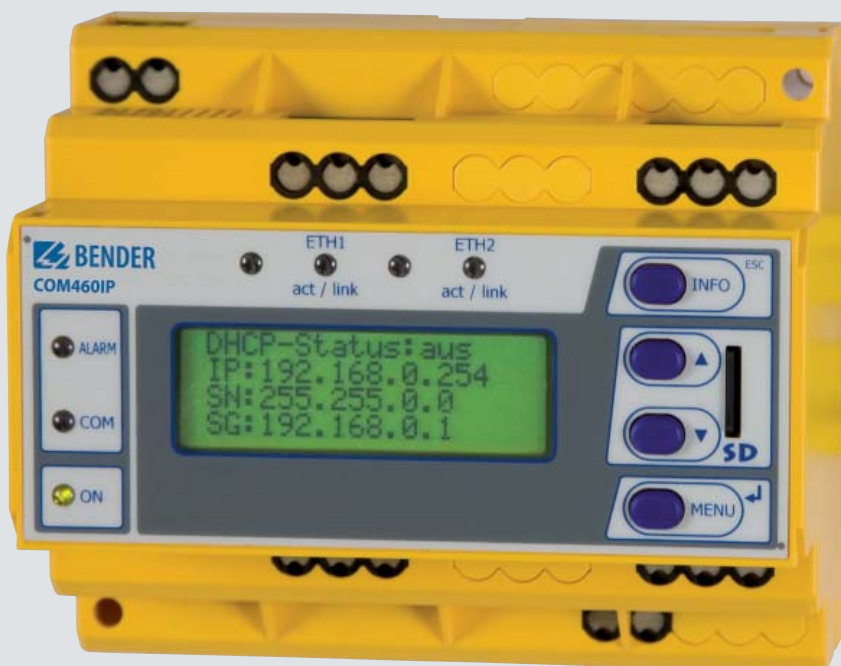


Ethernet-Gateway COM460IP

Preliminary data sheet



Ethernet-Gateway

COM460IP



COM460IP

Device features

- Modular, expandable gateway between BMS bus and TCP/IP
- Gateway between BMS bus and Ethernet
- Optional functions to tailor the device to diversified needs
- Remote access via LAN, WAN or Internet

Product description

The Ethernet-Gateway COM460IP is designed for the conversion of Bender BMS bus into TCP/IP protocols. An integrated web server is used for BMS system data representation on any PC via a web browser with Silverlight plugin. Additional software need not to be installed. Depending on the stage of expansion, the following functions are supported:

Basic functions

- Display of BMS data via a standard web browser with Silverlight
- Display of current operating and alarm messages and measured values
- Commissioning and diagnostic functions for BMS systems
- Time synchronisation for all BMS devices (Time master)
- Built-in Ethernet switch: 2 x RJ45, 10 / 100 Mbit/s
- LCD for simple address setting
- Operation possible optionally via the internal or external BMS bus
- Modbus/TCP data access for 10 BMS addresses at the internal BMS bus
- Remote access and remote diagnostics via LAN, WAN or Internet
- Password protection

Optional package A – Individual messages*

- Output of system-specific text codes for devices and metering points
- Logging and display of alarms with a time stamp (history memory)
- Comprehensive data logger functions
- E-mail notifications to various user groups in event of alarms and system faults
- PDF report function

Optional package B – Modbus/TCP Gateway

- Modbus/TCP Gateway for all status data for devices in the BMS bus system

Option package C – Parameterisation*

- Fast, simple parameterisation of Bender system settings in a central location
- PDF report function

The basic device can be used as a stand-alone device or in combination with optional packages.

Application

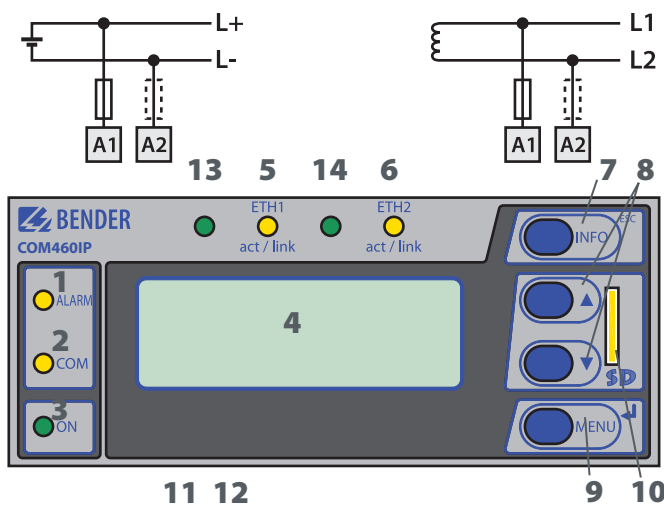
- Commissioning and diagnostics of BMS bus systems
- Optimum presentation of device and system statuses supported by silverlight functions in the web browser
- Specific system overview according to individual system description
- Selective notification to various user groups in the event of alarms
- Conversion of BMS data to Modbus/TCP protocols permits the use of professional visualisation programs (further protocols on request)
- Observing and analysing of Bender products, such as RCMS, EDS and MEDICS systems
- Simple and fast parameter settings of BMS systems, storage and documentation of settings

Function

The Ethernet gateway COM460IP can be integrated into existing EDP systems like a personal computer. After connecting the Ethernet Gateway to the mains and to a BMS system, all devices in the BMS system can be accessed from any personal computer using a standard web browser (e.g. Internet Explorer, Firefox). In this way, all important measuring data of the system are directly available.

