COMTRAXX® CP9xx – Control Panel

Alarm indicator and operator panel for medical locations and other areas

BENDER Group

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Alarm indicator and operator panel for medical locations and other areas

Control Panel

Device features

- Display size 7", 15" and 24" with tempered and anti-reflective glass
- Easy to clean and to desinfect, degree of protection IP54
- Screwless mounted front plate
- User-friendly touch-sensitive monitoring system for medical locations and other applications
- Particularly simple operation
- Additional information for medical and technical personnel
- Visual and acoustic notification in the event of an alarm
- Clear menu structure with self-explanatory interactive images
- Clearly labelled safety functions
- Silent due to operation without fan
- High-quality display with excellent contrast, high resolution and wide viewing angle
- Possibility of graphical integration of building plans or status display in photo quality
- Easy integration of external equipment like charging stations for operating theatre table controls and intercom systems with front foil
- Simple conversion and expansion with minimal service interruptions

Approvals and certifications

only CP907

Product description

At the interface between humans and machines, alarm indicator and operator panels play a key role. Their task consists in emitting a visual and acoustic alarm and converting information from the system into comprehensible operating and handling instructions. This applies in particular to critical operating situations. The CP9xx Control Panel offers the user a solution that meets the requirements of modern medical locations as well as industrial und purpose-built buildings.

Possible applications:
Monitoring, operation and display of:

- Medical Isolated Power Systems (IPS)
- Supply systems for medical gases
- Ventilation and air-conditioning systems
- Room lighting
- Operating theatre lights
- Special power supply systems (BSV (battery-based safety power supply) or UPS (uninterruptible power supply)
- Further systems from different manufacturers.

Optional accessories:

- The remote I/O system offers numerous options for integrating digital and analogue I/Os with different operating voltages, capacities, measurement signals or special functions into the alarm indicator and operator panel.
- Communication with building management systems via common interfaces, such as Modbus TCP, Modbus RTU, PROFIBUS, KNX, LonWorks, Sercos interface, InterBus, Dali, CANopen, EtherNet/IP, CC-Link, DeviceNet, BACnet, PROFINET.

The result is an all-around system which is both modular and flexible and can thus be adjusted, expanded or connected to new technologies.

Configuration, diagnosis, service:
Each panel can be individually manufactured and tailored to the requirements of the user. The integration of the technical equipment into a single panel creates a technical monitoring centre. It provides diagnostic options through an overall system overview from a central location via a web browser, supported by data loggers and history memory.

Optional parameter setting (setting limit values, entering individual customer texts, editing the system configuration, etc.) is available.

Ordering details

Complete devices

Type	Display size	Supply	Device dimensions (W x H x D)	Weight	Display unit glass, tempered	Art. No.[1]
CP907	7" (17.6 cm)	DC 24 V, < 15 W; alternatively PoE possible	226 x 144 x 78 mm	1.1 kg	white	**B95061080**
CP907 without Flush-mounting enclosure				0.9 kg	white	**B95061093**
CP915	15,6" (39.6 cm)	AC 100…240 V, < 30 W	505 x 350 x 92 mm	6.1 kg	white	**B95061081**
					grey	**B95061085**
CP924	24" (61 cm)	AC 100…240 V, < 55 W	654 x 441 x 100 mm	9.1 kg	white	**B95061083**
					grey	**B95061084**

[1] In the offer phase the Art. No. may differ

Scope of delivery: display unit, flush-mounting enclosure incl. mounting plate with electronics, CP9xx connecting cable and plug kit.

