cybroTech

product catalog

2011

components for industrial, building and home automation

Publishing info

Cybrotech, Ltd.
14 Brinell Way
Harfreys Industrial Estate, Great Yarmouth
Norfolk, Nr31 0LU - UK
www.cybrotech.co.uk

Document edition: September 2011
Publication code: PBL-CL-EN-09-2011
Revison: 6
Design: MB

Contents

About the system

Controllers

Modules

Sensors

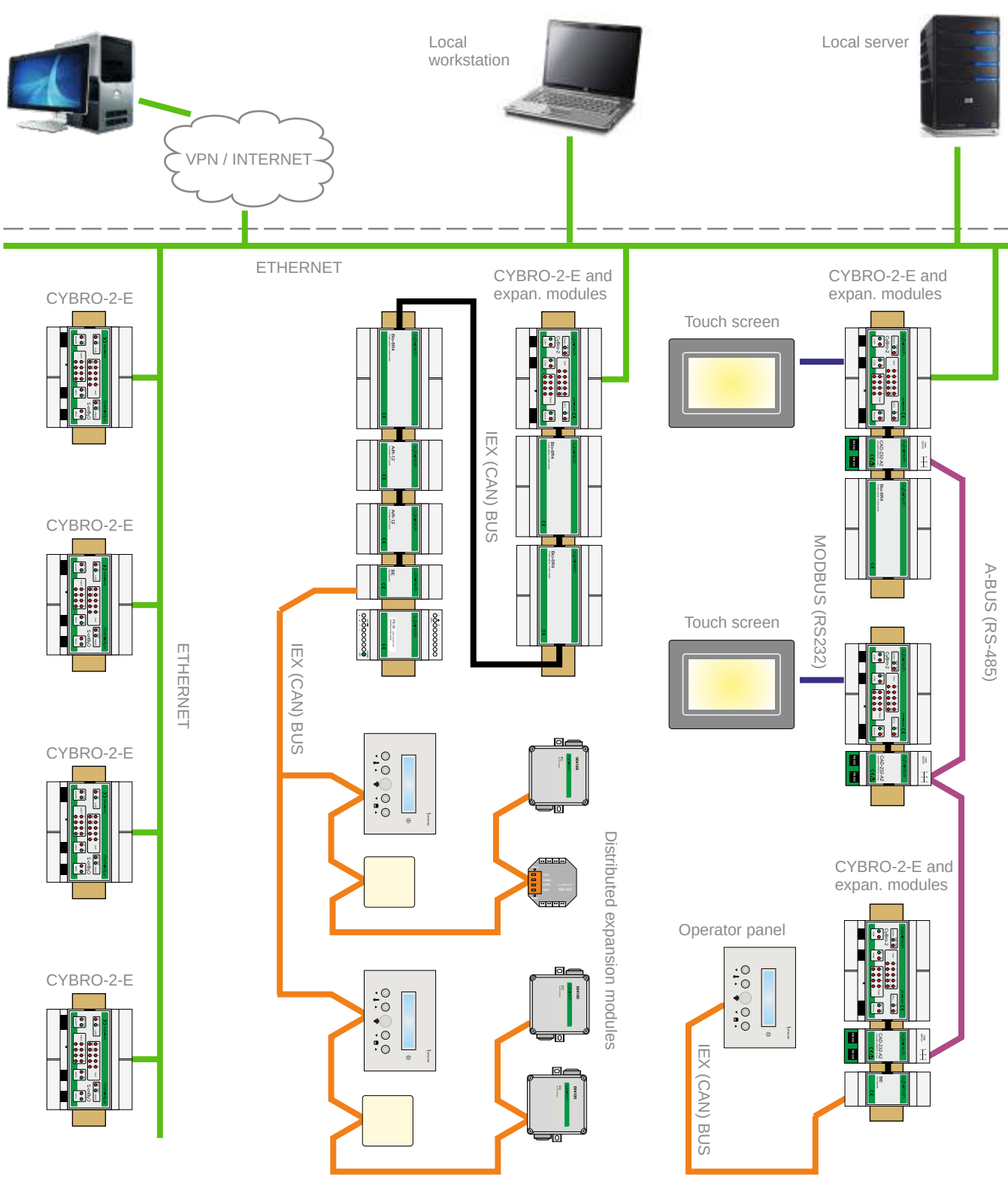
Operator panels

Accessories

Power supply units

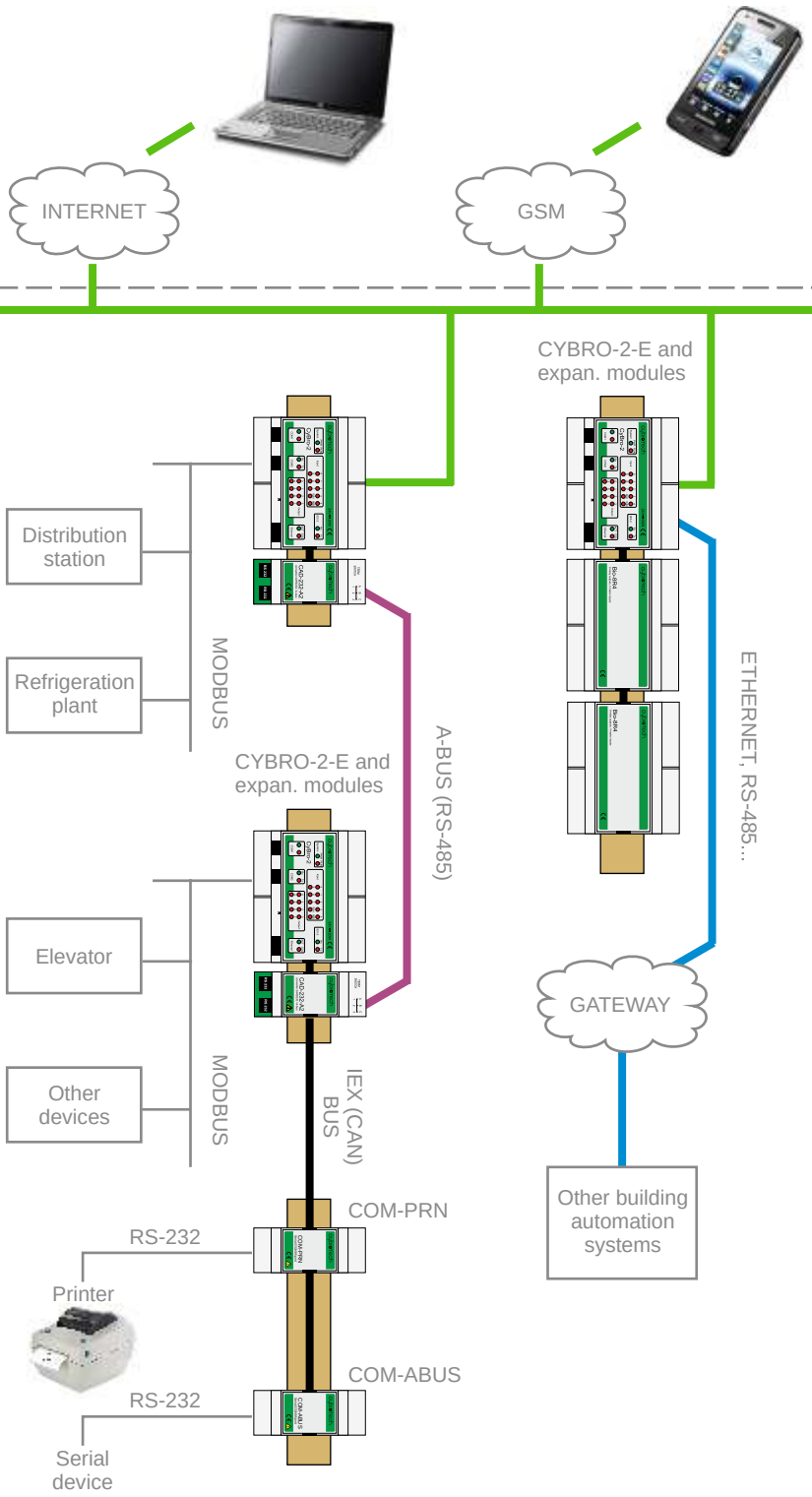
Software

System info


Local workstation
Local server
VPN / INTERNET
ETHERNET
CYBRO-2-E
CYBRO-2-E
CYBRO-2-E
CYBRO-2-E
ETHERNET
CYBRO-2-E and expan. modules
IEX (CAN) BUS
IEX (CAN) BUS
Distributed expansion modules
Touch screen
Touch screen
CYBRO-2-E and expan. modules
MODBUS (RS232)
A-BUS (RS-485)
CYBRO-2-E and expan. modules
Operator panel
IEX (CAN) BUS







Management layer

- graphical user interfaces
- local and remote access
- mobile access
- data logging and web servers

System integration layer

- based on TCP/IP
- system integration and control through CyBro OPC directly connected to the system
- decentralized control system via (Ethernet) networked controllers

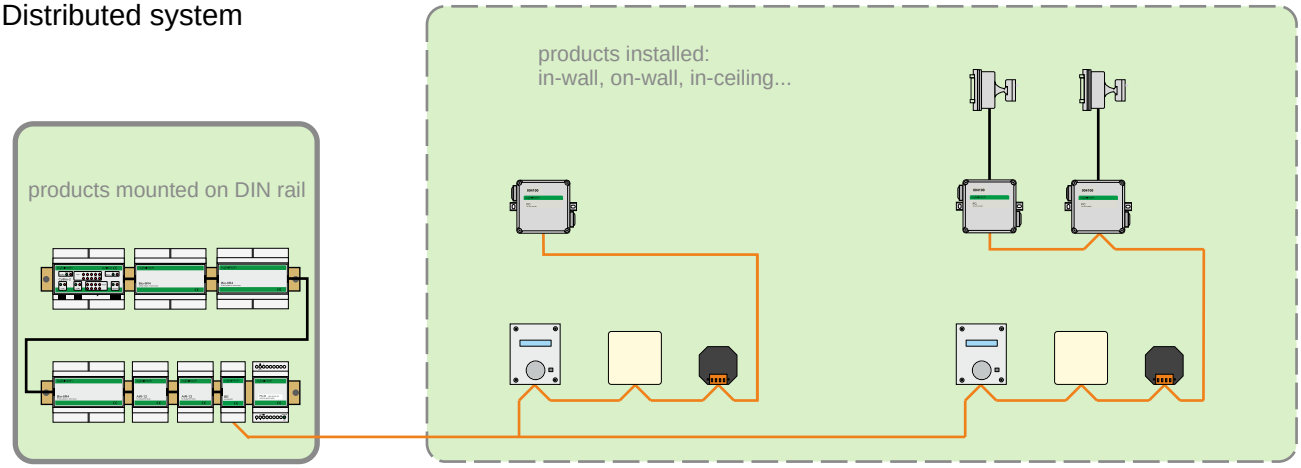
Control layer

- based on proprietary CAN (IEX) bus
- distributed control
- PLC controller with expansion modules
- controller and modules mountable in standard electric distribution box on DIN rail
- special expansion modules mountable on wall, in ceiling or installation boxes

Implementation layer

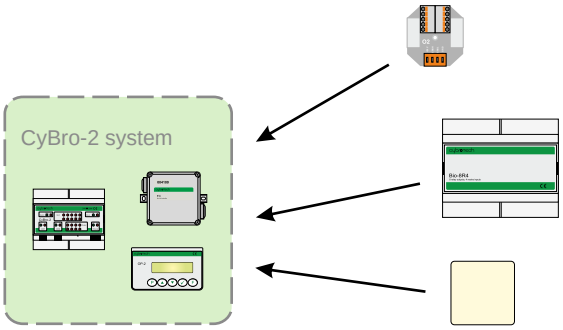
- mainly by various types of sensors and actuators

Distributed system



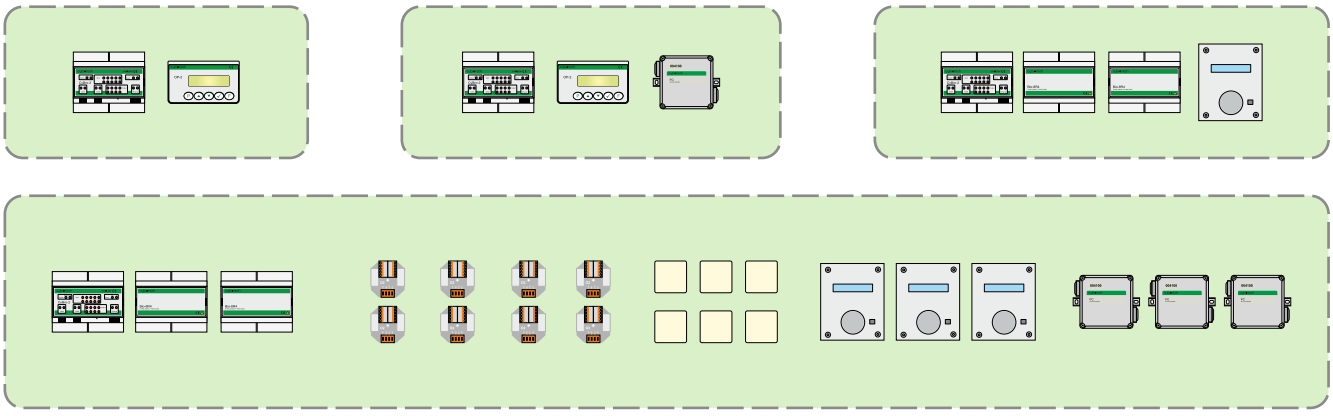
* IEX bus connects all local and distributed modules to the controller.

Intelligent modules



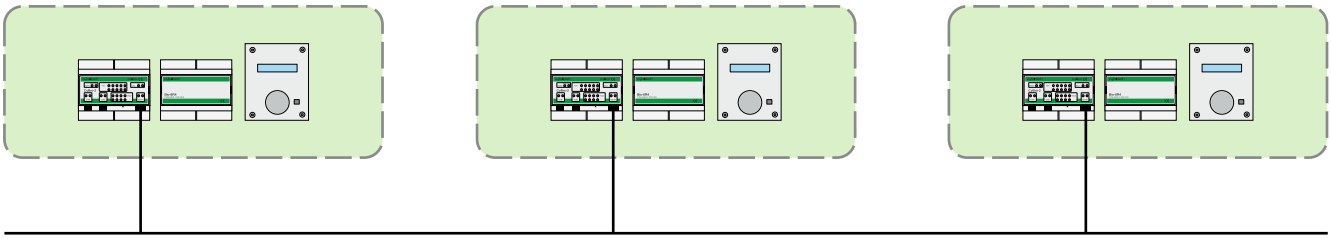
* No aditional hardware or software configuration of a module is required, before adding it to the automation system.

Unrestricted hardware configuration



* Up to 31 modules of any type can be connected to each individual controller.

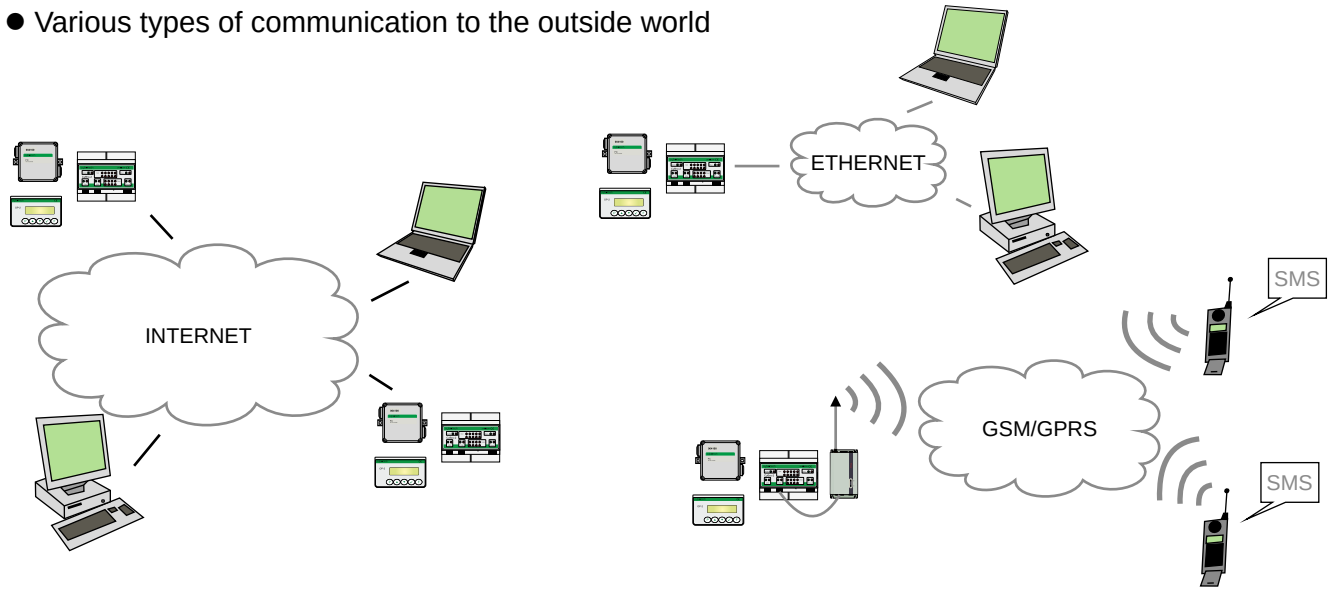
- Inter-controller communication



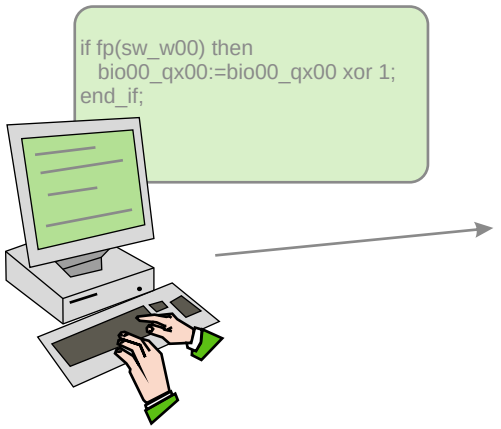
Ethernet or RS-485 (with additional converter)

* Several Cybro-2 systems can share information using A-bus protocol, which can run over ethernet or RS-485 network

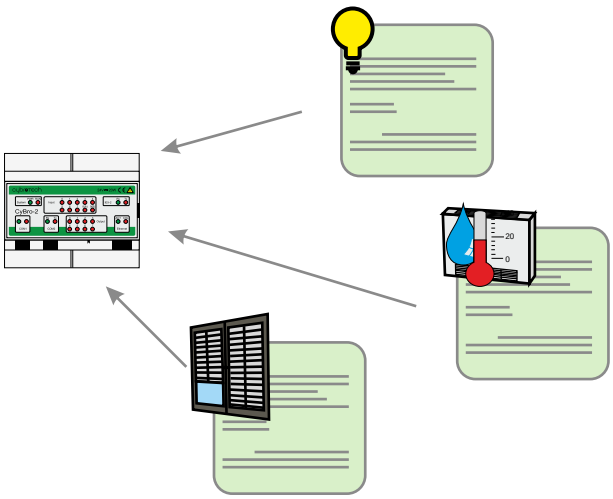
- Various types of communication to the outside world