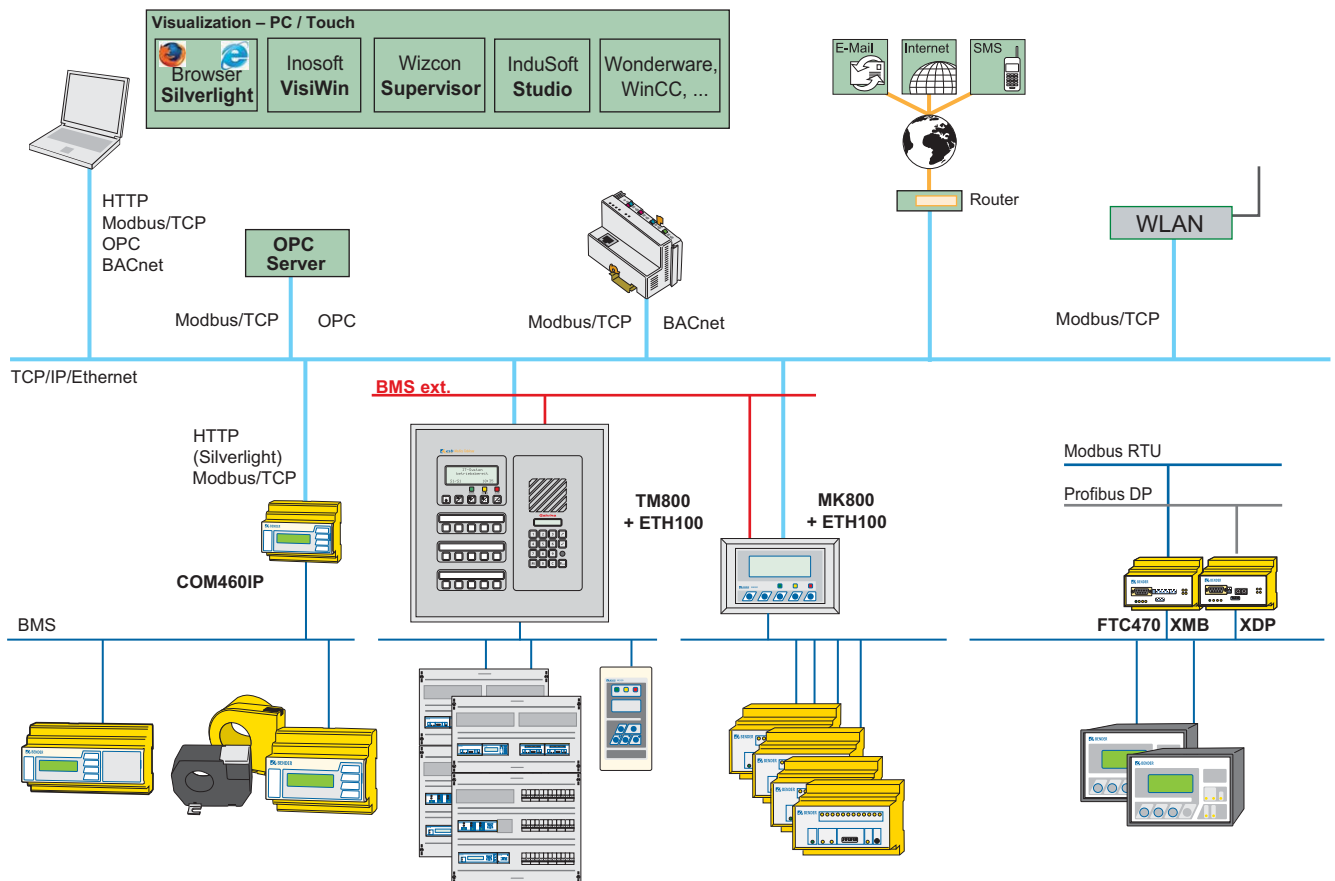
* available for delivery as from 2011

Wiring diagram



- 1- ALARM LED, lights when an internal device error occurs
- 2- COM LED, lights up during data transmission on the BMS bus
- 3- LED ON
- 4- LC display
- 5- Link/Active LED Ethernet 1, lights in case of connection, flashes during data transmission
- 6- Link/Active LED Ethernet 2, lights in case of connection, flashes during data transmission
- 7- INFO key: to call up standard information
ESC button: Exits the menu function without changing parameters
- 8- Arrow buttons: Parameter changes, Scroll
- 9- Menu button To toggle between the standard display and the menu und MENÜ
Enter button To confirm parameter change
- 10 - SD card slot Opening to insert the µSD card
- 11 - Connection supply voltage U_s
- 12 - Ethernet connection 2 x RJ45
- 13 - LED no function
- 14 - LED no function

