

Compact-Controller CC-01

General

The CC-01 compact controller is designed for performing smaller control tasks. In order to ensure optimal value for money, three modules of the ISYGLT system have been combined in one appliance:

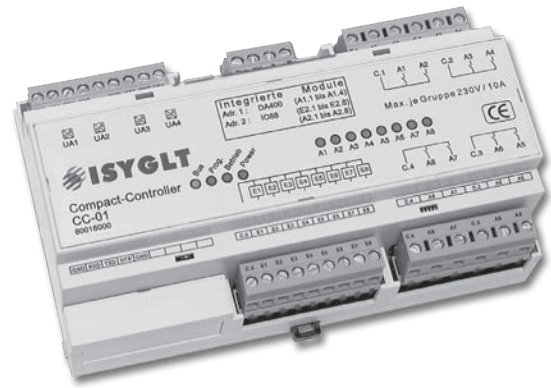
- 1 x master module
- 1 x DA module with 4 analogue outputs 0-10V or 1-10V
- 1 x I/O module with 8 digital inputs and 8 relay outputs

Master module in the compact controller

The compact controller controls data traffic on the subnet. All the data recorded by the modules e.g. (statuses of the modules' digital and analogue inputs, radio controlled clock times etc.) are transferred to the master via the BUS. The compact controller processes the data recorded using a user-specific program and returns data to the modules' outputs, (e.g. analogue and digital outputs) depending on the result of the processed input data. Data is transferred from the compact controller to the modules via the subnet (RS-485). The program for the compact controller is created by the user with "Programm-Designer" (ProgrammDesigner is the programming software for the ISYGLT BUS system), transferred to the compact controller via a programming interface (RS-232 cable or MODEM) and saved there in the program memory.

The program memory can be written as often as desired and even keeps its data in the event of an operating voltage failure. The input and output data is saved in an EEPROM backed RAM which allows you to restore the system to its last state in the event of a power failure depending on the application.

The range of functions is the same as the ISYGLT master module. The compact controller is equipped with a RS-485 subnet interface for connecting the max. 128 external modules. All the components of the ISYGLT system can be connected to these.



DA module

The analogue output module is fitted with 4 independent analogue outputs. The outputs have an output voltage range of 0-10V (1-10V) with 8-bit resolution.

The voltage of the outputs is galvanically separated from the subnet and the operating voltage. There is no potential separation between the four outputs themselves.

The outputs can carry a maximum current source or current sink load of 25mA. The load can be freely distributed over the individual outputs, i.e. one output can be operated with 22mA and the others each with 1mA. The range of functions is the same as the ISYGLT DA module.

Address 1 has already been assigned to the DA module in the compact controller.

I/O module

The I/O module (12-48V) is fitted with 8 galvanically separated inputs and outputs. The inputs can be controlled with either V AC or DC. Eight relays with make contact are available as outputs. The status of the outputs is displayed by LED. Address 2 has already been assigned to the I/O module in the compact controller.

In- / Outputs

- 8 relay outputs max. 230V / 10A, 2 contacts each on a common root node with 10A load capacity
- 8 optical coupler inputs 12-48V
- 4 analogue outputs 0-10V (1-10V)
- RS-232 interface for MODEM/PC connection for programming

Functions displays

- 1 red „power“ LED indicates the operating voltage.
- 1 red „prog.“ LED indicates that programs are being transferred from the PC/modem to the compact controller and vice versa via the programming interface
- 1 green „Betrieb“ LED indicates the processor function. Steady flashing means „system ok, however no DCF-77 time received“. 2x short flashes followed by a pause means „system ok and valid DCF-77 time received“.
- 1 flashing yellow „Bus“ LED indicates trouble-free data transfer on the subnet
- 8 green „A1...A8“ LED signalise the current output status. The output relay is activated when the respective LED lights up.

Connections

- 1 connection for the subnet (BUS A and B, RS-485)
- 1 connection for the operating voltage (Ub, 0V)
- 8 outputs (two each on a common connection)
- 8 inputs (on a common reference terminal)
- 2 P-COM connections
- 4 analogue outputs
- 1 connection for RS-232
- 1 SUB-D RS-232 (behind cover)
- 4 GND connections

Design

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

Special functions DIP switch (behind cover)

The DIP switches can be used for operating the outputs without a program in an emergency

- Switch 1 = ON the analogue outputs emit a voltage of 10V.
- Switch 2 = ON All output relays are activated

