# Electric power steering controller

**Curtis Instruments (USA) has added the Model 1222 electric power steering controller (EPS) to their motor controllers line. The controller features CANopen.**

The product has a steering command input via CAN (Photo: Curtis Instruments)

THE AC INDUCTION MOTOR CONTROLLER is made for ‘steer by wire’ electric power steering systems. In these systems, the steering motor functions act as an actuator to change the angle of the vehicle’s steered wheel(s) and so change the direction of travel. The unit performs as the steering system controller, interpreting the steering command input and wheel position feedback, then driving the steering motor to move the steered wheel to the desired position.

The controller is designed for use in EPS applications in material handling and other light industrial vehicles. These include reach-trucks, man-up warehouse trucks, order pickers, stackers, tow tractors and other industrial vehicles. Versatile steering input and position feedback options include dual redundant quadrature encoder, sin/cosine sensors or analog voltage inputs. Safety is given by a 5-A high-side fault output driver consisting of two switches in parallel, each switch controlled by separate microprocessors with independent supervision.

The product accepts 24 V to 48V system voltages and is rated to deliver 70 A RMS for a full 2 minutes. It is suitable for the control of AC induction gear-motors in a 300 W to 1500 W power range. Primary features include closed-loop performance in both absolute position and relative position control mode as well as configurable homing methods, center offset, auto-center and end-stop protection functions. The controller features CANopen communications, allowing interfacing with the traction controller, system manager or other CANopen devices on the vehicle. It is programmable using Curtis handheld or PC software tools. A 35-pin AMP-seal logic connector provides ample I/O, even for fully redundant configurations and helps ensure that the controller is sealed against ingress of dust and liquids to IP65 for use in harsh environments.