

Host controller with multiple I/Os

Sensor-Technik Wiedemann (STW) adds a product to its ESX family of host controllers for mobile machinery. It comes with two CAN connections.

The product is programmable, compatible with regard to input and output types to other members of the ESX family, and supported through the STW toolchain. Developed and produced for use in adverse conditions, the unit extends the 32-bit ESX control unit family by a small control unit, said the company. The main feature of this control unit is that the input and output types are compatible with those of the ESX-3CM. In this way, scalability of the functionalities is facilitated for customers. With a total of 30 analog and digital inputs and outputs in the standard configuration, the ESX-3CS has been designed as a control unit with sensor-actuator management.

The product launched at SPS IPC Drives 2017 in Nuremberg (Germany) comes with 16 multi-functional inputs. The input functionality can be adjusted by means of software. Here the detection of power, voltage, frequencies, or digital switching conditions (events) is possible at the input. Additionally, up to 14 outputs are available. Through the parallel switching of several outputs within a group, actuators with higher power requirements can also be controlled. Two of the outputs are designed as low-side outputs and thus facilitate bi-channel shutdown of actuators if required. For communication purposes, the unit offers, in addition to the two CAN connections, an optional Ethernet, an EIA-232, and a LIN interface.

Like the ESX-3CM, the ESX-3CS is based on a 32-bit Tricore processor by Infineon. It is clocked with 300 MHz. Optionally a separate system supervisor with programmable watchdog is available. The development environments for the programming languages "C" and IEC 61131-3 (Codesys) are also provided.

The ESX-3CS complies with the standards for conformity according to CE and E1 as well as the standards for the vehicle, agricultural and construction machine industry. Planning is underway for a further version for safety-orientated applications according to PLd (ISO 13489-1:2008) or SIL 2 (IEC 61508:2010).



The new housing concept is shown at SPS IPC Drives 2017 (Photo: STW)

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