Compact Embedded PC CX8093 with PROFINET interface

Small local controller integrates virtual device

The CX8093 Embedded PC from Beckhoff is equipped with a PROFINET RT device interface designed as a 2-port switch for daisy-chain cabling. A special feature is the added functionality of a virtual device which can be used to double the process data size or to connect a second controller.

When the optional virtual device (slave interface) is activated, the CX8093 Embedded PC behaves like two PROFINET devices. Accordingly, twice the maximum input/output data volume can be processed – with PROFINET approx. 1000 bytes, i.e. the CX8093 can process twice the number of PROFINET process data. The network name of the "two" devices can be set via the address switch or the TwinCAT System Manager. The IP settings are allocated by the PROFINET controller.

A further benefit of the virtual device is the ability to communicate with a second PROFINET controller, which is a simple way to increase system availability. On the one hand, the CX8093 (as a local controller) can verify the two incoming master signals by means of a plausibility check to monitor the function of the cabling, for example. On the other hand, failure of one of the masters can be detected and the second master can respond accordingly.

The space-saving CX8093 Embedded PC measures only 65 x 100 x 80 mm. It runs Windows CE 6.0 and features a 400 MHz ARM9 CPU, 64 MB RAM and a MicroSD card with up to 4 GB storage capacity. In addition to Bus Terminals, EtherCAT Terminals can also be connected directly to the CX8093. During start-up, the CX8093 automatically detects which of these I/O systems is connected. Another special feature is a capacitive 1-second UPS that enables persistent data to be saved in the event of a supply voltage failure. The controller is programmed via the TwinCAT PLC automation software. The CX80xx series is also available for other bus systems such as Ethernet, EtherNet/IP, PROFIBUS, BACnet/IP, CANopen or OPC UA.

Further Information:
www.beckhoff.com/CX8093