Technical Data / Instruction Manual

MA-IP-2

Article no. 80011171

IP Master Module with Ethernet interface

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Directory of Content

1. Notes on documentation

These instructions are intended for qualified personnel who are familiar with the assembly, installation and operation of the ISYGLT system. It is essential that you read these operating instructions through before commissioning and keep them accessible for further use.
SEEBACHER cannot accept any liability for damage or malfunctions resulting from failure to observe these instructions.

1.1. Retention of documents

These instructions and all other applicable documents are part of the product. They must be handed over to the device operator. The operator will store the documents so that they can be made available if necessary.

1.2. Symbols used

Observe the following safety and other instructions in the manual:

 Handling instruction
The hand indicates that you should carry out an act.

 Danger!
Immediate danger to life!

 Attention!
General notes, useful information and special features

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2. Safety instructions

Observe the following general safety instructions when installing and commissioning the device:

Assembly and installation of the ISYGLT module may only be carried out by a qualified electrician. Other activities in connection with the ISYGLT module, such as assembly and installation of system components with tested standard plug connections, as well as operation and configuration of the ISYGLT module may only be carried out by trained staff.

Observe the electrical installation regulations of the country in which the device is installed and operated as well as its national accident prevention regulations. In addition, observe internal company regulations (work, operating and safety regulations).

Before working on the ISYGLT module system, it must be disconnected from the power supply and secured against being switched on again. After completion of the assembly, installation and maintenance work, an electrical check must be carried out! Check all protective conductor connections and the voltages at all connection plugs as well as at each individual module slot.

2.1. Intended usage

The module is exclusively suitable for regulation (control) in connection with ISYGLT system components. Any other use is not intended. The limit values stated in the technical data must not be exceeded under any circumstances. This applies in particular to the permissible ambient temperature range and the permissible IP protection type. For applications with a higher required IP protection type, the ISYGLT module must be installed in a housing or a cabinet with a higher IP protection type.

2.2. Predictable mishandling

The module must not be used in the following cases in particular:
• explosive area
When operating in explosive areas, sparking can lead to deflagration, fire or explosions.

2.3. Safe handling

This module corresponds to the state of the art and the recognised safety regulations. Each device is tested for function and safety before delivery.

Only operate this module in perfect condition in accordance with the operating instructions, the applicable regulations and directives of the country in which the device is installed and operated, and the applicable safety and accident prevention regulations.

The module is designed for cabinet installation on a 35mm DIN rail according to EN 60715 in corresponding standard housings. Extreme environmental conditions impair the function of the product.
• Protect module from shocks
• Use module indoors only
• Protect module from humidity

In addition to these safety instructions, you must also observe the special safety instructions listed in the individual chapters for the individual acts.

2.4. Qualification of staff

Assembly, commissioning, operation, maintenance, decommissioning and disposal may only be carried out by qualified staff. Work on electrical parts may only be carried out by a trained electrician in accordance with the applicable regulations and directives. Other activities in connection with the ISYGLT module, such as assembly and installation of system components with tested standard plug connections, as well as operation and configuration of the ISYGLT module may only be carried out by trained staff.

2.5. Changes to the product

Unauthorized modifications to the ISYGLT module which are not described in this or the other applicable instructions can lead to malfunctions and are prohibited for safety reasons.

2.6. Use of spare parts and additional equipment

The module may be damaged if unsuitable spare parts and additional equipment are used. Only use original spare parts and additional equipment from the manufacturer.

2.7. Liability notes

SEEBACHER accepts no liability or warranty whatsoever for damage and consequential damage caused by non-compliance with the technical regulations, instructions and recommendations. SEEBACHER shall not be liable for any costs or damage incurred by the user or third parties as a result of the use of this equipment, in particular improper use of the equipment, misuse or malfunction of the connection, malfunction of the equipment or connected devices.

SEEBACHER accepts no liability for printing errors.

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3. Warranty

We provide warranty within the framework of the statutory provisions. These are limited to the intended use of the module and refer to the repair or replacement of the ISYGLT module. Please send the device with an attached error description to our company address given below.

