

COMTRAXX® CP700

Condition Monitor for Bender BMS devices
and universal measuring devices



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Device features

- Condition Monitor for Bender BMS devices and universal measuring devices
- 7" TFT WVGA Color Display
- Analogue resistive touch screen
- Small mounting depth
- Fanless operation
- Integrated gateway to Ethernet (TCP/IP), 10/100/1000 Mbit/s
- Remote access via LAN, WAN or Internet
- Support for devices connected to the internal BMS bus via Modbus RTU or Modbus/TCP.

Typical applications

- Clear information about device and system statuses via 7-inch touch screen
- Specific system overview according to individual system description
- Display und visualisation of device and system statuses via web browser
- Selective e-mail notification to various user groups in the event of alarms
- Support of professional visualisation programs
- Observing and analysing of Bender products with communication capabilities (universal measuring devices, RCMS, Isometer, EDS systems)
- Parameter setting for devices, storing, documentation and restoring of parameters in a clear and practice-oriented manner
- Remote diagnosis, remote maintenance

Device characteristics

Scope of functions

- Display of currently measured values, operating and alarm messages from Bender BMS devices and Bender universal measuring devices on the touch screen
- Remote indication of data from Bender BMS devices and Bender universal measuring devices using a standard web browser with Silverlight plug-in
- Time synchronisation for all BMS bus devices and Bender universal measuring devices
- Easy address setting via touch screen
- Fast, simple parameter setting of BMS devices using the PC's web browser.
- Report function saves measured values and settings. Saved settings can be compared with the current settings and can be reloaded.
- Password-protected device menu
- Assignment of individual texts for devices and measuring points (channels) and alarms
- E-mail notifications to different user groups according to a time controlled schedule in the event of alarms and system faults
- Monitoring for device failure

Function module E

- 100 virtual devices with 16 channels each can be created.

Function module F

- 1,600 data points from third-party devices (via Modbus RTU or Modbus TCP) can be integrated into the system.

Access via Modbus/TCP

- Uniform access to all Bender devices assigned to the CP700 via the integrated Modbus/TCP server (max. 247 devices)
- Bender BMS devices can be controlled by an external application (e.g. visualisation or SPS) via Modbus/TCP
- Support of professional visualisation programs by the Modbus/TCP protocol

Visualisation

- Fast and easy visualisation on a personal computer without previous knowledge of computer programming. Measured values or alarms can be arranged in front of a graphic (system diagram, room plan) and displayed
- Multipage documents supported

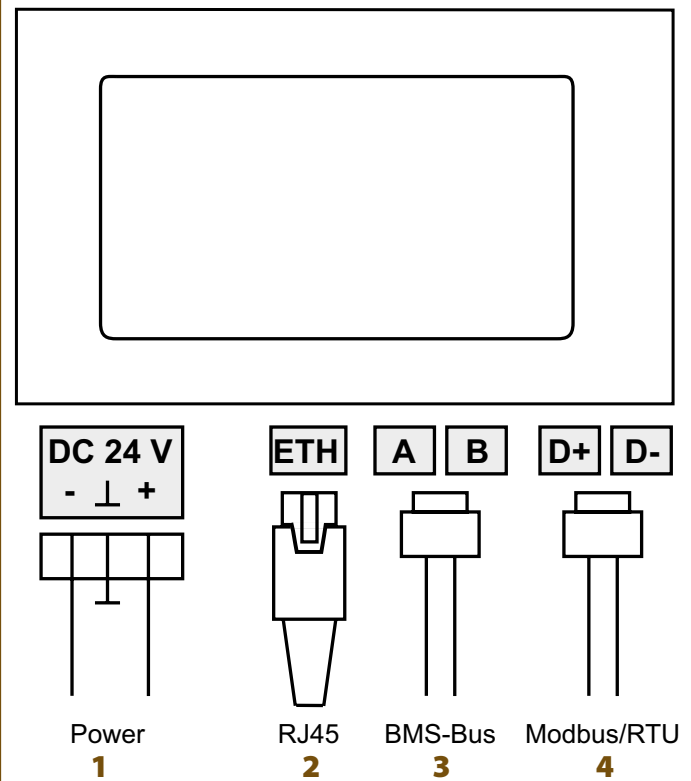
Note: The five year guarantee "5forU" does not include parts subject to wear.