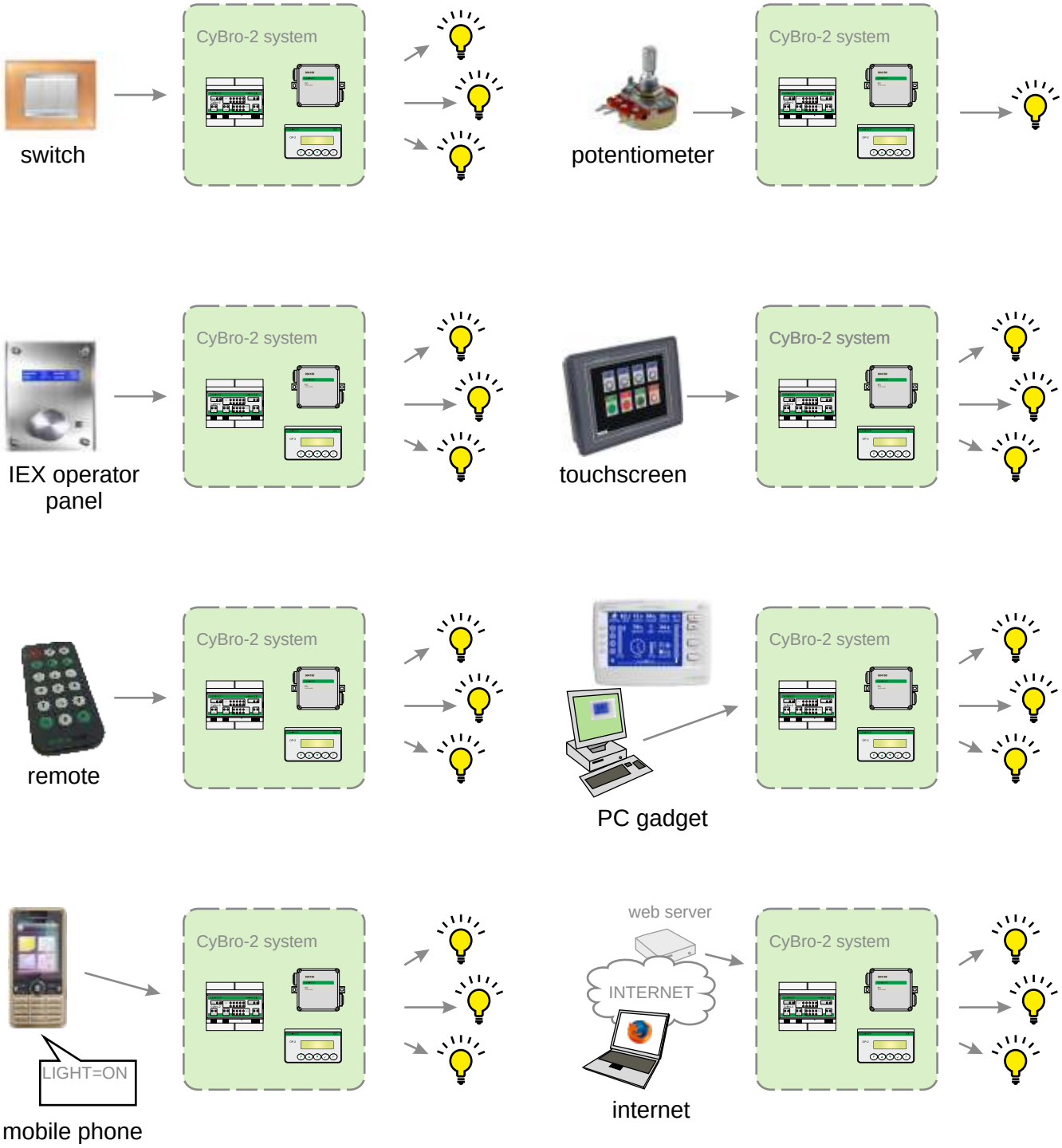
- Fully programmable



- Pre-programmed automation blocks available
(with CyPro development tool installation)



- Freely selectable user interfaces



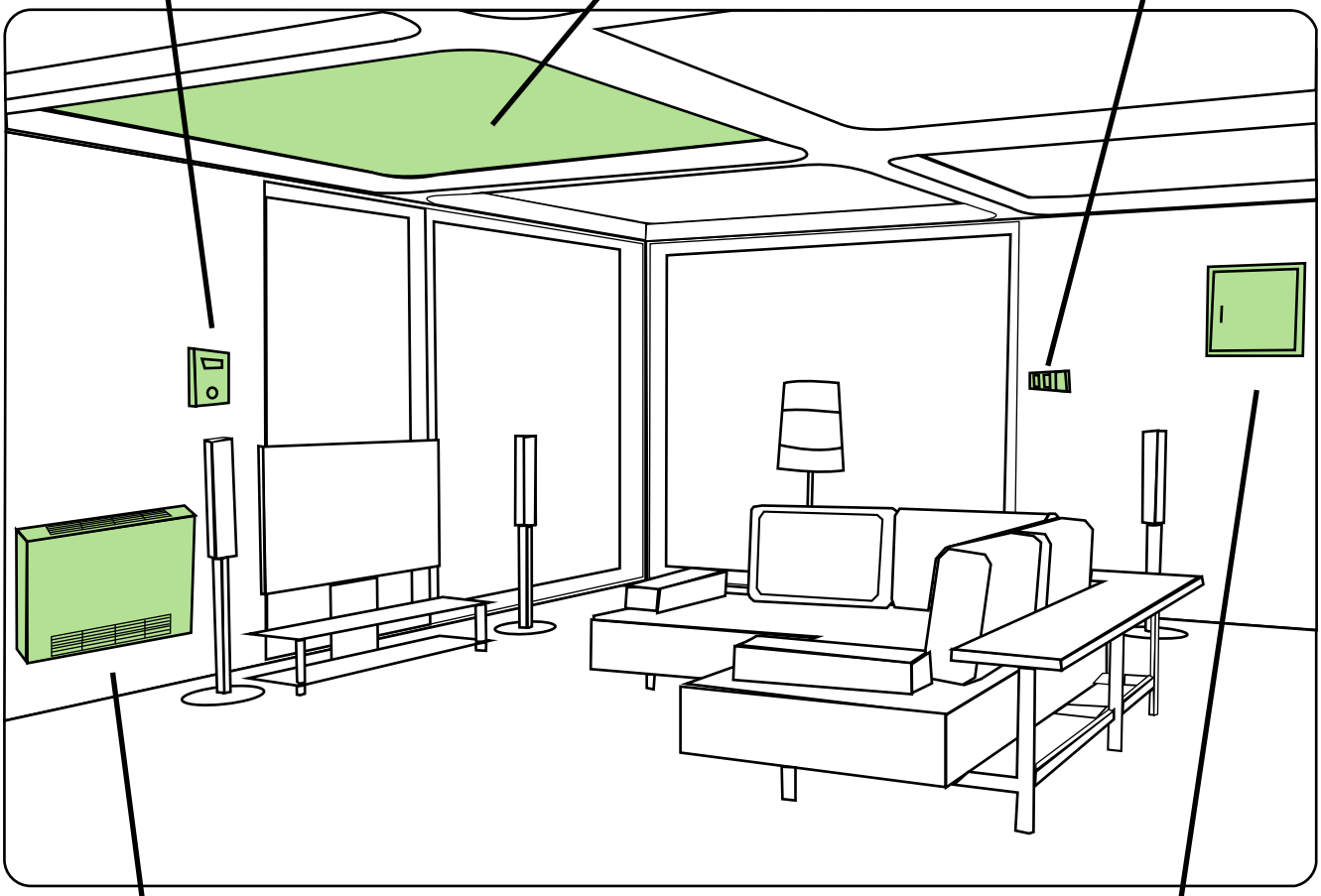
* Each user interface can affect any parameter of the system.

Installation

Installed on the wall.

Installed in the lowered ceiling.

Installed in a flush-box behind a wall switch.



Integrated inside fan coil unit.

Installed in distribution box.

Success story

Business offices Primorje
Ajdovščina, Slovenia

Primorje Group is a highly successful business system offering a comprehensive range of construction services. Its expertise, ample experience and overall implementation effectiveness are employed in all types of construction works in order to deliver integral and economical execution of any investment project.

* heating/cooling control
* lighting and shades control
* custom-made SCADA control system

20x CyBro-2 
116x Bio-24R 
36x FC 
99x LC-D 
70x TS 
73x MS 

Resident park Lucija,
Lucija, Slovenia

Lucija residential park is a complex of elite condominiums located in Lucija, near Slovenian coast. Each apartment is completely customized and constructed by individual specifications. All apartments are fully monitored and controlled from the reception

* heating/cooling control
* custom-made SCADA control system

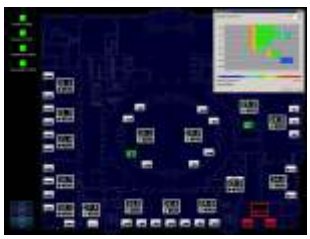
164x CyBro-2 
44x Bio-24R 
460x FC 
128x Touch panels 
447x ES 

Regent hotel Esplanade
Zagreb, Croatia

The Regent Esplanade Zagreb is one of the most renowned and (magnificent) hotels in the region. It is famed for its Art Nouveau architecture, amenities that offer true 21st century comfort and convenience, and highest standard of service.

* heating/cooling control
* custom-made SCADA control system

4x CyBro-2 
40x FC 
4x OP-4 
4x TS 



SpinoWraptor
Epipack d.o.o., Slovenia

SpinoWraptor is a stretch-film automatic wrapping machine. Semi-custom PLC with integrated graphic LCD delivers superior control performance at an affordable price

* control of stretch wrapper
* integrated graphic user-interface

1x CyBro-2GM 

1x OP-4 

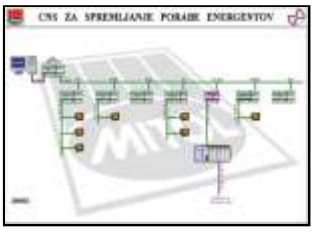
Energy monitor
MITOL d.d., Slovenia

MITOL, d.d., offers a wide range of products that draw on over 60 years of tradition, is among the Europe's top adhesives manufacturers. MITOL, d.d. is one of the few adhesive manufacturers to produce their own emulsions.

* system for reducing energy consumption based on Wizcon SCADA control system

7x CyBro-2 

1x CyBro-1 



Manufacturing Execution System,
POLYCOM d.o.o., Slovenia

POLYCOM is a rapidly growing supplier of advanced plastic parts and molding tools. It employs the CyBro subsystem to ensure automatic output count, on-line monitoring of machine cycle time, consistent monitoring of on-spot standstills / halts, and real-time data processing.

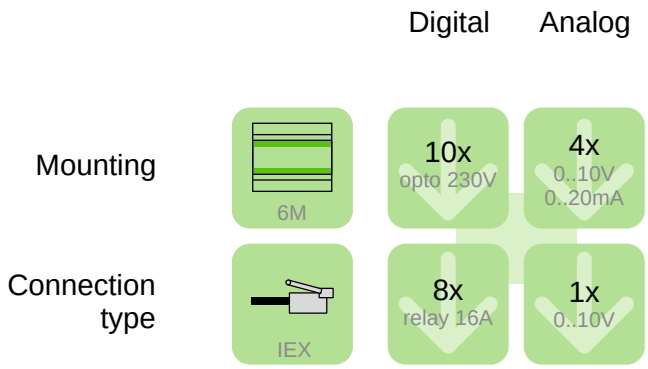
* production monitoring, reporting and system management

1x CyBro-2 

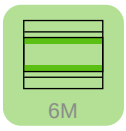
1x 8C 

1x OP-2 

Pictograms



Mounting



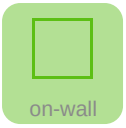
35mm DIN rail
(6M dimension)

35mm DIN rail
(3M dimension)

35mm DIN rail
(2M dimension)

in-wall
round installation box

in-wall
square installation box

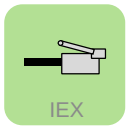


on-wall
mounting

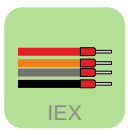
special
mounting

in-ceiling
round installation box

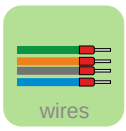
Connection type



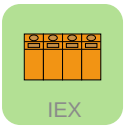
Product connected to IEX
network via RJ9 connector.



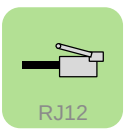
Product connected to IEX
network via wires.



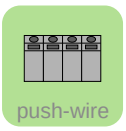
Product connected via
wires.



Product connected to IEX
network via push-wire terminal.



Product connected via
RJ12 connector.

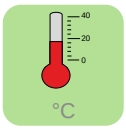


Product connected via
push-wire terminal.

Other pictograms

Controller is programmed using CyPro integrated development tool.

Controller is programmed using the C programming language.



Product measures temperature or an external sensor can be connected to the device.

Product measures relative humidity.

Product measures light level or an external light sensor can be connected to the device.

Product is a motion detector or an external detector can be connected to the device.

Product can control lighting systems via Digital Signal Interface (DSI) outputs.

Product can control lighting systems via Digital Addressable Lighting Interface (DALI) outputs.

Product connectable via serial communication port.

Product connectable via ethernet communication port.

Product communicates via GSM network.

Product transfers data using General Packet Radio Service (GPRS).

Product configurable by using SMS.

Product is a GPS (Global Positioning System) device.

Product is an RFID transmitter, RFID receiver or an external receiver can be connected to the device.

Product is an infra red transmitter, IR receiver or an external receiver can be connected to the device.

Product has a touch sensitive surface.

Product connects to PC via Universal Serial Bus or other USB devices can be connected.

Product powered by 24V DC.

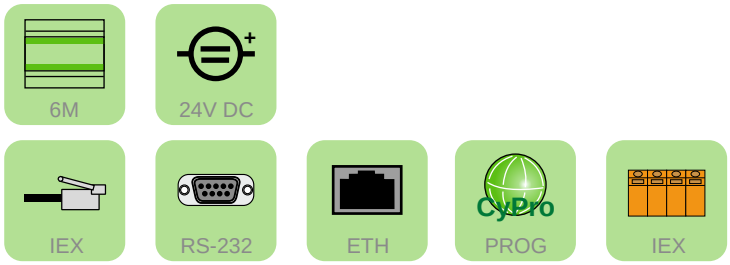
Product powered by 12V DC.

Product powered by 230V AC.

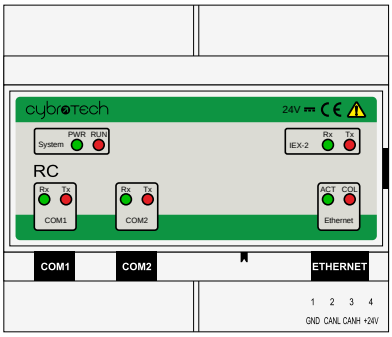
Product powered by 24V DC over IEX bus.

RC

Intelligent programmable room controller



- RC is a programmable intelligent controller.
- Software application loaded into the controller enables the automation system operation without the support of personal computer.
- System configuration and application programming is carried out via PC with CyPro development tool installed.
- Controller communicates with PC via serial (RS-232) line and Ethernet (Ethernet enabled controllers only).
- Easy connection of communication port via RJ9 (serial) and RJ45 (Ethernet) connectors.
- LED indicators for controller and communication state.
- Unit was designed to be used where all I/O requirements are covered by expansion modules.
- Modules are connected via two IEX connection ports.
- A network of intelligent controllers can also be established via A-Bus (RS-485 or over Ethernet).
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- Unit is powered by an external 24V DC power supply.



Technical specifications

Internal memory	64KB FLASH, 64KB RAM, 8KB EEPROM
RTC accuracy	typ. ±2 sec/day, max. ±5 sec/day at 25°C
Communication	RS-232, Ethernet, IEX
Connected IEX modules	max. 31
Power supply	20..28V DC
Power consumption	80mA (at 24V DC)
Total power output	24V DC max. 2A (on RJ9 IEX connector)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	106x93x58mm

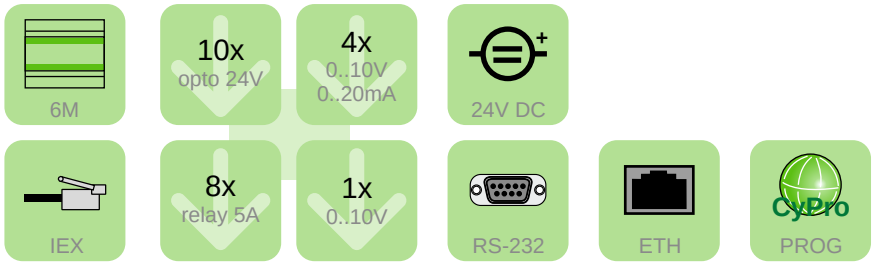
Ordering information

Order Code:

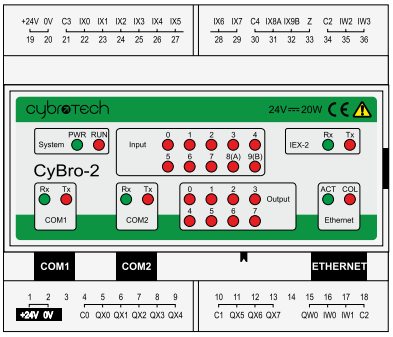
•RS232 only	RC
•RS232 and Ethernet	RC-E

CyBro-2-24

Intelligent programmable controller 24V



- CyBro-2-24 is a programmable intelligent controller.
- Software application loaded into the controller enables the automation system operation without the support of personal computer.
- System configuration and application programming is carried out via PC with CyPro development tool installed.
- Controller communicates with PC via serial (RS-232) line and Ethernet (Ethernet enabled controllers only).
- Easy connection of communication port via RJ9 (serial) and RJ45 (Ethernet) connectors.
- LED indicators for controller and communication state.
- Digital and analog inputs and outputs.
- Expansion modules can be connected via IEX bus using open proprietary protocol (CAN2.0 based).
- A network of intelligent controllers can be established with A-Bus (RS-485 or over Ethernet).
- Push-and-click mounting on a DIN rail.
- Unit is powered by an external 24V DC power supply.



Technical specifications

Internal memory	64KB FLASH, 64KB RAM, 8KB EEPROM
RTC accuracy	typ. ±2 sec/day, max. ±5 sec/day at 25°C
HSC input frequency	max. 10kHz (50% duty cycle), single or dual phase
10 digital inputs	24V, typ. 7mA, opto-isolated
8 digital outputs	relay contacts, normally open, SPST
Load	max. 5A/250V AC or 5A/30V DC, resistive
4 analog inputs	0..10V or 0(4)..20mA (2% of FSR at 25°C)
1 analog output	0..10V (2% of FSR at 25°C)
Communication	RS-232, Ethernet, IEX
Connected IEX modules	max. 31
Power supply	20..28V DC
Power consumption	150mA (at 24V DC)
Total power output	24V DC max. 2A
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	106x108x58mm

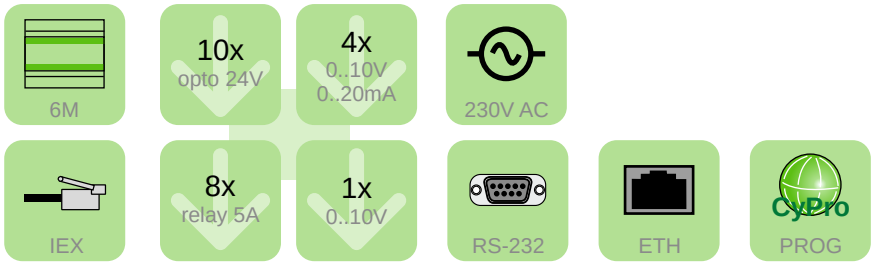
Ordering information

Order Code:

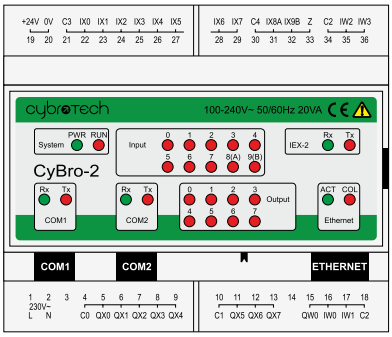
•RS232 only	CYBRO-2-24
•RS232 and Ethernet	CYBRO-2-24-E

CyBro-2-230

Intelligent programmable controller 230V



- CyBro-2-230 is a high performance, programmable intelligent
- System configuration and application programming are carried out via PC with the installed CyPro development tool.
- Controller communicates with PC via serial (RS-232) line and Ethernet (Ethernet enabled controllers only).
- Easy connection of communication port via RJ9 (serial) and RJ45 (Ethernet) connectors.
- LED indicators for controller and communication state.
- Digital and analog inputs and outputs.
- Expansion modules can be connected via IEX bus using open proprietary protocol (CAN2.0 based).
- A network of intelligent controllers can also be established via A-Bus (RS-485 or over Ethernet).
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- Unit is powered directly from the powers mains (110/230V AC).



