CAN *Newsletter Online*

Fan-less Linux PLC

Wago (Germany) has released the PFC200 controller series based on a Linux real-time operating system. The IEC 61131-3 compliant device optionally provides CANopen connectivity.

THE CONTROLLER FEATURING A CORTEX-A8 processor is compatible with all controllers and modules within the Wago's 750 I/O series. The bus-independent 750 series also supporting CANopen and Devicenet comprises more than 400 I/O modules. The bus-couplers optionally provide PLC functionality.

The fan-less controller provides SDHC memory not requiring back-up batteries. It can be configured either via the embedded Web server, the Codesys programming environment (IEC 61131-3) by 3S, or the configuration dialog (Linux console). No specific operating system knowledge is required. Besides the CAN interface, the products provide two Ethernet ports. It supports DHCP, DNS, SNTP, FTP, TELNET, HTTP and Modbus TCP/UDP protocols for communication with higher-level systems. Furthermore, SSH and SSL/TLS protocols are provided as standard features, enabling secure connections via HTTPS or FTPS.

The PFC200 control unit integrates bus-coupler to CAN-based networks running CANopen, Devicenet, or proprietary higher-layer protocols

The 750-658 gateway module provides CANopen, DeviceNet or J1939 support

Already end of last year, the German company has introduced the 750-658 gateway module connecting CAN-based networks to the I/O system series. This module can be integrated into CANopen, DeviceNet or J1939 networks with protocol-specific functions being implemented using an application program. It supports CAN data-rates from 20 kbit/s to 1 Mbit/s using automatic bit-rate detection. The system-designer can also set a fixed transmission rate. Using six configurable filters for input messages, CAN data frames can be filtered by means of identifier formats (11-bit or 29-bit identifiers).

The gateway module supports three operating modes: In the sniffer mode the device performs a detailed analysis of the unaffected CAN network through passive "snooping," whereas in the transparent mode it becomes an active CAN subscriber that can send and receive CAN frames. In the third operating mode, the mapped mode, the module is able to generate CAN frames directly from the process map, or to selectively copy process values from received telegrams into the input process map. Transmitting of values here can be selected to take place in cycles, on manual commands or when the process value changes.