Manual   Edition 09/2010

cm-eib
FÜR LOGO!

Communication with LOGO!
on EIB according to Konnex standard

SIEMENS

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LOGO!

CM EIB

Operating Instructions

Legal information

Warning notice system

This manual contains notices you have to observe in order to ensure your personal safety, as well as to prevent damage to property. The notices referring to your personal safety are highlighted in the manual by a safety alert symbol, notices referring only to property damage have no safety alert symbol. These notices shown below are graded according to the degree of danger.

> ⚠ **DANGER**
>
> indicates that death or severe personal injury **will** result if proper precautions are not taken.

> ⚠ **WARNING**
>
> indicates that death or severe personal injury **may** result if proper precautions are not taken.

> ⚠ **CAUTION**
>
> with a safety alert symbol, indicates that minor personal injury can result if proper precautions are not taken.

> **CAUTION**
>
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> **NOTICE**
>
> indicates that an unintended result or situation can occur if the corresponding information is not taken into account.

If more than one degree of danger is present, the warning notice representing the highest degree of danger will be used. A notice warning of injury to persons with a safety alert symbol may also include a warning relating to property damage.

Qualified Personnel

The product/system described in this documentation may be operated only by **personnel qualified** for the specific task in accordance with the relevant documentation for the specific task, in particular its warning notices and safety instructions. Qualified personnel are those who, based on their training and experience, are capable of identifying risks and avoiding potential hazards when working with these products/systems.

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Note the following:

> ⚠ **WARNING**
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> Siemens products may only be used for the applications described in the catalog and in the relevant technical documentation. If products and components from other manufacturers are used, these must be recommended or approved by Siemens. Proper transport, storage, installation, assembly, commissioning, operation and maintenance are required to ensure that the products operate safely and without any problems. The permissible ambient conditions must be adhered to. The information in the relevant documentation must be observed.

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Disclaimer of Liability

We have reviewed the contents of this publication to ensure consistency with the hardware and software described. Since variance cannot be precluded entirely, we cannot guarantee full consistency. However, the information in this publication is reviewed regularly and any necessary corrections are included in subsequent editions.

Preface

Purpose and content of the manual

This manual informs you about the installation, connection, commissioning, and use of the CM EIB communication module for LOGO!.

Trademarks

LOGO! is a registered trademark of Siemens AG.

Guide

The manual is divided into 8 chapters:

- Description
- Installation
- Connection
- Commissioning
- Servicing
- Functions
- Technical data

The manual also contains a list of abbreviations in the appendix following the chapters.

Target group

The manual is aimed at users who already have experience with the LOGO! automation system and now want to use the KNX/EIB building bus.

Scope of the manual

The manual is valid for CM EIB for LOGO! with the MLFB no. 6BK1700-0BA00-0AA2 and describes product version 1.

Additional differences to previous devices (6BK1700-0BA00-0AA0)

- Expansion of analog output functionality to 8 through multiplexing
- Availability of local analog inputs and outputs of LOGO! on the EIB
- Time synchronization via the EIB. Here, LOGO! can be both time-of-day master and slave clock.
- Use of LOGO! as roller blind control in combination with an EIB pushbutton
- Dimming with LOGO!

Further information and support

For additional information about all aspects of our CM EIB for LOGO! products and systems, please visit our homepage at: \\www.siemens.com\logo.

History

Edition	Internal document number	Valid for Product order number	Comment / changes
09/2002	J31069-D1262-U002-A3-7618	6BK1700-0BA00-0AA0	First edition
03/2010	J31069-D1262-U002-A5-7618	6BK1700-0BA00-0AA2	Revision/functional enhancements
09/2010	J31069-D1262-U003-A2-7618	6BK1700-0BA00-0AA2	Minimum adaptations

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Description

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1.1 What is the CM EIB?

CM EIB is a communication module (CM) for connecting LOGO! to EIB/KNX.

The LOGO! communication module was implemented as slave module for the LOGO! control module (12/24 or 115/240 V).

The module permits communication between the LOGO! master and external EIB devices via the EIB.

The CM is an EIB bus node and enables LOGO! communication with other EIB devices by exchanging EIB message frames.
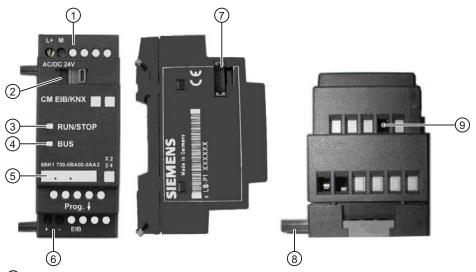
What can the CM EIB do?

The CM transfers EIB message frames to LOGO! and LOGO! functions to the EIB.

The CM makes the current state of the configured EIB nodes available to LOGO!, which is then able to link them to each other using their logical functions and timers. The EIB message frames can also be connected to the message frames of the local LOGO! inputs and outputs. The CM then transmits any status changes of the output signals to the EIB.

The CM makes the complete LOGO! process image available on the EIB. All LOGO! values can then be linked with other EIB data points (or other LOGO!) on the EIB. Some LOGO! data can also be used in modified form on the EIB, such as to implement dimmer or shutter/blind controllers.