Application example – BMS system integration



Technical data Ethernet-Gateway COM460IP

Insulation coordination acc. to IEC 60664-1

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

Supply voltage

Supply voltage U_s	see ordering information
Frequency range U_s	AC 50...400 Hz / DC
Power consumption	≤ 12 VA

BMS interfaces

Interface / protocol RS-485 / BMS (internal/external)

Baud rate / BMS (internal/external)	9.6 kbit / s / 57.6 kbits / s
Cable length	≤ 1200 m
Recommended cable (twisted pairs, shielded, shield connected to PE on one side)	J-Y(St)Y 2 x 0.8
Modus	Master / Slave
Connection terminals A/B	
Terminating resistor	120 Ω (0.25 W)
Device address, BMS bus (internal/external)	1*(2)...150 / 1...99
Factory setting device address (internal)	2

Ethernet

Connection	2 x RJ45
Data rate	10 / 100 Mbit / s, autodetect
Protocols (depending on the option selected)	TCP / IP, Modbus/TCP, DHCP, SMTP, NTP
Alarm LEDs	Link/Act
Memory card (μ SD card)	2 GB

General data

EMC immunity	EN 61000-6-2
EMC emission	EN 61000-6-4
Classification of climatic conditions acc. to IEC 60721	
Stationary use	3K5
Transport	2K3
Long-time storage	1K4
Operating temperature	-10 °C...+55 °C
Classification of mechanical conditions acc. to IEC 60721	
Stationary use	3M4
Transport	2M2
Long-time storage	1M3
Operating mode	continuous operation
Mounting	any position
Connection type	push-wire terminals / RJ45

Connection properties

rigid / flexible / conductor sizes	0.2...4 / 0.2...2.5 mm ² / AWG 22...12
flexible with ferrules, without/with plastic collar	0.25...2 mm ²
Stripping length	8 mm
Degree of protection, internal components (IEC 60529)	IP30
Degree of protection, terminals (IEC 60529)	IP20
Type of enclosure / dimension diagram	X470
Screw mounting	2 x M4
DIN rail mounting	acc. to IEC 60715
Flammability class	UL94V-0
Operating manual	TGH1452
Weight	≤ 310 g

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Ordering information

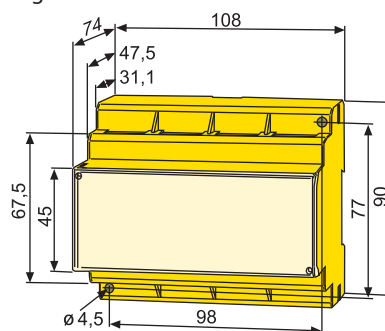
Type	Supply voltage U_s	Art. No.
COM460IP	Ethernet-Gateway (basic device) AC / DC / 85...276 V**	B 9506 1010
Optional package A*	Individual messages	B 7506 1011
Optional package B	Modbus/TCP gateway	B 7506 1012
Optional package C*	Parameter setting	B 7506 1013

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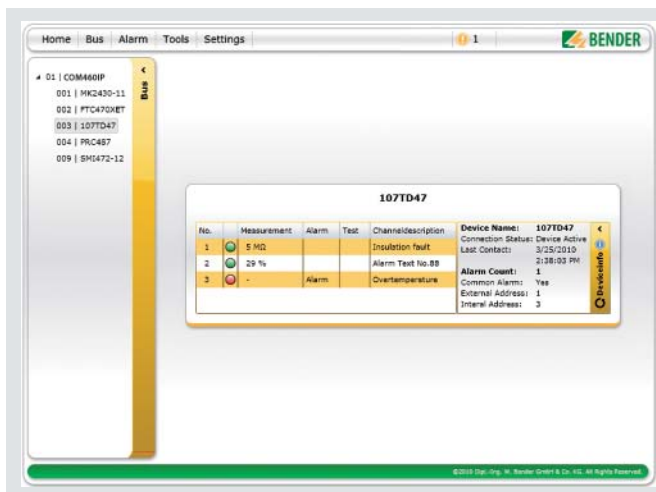
** Absolute value

Dimension diagram XM460

Dimensions are given in mm



Screenshot bus overview



Functionality	Basic device	Option A*	Option B	Option C*
Complete system overview with indication of alarm messages and measured values	X			
WEB server with Silverlight	X			
Can be operated on the internal and external bus (max. 99 x 139 addresses)	X			
Multilingual menu structure	X			
Translation module for a special language of own choice	X*			
Data access via IP address or NBNS	X			
IP address setting manually or via DHCP	X			
Time synchronisation for the BMS bus system via (S)NTP	X*			
Built-in switch with 2 x RJ45, cable auto detection	X			
Diagnostics function (bus log, analyser...)	X			
Modbus/TCP data access for 10 BMS addresses at the internal BMS bus	X			
Individual text messages for all devices / channels		X		
History memory for alarms, warnings and tests		X		
Data logger		X		
E-mail / alarm message (SMS via external Service)		X		
PDF report function		X		X
Modbus/TCP data access for all BMS devices			X	
OPC (via Soft OPC server on PC)			X	
Parameter setting for all BMS devices				X

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