

SERVO DRIVE

Double-axis drive in IP67 housing

Parker Hannifin, supplier of motion and control products, has unveiled Servonet DC, a double-axis servo drive built into an IP67-rated housing. The housing permits use in challenging environments outside of the cabinet.



The servo drive allows a decentralized approach to motion control functionality, which is executed by means of an optional CANopen communication (Photo: Parker)

Target applications of the servo drive include packaging machines and rotary tables where numerous drives and motors are present. The wiring of the double-axis (5 A/10 A or 10 A/10 A) system uses a hybrid cable, which transfers the required power, control and communications signaling. All wiring changes are made on the machine via plug and socket Faston connectors rather than in the electrical cabinet. The reduced number of connections also means fewer potential failure points. The system is complemented by a series of servo motors (rotary and linear), a power supply, and an interface module, which is the only part that remains inside the cabinet.

The company says that the Servonet DC has been developed in response to growing demand for high quality yet cost effective solutions to multi-axis applications, where a number of drives are mounted in close proximity on the machine. Here, the servo drive allows a decentralized approach to motion control functionality, which is executed by means of optional CANopen CiA 402 communication or Ethercat. In turn, this provides the potential for savings in time and materials, while offering design engineers with the opportunity to reduce the machine footprint.

Additional axes can be added as required by duplicating schematic drawings from other axes. A further benefit is that the Servonet DC works on a common DC bus power supply. This means that the system can absorb and resupply much of the braking energy to other units rather than dissipating it in the form of heat via external resistors. As a result, resistors can be removed completely in certain applications, while in others small resistors are sufficient. Servonet DC solutions can be deployed together with motor-integrated drives of Parker's Motornet DC family, as the cabling concept and communication protocol are identical.

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