The combination of LOGO! and CM EIB provides the user with a distributed controller functionality for the EIB with the ability to set or change parameters or links quickly, easily, and without the need for a programming device.

1.2 How CM EIB is set up

①   Power supply
②   Bus slide switch, interface to LOGO!
③   RUN/STOP mode indicator, LED for LOGO! communication
④   BUS LED, EIB communication
⑤   Labeling field for physical address
⑥   Inputs, EIB connection
⑦   Expansion interface to LOGO!
⑧   Mechanical coding - pins
⑨   Programming button "Prog ↓"

Application planning

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2.1 General installation guidelines

General installation guidelines

The following guidelines must be observed when mounting and connecting the CM EIB:

- When connecting the CM EIB, make sure that you observe all applicable and legally binding standards. Adhere to the relevant national and regional regulations when installing and operating the device. Check with the local authorities regarding the standards and rules to be followed in your particular case.

- Ensure a zero-voltage state during assembly and connection work.

- Use only approved bus cables (see Chapter Technical data (Page 43)).

- The EIB bus cable can also be routed in parallel with other cables.

- CM EIB must always be installed as the last module to the right of LOGO!, because no additional interface modules may be connected to the CM EIB.

- Separate power supply for LOGO! and EIB.

⚠ WARNING
Removal and insertion of the expansion modules may take place only in a zero-voltage state.

2.2 Transportation

The devices must be transported in a clean and dry state, preferably in their original packaging. The transport temperature must be between - 40 °C and + 70 °C. Temperature fluctuations greater than 20 K per hour are not permitted.

2.3 Storage

The devices must be stored in clean and dry rooms, preferably in their original packaging. The storage temperature must be between - 40 °C and + 55 °C. Temperature fluctuations greater than 20 °C per hour are not permitted.

Installation

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3.1 Installation

Requirements

- Create a zero-voltage state.
- CM EIB must always be installed as the last module to the right of LOGO!, because no additional interface modules may be connected to the CM EIB.

Installation instructions

1. Follow the installation instructions included with every device.
2. Also follow the assembly and disassembly instructions in the LOGO! manual.

⚠ WARNING
Removal and insertion of the expansion modules may take place only in a zero-voltage state.

Connecting 4

4.1 Connecting the power supply

The CM EIB can be powered with a choice of 24 V AC or 24 V DC.

The CM EIB is a switching device with protective insulation. A protective conductor connection is not required.

Note

Refer to the connection notes in the included product documentation

Refer to the connection notes in the product information included with your device as well as the technical data regarding the allowable voltage tolerances, line frequencies, and power consumption.

Requirements

- The device is installed properly.
- Disconnected from supply
- Tool to be used: Screwdriver with 3 mm blade width
  (the LOGO! and EIB/KNX terminals are identical.)

Power supply connection procedure:

- Connect the CM EIB to the mains, as shown in the following graphic.
- Protection by means of a melting fuse (80 mA/delayed action) is recommended.

CM EIB with
DC supply

CM EIB with
AC supply
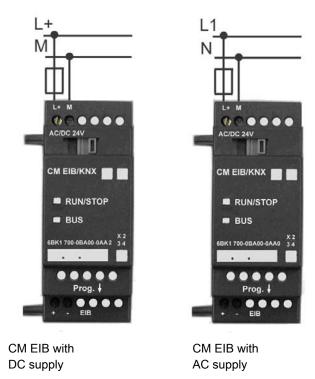
Figure 4-1   Connecting the CM EIB to the AC or DC power supply

4.2 Connecting the EIB

Material and tools to be used

- Standard bus cable (see Chapter Technical data (Page 43)).

- Screwdriver with 3 mm blade width
  (the LOGO! and EIB/KNX terminals are identical.)

EIB connection procedure:

- Connect the EIB to the CM EIB via the "+" and "-" screw terminals, as shown in the following graphic.

  – Only the red-black core pair is used;
  the white-yellow core pair is not connected.

Figure 4-2   Connecting the EIB

Commissioning 5

5.1 Commissioning steps

Prerequisite

- BUS and power supply must be present.

Procedure

1. Connect the PC via the serial EIB interface.
2. Start ETS.
3. Configuration of the application program in the ETS.
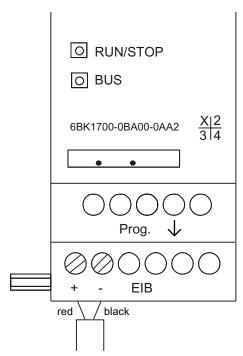4. The application program is loaded via the EIB interface in the nodes. The application program is available on the LOGO! homepage (http://www.siemens.com/logo).
5. Click "Program Physical Address" in the ETS.
6. Press the "Prog ↓" button on the CM EIB to switch the CM EIB to programming mode.

   The "BUS" LED glows orange.

NOTICE
The "Prog ↓" button must not be pressed too hard. This could damage the device. If a contact is present, the LED glows orange.