Components separately

Device series	Type	Art. No.[1]
CP907	Flush-mounting enclosure	**B95100140**
CP915	Display unit white	**B95061090**
	Display unit grey	**B95061110**
CP924	Display unit white	**B95061097**
	Display unit grey	**B95061111**

[1] In the offer phase the Art. No. may differ

Accessories

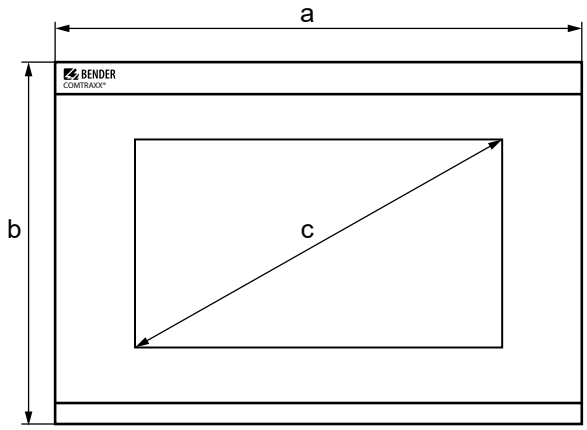
Device series	Description	Art. No.
CP907	Surface-mounting enclosure	**B95061915**
CP915, CP924	CP9xx suction lifter [1]	**B95061911**
All	CP9xx replacement plug kit	**B95061910**

[1] The suction lifter is needed to remove the display.

Other project-specific versions with foil surface or with additional internal components available on request:

- Charging trays for operating theatre table remote controls
- Intercom systems
- Operating theatre light controls
- Programmable backlit keypads
- Digital/Analogue inputs/outputs for installation in panel enclosures or control cabinets
- Data coupling to third-party systems
- Project-specific installation enclosures
- Integration of third-party equipment
- Antibacterial or highly transparent foil options available
- Replacement of existing panels (retrofitting)
- etc.

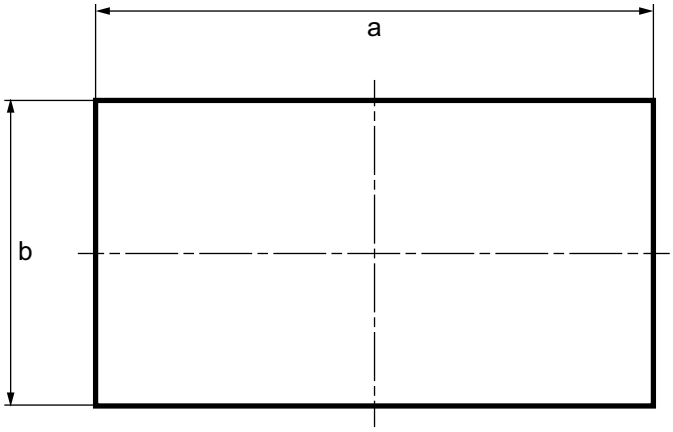
External dimensions



Type	Dimensions (mm)		
	a	b	c
CP907	226	144	176 (7")
CP915	505	350	386 (15,6")
CP924	654	441	610 (24")

Glass thickness 3 mm

Installation dimensions – panel cut-out



Type	Enclosure	Dimensions (mm)		Required installation depth
		a	b	
CP907	Flush-mounting	212	124	75
	Surface-mounting	299	173	–
CP915	Flush-mounting	464	309	92
CP924	Flush-mounting	613	401	95

Technical data

Insulation coordination acc. to IEC 60664-1

CP907

Rated voltage	50 V
Overvoltage category	III
Pollution degree	2
Rated impulse voltage	800 V

CP915/CP924

Rated insulation voltage	AC 250 V
Overvoltage category	III
Pollution degree	2
Rated impulse voltage	4 kV

Supply

CP907 via plug-in terminal (A1/+;A2/-)

Nominal voltage	DC 24 V SELV/PELV
Nominal voltage tolerance	±20 %
Typical power consumption at DC 24 V	< 15 W
Maximum cable length when supplied via B95061210 (DC 24 V power supply unit 1.75 A):	
0.28 mm²	75 m
0.5 mm²	130 m
0.75 mm²	200 m
1.5 mm²	400 m
2.5 mm²	650 m

CP907 via Power-over-Ethernet (PoE)

Nominal voltage	DC 48 V SELV/PELV
Nominal voltage tolerance	-25…+15 %
Typical power consumption for PoE	< 15 W
Maximum cable length when supplied via AWG 26/7; 0.14 mm²	100 m

CP915 via terminal block (L1; N)

Nominal voltage via external power supply unit	AC 100… 240 V
Nominal voltage tolerance	-15…+10 %
Frequency range U_s	50…60 Hz
Typical power consumption at AC 230 V	< 30 W

