

XCP-Gateway pro



Product description

The protocol converter **XCP-Gateway pro** is especially designed for the CSM EtherCAT® measurement module series and has been developed for measurement tasks with numerous measurement channels and high measurement data rates. The **XCP-Gateway pro** allows the linking of CSM EtherCAT® measurement devices to the data protocol XCP-on-Ethernet, thus combining the advantages of data acquisition via EtherCAT® with the flexibility of the wide-spread standard XCP-on-Ethernet. In addition, temperature information from CSM HV Breakout Modules can be transferred via EtherCAT®.

XCP-Gateway pro features two CAN interfaces for connecting CSM CAN bus measurement modules, allowing the integration of their measurement data into the protocol XCP-on-Ethernet. PTP according to IEEE 1588 is used as the synchronization mechanism for other measurement chains.

All measurement modules receive their power supply from the **XCP-Gateway pro**. The configuration of both EtherCAT® and CAN measurement modules is done in CSMconfig.

Scope of delivery

- ▶ XCP-Gateway pro
- ▶ Configuration software CSMconfig
- ▶ Documentation



Key features

- ▶ EtherCAT® to XCP-on-Ethernet converter
 - ▶ EtherCAT®: time synchronization of all measurement signals via PTP (IEEE 1588)
 - ▶ XCP-on-Ethernet: accuracy of measurement signal time stamps is 1µs
- ▶ Suited for 4.5 million data points per second (MS/s), e.g. four channels with 1MHz
- ▶ Autonomous master for CSM EtherCAT® devices of the measurement module series
- ▶ 2 CAN interfaces for connecting CSM CAN bus measurement modules
- ▶ Simple configuration of XCP-Gateway pro and connected measurement modules via CSMconfig

Accessories

- ▶ See datasheets "XCP/ECAT Accessories" and "CAN Accessories"

Technical data

Type designation	XCP-Gateway pro
PC	
Physical layer	Ethernet 100Base-TX, 100 Mbit/s
Protocol	XCP on UDP/IP
ECAT	
Physical layer	Ethernet 100Base-TX, 100 Mbit/s
Protocol	EtherCAT®
CAN	CAN 2.0B (active), High Speed (ISO 11898-2:2016), 125 kbit/s to 1 Mbit/s for connecting CAN-based CSM measurement modules
Configuration	via CSMconfig, settings are stored in the device
Power supply	
Minimum	6 V DC (-10 %)
Maximum	50 V DC (+10 %)
Power consumption	typ. 2 W
LED Ethernet	Link/Activity PC (green)/Link/Activity ECAT (green)
LED Status	2 multi-colored LEDs for DEV and ECAT
LED CAN/PWR	interface activated (green)
Housing	aluminum, silver anodized
Protection class	IP67
Weight (device)	approx. 400 g
Dimensions (w × h × d)	approx. 200 × 40 × 50 mm (Slide Case)
Connectors ¹	
PC (Ethernet/power supply)	LEMO 1B, 8-pole, code L
ECAT (EtherCAT®/power supply)	LEMO 1B, 8-pole, code A
CAN/PWR	LEMO 0B, 5-pole, code G
Sync	LEMO 0B, 2-pole, code G (galvanically isolated)
Operating and storage conditions	
Operating temperature	-40 °C to +85 °C
Relative humidity	5 % to 95 %
Pollution degree	3
Storage temperature	-55 °C to +90 °C
Conformity	CE

¹ Optionally available in other variants.



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