7. The LED stops glowing when programming of the physical address is complete. You can now indicate the physical address on the unit.

   Composition of physical address:

Area /	Line /	Node
XX	XX	XXX

1. You can now install the application program.

   The device is then ready for operation.

2. If several CM EIB are installed in an EIB system, steps 1-9 must be repeated for each CM EIB.

   Note

   Please refer to the corresponding EIB/KNX documentation for further details regarding EIB installation.

5.2   Operating states of the CM EIB

The CM EIB is a LOGO! expansion module and has two LEDs that indicate the operating state of the device. These are:

- "RUN/STOP" LED: Communication with LOGO!
- "BUS" LED: EIB status
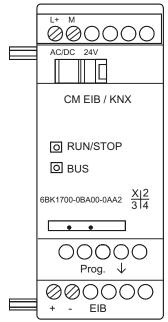
Figure 5-1   CM EIB with the LEDs for indicating the operating state

The "RUN/STOP" LED can glow green, red, or orange and indicates the following operating states:

RUN/STOP LED glows		
Green (RUN)	Red (STOP)	Orange
The expansion module is communicating with the device on the left	The expansion module is not communicating with the device on the left	Initialization phase of the expansion module

The "BUS" LED can glow green, red, or orange and indicates the following operating states:

BUS LED glows		
Green	Red	Orange
Bus connection OK, communication OK, no programming mode	Bus connection fault	Programming mode is active and bus connection is OK

5.3 Response to communications failure

LOGO! power failure

In the event of LOGO! power failure or interruption of communication to the LOGO! master or the left communication partner, the outputs are set to 0. The RUN/STOP LED glows red after one second.

Power restoration to LOGO!

LOGO! restarts, CM sends the parameterized states.

CM power failure

All inputs of the LOGO! master on the EIB are set to 0 by the LOGO! master.

Power restoration to CM

All inputs of the LOGO! master on the EIB are updated. Depending on the parameterization, the inputs are read by the EIB.

Short-circuit or interruption of BUS

The last value received at inputs and outputs is retained until a new value is received. After 5 seconds, the red LED lights up.

BUS restored

When the BUS returns, the CM behaves neutrally, i.e. it does not send any message frames.

Service and maintenance

<div align="right">

6

</div>

6.1 Service and maintenance

The device is designed for maintenance-free operation.

- Still clean the surfaces at regular intervals.

- Also, remove dirt from the housing to avoid impairing the function of the operator controls and the enclosure ventilation.

6.2 Repair

For questions related to the repair process, please contact the relevant Siemens regional office.

6.3 Disposal

Devices described in this programming manual can be recycled owing to the low content of noxious substances in their version.

Please contact a certified waste disposal company for eco-friendly recycling and to dispose of your old devices.

Functions

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7.1 Available functions

The CM EIB takes over communication between LOGO! and EIB and enables communication via EIB inputs and outputs.

7.2 Communication with the LOGO! master

7.2.1 Process image

The process image is as follows.

	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Transfer_Buffer[0]	I 8	I 7	I 6	I 5	I 4	I 3	I 2	I 1
Transfer_Buffer[1]	I 16	I 15	I 14	I 13	I 12	I 11	I 10	I 9
Transfer_Buffer[2]	I 24	I 23	I 22	I 21	I 20	I 19	I 18	I 17
Transfer_Buffer[3]	Q8	Q7	Q6	Q5	Q4	Q3	Q2	Q1
Transfer_Buffer[4]	Q16	Q15	Q14	Q13	Q12	Q11	Q10	Q9
Transfer_Buffer[5]								
Transfer_Buffer[6]	Low Byte AI 1							
Transfer_Buffer[7]	High Byte AI 1							
Transfer_Buffer[8]	Low Byte AI 2							
Transfer_Buffer[9]	High Byte AI 2							
Transfer_Buffer[10]	Low Byte AI 3							
Transfer_Buffer[11]	High Byte AI 3							
Transfer_Buffer[12]	Low Byte AI 4							
Transfer_Buffer[13]	High Byte AI 4							
Transfer_Buffer[14]	Low Byte AI 5							
Transfer_Buffer[15]	High Byte AI 5							
Transfer_Buffer[16]	Low Byte AI 6							
Transfer_Buffer[17]	High Byte AI 6							
Transfer_Buffer[18]	Low Byte AI 7							
Transfer_Buffer[19]	High Byte AI 7							
Transfer_Buffer[20]	Low Byte AI 8							
Transfer_Buffer[21]	High Byte AI 8							
Transfer_Buffer[22]	Low Byte AQ 1							
Transfer_Buffer[23]	High Byte AQ 1							
Transfer_Buffer[24]	Low Byte AQ 2							
Transfer_Buffer[25]	High Byte AQ 2							

