IC00M01KNX	**Gateway KNX Modbus RTU**

USER MANUAL

Translation of the original instructions

Version: **1.0**

Date: **29/04/2026**

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VERSION	DATE	CHANGES
1.0	**29/04/2026**	-

Any information in this manual is subject to change without notice.

This handbook can be download freely from the website:
www.eelectron.com

Exclusion of liability:
Despite checking that the contents of this document match the hardware and software, deviations cannot be completely excluded. We therefore cannot accept any liability for this.
Any necessary corrections will be incorporated into newer versions of this manual.

Symbol for relevant information 

Symbol for warning 

DISPOSAL : The crossed-out bin symbol on the equipment or packaging means the product must not be included with other general waste at the end of its working life. The user must take the worn product to a sorted waste centre, or return it to the retailer when purchasing a new one. An efficient sorted waste collection for the environmentally friendly disposal of the used device, or its subsequent recycling, helps avoid the potential negative effects on the environment and people's health, and encourages the reuse and/or recycling of the construction materials.

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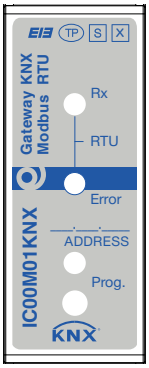
1. Purpose of the manual

This manual is intended for use by KNX® installers and describes functions and parameters of the **IC00M01KNX** devices and how to change settings and configurations using the ETS® software tool. For the technical characteristics of the devices, please refer to the datasheet of the devices themselves.

2. Product overview

IC00M01KNX is a bidirectional KNX/Modbus gateway with 250 freely configurable channels (KNX data points). For each channel, alarm information and data processing operations are also available. This device allows the integration of Modbus devices that support the RTU protocol via RS485 into KNX® installations. It can operate as both Modbus master and slave.
Moreover, 50 logic blocks are available to implement simple expressions with logical or threshold operator or complex expressions with algebraic and conditional operators; It is possible to use predefined algorithms as proportional controls of temperature and humidity or dew point calculation.
The device also integrates the “Virtual Holder Logic”; the field of application is the hotel room: through a magnetic sensor installed on the door and connected to a digital input, accurate presence information is managed. The presence detection solution can deduce the presence of people in the room using one or more dedicated sensors. It also detects an unexpected presence and is able to differentiate more behaviors.
The device can be configured via the ETS application program and can communicate with the KNX Data Secure protocol. The KNX communication interface is included.

LED		FUNCTION
RTU	Rx	Green flashing: Receiving data on RS485
	Error	Red flashing: RTU error
		Red off: No RTU error present
Prog	Button	Press to activate program mode
	LED	Steady red: device ready for programming



3. Installation instructions

The device can be used for permanent internal installations in dry places.

WARNING

- When a clear separation between the low voltage (SELV) and the dangerous voltage (230V) is NOT possible, the device must be installed maintaining a minimum guaranteed distance of 4 mm between the dangerous voltage lines or cables (230V not SELV) and the cables connected to the EIB / KNX BUS (SELV).
- The device must not be connected to 230V cables
- The device must be mounted and commissioned by an authorized installer.
- The applicable safety and accident prevention regulations must be observed.
- The device must not be opened. Any faulty devices should be returned to manufacturer.
- For planning and construction of electric installations, the relevant guidelines, regulations and standards of the respective country are to be considered.
- KNX bus allows you to remotely send commands to the system actuators. Always make sure that the execution of remote commands do not lead to hazardous situations, and that the user always has a warning about which commands can be activated remotely.
- Relays are always switched opened before delivering but, it is possible they get closed during transportation. It is recommended, when device is installed, to connect and supply the bus before the load voltage to ensure the opening of the contacts.
- It is highly recommended to connect the ground (GND) of the various devices in the Modbus line.
- Check that the Modbus line is complete with start and end line terminations (EOL).
- If a shielded cable is installed, it is recommended to connect the shield to earth ground at one point.

For more information: www.eelectron.com

4. General parameters

Communication objects involved:

“<General> Heartbeat”	1 Bit	CRT
“<General> Power On Event”	1 Bit	CRT

KNX PARAMETER	SETTINGS
Delay to send telegrams on power-up	5 ÷ 15 sec
Through this parameter it is possible to set the telegram transmission delay after switch-on by selecting the time beyond which the device is authorized to send telegrams. In large systems after a power outage or shut-down, this delay avoids generating excessive traffic on the bus, causing slow performance or a transmission crash. If there are several devices that require telegrams to be sent on the bus after a reset, these delays must be programmed to prevent traffic congestion during the initialization phase. Input detection and object values are updated at the end of the transmission delay time At the end of ETS® programming, the device behaves as it did after it was switched on.	
Heartbeat (periodic alive notification)	nothing periodic on request
The parameter allows you to notify a hierarchically superior control or supervision system of your existence / correct online activity. The notification can take place spontaneously (periodically - settable period value) or following a query (upon request). The value of the 1-bit notification telegram can be set.	
Telegram value	off / on / toggle
Defines the value of the 1 bit notification telegram. The toggle value is not available for “on demand” configuration.	
Period - time unit	seconds / minutes / hours
Defines the unit of measure of the notification time interval. This parameter is not available for the “on demand” configuration.	
Period - time value	1 ÷ 255
Defines the notification interval time. This parameter is not available for the “on demand” configuration.	
Use virtual holder	no / yes
By setting this parameter, it is possible to enable a “virtual holder”, i.e. a logical function that automatically recognizes the presence of a person in a room. This function can be used in hotels or similar installations and requires connection to others devices, see the specific “Virtual Holder” manual).	

5. Modbus

Please refer to the “Modbus” user manual.

6. Logics

Please refer to the “Logics” user manual.

In the devices described, the logical expression can have a maximum of 32 characters.

Available functions:

- Bit/byte no transfer function
- NOT, AND, OR, NAND, NOR, XOR, XNOR;
- Bit to byte conversion/ Byte to bit; conversion
- Byte threshold;
- 2/4 bytes float threshold;
- Proportional fan coil;
- Proportional/speed fan coil conversion;
- Dew point humidistat;
- Surveillance;
- Constant illuminance;
- Multiplexer;
- Cyclic read;
- Min/max calculation;
- Expression.

7. Virtual Holder

Please refer to the “Virtual Holder” user manual.

8. Behaviour on bus failure, recovery and download

Behaviour on bus voltage failure

On failure of bus voltage, no actions are executed by the device; behaviour of controlled actuators must be set using their own parameters.

Behaviour on bus voltage recovery

On bus voltage recovery all the communication objects are set to 0 except for objects for which a parameter is defined for the initial value.

Wrong application download

If the wrong ETS® application is downloaded then KNX/EIB led starts blinking and device is not operative on the bus. A power reset must be done or the correct ETS application must be downloaded.