Technical specifications

Internal memory	64KB FLASH, 64KB RAM, 8KB EEPROM
RTC accuracy	typ. ±2 sec/day, max. ±5 sec/day at 25°C
HSC input frequency	max. 10kHz (50% duty cycle), single or dual phase
10 digital inputs	24V, typ. 7mA, opto-isolated
8 digital outputs	relay contacts, normally open, SPST
Load	max. 5A/250V AC or 5A/30V DC, resistive
4 analog inputs	0..10V or 0(4)..20mA (2% of FSR at 25°C),
1 analog output	0..10V (2% of FSR at 25°C)
Communication	RS-232, Ethernet, IEX
Connected IEX modules	max. 31
Power supply	85..260V AC, 50..60Hz
Power output	24V DC max. 320mA (at 85..260V AC, max. 50°C)
(24V DC Out & IEX)	24V DC max. 500mA (at 230..240V AC, max. 40°C)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	106x108x58mm

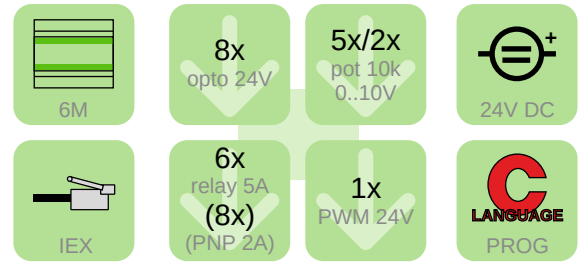
Ordering information

Order Code:

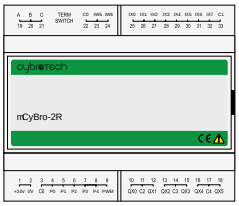
•RS232 only	CYBRO-2-230
•RS232 and Ethernet	CYBRO-2-230-E

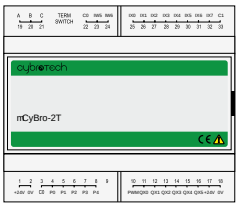
uCyBro

Micro-controller with relay outputs



- uCyBro is a low-cost programmable micro-controller.
- Software application is programmed into controller by way of in-system-programming (ISP) connector; it enables the automation system to operate without the support of personal computer.
- Digital and analog inputs and outputs.
- Expansion modules can be connected via IEX bus using an open proprietary protocol (CAN2.0 based).
- A network of intelligent controllers can also be established with A-Bus (RS-485).
- Frequency inverter can be controlled using modubus protocol.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- Unit is powered by an external 24V DC power supply.





Technical specifications

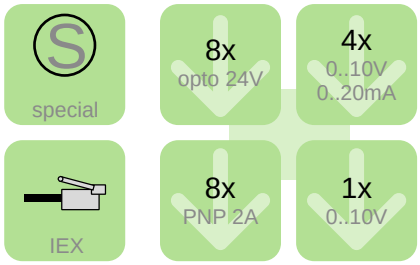
	UCYBRO-2R	UCYBRO-2T
Internal memory	64KB FLASH, 2KB RAM, 2KB EEPROM	64KB FLASH, 2KB RAM, 2KB EEPROM
8 digital inputs	24V, typ. 7mA, opto-isolated	24V, typ. 7mA, opto-isolated
digital outputs	6x relay contacts, NO, SPST	8x PNP transistor, opto-isolated
Load	max. 5A/250V AC or 5A/30V DC, resistive	2A/24V, resistive
5 analog inputs	potentiometer (10 bit)	potentiometer (10 bit)
2 analog intputs	0..10V (0.1%)	0..10V (0.1%)
1 PWM output	PNP transistor, 24V, 2A (10 bit)	PNP transistor, 24V, 2A (10 bit)
Communication	RS-485, IEX	RS-485, IEX
Connected IEX modules	max. 3	max. 3
Power supply	20..28V DC	20..28V DC
Power consumption	80mA (at 24V DC)	40mA (at 24V DC)
Total power output	24V DC max. 2A	24V DC max. 2A
Operating conditions	0..50°C, 0..85% RH non-condensing	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20	IP20
Mounting	DIN rail (35mm)	DIN rail (35mm)

Ordering information

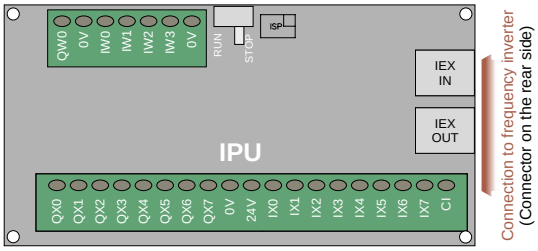
Order Code:
- relay outputs — UCYBRO-2R
- transistor outputs — UCYBRO-2T

IPU

Inverter controller



- Provides connection for multiple Hitachi inverters to an IEX bus system. The unit can operate in two modes. In PLC mode, the unit is used as a standalone controller; in IEX mode, the unit responds as a standard I/O expansion module.
- In PLC mode, the unit controls a frequency inverter by reading and writing its predefined parameters based on the loaded application.
- If the IPU is programmed as a module, then it can be connected to the IEX network and the logical control of the inverter is provided completely by an application installed in the CyBro-2 controller.
- The unit is designed for Hitachi inverters L300P and SJ300.
- Small dimensions enable the IPU to be mounted inside a frequency inverter.
- Powered from frequency inverter.



Technical specifications

Internal memory	64KB FLASH, 2KB RAM, 2KB EEPROM
8 digital inputs	24V, typ. 7mA, opt-isolated
8 digital outputs	PNP transistor, 24V, 2A, opto-isolated
4 analog inputs	0..10V or 0(4)..20mA (2% of FSR at 25°C)
1 analog output	0..10V (2% of FSR at 25°C)
Galvanic isolation	IEX from CPU and main inverter body
Power supply	from frequency inverter
Power consumption	100mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP00
Mounting	inside frequency inverters Hitachi L300P and SJ300
Dimensions	104x53x24mm

Ordering information

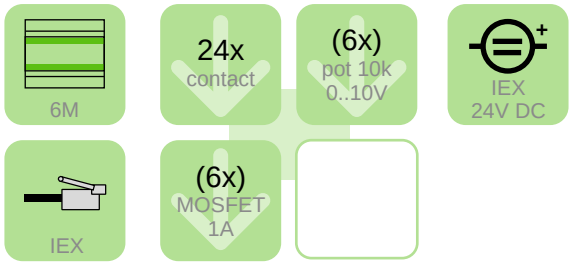
Order Code:

•IPU in IEX mode	IPU-P00-EM
•IPU in PLC mode*	IPU-Pxx-EM

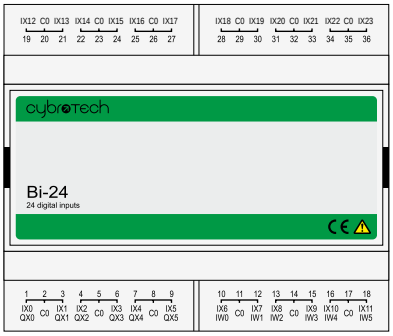
*Contact Cybrotech sales department for information on available custom solutions.

Bi-24 NEW!

I/O module



- This device is a flexible expansion module with 24 contact inputs, 12 of which can be used as MOSFET outputs (6) and analog inputs (6)
- MOSFET outputs can be used to control DC powered devices.
- IEX ports located laterally on the housing enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- 24V DC powered over IEX bus.



Technical specifications

*24 digital inputs	common-ground switch with internal pull-up (12V, 1mA)
6 analog inputs	0..10V (10bit ADC, 0..1023)
Internal pull-up	12V, 2mA
6 digital outputs	MOSFET
Load	max. 1A/24V DC, resistive
Galvanic isolation	inputs/outputs from internal circuit
Power supply	24V DC (over IEX bus)
Power consumption	60mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	106x108x58mm

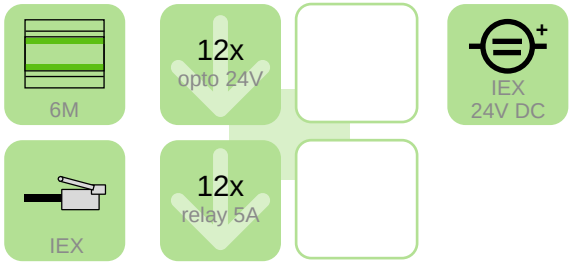
* Only available if outputs and analog inputs not used.

Ordering information

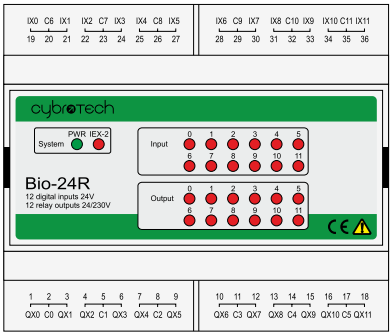
Order Code: BI-24

Bio-24R

Relay I/O module



- Bio-24R is an IEX expansion module with 12 bi-directional inputs and 12 relay outputs.
- Relay outputs can be used to control mains powered devices such as lights, blinds, shutters and more.
- State of individual input or output is indicated by LEDs on the top.
- IEX ports located laterally on the housing enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- 24V DC powered over IEX bus.



Technical specifications

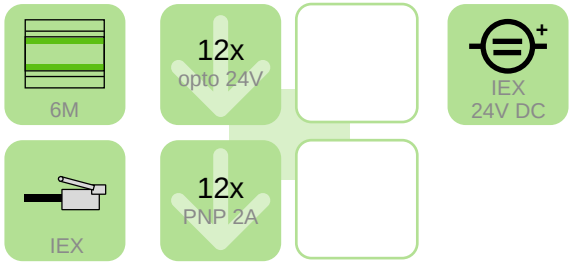
12 digital inputs	24V, typ. 7mA, opto-isolated
12 digital outputs	relay contacts, normally open, SPST
Load	max. 5A/250V AC or 5A/30V DC, resistive
Galvanic isolation	inputs/outputs from internal circuit
Power supply	24V DC (over IEX bus)
Power consumption	160mA (64mA+8mA*number of active relays)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	106x108x58mm

Ordering information

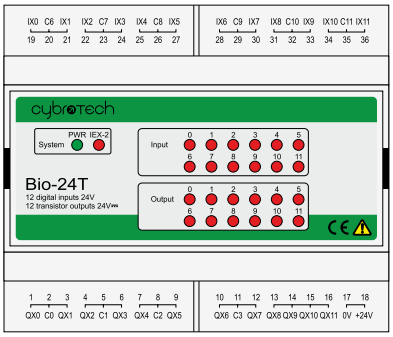
Order Code: BIO-24R

Bio-24T

Transistor I/O module



- Bio-24T is an IEX expansion module with 12 bi-directional inputs and 12 transistor outputs.
- Outputs can be used to control various 24V DC devices or can be connected to electrically controlled relay which in turn can control mains powered devices.
- Output transistors are galvanically separated from internal circuit and therefore require an external 24V DC supply.
- State of individual input or output is indicated by LEDs on the top.
- IEX ports located laterally on the housing enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- 24V DC powered over IEX bus.



Technical specifications

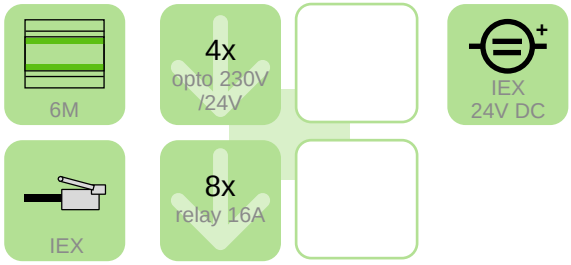
12 digital inputs	24V, typ. 7mA, opto-isolated
12 digital outputs	PNP transistor, 24V, 2A, opto-isolated
Galvanic isolation	inputs/outputs from internal circuit
Power supply	24V DC (over IEX bus)
Power consumption	90mA (64mA+2mA*number of active relays)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	106x108x58mm

Ordering information

Order Code: BIO-24T

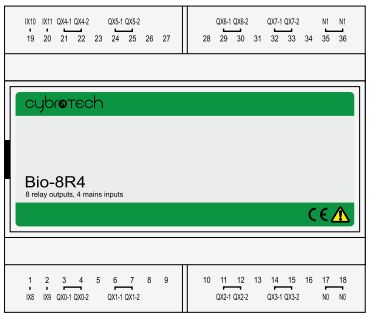
Bio-8R4

High-power relay I/O module

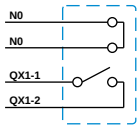


- Bio-8R4 is an IEX expansion module with 4 voltage-detecting inputs and 8 switching (type L, B24)/contact (type N) relays; each relay also features additional voltage sensing functionality (L and B24 only).
- Relays are designed to control devices that consume current up to 16A (resistive loads).
- Type N is general-purpose and can be used for ON/OFF control of a wide variety of devices.
- Type L device is designed to control high-wattage lights and chains of low-wattage lights or for controlling motors of shutters and blinds.
- Type B24 is designed to control 24V blinds and shutters.
- Module is connected to controller via IEX bus.
- IEX ports located laterally on the housing enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- 24V DC powered over IEX bus.

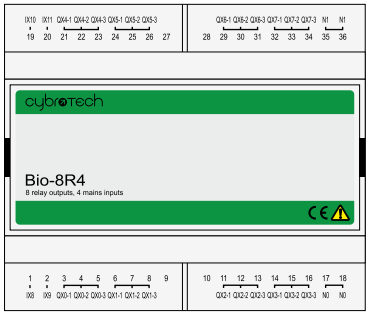
Bio-8R4-N



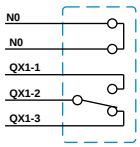
Digital power output



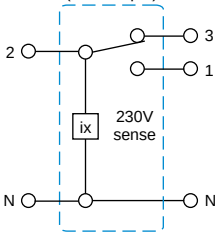
Bio-8R4-L, Bio-8R4-B24



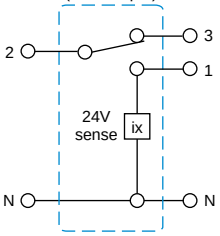
Digital power output



Bio-8R4-L
(sense input)



Bio-8R4-B24
(sense input)



Technical specifications

4 digital inputs	230V AC (L, N), 24V DC (B24); opto-isolated
8 digital outputs	relay contacts
Bio-8R4-N	SPST, max. 16A/250V AC, resistive
Bio-8R4-L	SPDT, max. 16A/250V AC, resistive
Bio-8R4-B24	SPDT, max. 16A/30V DC, resistive
Galvanic isolation	inputs/outputs from internal circuit
Power supply	24V DC (over IEX bus)
Power consumption	150mA (22mA+16mA*number of active relays)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	106x108x58mm

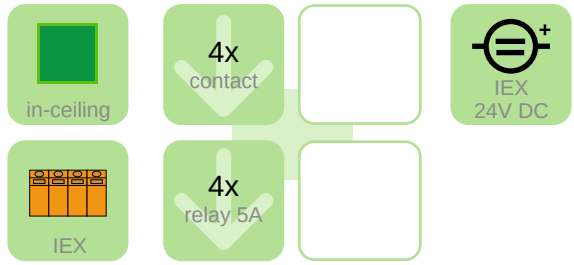
Ordering information

Order Code:

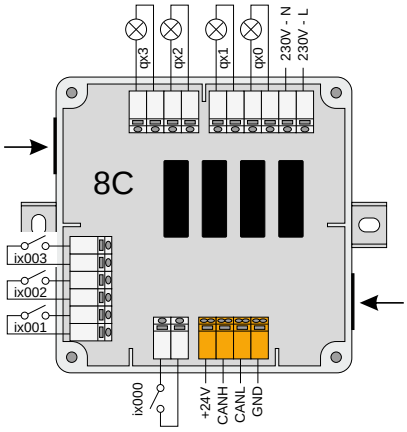
•for general-purpose with 4 sensor inputs (230V AC)	BIO-8R4-N
•for light switching with 8+4 sensor inputs (230V AC)	BIO-8R4-L
•for 24V blinds switching with 8+4 sensor inputs (24V DC)	BIO-8R4-B24

8C

Relay module



- 8C is a universal module with 4 digital switch inputs and 4 relay outputs.
- Output relays can directly switch mains voltage that is connected to terminals 230N and 230L and can be used for controlling lights, blinds....
- Push-wire connection terminals enable easy connection and disconnection.
- Device is protected by plastic mounting box and can be installed in double ceiling, double floor, on the wall, or on a DIN rail.
- 24V DC powered over IEX bus.



Technical specifications

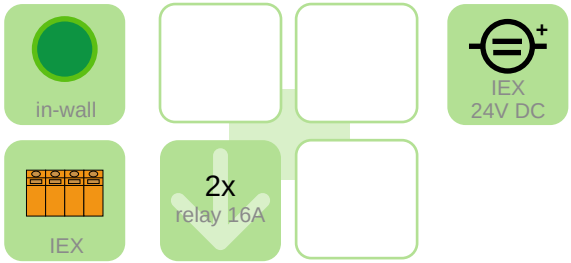
4 digital inputs	common-ground switch with internal pull-up (12V, 1mA)
4 digital outputs	relay contacts, normally open, SPST
Load	max. 5A/250V AC or 5A/30V DC, resistive
Power supply	24V DC (over IEX bus)
Power consumption	100mA (60mA+10mA*number of active relays)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP42
Mounting	in-ceiling
Dimensions	108x86x46mm

Ordering information

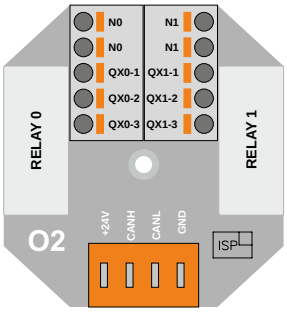
Order Code: 8C-FB

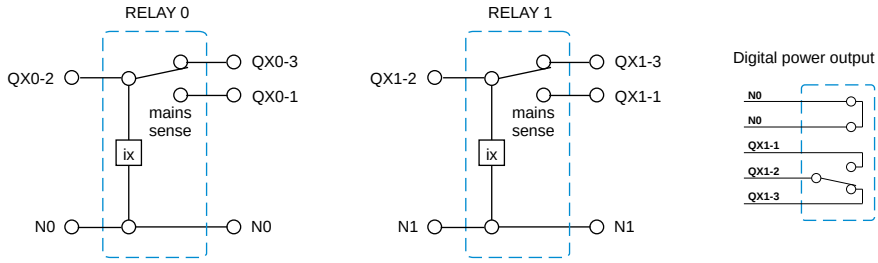
O2

High-power relay I/O module



- O2 module is a compact unit designed for installation in a flush box (fi80).
- It holds two power relays that can be used for controlling lights or blinds.
- Every O2 module also has two mains sense inputs that are hardwired to relay output pin 2 (L). When a 230V AC is connected between terminals N and QX-2, bit flag is set.
- Module enables, with minimum installation redesign, changing existing lighting installation and automating the control.
- Push-wire connectors ensure easy electrical installation.
- 24V DC powered over IEX bus.





Technical specifications

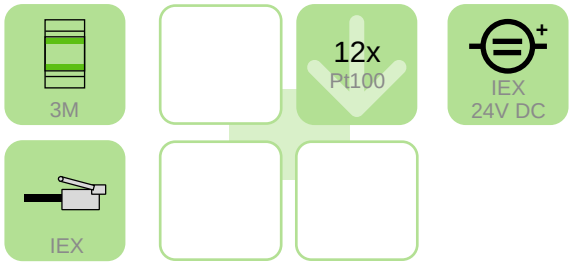
2 digital outputs	relay contacts, SPDT
Load	max. 16A/250V AC, resistive
Galvanic isolation	inputs/outputs from internal circuit
Power supply	24V DC (over IEX bus)
Power consumption	85mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	in-wall, flush box fi80
Dimensions	55x60x20mm

Ordering information

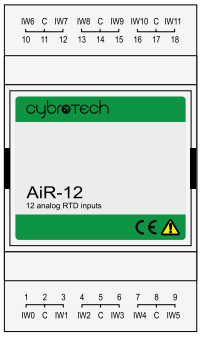
Order Code:
- O2-L for switching lights or blinds O2-L-IW

AiR-12

Resistance input module



- AiR-12 is a module designed to be used as a multiple resistance measuring device. Type of resistance can be selected as standard 0...2000ohm or various thermistor resistance.
- Up to 12 temperature measuring thermistors or variable resistence can be connected to the module.
- Accuracy of conversion can be configured according to project requirements.
- Module is housed in a standard 3M enclosure.
- IEX ports are located laterally on the housing to enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- Powered by 24V DC over IEX bus.



Technical specifications

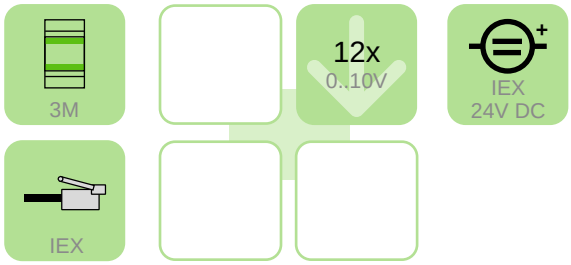
12 analog inputs	resistance
Type	Pt100/1000 (DIN 751), measuring range -100..300°C
	Ni100/1000 (DIN 43760), measuring range -50..160°C
	Ni100/1000 (Landis & Gyr), measuring range -50..160°C
	potentiometer 0..2000ohm
Connection type	2-wire or 3-wire
Wire resistance	max. 20ohm (3-wire mode)
Resolution	14 bits (input modes with 0.1% accuracy)
	12 bits (input modes with 0.5%/1% accuracy)
Temperature drift	0.01%/°C of measuring range
Galvanic isolation	between digital and analog circuit
	no isolation between channels
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	53x108x58mm

Ordering information

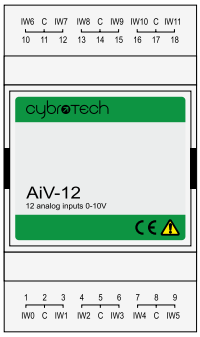
Order Code: AIR-12

AiV-12

Voltage input module



- AiV-12 is a module designed to be used when multiple analog voltage signals must be converted to a digital value (e.g. temperature, humidity, pressure, etc.).
- The module can measure signals ranging from 0 to 10V.
- Up to 12 analog signals can be connected to the module.
- Accuracy of conversion can be configured based on project requirements.
- Module is housed in a standard 3M enclosure.
- IEX ports are located laterally on the housing to enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- Powered by 24V DC over IEX bus.



