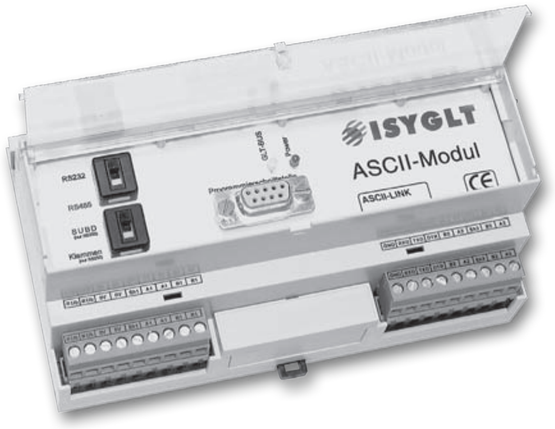
ASCII LINK MODULE



General

With the ASCII Link module it is possible to send and receive digital and analoge datas via ASCII string by using the RS232 interface. Thereby the module can communicate with all systems, which dispose about RS232 interface and can become adapted to the defined protocol.

Function displays

- 1 red LED indicates the supply voltage. The LED does alight, when the supply voltage is pending
- 1 flasing yellow LED signalise the communication with the subnet

Connections

- 2 connections for the subnet (BUS A and B, RS-485)
- 2 connections for the operating voltage (Ub, 0V)
- 1 connection for the 2nd serial interface RS232
- 1 connection for the 2nd serial interface RS232
- 1 connection for the 3rd serial interface (reserve)

Design

- Light grey plastic casing, can be snapped onto 35 mm DIN rail mounting 9 separating units

Special function DIP switch

Switches S1 and S2 is located behind the transparent cover on the ASCII module (see „View“). You have to lift up the cover for configuration.

- **S1** (above)
  - **position RS232:**
  conforms a RS232 interface (standard)

  - **position RS485:**
  reserved

- **S2** (below)
  - **This switch is only effectual, if switch S1 is placed on position RS232.**

  - **position SUBD:**
  The RS232 interface for programming is applied to a SUBD bush

  - **position terminals:**
  The RS232 interface to control the connected device is applied to the terminals GND, RXD and TXD.

Protocol for the data exchange to a foreign system via the serial interface (RS232) of the ASCII module

Communication parameter:

- type:	asynchronal serial RS232
- connections:	RXD, TXD, GND
- baudrate:	1200 to 38400 bit/s adjustable
- data format	8 data bit, 1 stop bit no parity

Delay adjustable between the individual message blocks in 5ms steps

Data transmission format:

1 byte	1 byte	n byte	1 byte
start sign	identificator	command / datas	stop sign

start sign:	signalise the start of a data transmission (start sign = $)
identificator:	By that sign will be fixed, about which command category it acts. (see details below)
command / datas:	n byte ASCII signs, which define a more accurate command
stop sign:	By that sign the transmission of a command will stop (stop sign = %)

Digital signals:

Transmission string

$	D	X	X	X	S	r	r	r	%
$	D	X	X	X	R	r	r	r	%
$	D	X	X	X	P	r	r	r	%

D	= transmission of a digital signal
XXX	= channel number
S	= the channel (command) will be setted on logical 1 and regarded as ON, till a backspace command will be sended.
R	= reset of a channel (command)
P	= channel (command) with impulse function (the receiver terminal shall interprete this command as impulse on this channel)
r	= reserve (will be setted with ASCII sign 0)

Example: Push and release a button on chanel 20

Continuous functions e.g. to dimm up or down can be realised to differ a short or a long key press.

command: push the button	$D020S000%
command: release the button	$D020R000%

Example: mood key 1 room X (channel number 25)

command: hit key	$D025P000%

Example: feedback of mood key 1 room X (key number 26)

command: feedback active	$D026S000%
command: feedback inactive	$D026R000%

Synchronization of a foreign system:

transmission string (data direction foreign system --> ISYGLT)

$	S	r	r	r	r	r	r	r	%

S = synchronization (request of current state of a channel (command) (feedback)
XXX = channel number (1 to 999)
r = reserve (will be setted with ASCII sign 0)

Example: synchronization of the mood key 1 room X (key number 26)

request of the feedback state	$S0260000%
answer of the ISYGLT system	$D026S000%
or	$D026R000%

Synchronization of all feedbacks

$	S	r	r	r	r	r	r	r	%

With this command is a compleat synchronization of the system possible (for example after a failure of the foreingn system processor)

When the ISYGLT system recognize this command, all states of the feedbacks will be sent to the foreign system (this process can take a couple of seconds)

Example: Synchronization of the whole installation:

drain of synchronization of the foreign system	$S0000000%
feedbacks of the ISYGLT system	$D001S000% $D002R000% $D003S000% and so on.

Software DOS

For parametering of the ASCII-Link module a software programm (DOS) is necessary. This program can be downloaded (free of charge) by the internet.