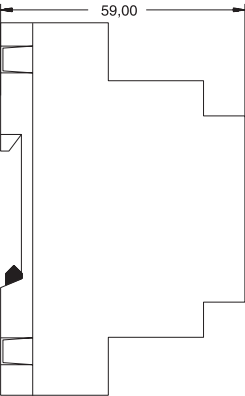
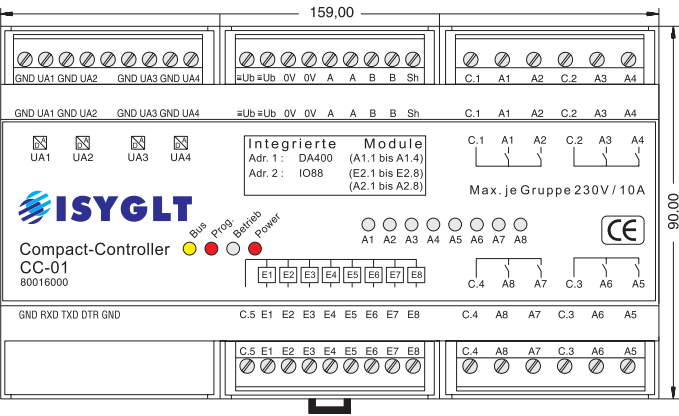
Technical data

Type	Compact-Controller CC-01
Art.-Nr.	80016000
Operating voltage	17V bis 35V DC bzw. 17V bis 27V AC
Power consumption	When analogue outputs are at full load and all relays are activated 17V DC 380mA, 24V DC 270mA, 35V DC 180mA 17V AC 500mA, 24V AC 330mA, 27V AC 300mA
Inputs	Input current per input 5mA at 24V
Relay outputs	Caution: common root node! Relay contact 250V Load capacity: non-inductive 10A bulbs 10A Fluorescent lamp uncompensated 6A Fluorescent lamp compensated 4A LV halogen via transformer 10A 1-phase-motor 0,55kW Electronic ballast's manufacturer-specific starting current 100A < 20ms The starting current of electronic ballasts is up to 100 times the nominal current!!
Analogue outputs	Output voltage 4 analogue channels 8 bit resolution 0-10V (1-10V) output voltage max. 25mA all 4 outputs together as current source or current sink.
Isulation voltage	300V (ISYGLT-Bus / Analogue outputs)
Interface 1	RS-485 Subnet max. 5,6V limited by Z-diodes
Interface 2	RS-232 interface for PC / Modem connection
Program memory	64 KByte (EPROM) Program memory for user program: 8 KByte optional 16 KByte (EEPROM) programmable Data memory 1: 32 KByte (RAM) battery backed, non-volatile Data memory 2: 8 KByte (EEPROM) for switching times, non-volatile Data memory 3: 8 KByte (EEPROM) for lighting, non-volatile
Dimensions	BxHxT 160x90x59mm (9 T)
Weight	500 g
Connection	Screw terminals 2,5mm ² plug-in
Operating voltage	-10°C...+50°C
Storage temperature	-25°C...+70°C
Humidity	0...85 % r.F. non condensing
Protection class	IP 30
ESD immunity	Category 3 according to IEC-1000-4-2 (4 kV static)
EMC immunity	Use in typical industrial enviroment. Category 3 according to IEC-1000-4-4 (Test was carried out within a whole system)
CE mark	yes

Terminal assignment

Terminals	Designation
$\equiv U_b$	Operating voltage
0V	0V operating voltage
A	Subnet (BUS A, RS-485)
B	Subnet (BUS B, RS-485)
Sh.	Remains free
C.5	Common für E1-E8
E1	Input 1
E2	Input 2
E3	Input 3
E4	Input 4
E5	Input 5
E6	Input 6
E7	Input 7
E8	Input 8
C.1	Common für A1/A2
A1	Output 1
A2	Output 2
C.2	Common für A3/A4
A3	Output 3
A4	Output 4
C.3	Common für A5/A6
A5	Output 5
A6	Output 6
C.4	Common für A7/A8
A7	Output 7
A8	Output 8
GND	Programming and visualization interface (RS-232) mass
RxD	Programming and visualization interface (RS-232) RxD received line
TxD	Programming and visualization interface (RS-232) TxD transmitter line
DTR	Programming and visualization interface (RS-232) DTR status line
GND	Programming and visualization interface (RS-232) mass
UA1	Analogue output 1
GND	GND to analogue output 1
UA2	Analogue output2
GND	GND to analogue output 2
UA3	Analogue output 3
GND	GND to analogue output 3
UA4	Analogue output 4
GND	GND to Analogue output 4
The GND of the UA1-4 are connected to each other	

View



Wiring diagram

