DATA SHEET

sysWORXX CTR-750

Computing power meets connectivity in the field and cloud.
Our intelligent controller sysWORXX CTR-750 is your solution for advanced connectivity and customized field connectivity with integrated LTE modem. It is an innovative, Linux-based compact controller for universal processing of standard industrial signals.

Fast and powerful like the CTR-700, it can be integrated into applications in no time.
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-750 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.

The connection to cloud or IoT platforms directly from the field is done by the integrated LTE modem. Application-specific data can be easily aggregated via numerous local inputs and outputs as well as versatile communication interfaces. Our sysWORXX CTR-750 thus takes condition monitoring directly in the field to a new level.

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	
LTE modem	integrated (EG25-G), SMA socket, Micro-SIM slot available
ETH	2 (1Gbps, each with its own MAC address)
SIO	1 (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	10 (24VDC, galvanically isolated)
A/B Encoder	1 (as alternative functions for DI8/DI9)
Highspeed Counter	2 (as alternative functions for DI8/DI9)
RTD	6 (16Bit, PT100/PT1000 as 2-, 3- or 4-wire, 50°C ... +250°C)
Thermocouples	4 (16Bit, type K with cold junction compensation, 50°C ... +250°C)
Relay	2 (230VAC/1A, normally open contact)
Analog inputs	8 (16Bit, software configurable: 0...10VDC, 0...20mA)
Analog outputs	2 (12Bit, 0...10VDC)
	2 (12Bit, 0...20mA)
USER INTERFACES	
Status LEDs	Power CPU, Power Periphery, Run, Error, status of inputs and outputs
Maintenance access	SSH/SFTP via Ethernet, Linux console via serial/USB