Operating elements



1 - LC display with touch screen for standard and menu mode

Wiring diagram



- 1 - Connection to supply voltage, DC 24 V
- 2 - RJ45 connection for connection to personal computer resp. to the local network
- 3 - Connection BMS bus (cable included in the scope of delivery)
- 4 - Connection Modbus RTU (cable included in the scope of delivery)

Ordering information

Supply voltage/ frequency range U_s	Power consumption	Type	Art. No.
DC			
24 V/± 25 %	typ. 11 W/max. 26 W	CP700	B 9506 1030

Function modules

Application	Function module (software licence)	Art. no.
Virtual devices	Function module E	B 7506 1015
Integration of third-party devices	Function module F	B 7506 1016

Recommended power supply units

Material number/type	Manufacturer	Description
OPS1025.2	B&R	DC 24 V power supply unit, 2.5 A, input AC 100...240 V, DIN-rail mounting/wall mounting WxHxD: 72 x 90 x 61 mm
OPS1020.0	B&R	DC 24 V power supply unit, 2 A, input AC 100...240 V, DIN rail mounting WxHxD: 45 x 99 x 107 mm
1SVR427044R0200/CP-D 24/2.5 EAN: 4016779661188	ABB	Power supply unit In: AC 100...240 V Out: DC 24 V/2.5 A, DIN-rail mounting WxHxD: 71 x 91 x 57.5 mm

Technical data

Insulation coordination acc. to IEC 60664-1

Rated insulation voltage	AC 250 V
Rated impulse voltage/pollution degree	4 kV/3

Supply voltage

Supply voltage U_s	see ordering information
Frequency range U_s	see ordering information
Power consumption	see ordering information

Displays, memory

Display	7" TFT WVGA Color
LEDs	Power, CF, Link, Run, Master/Slave
Button	Power, Reset
Buzzer	no
Memory card for special device functions (CF card)	4 GB
E-mail configuration and device failure monitoring	max. 250 entries
Individual texts	max. 1200 texts with 100 characters each
Devices that can be displayed	max. 247

Interfaces

BMS bus:

Interface/protocol	RS-485/BMS internal
Operating mode (max. one CP700 per bus)	master/slave (slave)*
Device address, BMS bus	1...99 (2)*
Baud rate BMS	9.6 kbit/s

Modbus RTU:

Interface/protocol	RS-485/Modbus RTU
Operating mode	master
Baud rate Modbus RTU	9.6 kbit/s ... 57.6 kbit/s

Cable length	≤ 1200 m
Cable (twisted pairs, shielded, shield connected to PE on one side)	recommended: J-Y(St)Y min. 2x0.8
Connection, BMS	terminals A, B
Connection, Modbus RTU	terminals D+, D-
Terminating resistor	120 Ω (0.25 W)

Ethernet:

Connection	RJ45
Data rate	10/100/1000 Mbit/s, autotetect
DHCP	on/off (on)*
t_{off} (DHCP)	5...60 s (30 s)*
IP address	nnn.nnn.nnn.nnn (192.168.0.254)*
Netmask	nnn.nnn.nnn.nnn (255.255.0.0)*
Protocols	TCP/IP, Modbus/TCP, DHCP, SMTP, NTP

Additional interface protocols	connection to SCADA systems and/or PLC via OPC, BACnet or other protocols on request
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Environment/EMC

EMC	EN 61326-1
Classification of climatic conditions acc. to IEC 60721:	
Stationary use	3K5
Transport	2K3
Long-term storage	1K4
Operating temperature	0...+55 °C
Ventilation	fanless
Classification of mechanical conditions acc. to IEC 60721:	
Stationary use	3M4
Transport	2M2
Long-term storage	1M3

