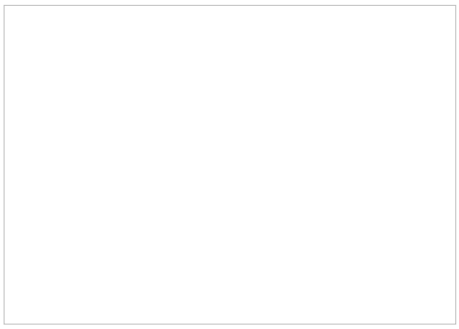
CAN Newsletter Online

Drives with safe torque-off function

Metronix (Germany) will present at the SPS/IPC/Drives exhibition in Nuremberg (Germany) its DIS-2 series of drives featuring functional safety capability. The products are available with CANopen connectivity.



THE DIS-2 CAN BE USED AS DRIVE CONTROLLER or mounted on a servo to create a stand-alone servomotor. The module features functional safety by means of a torque-off function (PLe category 3 according to ISO 13849-1). Since its launch the non-safety DIS-2 has become one of the company's most popular products. The rugged decentralized positioning control and drive module has also become an important option in this segment of the motion control market. It does not restrict users to particular brands of servomotor, and it can be mounted either directly on the motor or remotely to suit the available space. Many machine builders like decentralized motion control solutions because they simplify machine design and assembly.

For example, by integrating the motor and encoder connections inside the module, the drive reduces the cabling normally required. When used as a decentralized drive it also allows machine builders to reduce the size of automation control cabinets. The IP67-rated drives are suitable for brushless synchronous motor and measures 56 mm x 80 mm x 112 mm. The footprint of the safety-equipped drives is identical to previous modules.

The functional safety drives can be used for velocity, torque, and positioning control. The range of potential applications includes simple automation solutions for common manufacturing functions such as synchronizing and sorting, materials handling and conveying systems, robotic unmanned trucks, and axes that automate auxiliary functions such as set up and guarding on machine tools or printing presses. Modular machinery or plant automation - which can be assembled easily to suit specific applications by combining modular elements - are also common applications for this form of decentralized motion control technology. To realize multi-axis systems for higher performance and more complex movements such as interpolated motion, a CANopen interface is provided.

The drives are available with two choices of output ratings: 2-A continuous/6-A peak with a 230/115-VAC power supply, or 15-A continuous/40-A peak with a 48-VDC power supply, and come with built-in digital and analog I/O. An EIA-232 port and a encoder interface are additional features. A Windows-based programming, configuration and diagnostic software tool is available to users to create embedded drive and machine control software.

The manufacturer has been producing motion controllers for industrial machines and automotive applications for over 30 years. Its product range includes smart servo drives with integrated positioning capability, plus motion controllers and accessories that provide cost-effective solutions for multi-axis motion control and automation, and decentralized machine control requirements. The company was one of the first implementing the CiA 402 profile for drives and motion controllers. Metronix is part of the Apex Tool Group, headquartered in USA. The mother company has more than 7600 employees in over 30 countries. Metronix's design and manufacturing facility is located in Braunschweig (Germany).