4. Declaration of Conformity

The valid declaration of conformity for the module can be requested from us free of charge by stating type and article no. as follows:
By phone: +49(0)8041/77776
By fax: +49(0)8041/77772
By mail: info@seebacher.de

5. Service address

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6. Maintenance / Care / Disposal

The product is maintenance-free. It is sufficient from time to time to remove any dust deposits. This may only be done in a power-free state.

Disposal (European Union)
Do not dispose of product in household waste! Products with this symbol

must be disposed of according to the EU directive WEEE 2012/19/EU on waste electrical and electronic equipment at the local collection points for waste electrical and electronic equipment!

7. Storage

The product must be stored in a dry place, protected from dirt and mechanical stress. After damp or dirty storage, the product may only be operated after a condition check by an authorised electrician.

8. Assembly

(Only by certified electrician!)
Mount the product only when it is in a power-free state!
Switch off the power supply, check that there is no voltage, secure against being switched on again!
The device may only be operated at voltages according to the technical data and loaded with the currents defined therein. Only use suitable equipment (system modules).

Check that there are no loose parts in the product. If this is the case and the presence of such parts is not explicitly described, do not install or commission the product.
Only use suitable cables and fixing screws.

Assembly site
- The product can be installed in any position in a casing to be determined by the electrician (distribution box, switch cabinet). Observe maximum ambient temperature!

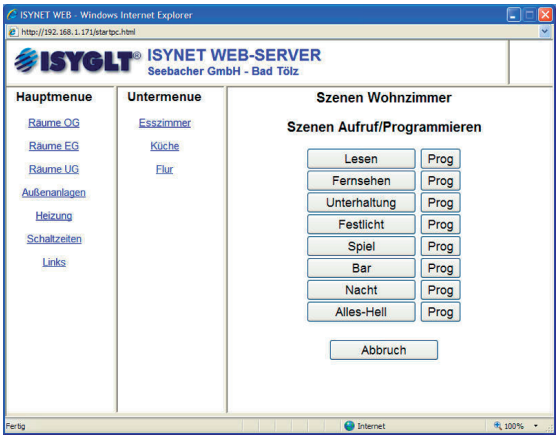
Assembly steps
(Read completely before assembly!)
- Mount the device in a suitable casing.
- Make the electrical connections according to the wiring diagram.
- Configure the DIP switches according to your requirements.
- Only after a complete connection and a visual test by a qualified electrician, the system may be put under voltage.

9. Product description

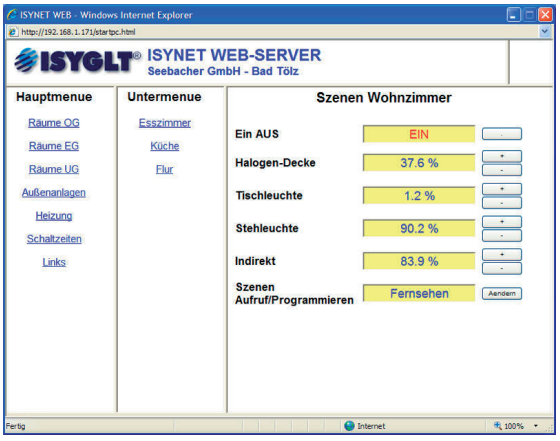
The Master module controls the data traffic on the ISYGLT BUS and is required once per Subnet. The function programming of all peripheral modules connected to the subnet BUS (switching modules, analog modules, button modules, dimmer modules) is carried out with the ProgramDesigner. The program memory in the Master can be written as often as required. The stored data are safely retained even in the event of an operating voltage failure. The serial interface „Backbone“ is used for data exchange between several Masters.