Connection

Connection	plug connectors
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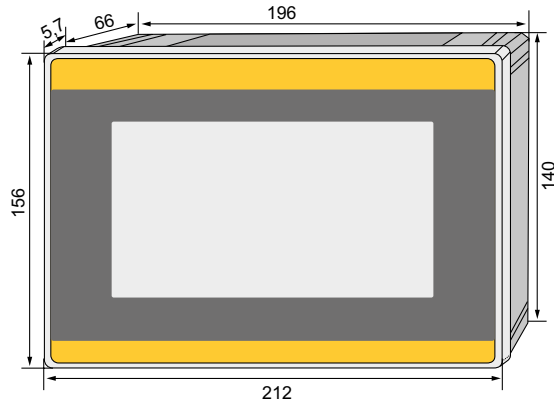
General data

Operating mode	continuous operation
Mounting	display oriented
Degree of protection, on the front (IEC 60529)	IP65
Degree of protection, on the rear (IEC 60529)	IP20
Type of enclosure	panel mounting
Control panel cut-out	199x143 mm
Screw mounting	with mounting brackets
Flammability class	UL94V-0
Weight	≤ 1200 g

()* = factory setting

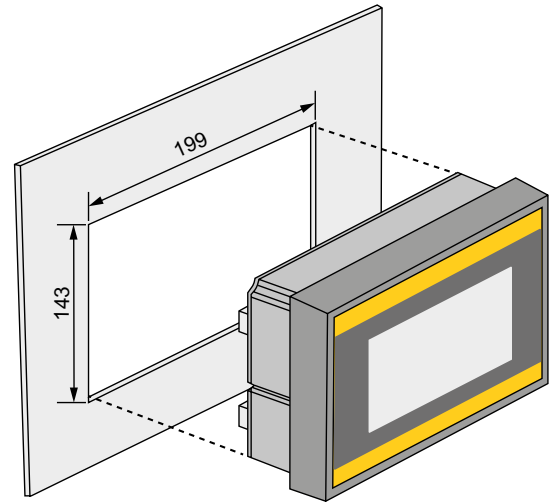
Dimension diagram

Dimensions in mm

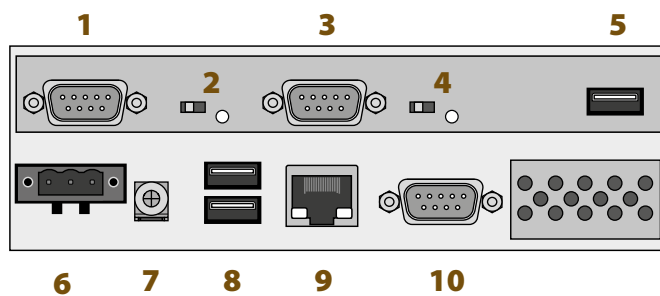


Control panel cut-out

Dimensions in mm

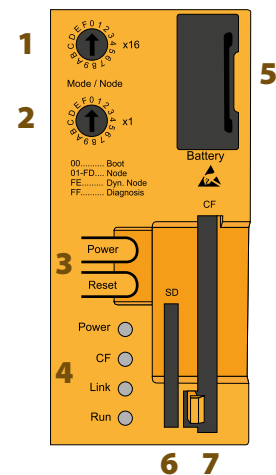


Interfaces



- 1 - Interface Modbus RTU
- 2 - Switch and LED master/slave for interface Modbus RTU
- 3 - BMS bus (Bender measuring device interface)
- 4 - Switch and LED master/slave for BMS bus
- 5 - USB interface, without function
- 6 - Connection of supply voltage, DC 24 V
- 7 - Functional earth
- 8 - USB interfaces, without function
- 9 - Ethernet 10/100/1000, port for connection to the personal computer resp. to the local network (hub, switch, router)
- 10 - RS-232 interface, without function

Rear cover



- 1 - Mode/node switch x16
- 2 - Mode/node switch x1
- 3 - Buttons: Power, Reset
- 4 - LEDs: Power, CF, Link, Run
- 5 - Battery
- 6 - SD memory card slot
- 7 - Compact flash card slot



Bender GmbH & Co. KG

P.O. Box 1161 • 35301 Gruenberg • Germany
Londorfer Strasse 65 • 35305 Gruenberg • Germany
Tel.: +49 6401 807-0 • Fax: +49 6401 807-259
E-Mail: info@bender.de • www.bender.de



BENDER Group