Press Release

Sharpen your profile with Sercos at Hannover Fair 2014

Engraving demo machine with new Schneider Electric Sercos-based Modicon LMC078 control to highlight Sercos booth at Hannover Fair 2014

Sercos International, supplier of the Sercos® automation bus, will present an engraving machine demo from Schneider Electric at its joint booth at Hannover Fair from April 7 to April 11 in **hall 9, booth F80**.

The engraving machine from Schneider Electric shows how NC applications can be implemented with a standard motion controller from the Modicon series and the Sercos automation bus. The new Modicon LMC078 combines motion control functionality for up to 16 servo axes on a single controller platform with a powerful PLC that can process a PLC instruction in 2 nanoseconds. The Sercos-based automation bus enables a maximum cycle time of 2 ms for applications using 16 servo axes.

As the technical heart of the engraving machine, the controller communicates with five Lexium servo drives via Sercos III and with an Altivar variable frequency drive via CANopen. The motion mechanics for the milling head are based on elements from the linear motion library, also part of the Schneider Electric portfolio. During the engraving operation, the Modicon LMC078 moves the milling head, which can travel in three axes within the working space, in a so-called 2½ D operation.

The machine uses the G-Code data from a graphic to create a two-dimensional engraving on a plastic substrate while the substrate rotates. The G-Code data can be stored as a program in the controller or can be dynamically generated by CAM software and loaded into the controller via the Ethernet interface. In a second option, the graphic is generated using standard CAD or graphics software and imported into the CAM software as a DXF file. The CAM software then uses the DXF file to generate the G-Code appropriate for the controller (e.g. Modicon LMC078) and the machine type, in this case the engraving machine.

Visitors to the Sercos joint booth are invited to have their profile created. In addition to the demo engraving machine, numerous new products including drives, safety components, network components, etc. will be displayed.

Also on display will be a blended infrastructure conceptual approach that simplifies the integration of machinery in manufacturing. True to the slogan "Fewer cables, less complexity, easier machine integration," Sercos International developed this approach in collaboration with ODVA and the OPC Foundation. A common network infrastructure where Sercos telegrams, CIP messages and TCP/IP telegrams run on one single cable allows mechanical engineers and users to reduce the costs and complexity involved in machine integration. At the same time, they are able to continue using their preferred product suppliers and automation devices and can benefit from more than 1,000 connection options.

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More information can be obtained via the Sercos eNewsletter or website.

About Sercos International

Sercos International is an association of users and manufacturers that is in charge of technical development, standardization, certification and marketing for the Sercos automation bus. Conformance tests guarantee that Sercos implementations are standard-compliant ensuring that devices from different manufacturers can be combined. Based in Germany, the organization presently has more than 90 member companies located around the world and has national liaison offices in North America and Asia.

About Sercos

The SErial Realtime COmmunication System, or Sercos, is one of the world's leading digital interfaces for communication between controls, drives and decentralized peripheral devices. Sercos has been used in machine engineering for approximately 25 years and is implemented in over 4 million real-time nodes. With its open, manufacturer-independent Ethernet-based architecture, Sercos III is a universal bus for all automation solutions.

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