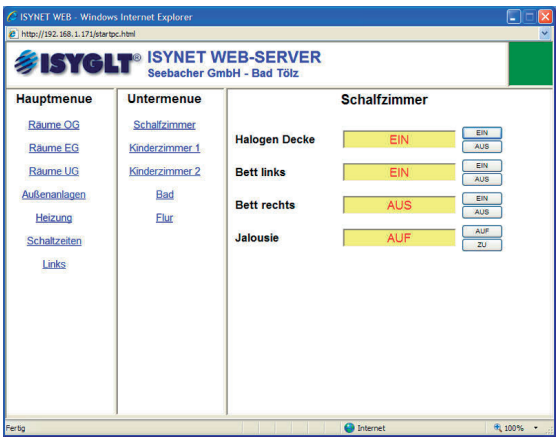
Possible time sources:
- Internal clock (not temperature compensated; the ISYGLT system clock and DCF-77 radio clock have higher accuracy)
- ISYGLT DCF-77
- ISYGLT System clock
- Time of an optional Java server
- Synchronisation of time by an Internet time server

The following functions are possible with the TCP/IP interface:
- Simple visualization on PC and SmartPhone (integrated web server)
- Simple error message processing for up to 128 messages in up to 4000 memory locations
- Data exchange between IP Masters via IPMS server via Ethernet
- TCP MODBUS Slave
- Sending e-mails (e-mail SMTP client)
- Operating safety by integrated user administration
- Individually configurable visualization solution based on the platform-independent Java programming language



Sample views of the internal web server
(this is accessed with a standard browser)





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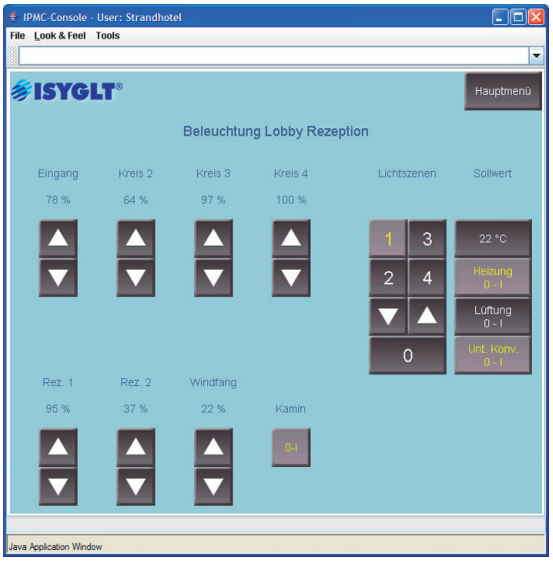
Sample views SmartPhone (iPhone)

Sample views of the Java visualization



Function displays

The LEDs are located between the SUBNET connector and the housing.

- 1 green LED „IPM READY“ lights up to indicate that the IP functions are ready for operation.
- 1 red LED „POWER“ indicates the supply voltage. This LED lights up when the supply voltage is applied to the module.
- 1 yellow LED „SUBNET“ flashes to indicate a trouble-free data transfer on the Subnet.
- 1 green LED (RUN-STAT) indicates the status of the Master:
  Steady flashing indicates „System OK, but no time received“.
  2x short flashing followed by a break indicates „System OK and valid time received“.
- 1 red LED „PROGRAM“ indicates the transfer of programs from the PC/modem to the Master and vice versa via the programming interface.
- 1 yellow „BACKBONE“ LED flashes to indicate trouble-free data transfer on the Backbone BUS (networking of several Master modules).

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Connections

- 1 connection for the Subnet (BUS A and B, RS-485)
- 1 connection for the operating voltage (Ub, 0V)
- 2 P-COM connections (Subnet and operating voltage)
- 1 connection (SUBNET) for programming and remote maintenance
- 1 connection (BACKBONE) for the ISYGLT Backbone networking
- 1 connection (SETUP) for the IP Master basic parameterization
- 1 connection (RJ45) Ethernet TCP/IP protocol