CP924 via terminal block (L1; N)

Nominal voltage via external power supply unit	AC 100… 240 V
Nominal voltage tolerance	-15…+10 %
Frequency range U_s	50…60 Hz
Typical power consumption at AC 230 V	< 55 W

Stored energy time in the event of voltage failure

Time, date	min. 3 days

Displays, memory

Display/Resolution	
CP907	7" TFT touch display/800 x 480
CP915	15.6" TFT touch display/1280 x 720
CP924	24" TFT touch display/1280 x 720 or 1920 x 1080
E-mail configuration and device failure monitoring	max. 250 entries
Individual texts	unlimited number of texts with 100 characters each
Displayable devices	247
Number of data points for "third-party devices" to Modbus TCP and Modbus RTU	1600
Number of data loggers	30
Number of data points per data logger	10,000
Number of entries in the history memory	20,000

Visualisation

Number of pages	50
Background image size	max. 3 MB

Interfaces

Ethernet

Connection	RJ45
Cable	shielded, shield on both sides to PE
Cable length	< 100 m
Data rate	10/100 Mbit/s, autodetect
HTTP mode	HTTP/HTTPS (HTTP)*
DHCP	on/off (off)*
t_{off} (DHCP)	5…60 s (30 s)*
IP address	nnn.nnn.nnn.nnn (192.168.0.254)*, can always be reached via: 169.254.0.1
Net mask	nnn.nnn.nnn.nnn (255.255.0.0)*
Protocols	TCP/IP, Modbus TCP, Modbus RTU, PROFINET, DHCP, SNMP, SMTP, NTP

BMS bus

Interface/protocol	RS-485/BMS internal
Operating mode	master/slave (master)*
Baud rate	9.6 kbit/s
Cable length	< 1200 m
Cable	shielded, one end of shield connected to PE
recommended	CAT6/CAT7 min. AWG23
alternative	twisted pair, J-Y(St)Y min. 2x0,8
Connection	"ABMS", "BBMS" (see plug-in terminal)
Terminating resistor	120 Ω (0.25 W), can be switched on internally (see plug-in terminal)
Device address	1…150 (1)*

BCOM

Interface/protocol	Ethernet/BCOM
Cable length	< 100 m
BCOM system name	(SYSTEM)*
BCOM subsystem address	1…255 (1)*
BCOM device address	1…255 (1)*

Modbus

Bender Modbus image	V1, V2 (V2)*

Modbus TCP

Interface/protocol	Ethernet/Modbus TCP
Cable length	< 100 m
Operating mode	Client for Nemder Modbus TCPdevices and "third-party devices"
Operating mode	Server for access to process image and for Modbus control commands
Parallel data access from different clients	max. 25

Modbus RTU

Interface/protocol	RS-485/Modbus RTU
Cable length	< 1200 m
Cable	shielded, one end of shield connected to PE
recommended	CAT6/CAT7 min. AWG23
alternative	twisted pair, J-Y(St)Y min. 2x0,8
Connection	"AMB", "BMB" (see plug-in terminal)
Operating mode	master/slave (master)*
Baud rate	9.6…57.6 kBit/s
Terminating resistor	120 R (0.25 W), can be connected internally (see plug-in terminal)
Supported Modbus RTU slave addresses	2…247

PROFINET

Interface/protocol	Ethernet/PROFINET
Operating mode	Slave (IO-Device)

SNMP

Interface/protocol	Ethernet/SNMP
Versions	1, 2c, 3
Devices supported	Queries to all devices (channels) possible
Trap support	No

USB

Number	2
Operating mode	USB-2.0-Host (5 V, 500 mA)
Datarate	480 Mbit/s
Cable length	< 3 m
Connection type	USB 2 Standard-A

Used ports

53	DNS (UDP/TCP)
67, 68	DHCP (UDP)
80	HTTP (TCP)
123	NTP (UDP)
161	SNMP (UDP)
443	HTTPS (TCP)
502	MODBUS (TCP)
4840	OPCUA (TCP)
5353	MDNS (UDP)
48862	BCOM (UDP)

