

ComBridge MCG

Best. Nr.: 3622-141-01

Instruction Manual

The ComBridge multi-control gateway MCG contains all necessary modules in order to realize time switching functions, trigger conditions for defined events, event processing, logic functions, as well as real-time clock function.

More specifically the following are available:

- Weekly scheduler for up to 100 schedules and up to 80 channels
- 100 event programs
- Event program trigger via logic functions or threshold value
- Event processing / Scenes (200 Events)
- 10 Logic gates (30 Logic functions)
- Battery buffered Real-time clock
- Display of date and time on LC-display
- Tunnel connection to the bus for visualization purpose
- Time zone selection for automatic time synchronization
 - Automatic Daylight savings Time change
- DHCP for automatic IP address assignment

Up to 80 objects can be defined for the device with free data type assignment from this list of data types

- 1 bit (EIS 1)
- 1 Byte unsigned (EIS 14)
- 1 Byte signed (EIS 14)
- 2 Byte unsigned (EIS 10)
- 2 Byte signed (EIS 10)
- 2 Byte float (EIS 5)
- 4 Byte unsigned (EIS 11)
- 4 Byte signed (EIS 11)
- 4 Byte float (EIS 9)

All defined objects can be freely used by all software modules. Thus, up to 80 objects can be selected for schedule functions, logic functions, object trigger or as output of a given event program.



Types of Devices and Accessories

The following type of devices of the Combridge Multi-Control gateway product group are currently available:
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Component of the supplied package

The following components come together with the ComBridge MCG:
Complet unit, incl. Battery and Bus connection (EIB, black/red) and Bus connection (24 V supply, Yellow/white)
Notice- and assemble instruction manual

Software Applications

The following software application are currently available:
3622-ComBridge_MCG-01-0110, Application program function, see. Application program description

Installation instructions

- The device must be mounted and commissioned by an authorised electrician.
- The prevailing safety rules must be heeded.
- The device may be used for permanent interior installations in dry locations.
- During the installation the device must be switched off.
- The device must not be opened. Defective devices are to be sent back to the manufacturer.
- For planning and construction of electric installations the relevant guidelines, regulations and standards of the respective country are to be considered.

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Technical Specifications

Power supply

- Bus voltage: via EIB bus line
- Operating voltage:
from external SELV power supply AC/DC 24V nominal,
permissible input voltage range:
AC/DC 12 ... 30 V
- Recommended power supplies:
 - DC 24V (before choke) from EIB power supplies N121, N122, N125/21
 - door bell transformer 4AC2 102, AC 230V / AC 12V (primary / secondary), 1,33A, 2SU width
 - door bell transformer 4AC2 105, AC 230V / AC 12V (primary / secondary), 1,33A, 2SU width

Control Elements

- 1 Learning button: for switching between Normal operating mode and Addressing mode.
- 3 push button (Move, Prg/Set, ESC) on the front side for device to locally set date and time and to display IP address, MAC-Adresses and firmware version of the device.

Display Elements

- LED red for monitoring bus voltage and displaying mode, selected with the learning button
- LK-LED green to show ethernet connection
- LA-LED green to show communication on the ethernet link
- LC-Display, 2 rows with 12 characters each to display time and date

Connections

- bus line:
screwless bus connection block (red-black)
0,6...0,8 mm Ø single core
remove approx. 5mm of isolation
- Ethernet / IP network: RJ45 socket
- auxiliary power:
screwless extra low voltage terminal (yellow-white)
Ø 0,6 ... 0,8 mm Ø single core
remove approx. 5mm of isolation

Physical specifications

- Housing: Plastic LEXAN UL-94-V0
- Dimensions REG Housings 4TE:
 - Width: 70 mm
 - Height: 55 mm
 - Length: 86 mm
- Weight: 150 g
- DIN-rail mounted device

Electrical safety

- Degree of Pollution(according to IEC 60664-1):2
- Protection (according to EN 60529): IP20
- SAfety class: (according to IEC 1140) I
- Overvoltage class(according to IEC 60664-1): III

EMV-Requirements

Complies with EN 50081-1 and EN 50082-2,
EN 50090-2-2

Environmental specifications

- Climatic conditions: EN 50090-2-2,
- Ambient temperature operating: 0°C to +45°C
- storage temperature non-op: -25°C to +70°C
- Relative humidity (non-condensing): 5 % to 93 %

Markings

EIB/KNX,CE

CE mark

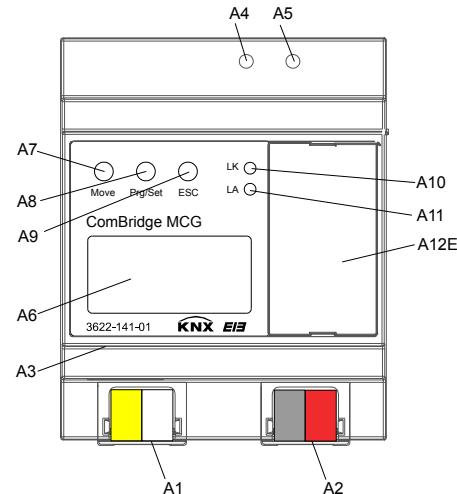
Complies with EMC regulations (residential and functional buildings), and Low-voltage regulations

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Location and function of the Display and Operator Elements

- A1: AC/DC 24 V bus connector terminal (yellow-white)
- A2: EIB bus connector terminal (black-red)
- A3: Ethernet RJ45 socket
- A4: EIB programming LED
- A5: EIB learning button
- A6: Display 2x12 Characters
- A7: MOVE push button
- A8: Prg/Set push button
- A9: ESC push button
- A10: Ethernet Link LED
- A11: Ethernet Activity LED
- A12: Battery case



Display

The display indicates the current time. By pressing the *MOVE push-button* More information will be displayed
 Time: IP-Adress: Mac-Adress:

12:45 Mo
05.Jun.2004

IP: 192.168.
100.1

MAC: 00-05-64
00-0A-22

Time Setup

By pressing the *Prg/Set push-button* for a long time, the display will switch to programming mode. The following text will appear:

Hour ?
12:45

With help of the *MOVE push-button* the appropriate hour can be entered. By pressing the *Prog/Set push-button* the given value will be saved and the display will switch to the next input window.

Minute ?
12:45

Day ?
05.Jun.2004

Month ?
05.Jun.2004

Year ?
05.Jun.2004

Return ?

At the end of the input -cycle press *Return* to go back to the normal mode. The setup can at any time be stopped through the *ESC push-button*.

Please note that the setup of a Time-Server via ETS will override the time setup made through an external signal. A Time-Server has first preference as soon as it's been configured through ETS.

Error Message on the Display

The ComBridge multi-control gateway MCG contains an automatic battery monitoring function. The battery is checked every 24 hours in order to evaluate its life span and its condition. If the voltage reduces below a certain limit it will be indicated on the display as well as in the EIB/KNX Bus in the form of an event.

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Battery checking not ok → indicated by B

12:45 Mo B
05.Jun.2004

After such a message the battery should be replaced.

After the ETS-Download all application parameters that have been setup through the Web-configuration tool, will be lost.. This state is indicated by „E“ (empty) on the display.

12:45 Mo E
05.Jun.2004

Changing the Battery

The ComBridge multi-control gateway MCG is equipped with a 1/2AA 3,6V lithium battery. The battery has a life span of up to 10 years under normal operating conditions. If a replacement is nevertheless necessary: lift the battery case cover with a screw driver, remove the battery with the battery holder, the old battery is to be pulled out at the battery container and the new battery is put in. The polarity is to be respected.