Design

- light grey/black plastic housing, can be put on 35mm DIN rail, 6 HP

10. Technical data

Type designation	MA-IP-2
Article no.	80011171
Operating voltage	12V to 35V DC or 12V to 27V AC
Current consumption	24V DC 100mA
Interface SUBNET	RS-485 for the ISYGLT subnet BUS for communication with modules
Interface PROGRAM	RS-232 programming interface for connection of PC / modem
Interface BACKBONE	RS-485 potential-free for the ISYGLT Backbone BUS for networking several Master modules
Interface SETUP	RS-232 for IP Master setup
Interface RJ45	Ethernet TCP/IP interface
Program memory	24kByte program memory (not expandable) 32kByte (RAM) data memory EEPROM-buffered, non-volatile 8KByte optionally expandable to 32 KByte (EEPROM), for light scenes, non-volatile 2MB RAM for IP Master 16MB data memory for IP Master Web server: 200 pages with 8 controls each, additional 500kB for simple HTML pages Mail server: Sending 16 e-mails to 16 different recipients Error message processing: 128 messages, 4000 memory locations
Connection	screw terminals pluggable max. 1.5mm² and P-COM connector
Operating temperature	-10°C to +50°C
Storage temperature	-25°C to +70°C
Dimensions	WxHxD 107.6 x 89.7 x 60.7mm (6 HP)
Weight	157g
Humidity	0-85% r. h. non-condensing
Protection class	IP 30
CE mark	yes

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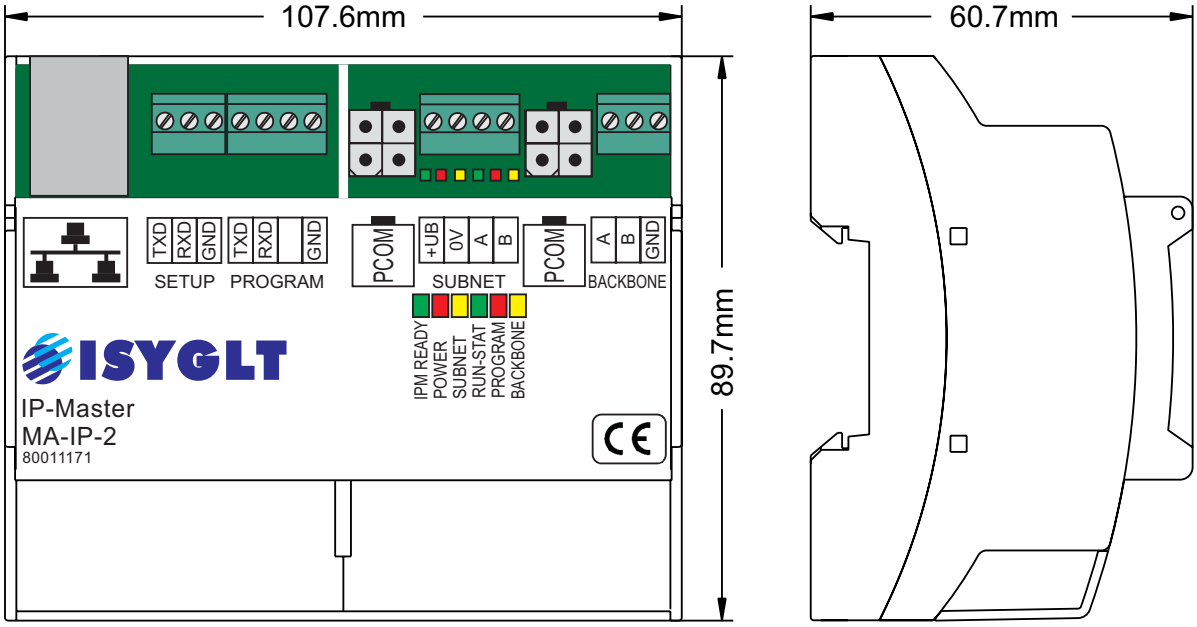
10.1. Pin assignment

Terminals	SUBNET
≅ Ub	Operating voltage
0V	0V Operating voltage
A	BUS A (Subnet RS-485)
B	BUS B (Subnet RS-485)
Terminals	**PROGRAM**
TxD	Programming interface (RS-232) TxD transmission line
RxD	Programming interface (RS-232) RxD receive line
NC	
GND	Programming interface (RS-232) GND
Terminals	**BACKBONE**
A	BUS-A (RS-485)
B	BUS-B (RS-485)
GND	GND (RS-485)
Terminals	**SETUP**
TxD	Programming interface (RS-232) TxD transmission line
RxD	Programming interface (RS-232) RxD receive line
GND	Programming interface (RS-232) GND
P-COM	BUS and operating voltage