Digital inputs (1…12)

Number	12
Galvanic separation	yes
Maximum cable length	< 1000 m
Operating mode	selectable for each input: active-high or active-low
Factory setting	active-high
Voltage range (high)	AC/DC 10…30 V
Voltage range (low)	AC/DC 0…2 V
Max. Current per channel (at AC/DC 30 V)	8 mA
Connection plug-in terminal	(1-1) (2-2) (3-3)…(12-12)

Switching elements

Number	1 relay
Operating mode	N/C operation / N/O operation
Function	programmable
Electrical endurance under rated operating conditions, number of cycles	10,000

Contact data acc. to IEC 60947-5-1:

Utilisation category	AC-13	AC-14	DC-12
Rated operational voltage	24 V	24 V	24 V
Rated operational current	2 A	2 A	2 A
Minimum contact load (relay manufacturer's reference)	10 µA / 10 mV DC		
Connection	plug-in terminal (11;12;14)		

Buzzer

Buzzer message	can be acknowledged, adoption of characteristics of new value
Buzzer interval	configurable
Buzzer frequency	configurable
Buzzer repetition	configurable

Audio

Line IN	not used
Line OUT	Output to a STEREO playback device via 3.5 mm jack plug
Cable length	< 3 m

Device connections

Terminal block (L1; N; PE) (for CP015 and CP924 only)	
Conductor sizes	AWG 20-12
Stripping length	10…11 mm
rigid/flexible	0.5…4 mm²
flexible with ferrule with/without plastic sleeve	0.5…4 mm²
Multiple conductor, flexible with TWIN ferrule with plastic sleeve	0.5…4 mm²
Plug-in terminal (A1/+;A2/-) (11;12;14) **Plug-in terminal (A1/+;A2/-;PE) (11;12;14)**	
Conductor sizes	AWG 24-12
Stripping length	10 mm
rigid/flexible	0.2…2.5 mm²
flexible with ferrule with/without plastic sleeve	0.25…2.5 mm²
Multiple conductor, flexible with TWIN ferrule with plastic sleeve	0.5…1.5 mm²
Plug-in terminal (I1…12), (k1…k12), (…MB), (…BMS)	
Conductor sizes	AWG 24-16
Stripping length	10 mm
rigid/flexible	0.2…1.5 mm²
flexible with ferrule without plastic sleeve	0.25…1.5 mm²
flexible with ferrule with plastic sleeve	0.25…0.75 mm²
For UL-applications (only CP907)	
Use copper conductors only.	
Minimum temperature rating of the cable to be connected to the field wiring terminals	75 °C
Minimum temperature rating of the cable to be connected to the PoE plug	80 °C

Environment/EMC

EMC	IEC 61326-1
Operating temperature	
CP907	-10…+55 °C
CP907 for UL-Applications	-10…+50 °C
CP915	-5…+40 °C
CP924	-5…+40 °C
Range of use	≤ 2000 m AMSL
Rel. humidity	W 98 % at 25 °C
Classification of climatic conditions acc. to IEC 60721:	
Stationary use (IEC 60721-3-3)	3K22
Transport (IEC 60721-3-2)	2K11
Long-term storage (IEC 60721-3-1)	1K22
Classification of mechanical conditions acc. to IEC 60721:	
Stationary use (IEC 60721-3-3) CP907 only	3M11
Stationary use (IEC 60721-3-3) CP915 only	3M10
Transport (IEC 60721-3-2)	2M4
Long-term storage (IEC 60721-3-1)	1M12

Other

Operating mode	continuous operation
Mounting	display-oriented
Degree of protection, front	IP54
Degree of protection, front for UL applications	IP50
Degree of protection, enclosure	IP20
Flammability class	UL 94V-0
Dimensions	
CP907 (W x H x D)	226 x 144 x 78 mm
CP915 (W x H x D)	505 x 350 x 92 mm
CP924 (W x H x D)	654 x 441 x 100 mm
Documentation number	D00349
Weight	
CP907	< 1.1 kg
CP915	< 6.1 kg
CP924	< 9.1 kg

BENDER
The Power in Electrical Safety©

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