7.2.2 Data telegram: Time

The LOGO! master supports the exchange of date and time in both directions. Ensure that on the LOGO! master "On" is set in the **Clock/Sync** menu if the time is to be synchronized from the EIB.
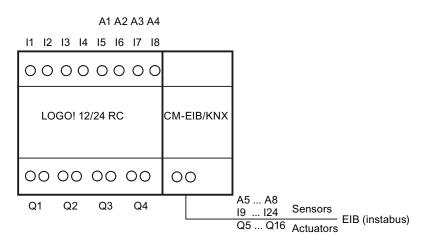
If the LOGO! master is also the time master, it will send a time message frame to the CM EIB every hour or in the event of a change. The CM EIB forwards the time message frame directly to the EIB.
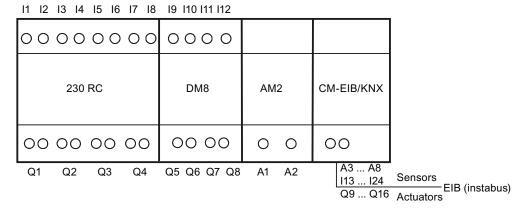
Because the CM EIB does not have a real-time clock of its own, the time cannot be read on the bus side.

7.3 EIB inputs/outputs

The CM EIB application completes the LOGO! process image.

Configuration examples

A1 A2 A3 A4

I1 I2 I3 I4 I5 I6 I7 I8

○ ○ ○ ○ ○ ○ ○ ○

LOGO! 12/24 RC   CM-EIB/KNX

○○ ○○ ○○ ○○   ○○

Q1   Q2   Q3   Q4

A5 ... A8   Sensors
I9 ... I24   EIB (instabus)
Q5 ... Q16 Actuators

I1 I2 I3 I4 I5 I6 I7 I8   I9 I10 I11 I12

○ ○ ○ ○ ○ ○ ○ ○   ○ ○ ○ ○

230 RC   DM8   AM2   CM-EIB/KNX

○○ ○○ ○○ ○○   ○○ ○○   ○   ○   ○○

Q1   Q2   Q3   Q4   Q5 Q6 Q7 Q8   A1   A2

A3 ... A8   Sensors
I13 ... I24   EIB (instabus)
Q9 ... Q16 Actuators

Configuration examples in minimum configuration (above) and with expansion modules (below)
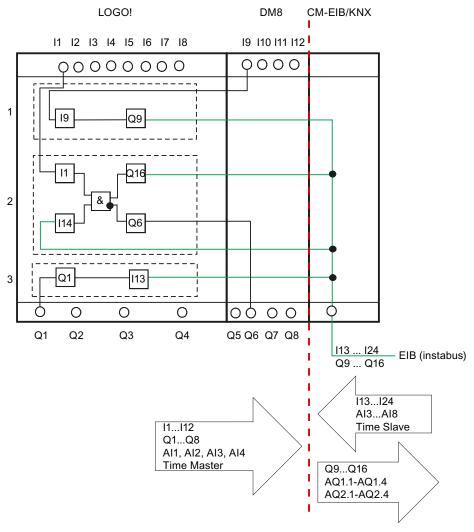
Application example

Figure 7-1   Application example

1. To represent the LOGO! inputs (I1 to I8 and I9 to I12) as outputs on the EIB, these must be connected in the LOGO! application with free EIB outputs (Q9 to Q16).

2. Links (basic functions BF/special functions SF) within the LOGO! application are usable (e.g. checkback signal).

3. To address the LOGO! outputs (Q1 to Q4 and Q5 to Q8) directly via bus communication, they must be linked in the LOGO! application with free EIB inputs (I13 to I24).

7.4 EIB communication

The LOGO! hardware inputs and outputs are also represented on the EIB.

7.4.1 EIB communication objects

7.4.1.1 LOGO! digital inputs

LOGO! input	Available on LOGO HW	Communication object	Parameter
I1	X	Digital output I1	-
I2	X	Digital output I2	-
I3	X	Digital output I3	-
I4	X	Digital output I4	-
I5	X	Digital output I5	-
I6	X	Digital output I6	-
I7	X	Digital output I7	-
I8	X	Digital output I8	-
I9	X	Digital output I9	-
I9		Digital input I9	Monoflop (time), preferred state
I10	X	Digital output I10	-
I10		Digital input I10	Monoflop (time), preferred state
I11	X	Digital output I11	-
I11		Digital input I11	Monoflop (time), preferred state
I12	X	Digital output I12	-
I12		Digital input I12	Monoflop (time), preferred state
I13	X	Digital output I13	-
I13		Digital input I13	Monoflop (time), preferred state
I14	X	Digital output I14	-
I14		Digital input I14	Monoflop (time), preferred state
I15	X	Digital output I15	-
I15		Digital input I15	Monoflop (time), preferred state
I16	X	Digital output I16	-
I16		Digital input I16	Monoflop (time), preferred state
I17	X	Digital output I17	-
I17		Digital input I17	Monoflop (time), preferred state
I18	X	Digital output I18	-
I18		Digital input I18	Monoflop (time), preferred state
I19	X	Digital output I19	-
I19		Digital input I19	Monoflop (time), preferred state
I20	X	Digital output I20	-
I20		Digital input I20	Monoflop (time), preferred state

I21	X	Digital output I21	-
I21		Digital input I21	Monoflop (time), preferred state
I22	X	Digital output I22	-
I22		Digital input I22	Monoflop (time), preferred state
I23	X	Digital output I23	-
I23		Digital input I23	Monoflop (time), preferred state
I24	X	Digital output I24	-
I24		Digital input I24	Monoflop (time), preferred state
I24		Bus status	-

The digital outputs are always displayed on the EIB as EIS1.