Technical data

Type	ASCII-LINK module
Art. Nr.	80087000
Operating voltage	12V to 35V DC or 12V to 27V AC
Current consumption	12V DC 130mA, 24V DC 70mA, 35V DC 60mA 12V AC 140mA, 24V AC 75mA, 27V AC 70mA
Interface 1	RS-485 for the subnet (RS-485) to communicate with modules
Interface 2	RS-232 for connection PC / device
Interface 3	Reserve
Memory	Memory for ASCII sequences: 16 KByte (EEPROM) data memory: 32 KByte (RAM)
Connection	Screw terminals 1,5mm² pluggable
Dimensions	BxHxT 160x90x74mm (9 TE)
Weight	300 g
Operating temperature	-10...+50 °C
Storage temperature	-25...+70 °C
Humidity	0...85 % r.F. non condensing
Protection grade	IP 30
ESD immunity	Category 3 according to IEC-1000-4-2 (4 kV static)
EMV immunity	Use in typical industrial enviroment. Category 3 according to IEC-1000-4-4 (Test was carried out within a whole system)
CE sign	yes

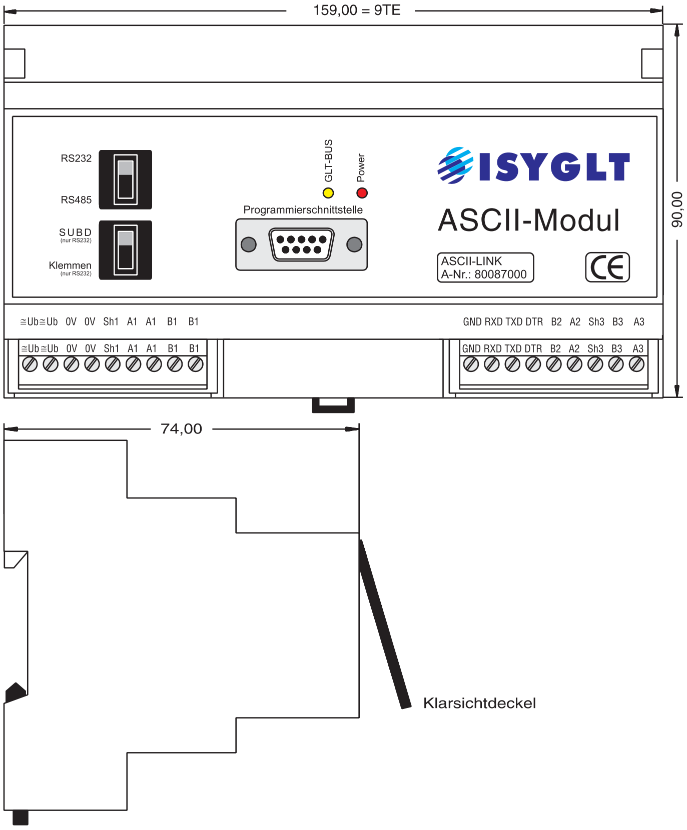
Terminal assignment

Terminals	Left
≅ Ub	Operating voltage
≅ Ub	Operating voltage
0V	0V Operating voltage
0V	0V Operating voltage
Sh.1	Free
A 1	Subnet (BUS A, RS-485)
A 1	Subnet (BUS A, RS-485)
B 1	Subnet (BUS B, RS-485)
B 1	Subnet (BUS B, RS-485)

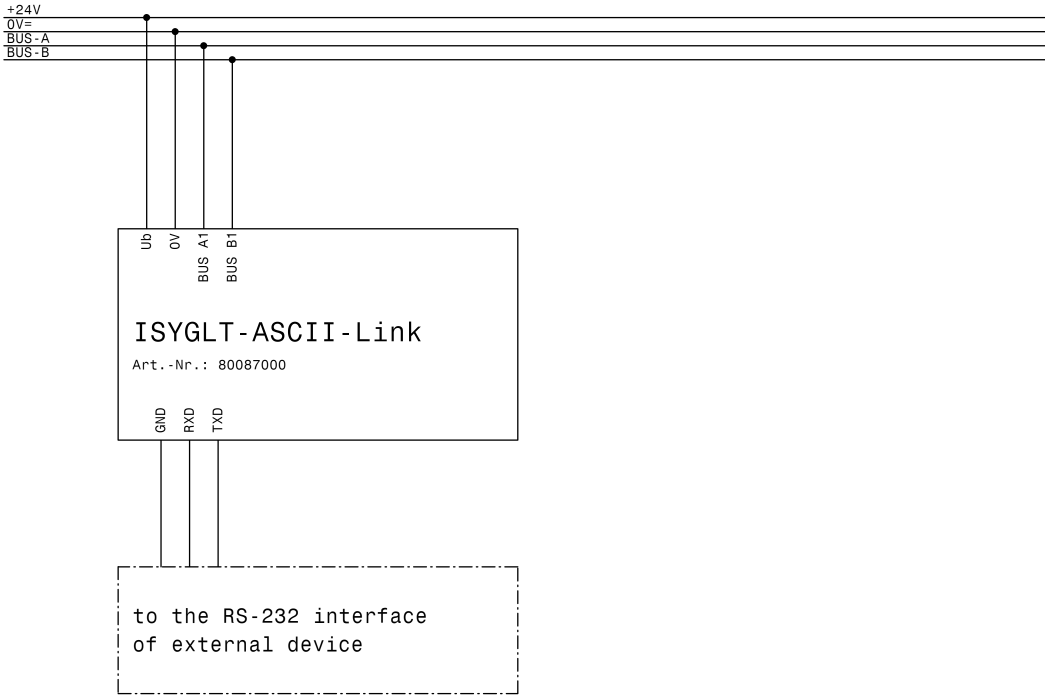
Terminal assignment

Terminals	Right
GND	Program interface / datas (RS-232) mass
RxD	Program interface / datas (RS-232) RxD received line
TxD	Program interface / datas (RS-232) TxD transmission line
Sh.2	Free
B 2	Reserve
A 2	Reserve
Sh.3	Free
B 3	Reserve
A 3	Reserve

View



Wiring diagram


+24V
0V=
BUS-A
BUS-B
Ub
0V
BUS A1
BUS B1
ISYGLT-ASCII-Link
Art.-Nr.: 80087000
GND
RXD
TXD
to the RS-232 interface
of external device