Technical specifications

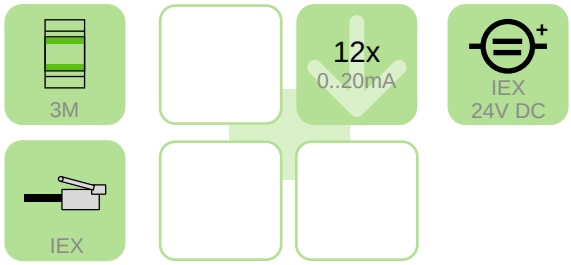
12 analog inputs	0..10V
Resolution	13 bits (input modes with 0.1% accuracy)
	11 bits (input modes with 0.5%/1% accuracy)
Temperature drift	0.01%/°C of measuring range
Galvanic isolation	between digital and analog circuit
	no isolation between channels
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	53x108x58mm

Ordering information

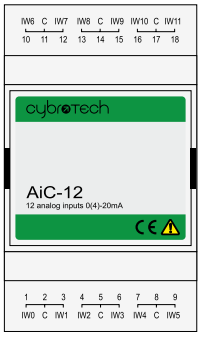
Order Code: AIV-12

AiC-12

Current input module



- AiC-12 is a module designed to be used when multiple analog current signals must be converted to a digital value (e.g. temperature, humidity, pressure, etc.).
- The module can measure signals ranging from 0 to 20mA.
- Up to 12 analog signals can be connected to the module.
- Accuracy of conversion can be configured based on project requirements.
- Module is housed in a standard 3M enclosure.
- IEX ports are located laterally on the housing to enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- Powered by 24V DC over IEX bus.



Technical specifications

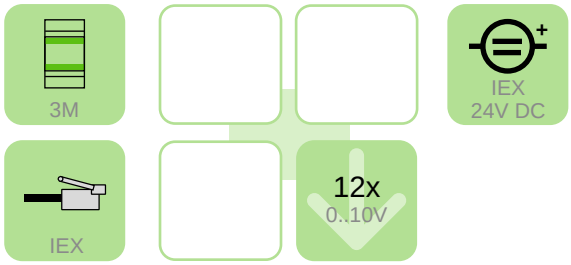
12 analog inputs	0..20mA
Resolution	13 bits (input modes with 0.1% accuracy)
	11 bits (input modes with 0.5%/1% accuracy)
Temperature drift	0.01%/°C of measuring range
Galvanic isolation	between digital and analog circuit
	no isolation between channels
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	53x108x58mm

Ordering information

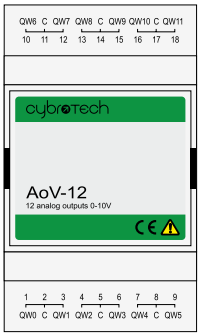
Order Code: AIC-12

AoV-12

Voltage output module



- AoV-12 is a system control (lighting, valves, motors) module with 12 individually adjustable voltage outputs.
- 0..10V range can be sourced on the outputs.
- Accuracy of conversion can be configured based on project requirements.Module is housed in a standard 3M enclosure.
- IEX ports are located laterally on the housing to enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- Powered by 24V DC over IEX bus.



Technical specifications

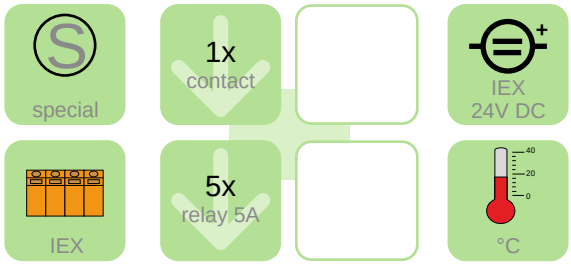
12 analog outputs	0..10V
Output current	max. 10mA per channel
	max. 70mA for all channels
Resolution	8 bits (with accuracy 1% of FSR)
Temperature drift	0.01%/°C of measuring range
Galvanic isolation	between digital and analog circuit
	no isolation between channels
Power supply	24V DC (over IEX bus)
Power consumption	150mA (50mA+1.3mA*total output current)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	53x108x58mm

Ordering information

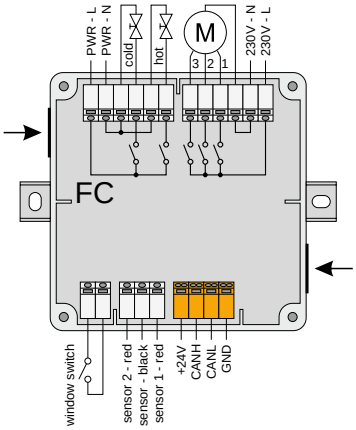
Order Code: AOV-12

FC

Fan coil unit control module



- FC can be used as a fan coil unit control module with three relays designed to control the speeds of fan and two relays for hot and cold water valves.
- Unit holds one digital input that can either be used as a window opened signal commanding the automation system to reduce or completely shut off the air conditioning, or as a general input.
- Two external temperature sensors (ES) can be connected to the device in order to detect temperature in the room.
- Push-wire connectors enable easy connection and disconnection.
- Device is protected by plastic mounting box and can be installed in fan coil, double ceiling, double floor, on the wall, or on a DIN rail.
- 24V DC powered over IEX bus.



Technical specifications

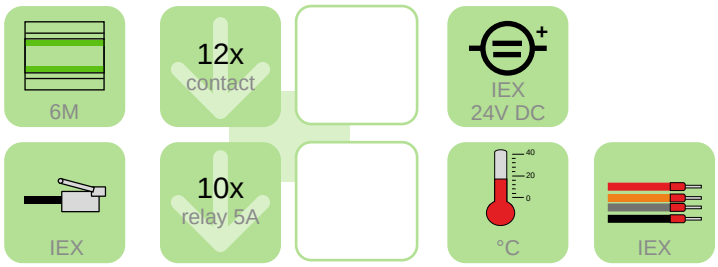
1 digital input	common-ground switch with internal pull-up (12V, 1mA)
5 digital outputs	relay contacts, normally open, SPST
Load	max. 5A/250V AC or 5A/30V DC, resistive
2 sensor connectors	Integra-BM external temperature sensor
Power supply	24V DC (over IEX bus)
Power consumption	110mA (60mA+10mA*number of active relays)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP42
Mounting	in fan coil unit
Dimensions	108x86x46mm

Ordering information

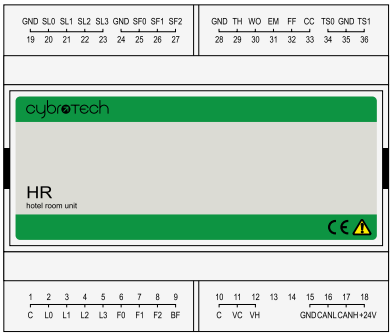
Order Code: FC-FB

HR

Hotel room control module



- HR is a simple and cost-effective hotel room control module. It controls heating, cooling, air-circulation, lighting, fire/flood alarm and the emergency button.
- Digital inputs can be used for switches, buttons or thermostats. Relay outputs can control fan coil units, lights, fans, etc.
- Two external sensors can be connected to measure room temperature.
- Module is housed in a standard 6M enclosure.
- IEX ports are located laterally on the housing to enable simple networking of multiple IEX modules.
- Push-and-click mounting on a DIN rail and removable (detachable) I/O terminals enable simple installation of the unit.
- 24V DC powered over IEX bus.



Technical specifications

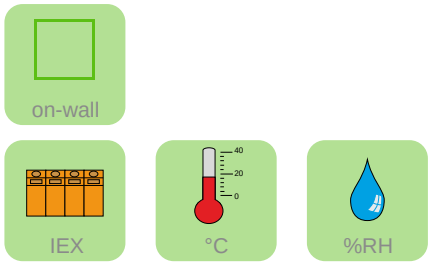
12 digital inputs	common-ground switch with internal pull-up (12V, 1mA)
10 digital outputs	relay contacts, normally open, SPST
Load	max. 5A/250V AC or 5A/30V DC, resistive
2 sensor connectors	Integra-BM external temperature sensor
Power supply	24V DC (over IEX bus)
Power consumption	200mA (50mA+15mA*number of active relays)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	106x108x58mm

Ordering information

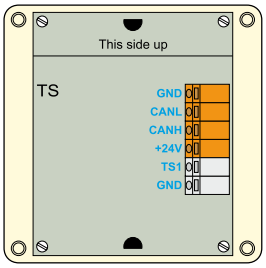
Order Code: HR

TS

Temperature and humidity sensor module



- Room temperature sensors measuring room atmosphere parameters for the purpose of comfort and energy efficiency.
- Additional external sensor can be connected to module.
- Version with added humidity sensor also available.
- Push-wire connectors enable easy connecting and disconnecting.
- TS is protected by plastic housing and can be installed on the wall.
- 24V DC powered over IEX bus.



Technical specifications

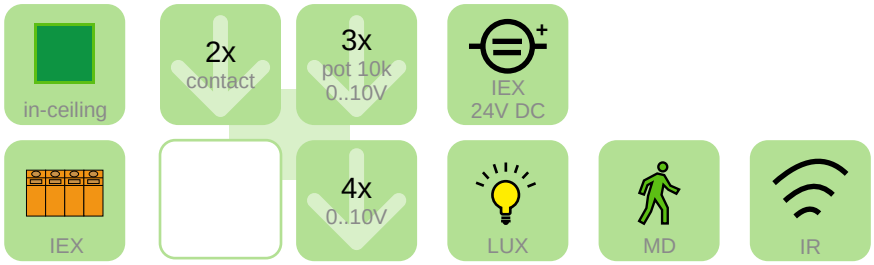
Temperature measurement	0°C..+50°C
Resolution	0.1°C
Error	typ. ±0.2°C (+15°C to +35°C)
	max. ±1°C (-10°C to +85°C)
Humidity sensor*	0..100% RH, non-condensing, ±2% RH at 25°C
1 sensor connector	Integra-BM external temperature sensor
Power supply	24V DC (over IEX bus)
Power consumption	15mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP30
Mounting	on-wall
Dimensions	71x71x27mm

Ordering information

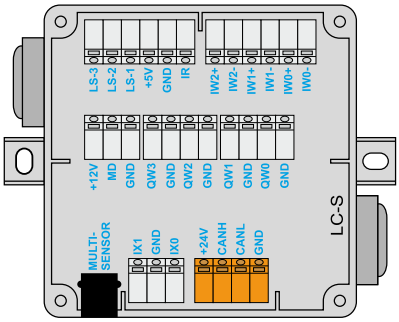
Order Code:	
•white housing	TS-OW-WHITE
•white housing and humidity sensor	TS-H-OW-WHITE
•ivory housing	TS-OW-IVORY
•ivory housing and humidity sensor	TS-H-OW-IWORY
•different housing colors on request	TS-OW-CUSTOM

LC-S

Analog light control module



- LC-S is a lighting control module with inputs typically used in lighting automation.
- 0..10V outputs enable dimmable lighting control.
- Motion detectors and multisensors can be connected to module to provide information about room occupancy and illumination.
- Three analog inputs assignable to light-dimming potentiometers.
- Push-wire connectors enable easy connection and disconnection.
- Module is protected by plastic mounting box and can be installed in double ceiling, double floor, on the wall or on a DIN rail.
- 24V DC powered over IEX bus.



Technical specifications

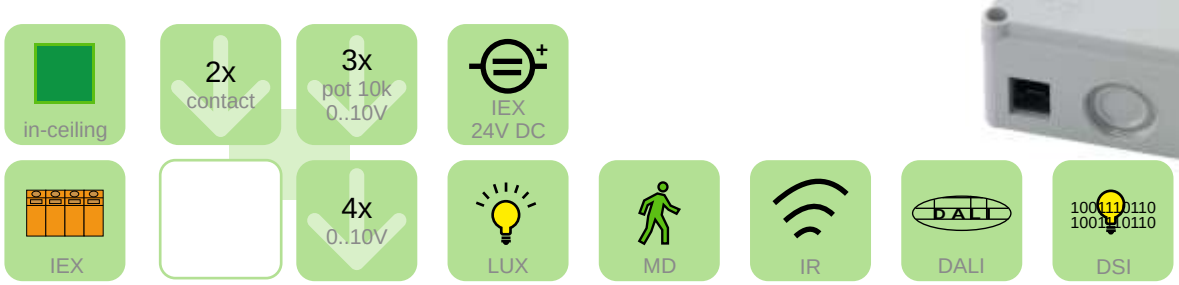
2 digital input	common-ground switch with internal pull-up (12V, 1mA)
3 analog inputs	0..10V (10bit ADC, 0..1023)
Internal pull-up	12V, 2mA
4 analog outputs	0..10V (8bit DAC, 0..255)
Current per channel	max. 10mA
Ballasts per channel	max. 50
All ballasts	max. 100
2 sensor connectors	Integra-BM multisensor
	Multisensor (entry for RJ-12 modular jack)
Power supply	24V DC (over IEX bus)
Power consumption	100mA (40mA - without sensors and ballasts)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP42
Mounting	in-ceiling
Dimensions	108x86x46mm

Ordering information

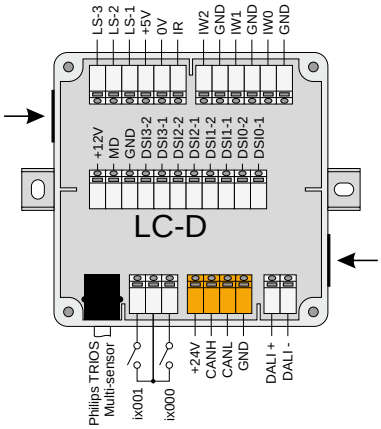
Order Code: LC-S-FB

LC-D

DALI/DSI light control module



- LC-D is a lighting control module with inputs typically used in lighting automation.
- DALI and DSI outputs are digital lighting control standards that enable complex lighting control with pre-programmed schedules, group light control, and much more.
- Motion detectors and multisensors can be connected to the module to provide the system with information on room occupancy and illumination level.
- Three analog inputs assignable to light-dimming potentiometers.
- Push-wire connectors enable easy connection and disconnection.
- Module is protected by plastic mounting box and can be installed in double ceiling, double floor, on the wall or on a DIN rail.
- 24V DC powered over IEX bus.



Technical specifications

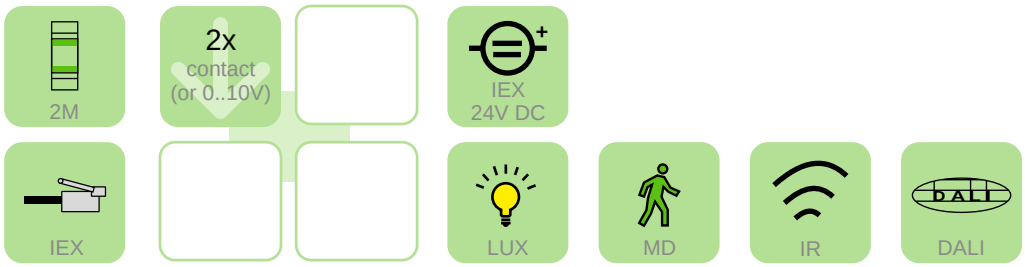
2 digital input	common-ground switch with internal pull-up (12V, 1mA)
3 analog inputs	0..10V (10bit ADC, 0..1023)
Internal pull-up	12V, 2mA
1 DALI output	max. 32 ballasts
Output current	max. 100mA
4 DSI outputs	max. 100 (per channel)
Total output current	max. 250mA
2 sensor connectors	Integra-BM multisensor
	Multisensor (entry for RJ-12 modular jack)
Power supply	24V DC (over IEX bus)
Power consumption	160mA (40mA - without sensors and ballasts)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP42
Mounting	in-wall
Dimensions	108x86x46mm

Ordering information

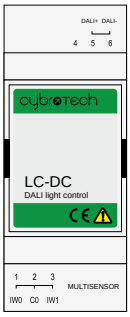
Order Code: LC-D-FB

LC-DC

DALI light control module



- LC-DC is a lighting control module with inputs typically used in lighting automation.
- DALI outputs are digital lighting control standards that enable complex lighting control with pre-programmed schedules, group light control, and much more.
- Motion detectors and multisensors can be connected to the module to provide the system with information on room occupancy and illumination level.
- RJ connectors enable easy connection and disconnection.
- Module is installed in a standard 2M housing and can be mounted on a DIN rail.
- 24V DC powered over IEX bus.



Technical specifications

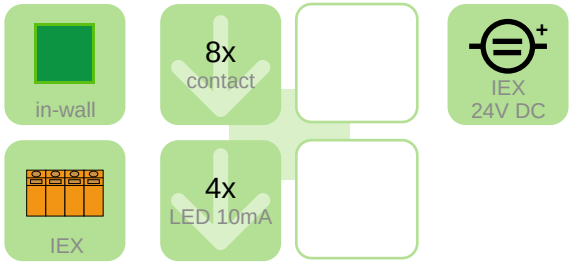
2 analog/digital inputs	for connecting 4 keys
Analog range	0..10V (10 bit ADC, 0..1023)
Internal pull-up	12V, 2mA
1 DALI output	max. 64 ballasts
Output current	max. 200mA
1 sensor connector	Multisensor (entry for RJ-12 modular jack)
Power supply	24V DC (over IEX bus)
Power consumption	240mA (40mA - without sensors and ballasts)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	36x99x58mm

Ordering information

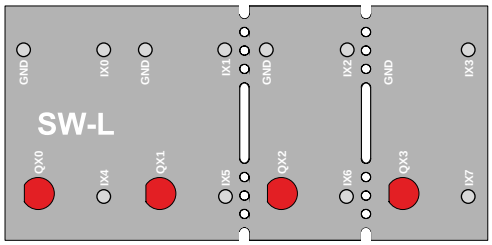
Order Code: LC-DC

SW-L

Switch module



- Switch module is used for detecting key/switch press.
- It is specially designed for Legrand, BTicino and TEM switches. Electrical installation of switches of these brands is very easy as no wires are required between the module and the switch. All connections are made by pins soldered directly on the board.
- SW-L holds 4 LED diodes that are application programmable and can be used to indicate the key or system state.
- A maximum of 4 switches can be connected to the board. If less are required (minimum of 2), then excess inputs can be removed by breaking of a part of the board.







Technical specifications

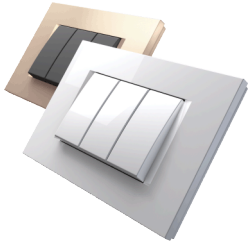
8 digital inputs	common-ground switch with internal pull-up (12V, 2.5mA)
4 digital outputs	
LED illumination	3mm red LED diodes
Power supply	24V DC (over IEX bus)
Power consumption	70mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Mounting	in-wall, flush box
Dimensions	89x44x38mm

Ordering information

Order code:

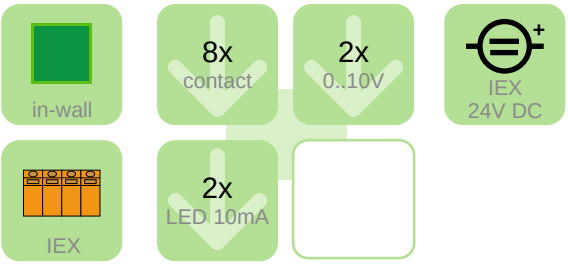
• module with red LEDs	SW-L-EM
• different LED colors on request	SW-L-EM-CUSTOM
• embedded switch	SW-L-EM-KIT

For KIT option consult Cybrotech team to define:
- buttons (black or white, without or with light indication window)
- cover plates (Polar White, Ivory White, Impulse Blue, Mint Green, Elox Silver, Sand Gold or Night Black)
- mounting frames
- flush boxes

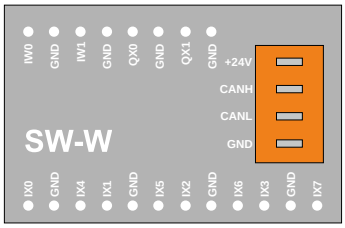


SW-W

Switch module



- Switch module is used for detecting key/switch press. It can be used for in automation of lights, blinds etc.
- Unlike the SW-L module, this product uses wires and can therefore be used with any type and brand of switches.
- 2 LED diodes can be connected to the board and freely controlled by application.
- Two analog inputs are also available on the device and can be used to connect potentiometers for dimming control.
- Module is installed in a flush box with the switches.
- Unit is powered with 24V DC over IEX bus.