Inputs not present on the LOGO! can be parameterized as monoflops to allow event-triggered access via the EIB.

The preferred state and monoflop duration can be parameterized for the monoflop inputs. Using this function, several ones (zeros) sent in sequence on the EIB can be recognized.

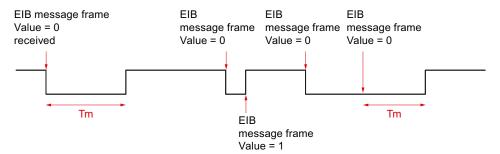## Input with monoflop behavior, preferred state = 1

Monoflop time = Tm

EIB message frame
Value = 0
received

EIB
message frame
Value = 0

EIB
message frame
Value = 0

EIB
message frame
Value = 0

Tm

Tm

EIB
message frame
Value = 1

Figure 7-2   Input with monoflop behavior, preferred state = 1

Input with monoflop behavior, preferred state = 0

EIB message frame
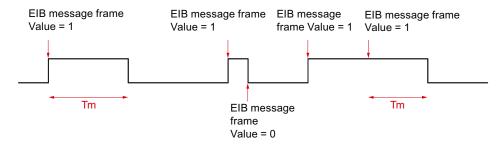Value = 1

EIB message frame
Value = 1

EIB message
frame Value = 1

EIB message frame
Value = 1

Tm

Tm

EIB message
frame
Value = 0

Figure 7-3   Input with monoflop behavior, preferred state = 0

Normal input without preferred state

EIB
message frame
Value = 1

EIB
message frame
Value = 1

EIB
message frame
Value = 1

EIB
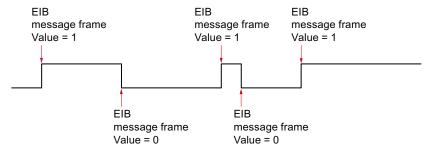message frame
Value = 0

EIB
message frame
Value = 0

Figure 7-4   Normal input without preferred state

I24 can be configured as bus status, i.e. if communication to the EIB is OK, it contains the value 1, otherwise 0.

An error on the EIB will only be detected after approx. 30 seconds.

7.4.1.2   LOGO! digital outputs

LOGO! output	Available on LOGO HW	Communication object	Parameter
Q1	X	Digital output Q1	-
Q2	X	Digital output Q2	-
Q3	X	Digital output Q3	-
Q4	X	Digital output Q4	-
Q5	X	Digital output Q5	-
Q5		Digital output Q5	Dimmer/step code/edge
Q6	X	Digital output Q6	-
Q6		Digital output Q6	Dimmer/step code/edge
Q7	X	Digital output Q7	-
Q7		Digital output Q7	Dimmer/step code/edge
Q8	X	Digital output Q8	-
Q8		Digital output Q8	Dimmer/step code/edge
Q9	X	Digital output Q9	-
Q9		Digital output Q9	Dimmer/step code/edge
Q10	X	Digital output Q10	-
Q10		Digital output Q10	Dimmer/step code/edge
Q11	X	Digital output Q11	-
Q11		Digital output Q11	Dimmer/step code/edge
Q12	X	Digital output Q12	-
Q12		Digital output Q12	Dimmer/step code/edge
Q13	X	Digital output Q13	-
Q13		Digital output Q13	Dimmer/step code/edge
Q14	X	Digital output Q14	-
Q14		Digital output Q14	Dimmer/step code/edge
Q15	X	Digital output Q15	-
Q15		Digital output Q15	Dimmer/step code/edge
Q16	X	Digital output Q16	-
Q16		Digital output Q16	Dimmer/step code/edge

The digital outputs not on the LOGO! hardware can be parameterized either as dimmers or edge evaluation (for control of blinds).

For the configuration as dimmer, 2 LOGO! outputs are combined for each dimmer output (Q5/6, Q7/8, Q9/10, Q11/12, Q13/14, Q15/16).

The first digital output corresponds to brighter and the second one corresponds to darker.

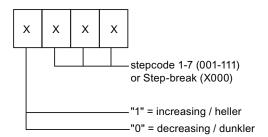The dimming speed is set as a parameter in the EIB configuration.

Figure 7-5   EIB dimming control

If 2 outputs are parameterized as shutter/blind controllers (0/1 suppression and edge evaluation), one output each is parameterized as 0 suppression (only falling edges are sent as 0 on the EIB) and one output is parameterized as 1 suppression (only rising edges are sent as 1 on the EIB).

Using this function, several message frames can be sent sequentially on the EIB with a 1 (or 0).

The outputs Q13/14 and Q15/16 (if not available in the LOGO! hardware) can be configured as multiplexers for the analog outputs.

To do this, the inputs of the analog multiplexer must be linked in parallel to the outputs in the LOGO! application.

