

ComBridge MCG

Order 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:

- 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.

In addition, an object server connection is supported for communication with the ComBridge Studio Evolution visualization. This connection can be made and sustained parallel to an ETS tunnel connection.



• Device types and accessories

At present the following device types are available:

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Scope of delivery

The following components come together with the ComBridge MCG:

Complete unit with battery, connected Bus connection (KNX, black/red) and Bus connection (24 V supply, white/yellow),
Operating and mounting instructions

Application programs

The following application programs are currently available:

33622-MCG Control-01-0110; for application program functions, please see the Manual.

Installation advice

- The device must only be installed and commissioned by an accredited electrical engineer!
- The prevailing safety rules must be heeded.
- The device is intended for interior installation in dry rooms.
- During the installation the device must be switched off.
- Do not open the device! Faulty devices must be returned to the manufacturer.
- Please follow country-specific safety and accident prevention rules as well as all current KNX guidelines.

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Technical Specifications

Power Supply

- from external SELV power supply AC/DC 24V nominal, permissible input voltage range: AC/DC 12 ... 30 V
- In addition via **KNX** bus, SELV 24V

Connectors

- Bus connector: **KNX** bus connector (black/red)
- 24 VDC connector (white/yellow)
- Ethernet: RJ-45 plug 100MB/s

Control elements

- Programming Button to toggle between normal and addressing mode

Display elements

- Display, with 2x12 characters for commissioning
- LED red: Indicates normal/addressing mode
- LK-LED green: Signals device Ethernet readiness
- LA-LED green: Signals communication activity status

Ethernet

- IP-connection via Ethernet, speed 100 Mbit / second
- IP address allocation via DHCP service or fixed IP address

Mechanical data

- Plastic ABS – V0
- Dimensions REG casing 4TE:
 - Width: 72mm
 - Height: 55mm
 - Length: 86mm
- Weight 160 g
- Mounting: 35mm DIN rail

Electrical safety

- Pollution class (in accordance with EN60664-1): 2
- Protection type (in accordance with EN 60529): IP20
- Protection class (according to IEC 1140) I
- Overvoltage category: III
- KNX Bus: Separated extra-low voltage SELV DC 24 V

EMC requirements

Complies with EN 50081-1 und EN 50082-2, EN 61000-6-3:2007

Environmental conditions

- Weather resistance: EN 50090-2-2,
- Environmental conditions during operation: -5°C to +45°C
- Storage temperature: -25°C to +70°C
- Rel. humidity (non condensing): 5 % to 93 %

Approbation

EIB/KNX registered

CE-Signage

According to EMC-Guidelines (Residential and commercial buildings), Low Voltage guidelines

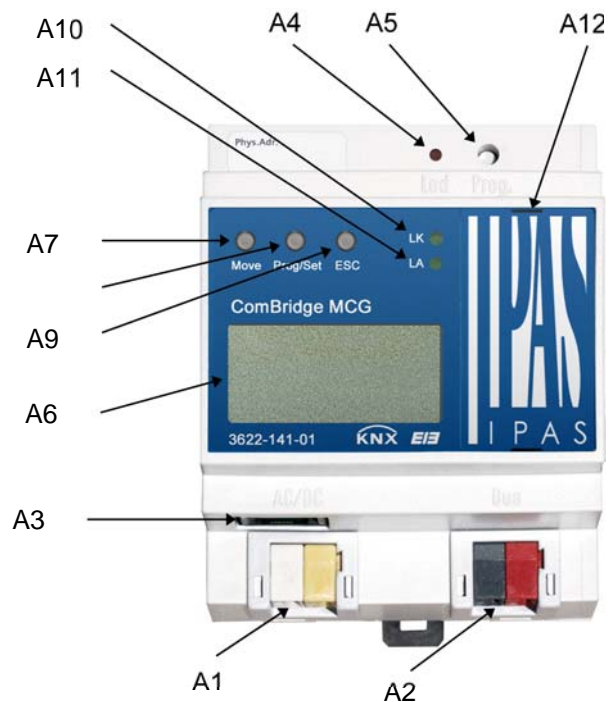
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Location and function of the display and control elements

The device connectors as well as the programming button and programming LED that are required for commissioning are only accessible in the distribution box when the cover is removed.

- A1: 24 VDC bus connector terminal (white-yellow)
- A2: KNX bus connector terminal (black-red)
- A3: Ethernet RJ45 socket
- A4: KNX programming LED
- A5: KNX learning button
- A6: Display 2x12 characters
- A7: Move button
- A8: Prg./Set button
- A9: ESC button
- A10: Ethernet Link LED
- A11: Ethernet Activity LED
- A12: Battery case



Changing the Battery

The ComBridge multi-control gateway MCG-R is equipped with a 1/2AA 3,6V lithium battery. The battery has a life span of up to 3 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.