Technical specifications

8 digital inputs	common-ground switch with internal pull-up (12V, 2.5mA)
2 digital outputs	
LED illumination	for connecting 2 LED diodes
2 analog inputs	0..10V (10bit ADC, 0..1023)
Internal pull-up	12V, 2mA
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Wires length	20cm, factory default (max. 2m)
Operating conditions	0..50°C, 0..85% RH non-condensing
Mounting	in-wall, flush box
Dimensions	60x40x12mm

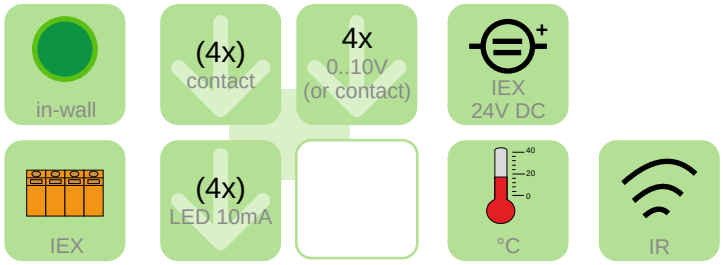
Ordering information

Order Code:

•with wires for 4 switches	SW-W-EM
•with additional wires	SW-W-EM-CUSTOM

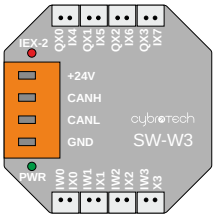
SW-W3 NEW!

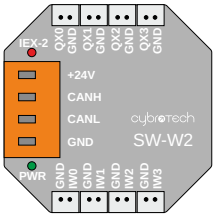
Switch module



- Very small design of this switch module makes it perfect for installation in places where space is an issue.
- 4 input points are multi-purpose; a switch, key or a potentiometer can be connected.
- 4 I/O points are multi-purpose* and can be used as switch inputs or as LED diodes outputs. Illumination level of LEDs can be controlled by the application software.
- Teperature and IR sensor inputs.**
- IEX terminal is a push-wire type enabling fast and easy module connection.
- Inputs and outputs can be connected with wires attached to a removable connector.
- The module is very thin and can fit easily into a round flush box fi60.
- Powered by 24V DC over IEX bus.

* SW-W3 only ** SW-W3-TIR only





Technical specifications

	SW-W3	SW-W2	SW-W3-TIR
Analog/digital inputs	4x	4x	4x
Analog range	0..10V (10 bit ADC, 0..1023)		
Internal pull-up	12V, 2mA		
Digital inputs/outputs	4x input/ 4x LED outputs	4x LED outputs	1x LED output
Temperature sensor			0°C..+50°C, ±2°C, 0.1°C
IR receiver			receiving distance max. 5m
Power supply	24V DC (over IEX bus)		
Power consumption	70mA (30mA+10mA * number of active LED)		
Operating conditions	0..50°C, 0..85% RH non-condensing		
Mounting	in-wall, flush box fi60		
Dimensions	50x50x15mm		

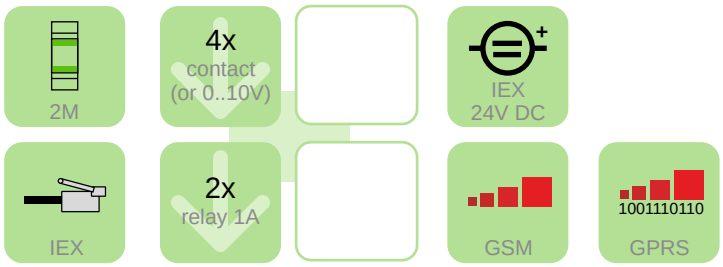
Ordering information

Order Code:

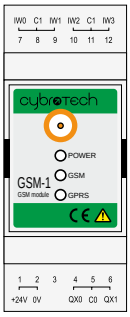
•with 4 multi-purpose I/O	SW-W3-IW
•standard	SW-W2-IW
•with temperatur and IR sensor	SW-W3-TIR-IW

GSM-1

GSM/GPRS IEX modul



- GSM/GPRS module is used for remote control of automation system. User can receive SMS messages with system information or send SMS messages with keyword commands.
- Enables remote PLC programming, debugging and monitoring.
- Supports quad-band 850/900/1800/1900MHz to comply with various GSM frequency standards worldwide.
- Easy integration and configuration into the automation system. No need for AT command set communication.
- 24V DC power supply over IEX.



Technical specifications

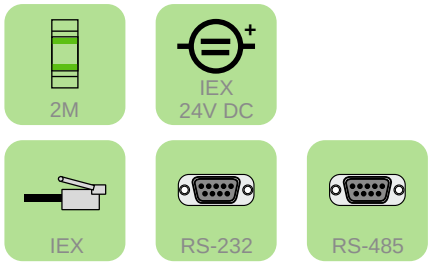
4 analog/digital inputs	for connecting 4 keys
Analog range	0..10V (10 bit ADC, 0..1023)
Internal pull-up	12V, 2mA
2 digital outputs	relay contacts, normally open, SPST
Load	max. 1A/250V AC or 1A/30V DC, resistive
Features	
Operation	IEX module
Quad band	GSM/GPRS 850/900/1800/1900 MHz
Performance	class4(2W) for 850/900 MHz
	class1(1W) for 800/1900 MHz
Power supply	24V DC (over IEX bus)
Power consumption	75mA (standby)
	100mA (active)
Operating conditions	0..50°C, 10..80% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	36x99x70mm

Ordering information

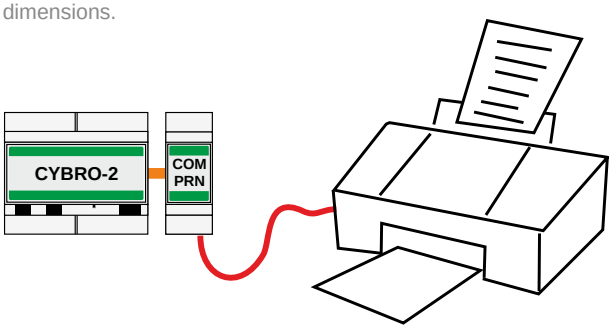
Order Code: GSM-1
External antenna: CAD-ANT1-GSM

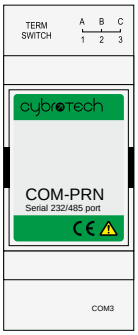
COM-PRN

Serial 232/485 printer module



- COM-PRN is an IEX module with RS-232/RS-485 serial port used to connect serial printer.
- Ports are galvanically isolated from IEX.
- Data flow is indicated by LED signalization located by each communication port.
- Push and click mounting on DIN rail with only 2M dimensions.
- 24V DC powered over IEX bus.





Technical specifications

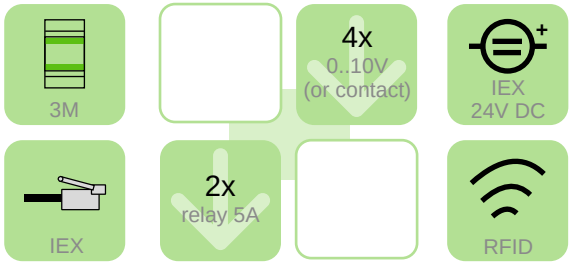
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	36x99x58mm

Ordering information

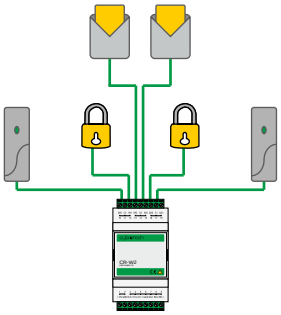
Order Code: COM-PRN

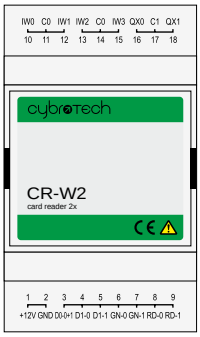
CR-W2

Access control module



- CR-W2 is designed to integrating RFID card readers to the CyBro systems.
- Module has 2 RFID interfaces for connecting readers using Weigand protocol.
- 4 analog/digital inputs are available, which means that any type of switch or key, or a potentiometer, can be connected if analog value change is required.
- 2 relay outputs can be used for controlling door key lock.
- Push and click mounting on DIN rail.
- 24V DC powered over IEX bus.





Technical specifications

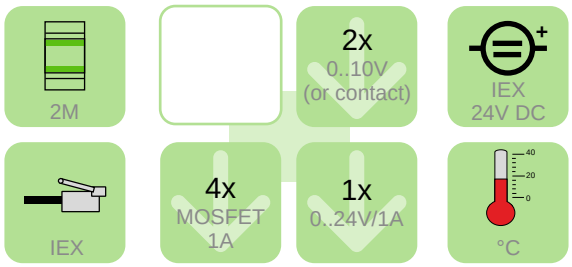
4 analog/digital inputs	for connecting 4 keys
Analog range	0..10V (10 bit ADC, 0..1023)
Internal pull-up	12V, 2mA
2 digital outputs	relay contacts, normally open, SPST
Load	max. 5A/250V AC or 5A/30V DC, resistive
1 power output	12V DC, for card readers
2 RFID reader interfaces	Wiegand protocol
Power supply	24V DC (over IEX bus)
Power consumption	220mA (60mA+10mA*number of active relays+70mA*no. of connected readers)
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	53x108x58mm

Ordering information

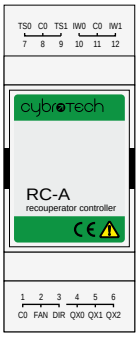
Order Code: CR-W2

RC-A NEW!

Recuperator controller



- RC-A is designed to integrate recuperators to the CyBro systems.
- 1 analog power output is available for supplying and controlling recuperator fan.
- 4 transistor outputs can be used for controlling fan direction etc.
- Two external temperature sensors can be connected to the device in order to detect system temperatures.
- Push and click mounting on DIN rail.
- 24V DC powered over IEX bus.



Technical specifications

2 analog/digital inputs	for connecting 2 keys
Analog range	0..10V (10 bit ADC, 0..1023)
Internal pull-up	12V, 2mA
4 digital outputs	MOSFET
Load	max. 1A/24V DC, resistive
1 analog output	for connecting recuperator fan
Supply range	0..24V
Current	max. 2A DC
2 sensor connectors	Integra-BM external temperature sensor
Power supply	24V DC (over IEX bus)
Power consumption	2000mA (60mA+analog output current)
Operating conditions	0..50°C, 0..85% RH non-condensing
Mounting	DIN rail (35mm)
Dimensions	36x108x58mm

Ordering information

Order Code: RC-A

ES

External temperature sensor

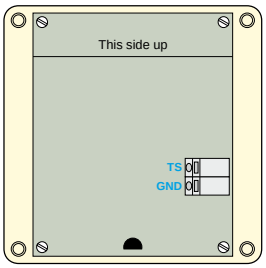
special

wires

°C

•External temperature sensors can be connected to automation system through TS, FC or HR IEX modules.
•Sensors enable precise temperature measurement.
•Three models are availble:
  * ES (on wires)
  * ES-W (in housing)
  * ES-1M (in light switch housing)

ES-W



ES

Technical specifications

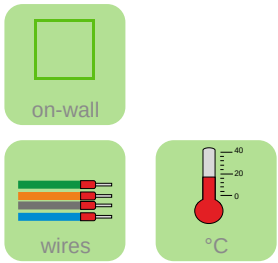
Mounting distance	max. 20m
ES-W	
Measuring error	typ. ±0.2°C, max. ±0.5°C, max. ±0.5°C (-10°C .. +85°C)
Operating temperature	-55°C .. +85°C
Degree of protection	IP20
Mounting	on-wall
Dimensions	71x71x27mm
ES	
Measuring error	typ. ±0.2°C (-10°C .. +85°C), max. ±2°C (-55°C .. +125°C)
Operating temperature	-55°C .. +125°C
Mounting	special
Dimensions	sensor fi5.3mm

Ordering information

Order Code:	
•ES (on wire)	ES
•ES-W	
* white housing	ES-W-OW-WHITE
* ivory housing	ES-W-OW-IVORY
* different color on request	ES-W-OW-CUSTOM
•ES-1M (in light switch housing)	ES-1M-IW

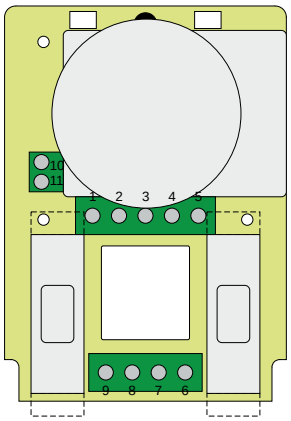
THS02

Room thermostat

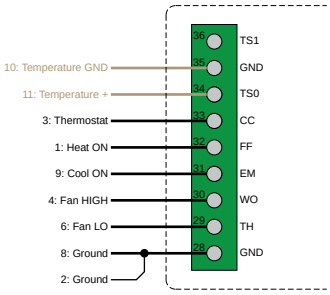


- Mechanical room thermostat controling heating and cooling.
- THS02 can control fan speeds.
- Integrated digital sensor enables accurate measurement of room temperature.
- Module can be easily connected to HR module.

THERMOSTAT **THS02**



HOTEL ROOM MODULE



Technical specifications

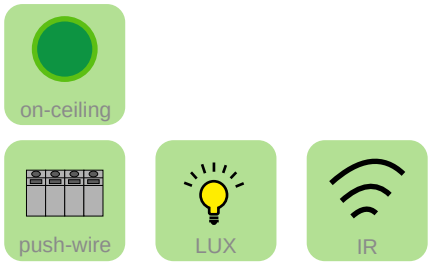
Switches	
Control	HEAT-OFF-COOL
Speed	LOW-MED-HIGH
Thermostat	10..30°C
Setting precision	±0.8°C (at 20°C)
Digital temperature measurement	±0.2°C
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	on-wall
Dimensions	86x86x32mm

Ordering information

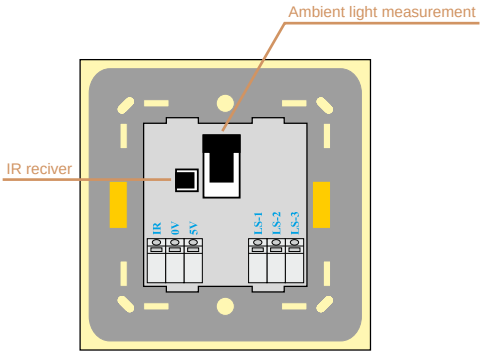
Order Code: THS02-OW

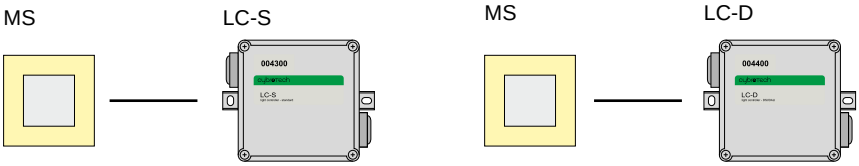
MS

Multisensor



- Multisensor can be connected to automation system through LC-S or LC-D modules.
- The device is fitted with an illumination sensor for current illumination in the room. Automation system can adjust the illumination to the desired levels.
- IR receiver detects commands from a remote control unit, enabling the user to control the automation system parameters.
- Integrated beeper is used for feedback information.
- Sensor is mounted on the ceiling.
- Push-wire connectors enable easy wiring of the device.





Technical specifications

Light measurement	
Power supply	12..24V DC (from LC-S, LC-D)
Power consumption	max. 25mA
Operating range	0..2000lux
Directivity	60° (-10dB) MS-O-IW
	160° (-10dB) MS-I-IW
Output range	1..10V or 4..20mA
IR receiver	
Power supply	5V DC (from LC-S, LC-D)
Output current	max. 3mA
Carrier frequency	36kHz
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	on-ceiling, fluch box fi60
Dimensions	80x80x35mm

Ordering information

Order Code:

•MS-O for outdoor light measurement	MS-O-IW
•MS-I for indoor light measurement	MS-I-IW

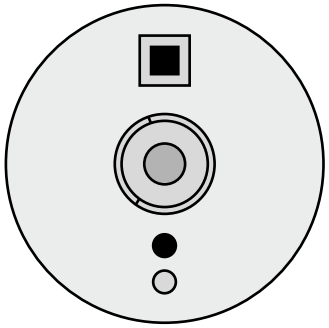
LRI8134

Multisensor

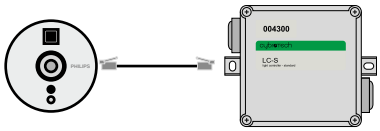
on-ceiling

RJ12 LUX MD IR

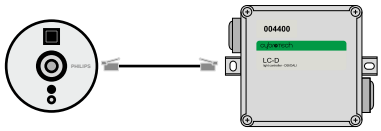
- Compact multi-sensor combining advanced internal light sensor, motion detector and infra-red receiver.
- The motion detector can be partly shaded to limit coverage.
- The sensor is suitable for both recessed and surface mounting. Mounting height is between 2.5m and 3.5m.
- Module can be connected to LC-D, LC-DC or LC-S module.
- DIP switches on the unit can be used to enable/disable sensor elements.
- LED indicators that can be used to check infrared communication and motion detection (can be enabled/disabled with DIP switches).



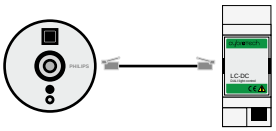
LRI8134 LC-S



LRI8134 LC-D



LRI8134 LC-DC



Technical specifications

IR output	RC5
Light sensor	0..10V , Ro=1kW
Motion detector	open collector output; active LOW state
Power supply	11..24V DC (powered from connected module)
Power consumption	10mA
Operating conditions	5..50°C, 20..85% RH non-condensing
Degree of protection	IP20
Mounting	flush box fi60
Dimensions	72x26x64mm

Ordering information

Order Code: LRI8134-IW

LRM8114

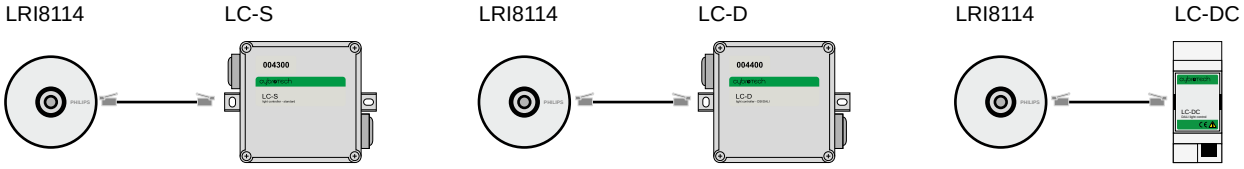
Motion sensor

on-ceiling

RJ12

MD

- Compact-design highly sensitive motion sensor.
- Motion detector can be partly shaded to limit coverage.
- The sensor is suitable for both recessed and surface mounting. Mounting height is between 2.5m and 3.5m.
- Module can be connected to LC-D, LC-DC or LC-S module.
- DIP switches on the unit can be used to enable/disable sensor elements.
- LED indicators that can be used to check motion detection (can be enabled/disabled with DIP switches).



Technical specifications

Motion detector	open collector output; active LOW state
Power supply	11..24V DC (powered from connected module)
Power consumption	10mA
Operating conditions	5..50°C, 20..85% RH non-condensing
Degree of protection	IP20
Mounting	flush box fi60
Dimensions	72x26x64mm

Ordering information

Order Code: LRM8114-IW

LRM8115

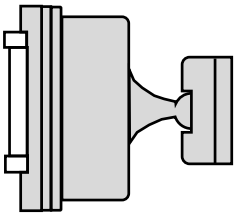
Motion sensor

on-wall

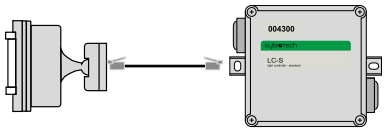
RJ12

MD

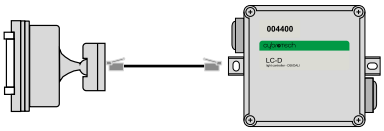
- Compact-design highly sensitive motion sensor.
- Depending on the requirements, different type of coverage area sensors can be selected.
- Each sensor can provide long-range, wide-range, or aisle coverage.
- Sensors contain a built-in daytime override functionality that can be used to disable the output signal when adequate daylight is present in the room.
- Sensors can be installed directly on the wall and connected to a LC-D, LC-DC or LC-S module.
- DIP switches on the unit can be used to enable/disable sensor elements.
- LED indicators that can be used to check motion detection (can be enabled/disabled with DIP switches).