View



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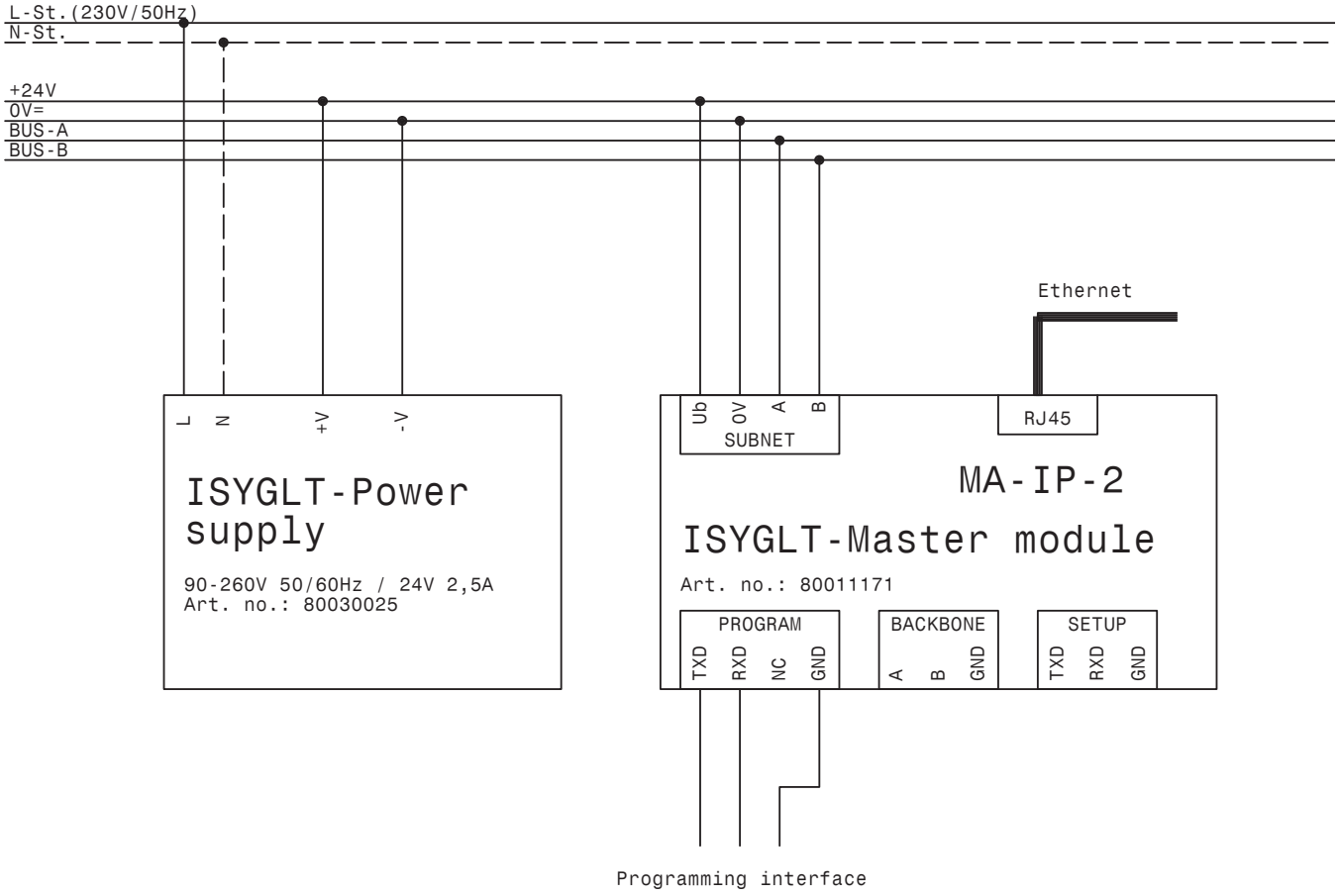
11. Wiring diagram

Wiring diagram subnet



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