

Automation and Drives

For the Trade Press

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Modular I/O add-ons for flexible industrial PC solutions

The Simatic Microbox PC 420, the industrial PC composed of the rugged Embedded series of units from Siemens Automation and Drives (A&D), can now be flexibly expanded with modules for central I/O (input/output) tasks. A maximum of 120 analog I/Os, 320 digital I/Os and 12 encoder/counter interfaces can be added in the form of new digital and analog I/O modules as well as encoders/counters integrated by means of the PC/104 modules. The new product is especially suitable for fast measurement, open-loop control and closed-loop control tasks with real-time capability in an industrial environment.

Up to three basic modules can be added to the Microbox PC 420 by means of the PC/104 Plus interface. Each of these modules has four encoder/counter interfaces as well as four communication interfaces for connecting digital and analog I/O expansion modules. Depending on the application, the basic modules are then supplemented with digital and analog I/O units. The integrated controller which performs rapid signal processing takes some of the load off the Microbox PC processor and can be programmed in a variety of ways, for example in order to define the extent of pre-processing of the counters, encoders or analog and digital input signals.

The analog I/O module has eight analog inputs with a selectable input voltage range, eight outputs, as well as four PT100 connections for temperature detection. The digital I/O module has 16 floating digital inputs and outputs, including voltage supply as well as eight digital 0.1 millisecond inputs for 24 volts, including voltage supply. The digital inputs have interrupt capability and enable fast reaction to events in real-time mode.

Spring-loaded plug-in terminals with a permanent spring contact force ensure constant contacting even when the terminals are subjected to shocks and vibrations. The direct connector system with direct connection of the signal cables to the interfaces of the I/O modules without any additional terminal block facilitates installation, commissioning and servicing. In order to ensure high system availability, monitoring and diagnostic functions have been integrated for watchdog, heartbeat and communication with the I/O modules as well as for signal monitoring of the digital outputs in the event of short-circuits, undervoltage, broken cables or overheating.

The new PC I/Os can be used with the Windows XP Professional and XP embedded operating systems as well as with RMOS3, a real-time operating system.

Further information on the Internet at: www.siemens.com/simatic-pc

This press release is supplemented by a photo which you can view in the Internet at: www.siemens.com/ad-picture/1322



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