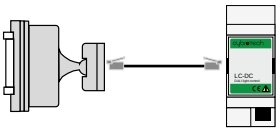
LRI8115 LC-S



LRI8115 LC-D



LRI8115 LC-DC



Technical specifications

Motion detector	open collector output; active LOW state
Detection pattern	
LRM8115	long range, narrow angle corridor pattern
LRM8116	90° wide angle, 22 beams in 4 detection layers
LRM8117	90° wide angle, 9 beams in 1 detection layer
Power supply	11..24V DC (powered from connected module)
Power consumption	10mA
Operating conditions	5..50°C, 20..85% RH non-condensing
Degree of protection	IP20
Mounting	on-wall
Dimensions	70x66x73mm

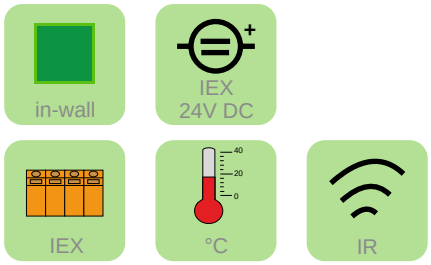
Ordering information

Order Code:

•long range, surface mount	LRM8115-OW
•wide area, surface mount	LRM8116-OW
•aisle aplications, surface mount	LRM8117-OW

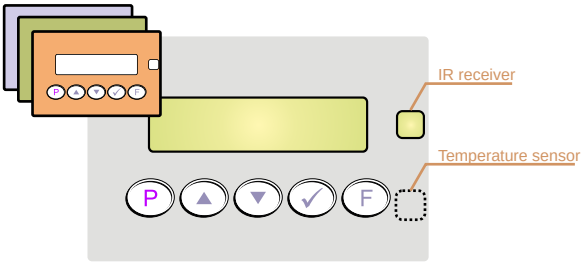
OP-1

IEX operator panel



- Two line, 16 character LCD display.
- Panel can display various system messages, states and parameter values, all programmable with an intelligent controller unit.
- LED backlight can be adjusted to various levels to make the display comfortable and easy to read.
- 5 keys can be used to navigate pre-programmed menus and to set system parameters.
- Integrated temperature sensor can be used to control room temperature for HVAC systems, thus eliminating the need for additional sensing devices.
- IR receiver enables the use of a remote control which further advances the comfort offered by the automation system.
- Integrated beeper can be used to communicate simple messages to the user (e.g. successfully received IR command).
- Panel is powered by 24V DC over IEX bus.

Custom front foils



(Connector on rear side)

Technical specifications

Display	LCD, 2x16 characters
Backlight	green LED, software adjustable 0..100%
Number of keys	5
Beeper	duration and on/off software adjustable
IR receiver	receiving distance max. 5m
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP44
Mounting	in-wall, flush box (120x58x49mm)
Dimensions	140x80x48mm

Ordering information

Order Code:	
•standard front foil	OP-1-IW
•custom front foil on request	OP-1-IW-CUSTOM

OP-2

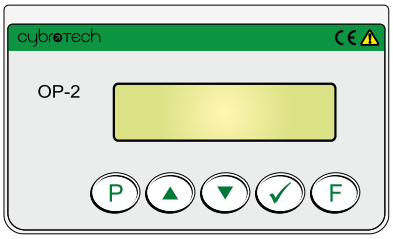
IEX operator panel

on-wall

IEX
24V DC

IEX

- Two line, 16 character LCD display.
- Panel can display various system messages, states and parameter values, all programmable with an intelligent controller unit.
- LED backlight can be adjusted to various levels to make the display comfortable and easy to read.
- 5 keys can be used to navigate pre-programmed menus and to set system parameters.
- Panel is powered by 24V DC over IEX bus.



(Connector on rear side)

Technical specifications

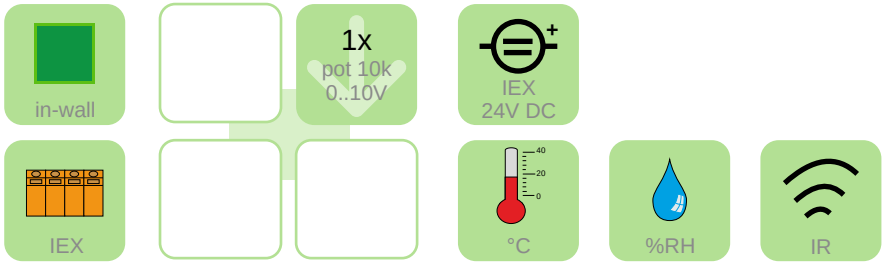
Display	LCD, 2x16 characters
Backlight	green LED, software adjustable 0..100%
Number of keys	5
Power supply	24V DC (over IEX bus)
Power consumption	40mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP54
Mounting	panel, on-wall
Dimensions	106x63x24mm

Ordering information

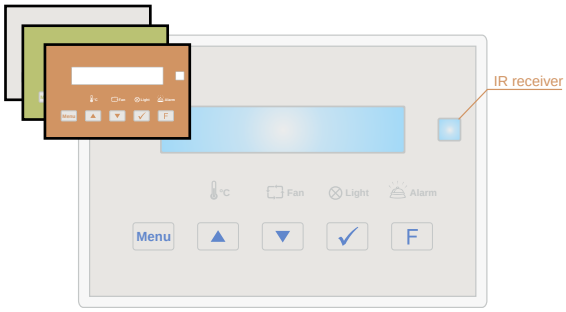
Order Code: OP-2-CT

OP-3

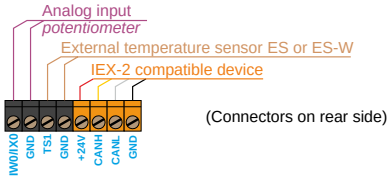
IEX operator panel



Custom front foils



- Two line, 20 character LCD display.
- Panel can display various system messages, states and parameter values, all programmable with an intelligent controller unit.
- LED backlight can be adjusted to various levels to make the display comfortable and easy to read.
- 5 keys can be used to navigate pre-programmed menus and to set system parameters.
- 4 LED indicators can be used to display various system information.
- Integrated temperature and humidity sensor can be used for room environment control.
- Additional temperature sensors and potentiometers can be connected to the device.
- Panel is powered by 24V DC over IEX bus.



(Connectors on rear side)

Technical specifications

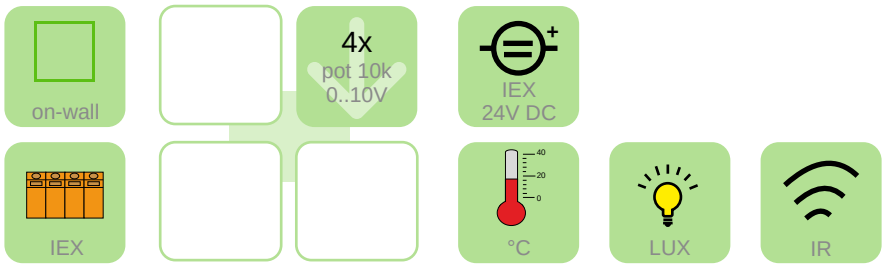
Display	LCD, 2x20 characters
Backlight	blue LED, software adjustable 0..100%
Number of keys	5
4 LED outputs	LED diodes
1 analog input	0..10V (10bit ADC, 0..1023)
Internal pull-up	12V, 2mA
Temperature sensor	0°C..+50°C, ±2°C, 0.1°C
Humidity sensor	0..100% RH, non-condensing, ±2% RH at 25°C
Beeper	duration and on/off software adjustable
IR receiver	receiving distance max. 5m
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	in-wall, flush box fi60
Dimensions	120x80x49mm

Ordering information

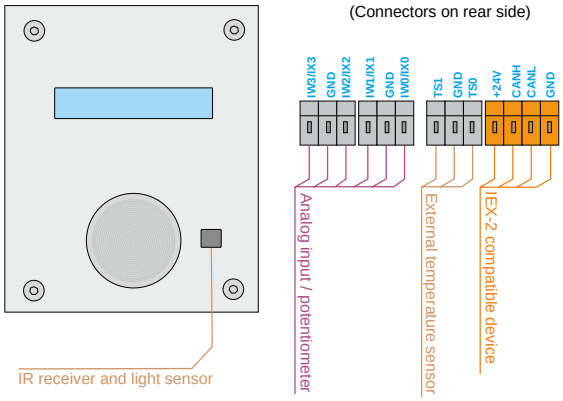
Order Code:	
•temperature	OP-3-T-IW
•temperature, cyirillic charset	OP-3C-T-IW
•temperature and humidity	OP-3-TH-IW
•temperature and humidity, cyirillic charset	OP-3C-TH-IW
•custom front foils on request	OP-3-IW-CUSTOM

OP-4

IEX operator panel



- Two line, 20 character LCD display.
- Panel can display various system messages, states and parameter values, all programmable with an intelligent controller unit.
- LED backlight can be adjusted to various levels to make the display comfortable and easy to read.
- Encoder key can be used to navigate pre-programmed menus and to set system parameters.
- IR receiver enables the use of a remote control which increases the comfort the automation system offers.
- Additional temperature sensors and potentiometers can be connected to the device.
- Integrated beeper can be used to communicate simple messages to the user (e.g. successfully received IR command).
- Panel is powered by 24V DC over IEX bus.



Technical specifications

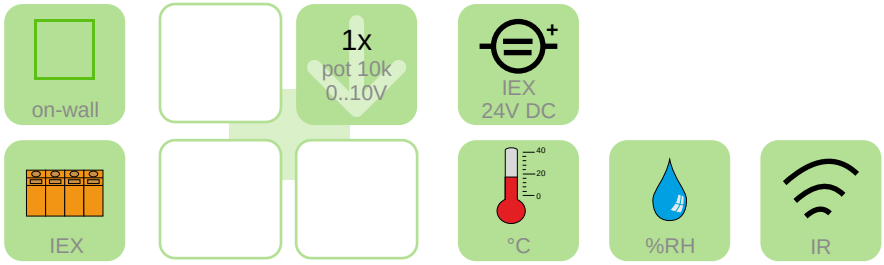
Display	LCD, 2x20 characters
Backlight	blue LED, software adjustable 0..100%
Number of keys	1 encoder
4 analog input	0..10V (10bit ADC, 0..1023)
Internal pull-up	12V, 2mA
1 light sensor	8 bit (resolution)
2 sensor connectors	Integra-BM external temperature sensor
Beeper	duration and on/off software adjustable
IR receiver	receiving distance max. 5m
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	on-wall
Dimensions	142x115x25mm

Ordering information

Order Code: OP-4-OW

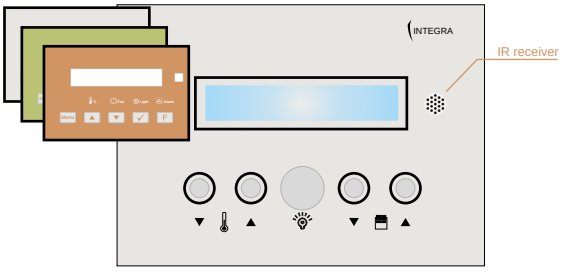
OP-5

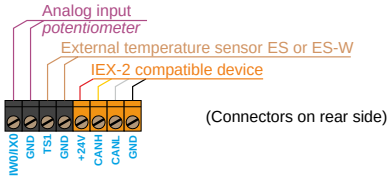
IEX operator panel



- Two line, 20 character LCD display.
- Panel can display various system messages, states and parameter values, all programmable with an intelligent controller unit.
- LED backlight can be adjusted to various levels to make the display comfortable and easy to read.
- 5 keys can be used to navigate pre-programmed menus and to set system parameters.
- western europe or cyrillic charsets
- Integrated temperature and humidity sensor can be used for room environment control.
- Additional temperature sensors and potentiometers can be connected to the device.
- Panel is powered by 24V DC over IEX bus.

Custom front foils





(Connectors on rear side)

Technical specifications

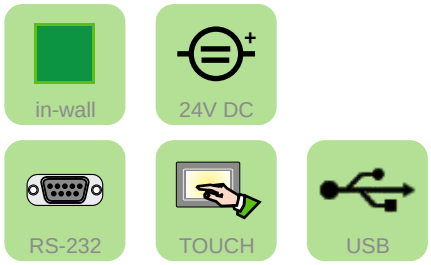
Display	LCD, 2x20 characters
Backlight	blue LED, software adjustable 0..100%
Number of keys	5
4 LED outputs	LED diodes
1 analog input	0..10V (10bit ADC, 0..1023)
Internal pull-up	12V, 2mA
Temperature sensor	0°C..+50°C, ±2°C, 0.1°C
Humidity sensor	0..100% RH, non-condensing, ±2% RH at 25°C
Beeper	duration and on/off software adjustable
IR receiver	receiving distance max. 5m
Power supply	18..26V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	on-wall
Dimensions	136x96x25mm

Ordering information

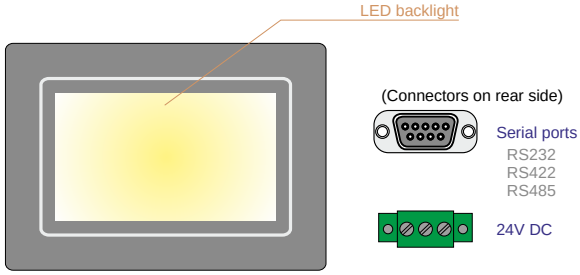
Order Code:	
•temperature	OP-5-T-IW
•temperature, cyirillic charset	OP-5C-T-IW
•temperature and humidity	OP-5-TH-IW
•temperature and humidity, cyirillic charset	OP-5C-TH-IW
•custom front foils on request	OP-5-IW-CUSTOM

OP-MT6000i NEW!

Color touch screen operator panel



- Panels connect to CyBro-2 controllers via serial communication.
- Fast programming via USB port.
- Product range offers units with various dimensions, display colors and available memory.
- Every panel uses resistive touch detection technology, enabling creation of advanced human-machine interfaces.
- Panels are powered by external 24V DC power supply.



Technical specifications

	OP-MT6050i	OP-MT6070iH	OP-MT6100i
Display	TFT, 65536 colors	TFT, 65536 colors	TFT, 65536 colors
Resolution	480x272	800x480	800x480
Active display area	4.3”	7”	10”
Touch screen	4 wires resistive	4 wires resistive	4 wires resistive
User memory	128MB	128MB	128MB
SD card slot			1x
Interfaces			
Serial ports	1x	3x	3x
USB	1x	2x	2x
Power supply	24V DC	24V DC	24V DC
Power consumption	250mA	250mA	300mA
Operating conditions	0°C..+50°C, 10..90% RH non-condensing		
Degree of protection	IP65 (front panel)		
Mounting	panel / in-wall		
Dimensions	128x102x38mm	200x146x43mm	271x213x50mm

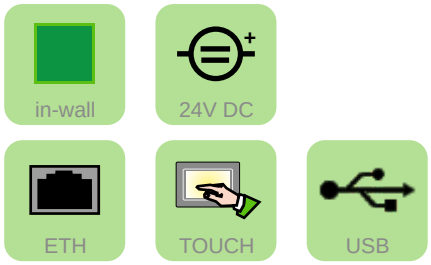
Ordering information

Order Code:

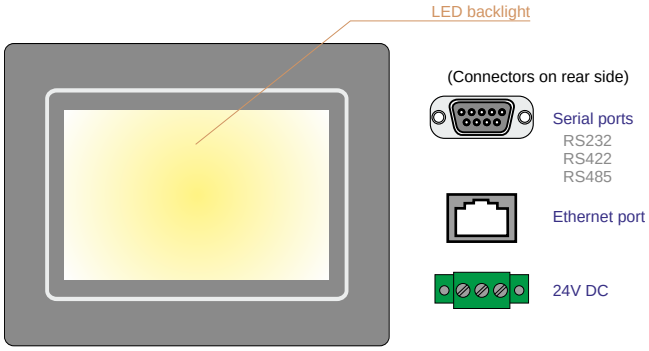
• OP-MT6050i	OP-MT6050i-CT
• OP-MT6050i with mounting kit	OP-MT6050i-IW
• OP-MT6070iH	OP-MT6070iH-CT
• OP-MT6070iH with mounting kit	OP-MT6070iH-IW
• OP-MT6100i	OP-MT6100i-CT
• OP-MT6100i with mounting kit	OP-MT6100i-IW

OP-MT8000i NEW!

Color touch screen operator panel



- Panels connect to CyBro-2 controllers via serial and Ethernet communication.
- Product range offers units with various dimensions, display colors and available memory.
- Every panel uses resistive touch detection technology, enabling creation of advanced human-machine interfaces.
- Panels are powered by external 24V DC power supply.



Technical specifications

	OP-MT8050i	OP-MT8070iH	OP-MT8100i
Display	TFT, 65536 colors	TFT, 65536 colors	TFT, 65536 colors
Resolution	480x272	800x480	800x480
Active display area	4.3”	7”	10”
Touch screen	4 wires resistive	4 wires resistive	4 wires resistive
User memory	128MB	128MB	128MB
SD card slot		1x	1x
Interfaces			
Serial ports	2x	3x	3x
Ethernet	1x	1x	1x
USB		2x	2x
Power supply	24V DC	24V DC	24V DC
Power consumption	250mA	250mA	300mA
Operating conditions	0°C..+50°C, 10..90% RH non-condensing		
Degree of protection	IP65 (front panel)		
Mounting	panel / in-wall		
Dimensions	128x102x38mm	200x146x43mm	271x213x50mm

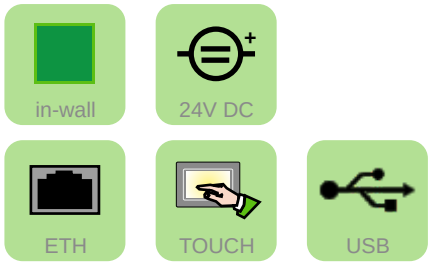
Ordering information

Order Code:

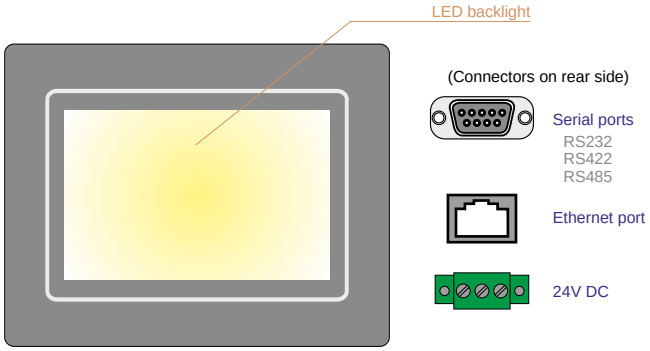
• OP-MT8050i	OP-MT8050i-CT
• OP-MT8050i with mounting kit	OP-MT8050i-IW
• OP-MT8070iH	OP-MT8070iH-CT
• OP-MT8070iH with mounting kit	OP-MT8070iH-IW
• OP-MT8100i	OP-MT8100i-CT
• OP-MT8100i with mounting kit	OP-MT8100i-IW

OP-MT8000X NEW!

Color touch screen operator panel



- Panels connect to CyBro-2 controllers via serial and Ethernet communication.
- Product range offers units with various dimensions, display colors and available memory.
- Data exchange center.
- Audio inputs/outputs and optional video input.
- Every panel uses resistive touch detection technology, enabling creation of advanced human-machine interfaces.
- Panels are powered by external 24V DC power supply.



Technical specifications

	OP-MT8104XH	OP-MT121X	OP-MT8150X
Display	TFT, 65536 colors	TFT, 65536 colors	TFT, 65536 colors
Resolution	800x600	800x600	1024x768
Active display area	10,4”	12,1”	15”
Touch screen	4 wires resistive	4 wires resistive	4 wires resistive
User memory	256MB	256MB	256MB
SD card slot	1x	1x	1x
Interfaces			
Serial ports	3x	3x	3x
Ethernet	1x	1x	1x
USB	2x	2x	2x
Video input		1x (optional)	1x (optional)
Power supply	24V DC	24V DC	24V DC
Power consumption	1,25A	1,25A	1,6A
Operating conditions	0°C..+50°C, 10..90% RH non-condensing		
Degree of protection	IP65 (front panel)		
Mounting	panel / in-wall		
Dimensions	286x213x50mm	322x243x51mm	366x293x54mm

Ordering information

Order Code:

• OP-MT8104XH	OP-MT8104XH-CT
• OP-MT8104XH with mounting kit	OP-MT8104XH-IW
• OP-MT8121X	OP-MT8121X-CT
• OP-MT8121X with mounting kit	OP-MT8121X-IW
• OP-MT8150X	OP-MT8150X-CT
• OP-MT8150X with mounting kit	OP-MT8150X-IW

COM-ABUS NEW!