7.4.1.3   LOGO! analog inputs

LOGO! input	Available on LOGO HW	Communication object	Parameter
Ai1	X	Analog input/output Ai1	Type/adaptation/COV/cycle
Ai2	X	Analog input/output Ai2	Type/adaptation/COV/cycle
Ai3	X	Analog input/output Ai3	Type/adaptation/COV/cycle
Ai4	X	Analog input/output Ai4	Type/adaptation/COV/cycle
Ai5	X	Analog input/output Ai5	Type/adaptation/COV/cycle
Ai6	X	Analog input/output Ai6	Type/adaptation/COV/cycle
Ai7	X	Analog input/output Ai7	Type/adaptation/COV/cycle
Ai8	X	Analog input/output Ai8	Type/adaptation/COV/cycle

For the "percentage" type, EIB-side analog inputs (i.e. analog inputs not available on the LOGO!) are converted to 0-1000.

Analog inputs on the LOGO! are displayed on the EIB in the same way as analog outputs.

The analog values are converted linearly by means of adaptation (value at 0 and value at 1000). The values for the adaptation can be between -2000 and + 2000. Invalid values for the conversion result in the value 32767.

7.4.1.4   LOGO! analog outputs

LOGO! output	Available on LOGO HW	Communication object	Parameter
AQ1	X	Analog output AQ1	Type/adaptation/COV/cycle
AQ1	X	Analog output AQ1.1	Type/adaptation/COV/cycle
AQ1	X	Analog output AQ1.2	Type/adaptation/COV/cycle
AQ1	X	Analog output AQ1.3	Type/adaptation/COV/cycle
AQ2	X	Analog output AQ2	Type/adaptation/COV/cycle
AQ2	X	Analog output AQ2.1	Type/adaptation/COV/cycle
AQ2	X	Analog output AQ2.2	Type/adaptation/COV/cycle
AQ2	X	Analog output AQ2.3	Type/adaptation/COV/cycle

In the adaptation, the LOGO! values (0-1000) can be mapped linearly to a EIB value range.

With the change in value for transmission, a COV threshold (change of value) is set for the analog value, i.e. when the value changes more than the COV threshold, it is sent automatically. At the same time, it is also possible to set the value to be sent cyclically.

Depending on the value of 2 digital outputs to be configured, the two LOGO! analog outputs can be mapped to different analog values in the EIB/KNX. This means that on the EIB/KNX we have 4 analog values that are filled depending on the digital outputs of a LOGO! analog output.

Q13	Q14	AO1	EIB/KNX analog value
0	0		AO-1
0	1		AO-1-1
1	0		AO-1-2
1	1		AO-1-3

Q15	Q16	AO2	EIB/KNX analog value
0	0		AO-2
0	1		AO-2-1
1	0		AO-2-2
1	1		AO-2-3
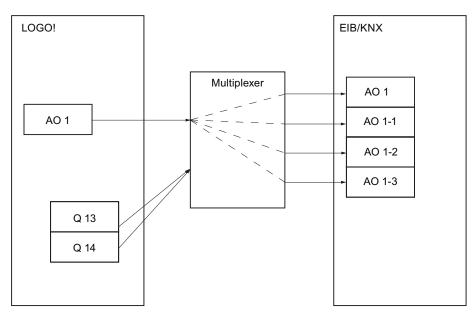
Figure 7-6   Schematic representation of multiplexing

7.4.2 EIB parameterization

7.4.2.1 LOGO! configuration

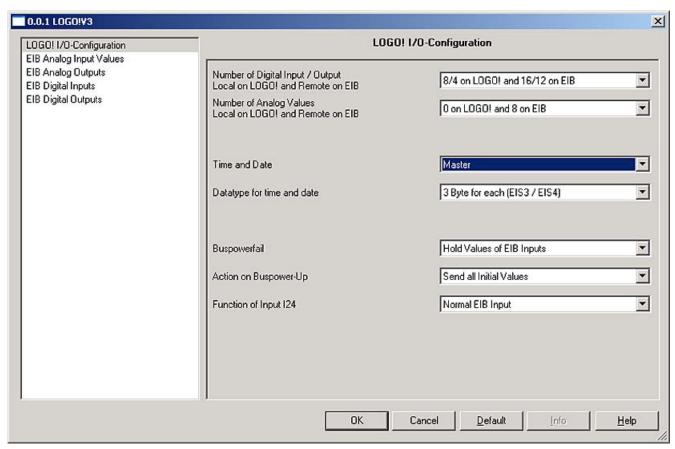The dialog screen shown below is used to change LOGO! configuration settings.

Figure 7-7   LOGO! configuration

Configuration parameters

The individual configuration parameters are described below:

● Number of digital inputs/outputs, locally on the LOGO! and virtually via EIB

The parameters for the digital EIB inputs/outputs are shown or hidden depending on this information.

● Number of analog values, locally on the LOGO! and virtually via EIB

The parameters for the analog EIB inputs/outputs are shown or hidden depending on this information.

● Time and date

Here, the functionality can be set to time master (primary), time slave (secondary), or inactive.

