DATA SHEET

# sysWORXX CTR-710


**Quick installation and replacement in the field without errors in the cabling**
Enable your technicians and operators to easily exchange field devices with our sysWORXX CTR-710.
The alternative version of our Linux-based compact controller is fully compatible with the sysWORXX CTR-700 and additionally features Molex Micro Clasp connectors for quick-release connection of all local inputs and outputs as well as communication interfaces via mating connectors. The removable connectors allow efficient pre-assembly of the connection cables (cable harness).

As a freely programmable Linux compact controller for automation and digitization, it offers you the simplest application creation in all common high-level programming languages such as C/C++, Rust, C# (Mono), Java and Python.
The CTR-710 is also programmable as PLC in IEC 61131-3 with the programming environment OpenPCS. For easy entry, even for non-informaticians, the low-code environment Node-RED is immediately usable. The CTR module is ready for use with all common cloud providers through standard protocols such as MQTT, REST and OPC UA.

This module is particularly suitable for the use of pre-assembled cable harnesses and installation by untrained personnel. Thus, you can manage a complete exchange of your devices on site in the shortest possible time.

# Features & Details

| | |
|---|---|
| **GENERAL** | |
| Size (height, width, depth) | 60x162x91mm |
| Temperature range | 0°...55°C |
| Humidity | 10...95% non condensing (VDE 0110) |
| Protection class | IP 20 |
| Mounting type | Top-hat rail |
| Supply voltage | 24VDC |
| **CORE** | |
| CPU | Dual 1GHz Cortex™-A7 NXP iMX7 |
| Real-time Co-Prozessor | 200 MHz Cortex™-M4 |
| RAM | 1024 MiB |
| eMMC | 8 GiB |
| RTC | on-board, with buffer capacitor |
| Temperature sensors | CPU and IO board |
| **CONNECTIVITY** | |
| ETH | 2 (100 Mbps, each with its own MAC address) |
| CAN | 2 (CAN 2.0B) |
| SIO | 3 (software configurable: RS-232, RS-485) |
| USB Host | 1 (USB 2.0) |
| SD Card | 1 (Micro-SD) |
| Linux Console | Serial (via USB) |
| **SOFTWARE** | |
| Basic installation | Linux (Debian), I/O driver, Node-RED incl. sysWORXX nodes for on-board IOs |
| Additional licenses | IEC 61131-3 Runtime: OpenPCS (incl. CAN, CANopen, Modbus TCP/RTU, MQTT) |
| Optional | Third party software: Download via Debian OS repositories |
| | qBee Agent for Device Management via Cloud |
| **I/O INTERFACES** | |
| Digital inputs | 16 (24VDC, galvanically isolated) |
| A/B Encoder | 1 (as alternative function for DI14/DI15) |
| Highspeed Counter | 1 (Up/Down, as alternative function for DI14/DI15) |
| Digital outputs | 16 (24VDC/0.5 A, galvanically isolated) |
| PWM | 2 (as alternative function for DO14/DO15) |
| Relay | 2 (230VAC/1A, change-over contact) |
| Analog inputs | 4 (12Bit, software configurable: 0...10VDC, 0...20mA) |
| **USER INTERFACES** | |
| Switch | Run/Stop switch, Reset button, DIP switch |
| Status LEDs | Power CPU, Power Periphery, Run, Error, status of inputs and outputs |
| Maintenance access | SSH/SFTP via Ethernet, Linux console via serial/USB |