Serial 232/485 port

2M

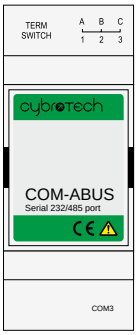
IEX
24V DC

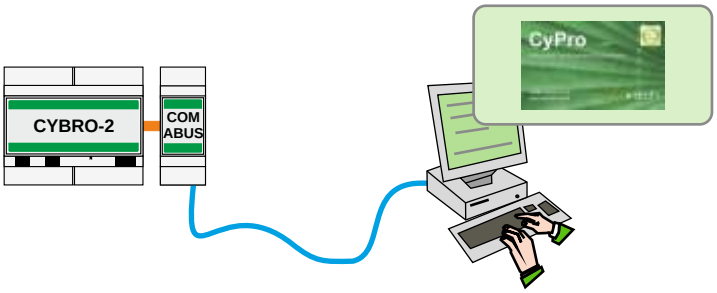
IEX

RS-232

RS-485

- Device is a third serial port implementing A-Bus protocol that is used to connect to CyBro-2 controller.
- Ports are galvanically isolated from IEX.
- Data flow is indicated by LED signalization located by each communication port.
- Push and click mounting on DIN rail with only 2M dimensions.
- 24V DC powered over IEX bus.





Technical specifications

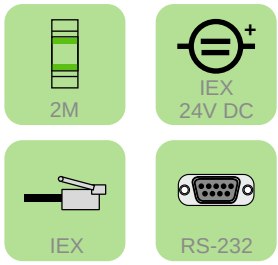
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	36x99x58mm

Ordering information

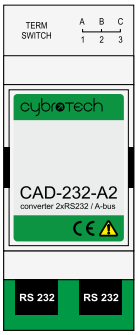
Order Code: COM-ABUS

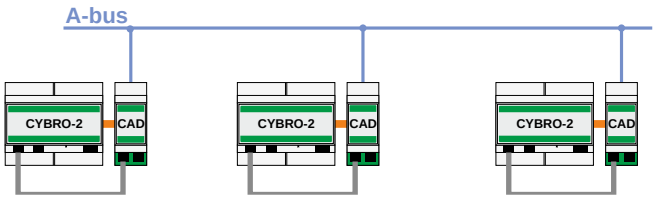
CAD-232-A2

RS232 to RS485 converter



- Device is a RS-232/485 converter.
- Used for building A-bus network when data exchange between multiple controllers or multiple controllers and a SCADA system is required.
- Up to two devices (controller, PC, etc.) can be connected to one converter. Up to 32 devices total can be connected in this way.
- A-bus lines are protected by galvanic isolation from the RS232.
- Data flow is indicated by LED signalization located by each communication port.
- Push and click mounting on DIN rail with only 2M dimensions.
- 24V DC powered over IEX bus.





Technical specifications

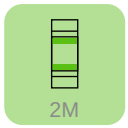
Power supply	24V DC (over IEX bus)
Power consumption	50mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	36x99x58mm

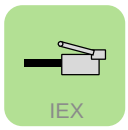
Ordering information

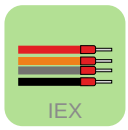
Order Code: CAD-232-A2

CAD-BE

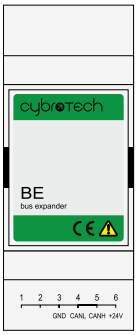
Bus expander

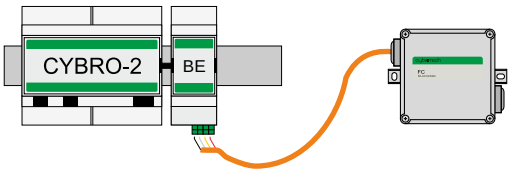






- This device is a passive switch for easy interconnection between DIN-mounted IEX modules installed in remote locations throughout the building.
- Unit is DIN mountable and includes an input IEX connector (RJ9), an output (RJ9) connector to connect to the next module, and another screw-terminal to connect to remote IEX modules.
- Bus expander has small dimensions and is enclosed in a 2M housing.
- 24V DC powered over IEX bus.





Technical specifications

Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	36x99x58mm

Ordering information

Order Code: BE

CAD-BA

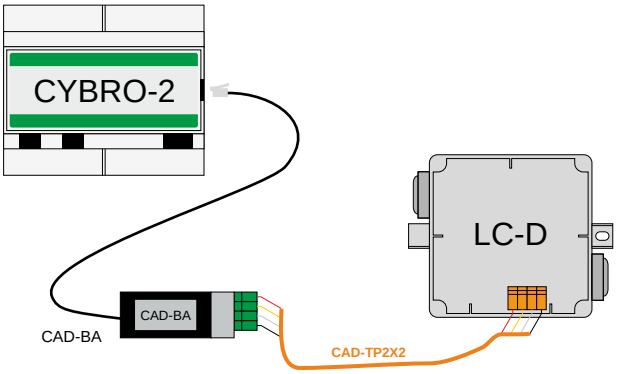
Bus adapter

special

IEX

IEX

- Adapter is used for connecting modules through an IEX bus to a CyBro-2 controller or to other modules.
- Small dimensions enable installation in restricted spaces.
- Easy installation with removable bus terminals and RJ9 connector.



Technical specifications

Cable length	0.5m with RJ9 connector
Operating conditions	0..50°C, 0..85% RH non-condensing
Dimensions	65x25x19mm

Ordering information

Order Code: CAD-BA

CAD-BC NEW!

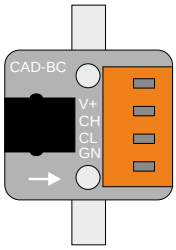
Bus coupler

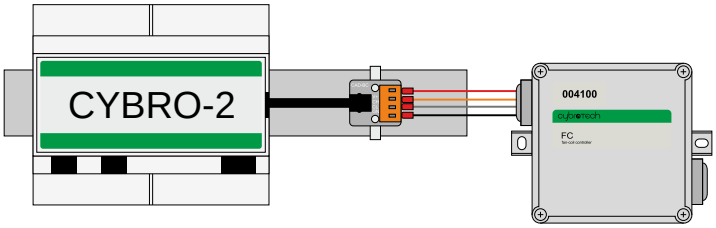
special

IEX

IEX

- CAD-BC adapter is used to easily connect expansion modules with push-wire connectors to the IEX network.
- Small dimensions enable installing adapter in limited spaces.
- Fast mounting on DIN rail.
- Easy installation with removable bus terminals and RJ9 connector.





Technical specifications

Dimensions	21x26x18mm

Ordering information

Order Code: CAD-BC

CAD-CEX

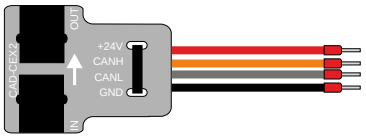
Bus adapter/spliter

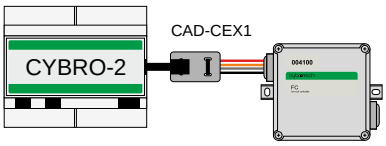
special

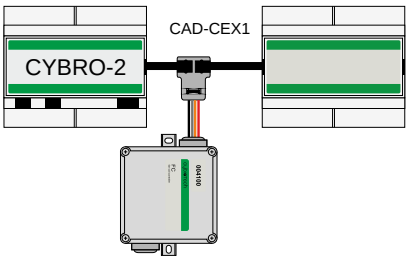
IEX

IEX

- CAD-CEX1 adapter is used to easily connect expansion modules with push-wire connectors to the IEX network.
- CAD-CEX2 is an adapter/splitter device that enables connection of push-wire connectible modules to bus without attaching an RJ9 connector to the end of the original bus.
- Small dimensions enable installing adapter in limited spaces.
- Easy installation with removable bus terminals and RJ9 connector.







Technical specifications

Wire length	20cm
Dimensions	35x21x18mm (CAD-CEX1)
	38x29x18mm (CAD-CEX2)

Ordering information

Order Code:

- CAD-CEX1 CAD-CEX1
- CAD-CEX2 CAD-CEX2

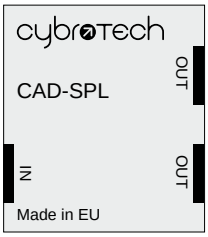
CAD-SPL

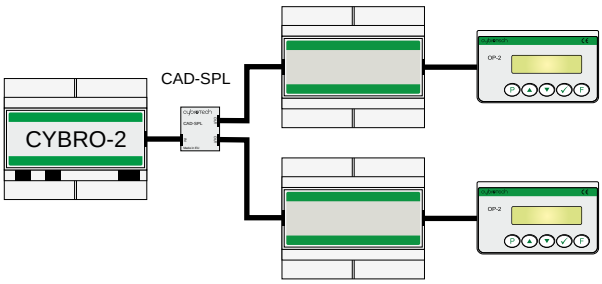
Bus spliter

special

IEX

- CAD-SPL is used to split a 4-wire telephone cable IEX bus into two seperate lines.
- Spliter enables easy connection of more than one OP-2 panel to the IEX network.
- All conection terminals are of RJ9 type.





Technical specifications

Features	3 x IEX-2 connectors, RJ-9 connectors
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Dimensions	31x35x26mm

Ordering information

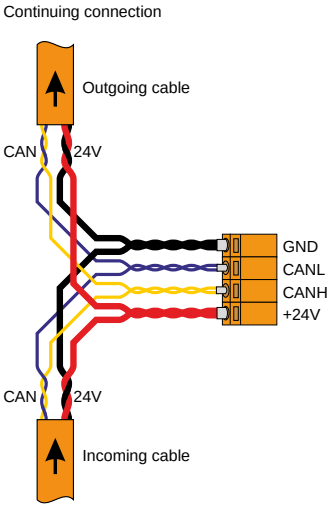
Order Code: CAD-SPL

CAD-TP2x2

IEX bus cable

IEX

- Specially designed connection cable used for connecting IEX devices.
- Orange cable coat enables easy identification and clear distinction from other types of cables.
- Cable consists only of necessary number of conduits that are color-coded in a way that enables easy connection and network scan.



Technical specifications

Wires	2 x twisted pair (2x0.25mm^2 + 2x0.75mm^2)
Diameter	7mm
Copper weight	21.0kg/km
Outer jacket	PVC, orange color

Ordering information

Order Code: CAD-TP2X2

Minimum order quantity: 100m

RE

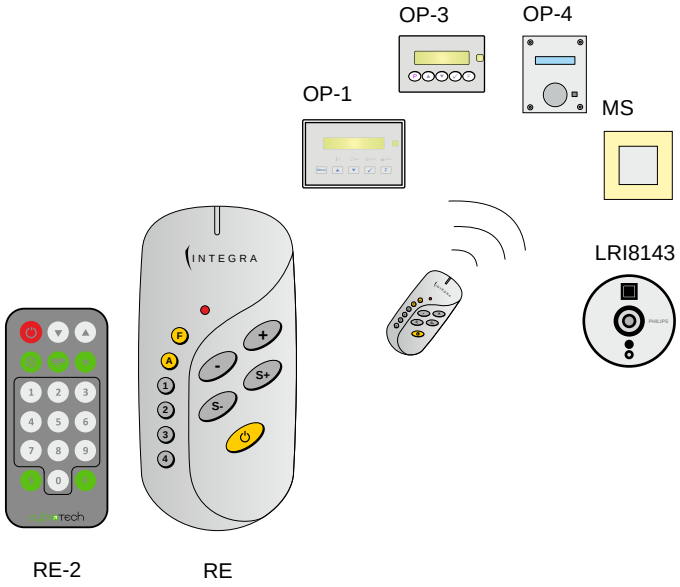
NEW!

IR remote

special

IR

- IR remote controller designed to operate with CyBro-2 automation systems through MS, OP-1, OP-3 devices.
- The unit is ergonomically designed to fit comfortably into the user's palm.
- 11/18 marked keys that can be used to control lighting (ON/OFF, dimming, scene selecting), shutters (opening/closing) etc.
- Transmission is indicated by a red LED on the remote.
- Wide transmission angle and operating range of up to 5m ensures good reception from any location in the room.
- Batteries are included with the remote.



Technical specifications

Keys	11 (RE)
	18 (RE-2)
Power supply	2 x LR03 AAA battery (RE)
	1 x CR2025 battery (RE-2)
Operating range	5m

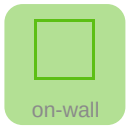
Ordering information

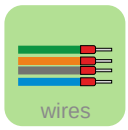
Order Code:

• remote (11 keys)	RE
• wal-mounted holder	WH-RE-OW
• remote (18 keys)	RE-2

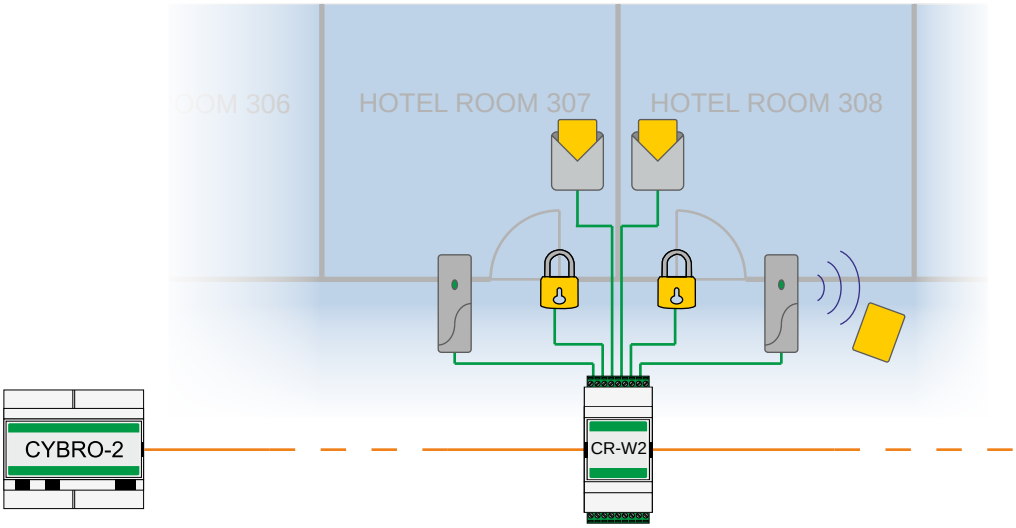
RFID Reader NEW!

RFID card reader





•Device is powerful access control proximity reader.
•Vandal resistant for harsh environment (0F/1F casing).
•Can be installed on metal surface.
•Electric epoxy potted, weather proof for indoor and outdoor use.



Technical specifications

RF frequency	125kHz
Supported card	EM125KHz Technology, EM410X or compatible
Indicator	2 LED and 1 Buzzer
Power supply	12V DC (from CR-W2)
Operating conditions	-20°C..+65°C
Degree of protection	IP65, electric epoxy potted
Mounting	on-wall

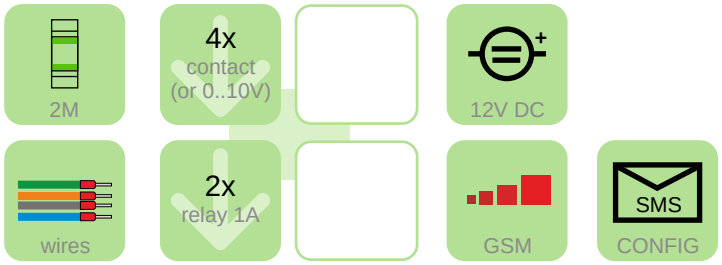
Ordering information

Order Code: 3LXER11BE013C1

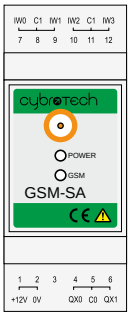
GSM-SA

NEW!

GSM standalone modem



- GSM-SA is a standalone device used for remote monitoring and control of automation system. User can receive SMS messages with system information and alarms or send SMS messages with keyword commands.
- Simple configuration with mobile phone using SMS messages (no PC required).
- Supports three-band 900/1800/1900MHz to comply with various GSM frequency standards worldwide.
- Easy integration and configuration into the automation system. No need for AT command set communication.
- No PLC controller is required for operation; device's I/O points can be directly conrolled.
- 12V DC power supply over external connectors.



Technical specifications

4 analog/digital inputs	for connecting 4 keys
Analog range	0..10V (10 bit ADC, 0..1023)
Internal pull-up	12V, 2mA
2 digital outputs	relay contacts, normally open, SPST
Load	max. 1A/250V AC or 1A/30V DC, resistive
Features	
Operation	standalone
Three band	GSM 900/1800/1900 MHz
Performance	class4(2W) for 900 MHz
	class1(1W) for 800/1900 MHz
Power supply	12V DC
Power consumption	75mA (standby)
	100mA (active)
Operating conditions	0..50°C, 10..80% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	36x99x70mm

Ordering information

Order Code:	GSM-SA1
External antenna:	CAD-ANT1-GSM

GPRS Router

Cellular router

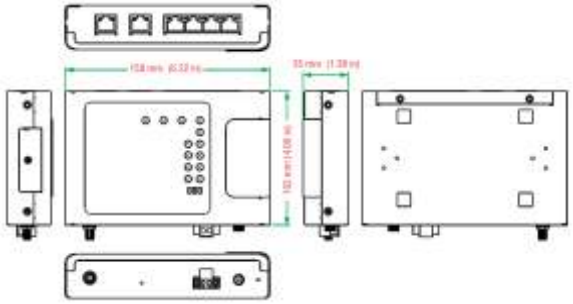
special

24V DC

ETH

1001110110
GPRS

- High-performance industrial grade cellular router that allow up to 4 Ethernet-based devices to simultaneously use cellular connection.
- Typical applications:
  - * direct connection
  - * center to multipoint
  - * ethernet / mobile routing
- Easy-to-use WEB/Telnet configuration interface for setup and maintenance of device.
- Wide input voltage range (12..48V DC) enables direct powering from CyBro-2 systems.



Technical specifications

Features	
Standards	GSM/GPRS/EDGE/UMTS/HSDPA
Mobile router	UDP/TCP, SNTP, ISMP, DDNS, DHCP/BOOTP, PPPoE, PPP, DNS Relay, HTTPS, Telnet, IPSec, NAT, port forwarding, static routing
Configuration	WEB/Telnet
SIM card	2x
Data interface	4x Ethernet, 1 x WAN Ethernet
Power supply	12..48V DC
Power consumption	900mA (peak) (at 12V DC)
Operating conditions	-30..55°C, 5..95% RH non-condensing
Degree of protection	IP30
Mounting	desktop or wall
Dimensions	158x103x34mm

Ordering information

Order Code: ONCELL5004-3G

TD-101

GPS/GPRS tracking module

special

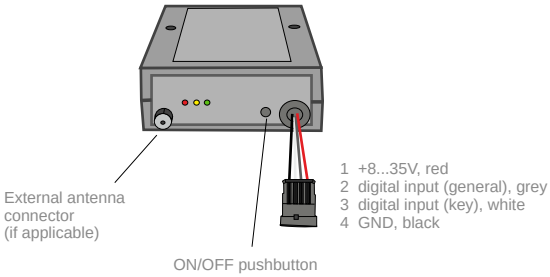
12V DC

1001110110

GPRS

GPS

- TD-101 is Tri-band GSM/GPRS device intended to send location information via GPRS/TCP. Positions are acquired from satellites via GPS part of the device.
- Mounting location is inside the vehicle, under the dashboard, together with external GPS antenna when used.
- The device is powered by car battery and embedded Lithium-ion battery.
- Current position is not sampled if the engine is off and the vehicle is not moving.



Technical specifications

Features	
Tri band	GSM900/DCS1800/PCS1900
Performance	class4(2W) for GSM900
	class1(1W) for DCS1800/PCS1900
Antenna	
GPS	external or embedded patch ceramic
GSM	embedded patch antenna
Battery	Li-ion
Power supply	8..35V DC
Power consumption	5mA (stand by - the vehicle stopped)
	500mA (when transmitting)
Operating conditions	-20..55°C, 0..80% RH non-condensing
Degree of protection	IP20
Mounting	inside the vehicle, under the dashboard
Dimensions	60x95x22mm

Ordering information

Order Code:

- with external antenna — TD-101-E
- internal antenna — TD-101-I

CAN-USB

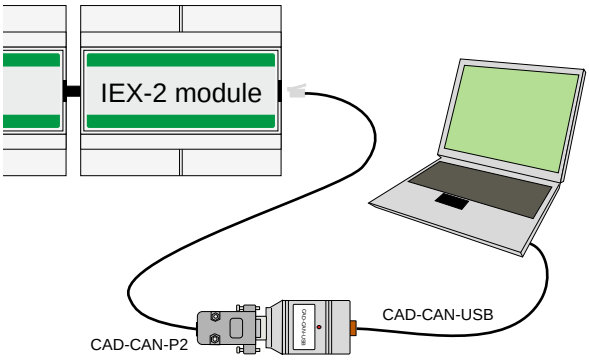
USB to CAN interface

special

IEX

USB

- Special USB to CAN interface that can be used to easily connect to IEX network operating at a maximum baud rate of 1Mbit/s.
- Interface can be used to update firmware or to change the serial address of a connected IEX device.
- With its compact plastic casing, the device is ideally suited for use with laptops and notebooks.
- Software and in-house programming sources are supplied to make the package complete.



