

TOX® SystemControl Core

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TOX® SystemControl Core

Field of application

The integrated real-time control enables precise control of the TOX®- drives and systems. The TOX®- operating system used is based on a hardened Real-Time Linux® to meet IT security requirements. The central processes of the TOX®- systems are executed and monitored by the integrated multi-core application with SoftMotion. The existing fieldbus interfaces enable connection to higher-level control systems. The device is compact in design and intended for installation in switch cabinet environments.

Properties

- Fanless device
- Optimized heat dissipation
- Reliable and robust
- Undervoltage protection by means of supercapacitors
- Fieldbus interfaces: Profinet, EtherCAT, Ethernet/IP

Technical data

Voltage	Min.	19.2 V DC
	Type	24 V DC
	Max.	28.8 V DC
Power consumption (during operation)	7 W	
Operating temperature range	+0 °C - +60 °C	
Protection class (switch cabinet installation)	IP20	
Weight	1.5 kg	
Fixture / mounting	Retaining plate for mounting in the switch cabinet	
Processor	Cortex A72 (up to 1.5 Ghz), 4 cores	
Working storage	LPDDR4 / 4 GB	
Start-up time	< 20 s	
Typical buffer time (at rated power)	10 s	
Removable disk	Type	MicroSD
	Capacity	32 GB, contains customer-specific, project-specific configuration
eMMC	16 GB, contains operating system	
Real Time Clock battery	CR2032	
Cooling	Without fan	
Transport / storage temperature	-20 °C - +70 °C	
Operating system	TOX® OperatingSystem: hardened Linux® system	
Fieldbus options	Profinet, Ethernet/IP, EtherCAT	

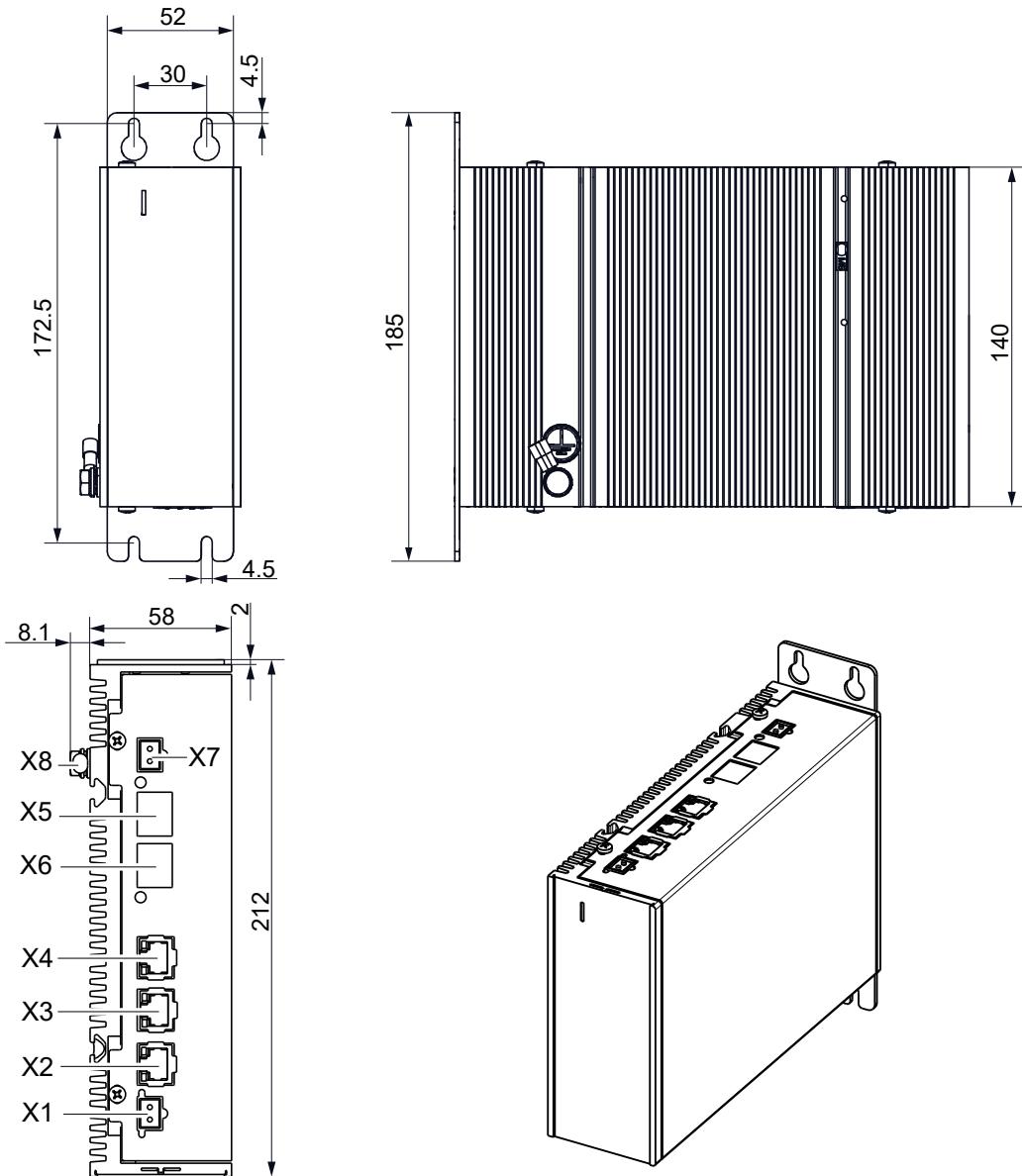
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Connection allocation

Designation	Model	Function	Pin allocation
X1 Power	Phoenix MSTBA Raster 5.08.	Power IN, buffered internally (UPS)	<ul style="list-style-type: none"> ■ Pin 1 = 24 V ■ Pin 2 = GND
X2 EtherCAT Master	RJ45	Max. 100 Mbit	<ul style="list-style-type: none"> ■ Pin 1 = TD+ ■ Pin 2 = RD+ ■ Pin 3 = TD- ■ Pin 4 = - ■ Pin 5 = - ■ Pin 6 = RD- ■ Pin 7 = - ■ Pin 8 = -
X3 Ethernet TOX®	RJ45	Max. 1 Gbit, communication with TOX® software/HMI, buffered (UPS)	See pin allocation X2
X4 Ethernet (customer)	RJ45	Max. 100 Mbit, for free use, DHCP preset	See pin allocation X2
X5 Fieldbus In	RJ45	Optional Profinet, Ethernet/IP, EtherCAT Realtime Ethernet Port A	See pin allocation X2
X6 Fieldbus Out	RJ45	Optional Profinet, Ethernet/IP, EtherCAT Realtime Ethernet Port B	See pin allocation X2
X7 Power	Phoenix MSTBA Raster 5.08.	External fieldbus power to maintain switch functionality X5 + X6	<ul style="list-style-type: none"> ■ Pin 1 = 24 V ■ Pin 2 = GND
X8 PE	M6		

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Dimensions



Mounting instructions and installation distances can be found in our operating instructions.

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System overview