- Time and date data type

  2 data types can be chosen here:
  3 bytes each for time and date or 8 bytes combined data type for date and time.

- Response to bus power failure

  If bus power is lost, the EIB inputs are retained or set to 0, depending on the settings.

- Response to return of bus power

  In accordance with these settings, the EIB outputs are sent even if the values are = 0 when bus power returns to the EIB.

- Input I24 function

  I24 serves either as a normal input or as bus status.

Special features of inputs/outputs

In order to use the LOGO! inputs/outputs on CM EIB, the following must be observed:

To address the LOGO! outputs (Q1 to Q4) directly via bus communication, they must be linked in the LOGO! application with free EIB inputs.

To represent the LOGO! inputs (I1 to I8) as outputs on the bus, these must be linked with free EIB outputs in the LOGO! application.

7.4.2.2 Analog inputs/outputs

The dialog screens for parameterizing the analog inputs/outputs are shown below.

The data types of the analog inputs can be switched between 0-100% and EIB-Float.

LOGO! analog inputs
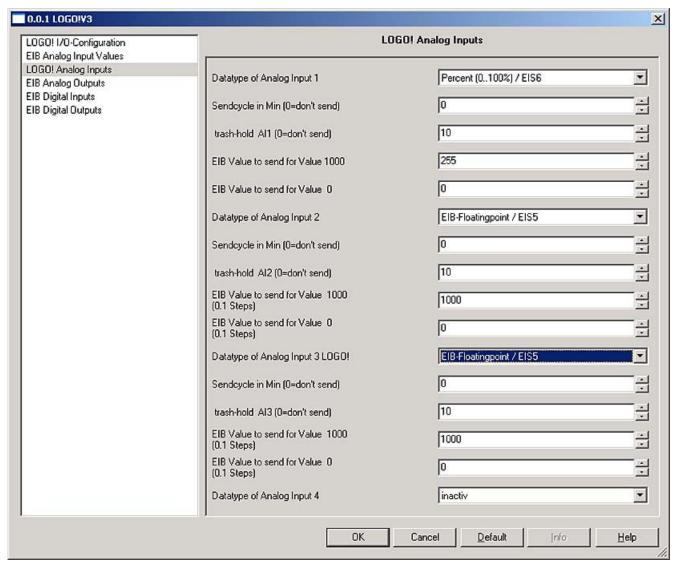
These are the physical analog inputs available on the LOGO!.

Figure 7-8   Configuration screen for the LOGO! analog inputs

EIB analog inputs
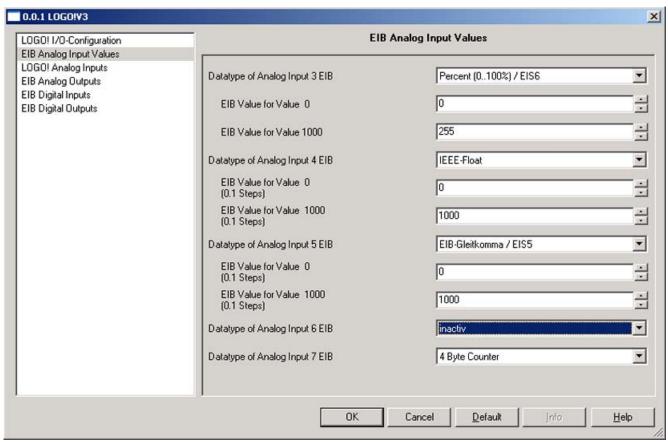
These are the logical analog inputs on the EIB module.

Figure 7-9   Configuration screen for the EIB analog inputs

EIB analog outputs

These are the logical analog outputs on the EIB module.
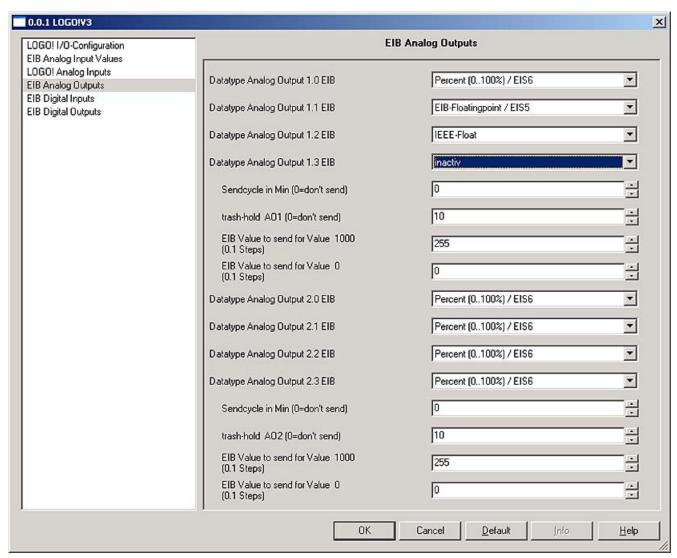

Figure 7-10   Configuration screen for the EIB analog outputs

7.4.2.3   Digital input/outputs

The dialog screens for parameterizing the digital inputs/outputs are shown below.

EIB digital inputs

These are the logical digital inputs on the EIB module.

