum

**Dancer Position:** 1k to 10k ohm potentiometer or a 0 to 5 VDC signal

**Outputs:**

**Torque (Main Output):**

0 to +10 vdc, 1 mADC maximum

4 to 20 mADC, 500 ohm maximum

-10 to +10 vdc, 1 mADC maximum

**Tension meter:** 0 to 1 mADC or 0 to +10 VDC analog

**Communications:** Ethernet, Modbus TCP, FTP Client, HTTP Web Server Interface

**Web Browser File Format:** html

**Ultrasonic or Laser Sensor for Diameter Input:** 0 to 10 vdc signal



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