

# Electric Actuator Controller System

## Eliminate Hydraulics in Rubber Guiding and Control

Harris Instrument is proud to introduce our new Electric Actuator Controller System, EACS-1. Eliminate potential compound contamination from high maintenance hydraulic control and guiding systems. The new EACS-1 will supply up to 1000 pounds of clean, maintenance free thrust, to replace most hydraulic guide systems in tire and rubber applications. The EACS-1 interfaces with the Scan-A-Line EG30 Edge Guide Sensors, or any of the 10XAS-Series sensors to provide an error signal for Edge or Center Guide application. The complete system includes a Scan-A-Line Sensor, a proportional control Pulse Width Modulation Amplifier and a 24 Volt DC Motor Linear Actuator.



### The Pulse Width Modulation Controller:

The system is designed to provide an interface between most Scan-A-Line sensor and a Brush Motor driven linear actuator. It employs a microprocessor design to drive a power HEXFET H-Bridge to supply 24 Volt output up to 8 Amps with pulse width modulated duty cycles from 0 to 99 % - providing true proportional control of the actuator speed. The speed with which the system responds to a small error can be adjusted with an internal gain adjustment control. A Target Offset control permits operator changes to the target position. The controller also features Auto/Manual control Jog switches - all available remotely. The controller uses a standard NEMA enclosure. The EACS-1 operates from standard 117 VAC 50 to 60 Hz power at 2 Amps. (220VAC optional).

### The Actuator:



Actuators are available with strokes of 4-inch, 8-inch, or 12-inch to meet varied control requirements. Thrusts may be selected for 500, 1000, or 1500 pounds, rated at 25% duty at full operating speed and load. A built in anti-back driving brake holds the actuator position against movement when power is not applied to the motor. A ball bearing drive screw system ensures trouble free operation in the most demanding environments. Drive velocities depend on the thrust and load ratings selected, but range from 2.4 inches per second at a 500-pound load to 0.6 inches per second at 1000 pounds. In many applications these actuators will require little or no maintenance.

### Scan-A-Line Sensors:

Harris Instrument has over 20 years experience in supplying a wide variety of non-contact guide and measurement sensors. We can provide reliable precision measurement and position control in the most demanding industrial environments. Our scanned LED technology can measure edge position, independent of product density, background light levels or normal dirt buildup. By relying on our quartz crystal time base for a precision scan velocity, we become independent of many of the factors that make other sensors fail in the same situations.

Many web applications require both measurement and guide control. Web width is a common requirement in coating operations as well as extrusion lines in the tire and belting industry. Customers with existing Scan-A-Line Width sensors can add the EACS-1 for outstanding position control. Without disturbing the measurement process. Other position sensors can be replaced with Scan-A-Line sensors to provide both position control and 100% width inspection for SPC requirements. The EACS-1 is also used in the roofing industry for rugged trouble-free web guiding.



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