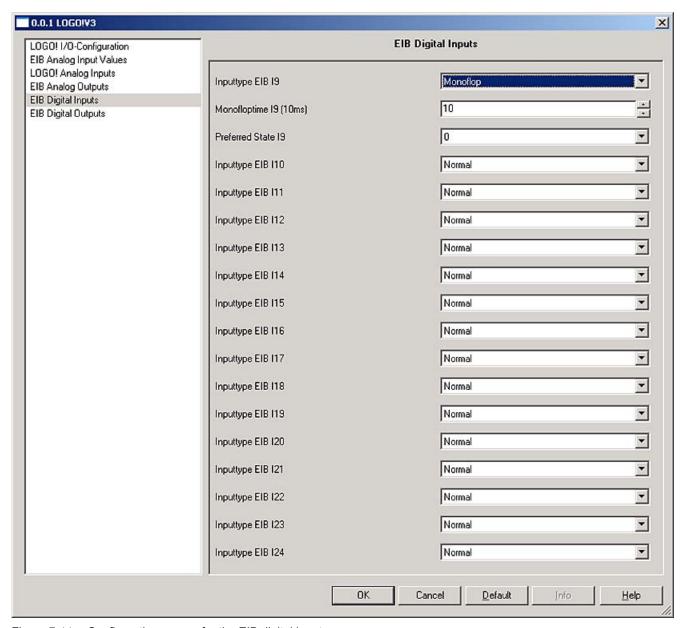The EIB digital inputs can be switched between monoflop and normal mode.

Figure 7-11   Configuration screen for the EIB digital inputs

EIB digital outputs

These are the logical digital outputs on the EIB module.

The EIB digital outputs can be switched between dimmer control start/stop, cyclical dimmer control, edge evaluation, and normal mode. Q13/14 and Q15/16 can additionally be parameterized as multiplexers for the analog outputs.
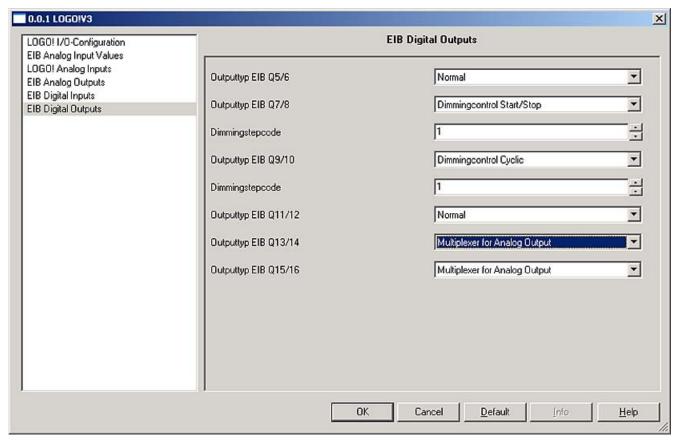

Figure 7-12   Configuration screen for the EIB digital outputs

Technical data

<div style="text-align: right; font-size: 3em;">8</div>

Electrical data		
Supply voltage	24 V AC	24 V DC
Permitted range	-15% +10%	-15% +20%
Current consumption from power supply	max. 70 mA	max. 30 mA
Current consumption via BUS	5 mA	
Data transmission rate EIB	9600 baud	

Design and construction	
Standard width	2 WM
Dimensions (W x H x D)	36 x 90 x 55 mm
Weight	Approx. 50 g
Mounting options	35 mm DIN rail Wall mounting
Operating state indicators	RUN/STOP LED for LOGO! BUS LED for EIB/KNX
Control elements	EIB/KNX programming key S1

Connections	
LOGO! interfacing	Standard expansion interface for LOGO! 12/24 V a. 115/240 V
EIB interfacing (TP 256) max. torque	2-pole screw terminal (0.5 – 2.5 mm²); 0.5 Nm
Power supply max. torque	2-pole screw terminal (0.5 – 2.5 mm²); 0.5 Nm
Standard bus cable to be used	YCYM or J-Y(ST)Y (2 x 2 x 0.8 mm²)
Virtual digital inputs (I)	max. 16
Virtual digital outputs (Q)	max. 12
Virtual analog inputs (AI)	max. 8
Virtual analog outputs (AO)	max. 8
Max. number of group addresses	64
Max. number of associations	64

Ambient conditions	
Permissible operating temperature	0 °C to +55 °C Natural convection
Storage and transport temperature	-40 °C to +70 °C
Humidity	95% at +25 °C

Safety	
Degree of protection	IP 20
Radio interference suppression	EN 55011 (limit class B)
Certification	CE EIB/KNX UL 508 VDE 0631 IEC 61131-2
Overvoltage protection: Fuse	80 mA slow-action

Ordering data	
LOGO! interface module EIB/KNX CM	6BK1700-0BA00-0AA2

List of abbreviations

<div style="text-align: right; font-size: 3em;">A</div>

CM	Communication module
EIB	European Installation Bus
EIS	EIB Interoperability Standard
ETS	EIB Tool Software
KNX	Standard of the Konnex Association