Technical specifications

Features	
Controller	PHILIPS SJA1000 CAN
Performance	16MHz frequency
	82C251 CAN transceiver
Compliance	CAN specification 2.0A (11-bit ID) and 2.0B (29-bit ID)
Connection	9-pole male D-SUB, USB
Power supply	via USB bus from computer
Cable length	70 cm
Operating conditions	10..55°C, 0..80% RH non-condensing
Dimensions	86x20x42mm

Ordering information

Order Code: CAD-CAN-USB

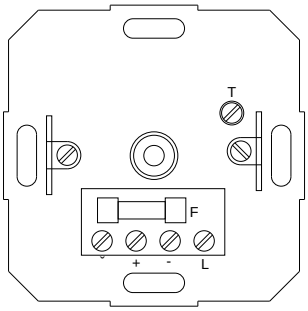
CAD-POTI

Electronic potentiometer

on-wall

wires

- Potentiometer can be used for dimming lights and switching on/off devices with push-button switch.
- Unit is connected to CyBro-2 system through analog input (with internal pull-up) on OP-3, LC-S, LC-D, RGB-D or SW-W.
- Switch is connected to digital input.



Point	Description
↓	Switch connection
L	Switch connection
+	Potentiometer connection
-	Potentiometer connection
F	Fuse
T	Brightness adjustment

Technical specifications

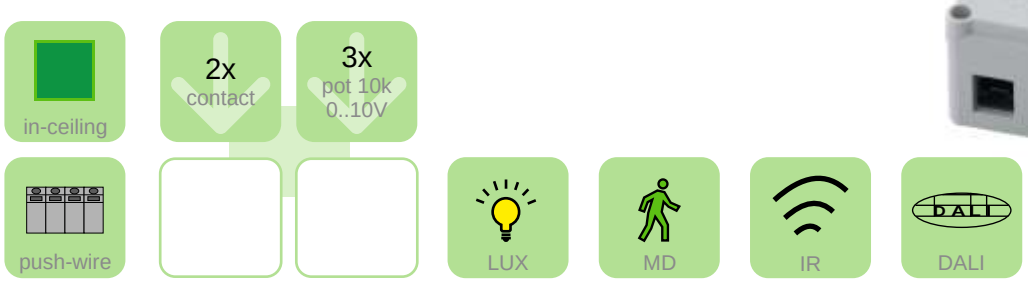
Potentiometer	
Control voltage	0.7 ..10V DC
Current	max. 50mA
Switch	
Load	max. 6A, 230V AC
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP20
Mounting	on-wall, flush box fi60
Dimensions	80x80x45mm

Ordering information

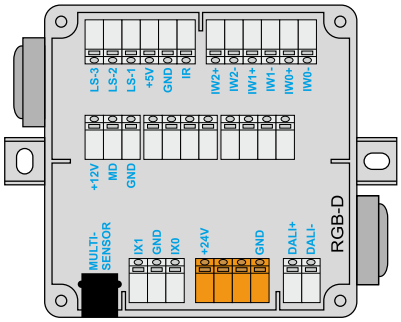
Order Code: CAD-POTI

RGB-D

RGB light controller



- RGB-D is a stand-alone unit with all integrated functions already defined.
- User has a complete freedom when creating personal profile with:
  - * adjusting the hue / color softness in small, high-resolution steps
  - * speed of color cycling
  - * turning on and off the fade function
  - * delaying power off - RGB controller with DALI output
- The device features several inputs that enable full control via IR remote control unit, switches, potentiometers and multisensors.
- Push-wire connectors allow easy connection and disconnection.
- The device is enclosed in a protective plastic mounting box which enables installation in a double ceiling, double floor, on the wall, or on a DIN rail.
- 24V DC powered externally.



Technical specifications

2 digital input	common-ground switch with internal pull-up (12V, 1mA)
3 analog inputs	0..10V (10bit ADC, 0..1023)
Internal pull-up	12V, 2mA
1 DALI output	max. 32 ballasts
Output current	max. 100mA
2 sensor connectors	Integra-BM multisensor
	Multisensor (entry for RJ-12 modular jack)
Power supply	24V DC
Power consumption	160mA
Operating conditions	0..50°C, 0..85% RH non-condensing
Degree of protection	IP42
Mounting	in-ceiling
Dimensions	108x86x46mm

Ordering information

Order Code: RGB-D-FB

PS-30

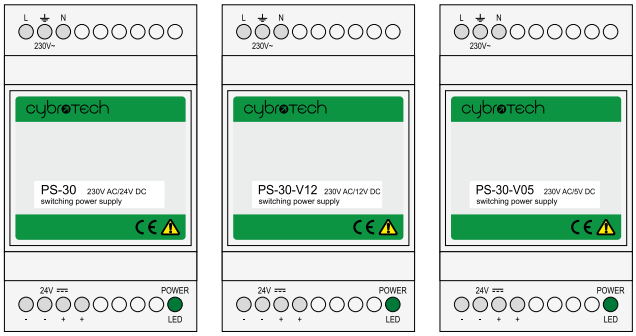
Switching power supply unit

3M

230V AC

wires

- CyBro-2 devices can be powered by one of our several power supply units. Different output voltages (24V DC, 12V DC, 5V DC) can be selected.
- Power supply is plugged to power mains 230V AC.
- Up to 34W of DC power can be outputed. More power can be provided by PS-50 or PS-80 units.
- Double output screw terminals for easy wire connection.
- Power indication with a LED for quick operation check.
- Each unit is enclosed in a 3M housing and is mountable on a DIN rail.



24V DC 12V DC 5V DC

Technical specifications

	24V DC	12V DC	5V DC
Input			
Voltage	180..256V AC	180..256V AC	180..256V AC
Frequency	47..63Hz	47..63Hz	47..63Hz
Current	0.24A (250V AC)	0.24A (250V AC)	0.24A (250V AC)
Output			
Voltage	24V DC ±3%	12V DC ±3%	5V DC ±3%
Current	max. 1.4A	max. 2.4A	max. 3.8A
Ripple and noise	max. 100mA	max. 100mA	max. 100mA
Protection	short circuit protection, overload (heat) protection		
Efficiency	cca 85% by max load and 230V AC		
Operating conditions	0..50°C, 10..85% RH non-condensing		
Degree of protection	IP20		
Mounting	DIN rail (35mm)		
Dimensions	53x90x58mm		

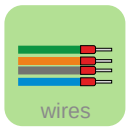
Ordering information

Order Code:

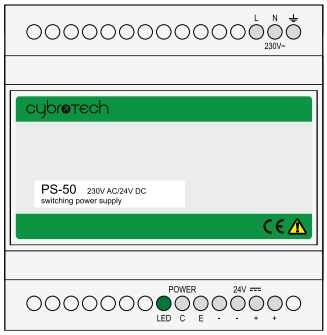
• 24V DC output	PS-30
• 12V DC output	PS-30-V12
• 5V DC output	PS-30-V05

PS-50

Switching power supply unit



- When PS-30 power supply unit does not deliver the required power, PS-50 can be used instead, providing up to 66W of 24V DC power.
- Power supply is plugged to power mains 230V AC.
- Double output screw terminals for easy wire connecting.
- Power indication with LED diode for quick operation check.
- Units are in 5M housing and are mountable on DIN rail.



Technical specifications

Input	
Voltage	207..256V AC
Frequency	47..63Hz
Current	0.6A (250V AC)
Output	
Voltage	24V DC ±3%
Current	max. 2.75A
Ripple and noise	max. 100mA
Protection	short circuit protection, overload (heat) protection
Efficiency	cca 85% by max load and 230V AC
Operating conditions	0..50°C, 10..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	89x90x58mm

Ordering information

Order Code: PS-50

PS-80

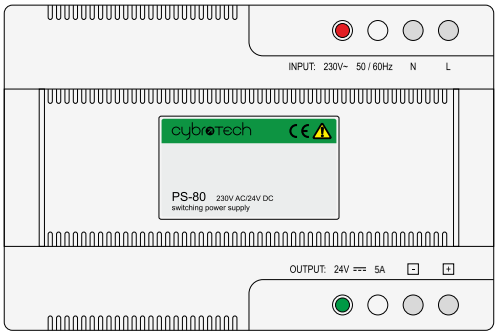
Switching power supply unit

8M

230V AC

wires

- Providing up to 120W of 24V DC voltage.
- Power supply is plugged to power mains 230V AC.
- Double output screw terminals for easy wire connection.
- Power indication with LED diode for quick operation check.
- The unit is enclosed in an 8M housing and it is mountable on a DIN rail.



Technical specifications

Input	
Voltage	207..256V AC
Frequency	47..63Hz
Output	
Voltage	24V DC ±3%
Current	max. 5A
Ripple and noise	20mVpp
Protection	short circuit protection, overload (heat) protection
Efficiency	cca 85% by max load and 230V AC
Operating conditions	0..50°C, 10..85% RH non-condensing
Degree of protection	IP20
Mounting	DIN rail (35mm)
Dimensions	140x93x66mm

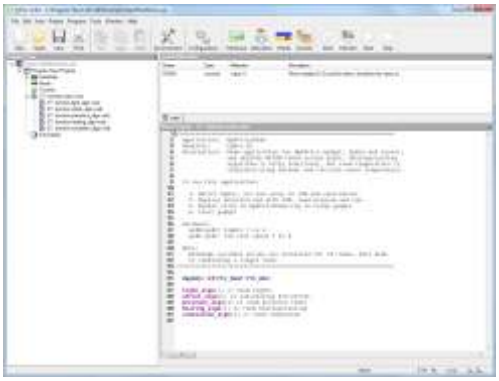
Ordering information

Order Code: PS-80

CyPro

Integrated development environment

- CyPro is a software package for programming CyBro-2 controllers. It runs on Microsoft Windows 95/98/ME/NT4/2k/XP/Vista/7. CyPro is a fully featured IDE (integrated development environment) that comprising an editor, a compiler, and an on-line monitor.
- CyPro development tool is based on the IEC 1131-3 standard. It employs instruction lists and structured text programming, extended with several useful visual tools.



Features

- hardware autodetect
- nask editor
- socket editor
- online monitor
- data manager
- multisend
- communication monitor

Hardware requirements

- Any PC capable of running MS Windows 95 is adequate, although the recommended system is Pentium 500MHz with 128MB RAM. CyPro will occupy about 4MB of disc space. To connect the CyBro to a PC, a standard serial (RS232) port or Ethernet port is required. If a serial port is not available, connection may also be established using either USB-to-serial or Ethernet-to-serial converter.

Ordering information

Latest version available free for download at:
http://www.cybrotech.co.uk

CyBro OPC

Data access server

•A CyBro OPC Data Access Server enables OPC clients (such as SCADA) to connect to the CyBro-2 system, using A-bus protocol. OPC includes open connectivity via open standards. Based on fundamental standards and technology of the general computing market, the OPC provides specifications that meet the requirements of industrial automation. Once an OPC server is set up for a particular device, it can be reused by any application that is able to act as an OPC client. An OPC server uses Microsoft's OLE technology (also known as the Component Object Model, or COM) to communicate with clients. COM technology permits a standard for real-time information exchange between software applications and process hardware.

Hardware requirements

•CyBro OPC Server may be installed on Microsoft Windows 95, 98, ME, NT4, 2000, XP and Vista. Recommended operating system is MS Windows 2000 with the latest available service pack. Installation occupies approximately 2.5MB of disk space. RAM usage depends on the number of connected controllers, number of clients, and number variables being monitored.

Ordering information

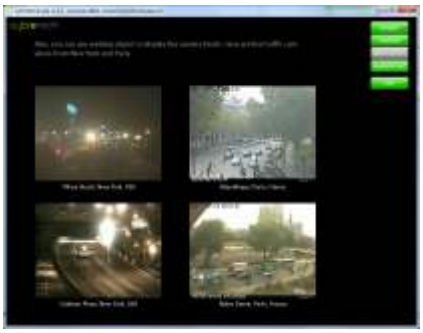
Order Code:	
• evaluation (up to 10 tags)	free*
• small (up to 100 tags)	CYBRO-OPC-S
• medium (up to 1000 tags)	CYBRO-OPC-M
• large (unlimited number of tags)	CYBRO-OPC-L

* Latest version available free for download at:
http://www.cybrotech.co.uk

CyBroMiniScada NEW!

Supervisory system

- CyBroMiniScada is visualization system for CyBro controllers. It's function and appearance is defined by xml configuration file and external images.
- Xml file is an ordinary text file created by text editor. It contains pages, and pages contain objects. Objects are created manually (copy/pasted from "Reference.xml"), then positioned using internal editor.
- Object appearance is defined by object properties. Each object type has unique set of properties. Some properties are common for all objects. Each property is optional. If property is not listed, default value is used.
- Object function is defined by events and actions. Each object may have one or many events, and each event may have one or many actions. For the complete list of events and actions, check "Reference.xml".



Hardware requirements

- CyBroMiniScada may run on Microsoft Windows XP, Vista and Windows 7.
- No installation required.
- Occupies approximately 15.8MB of disk space (without project files).
- RAM usage depends on the number and type of objects in project, connected controllers, and number variables being monitored.

Ordering information

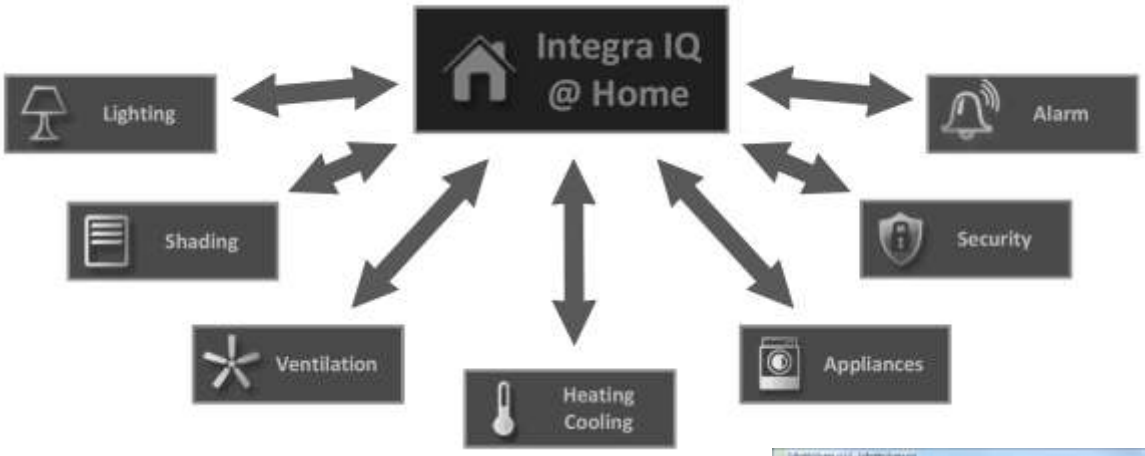
Order Code:
- unlicensed free*
- licence (contact us)

* Latest version available free for download at: http://www.cybrotech.co.uk

Licencing will remove Cybrotech logo, and give you access to tech support.

Integra IQ @ Home NEW!

Home automation system



•Integra IQ @ Home is building automation system based on CyBro and Integra PLC equipment. It integrates all electrical devices in a house or apartment with each other with the purpose to increase the level of comfort, security and energy management.
•Integra IQ @ Home is configurable system; there is no need to program controller. However, all originally unsupported functions can be easily added.

Hardware requirements

•Integra IQ @ Home may run on Microsoft Windows XP, Vista and Windows 7.
•No installation required.
•Occupies approximately 15.8MB of disk space.
•RAM usage depends on the number and type of objects in project, connected controllers, and number variables being monitored.

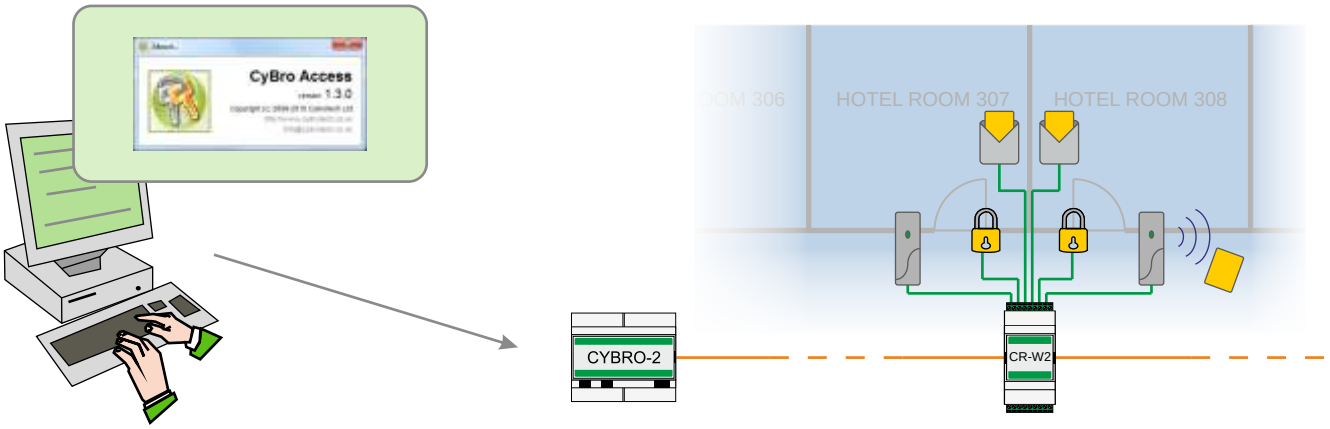
Ordering information

Order Code (software licence only):	
• evaluation (up to 2 hours/day)	free*
• small (up to 10 modules)	IQ-SL
• medium (up to 20 modules)	IQ-ML
• large (up to 30 modules)	IQ-LL
• open (first year)	IQ-OPL-1
• open (renew)	IQ-OPL-R

* Latest version available free for download at: http://www.cybrotech.co.uk

CyBroAccess NEW!

Hotel access control



- CyBroAccess application is part of CyBro access control solution. Typical usage is hotel reception desk, but it may be used in other access control applications as well. Basically, it is used to manage allowance tables, stored in controllers.
- Access log is read from controllers periodically, every 10 seconds, and written to log file. File size is not limited.
- Backup file contains a snapshot of whole allowance table. It is automatically created once per hour, but only if array is changed.

Hardware requirements

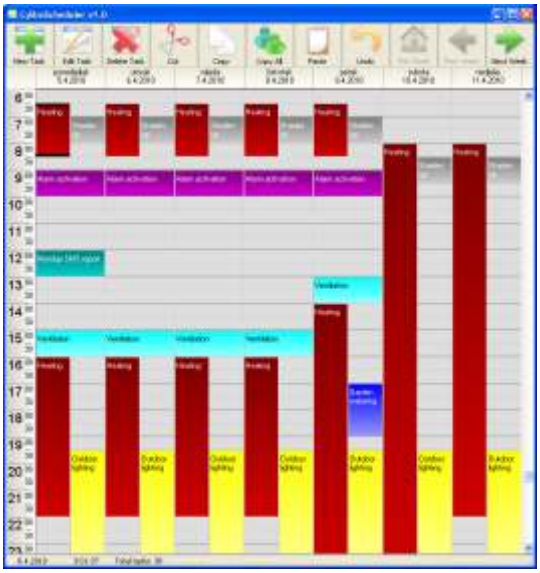
- CyBroAccess may run on Microsoft Windows XP, Vista and Windows 7.
- No installation required.
- Occupies approximately 1.4MB of disk space.

Ordering information

Latest version available free for download at:
http://www.cybrotech.co.uk

CyBroScheduler NEW!

Task scheduler



•CyBroScheduler executes a given task at predefined time. Task is entered at a specific day, and has begin time and end time, associated with begin action and end action. Action basically means setting one or more CyBro variables.
•Scheduler runs on PC. If program is not started, or computer is off, action will not be performed.
•Tasks are configured by an internal editor.
•There is no installation, just unzip and run. No external programs are needed.

Hardware requirements

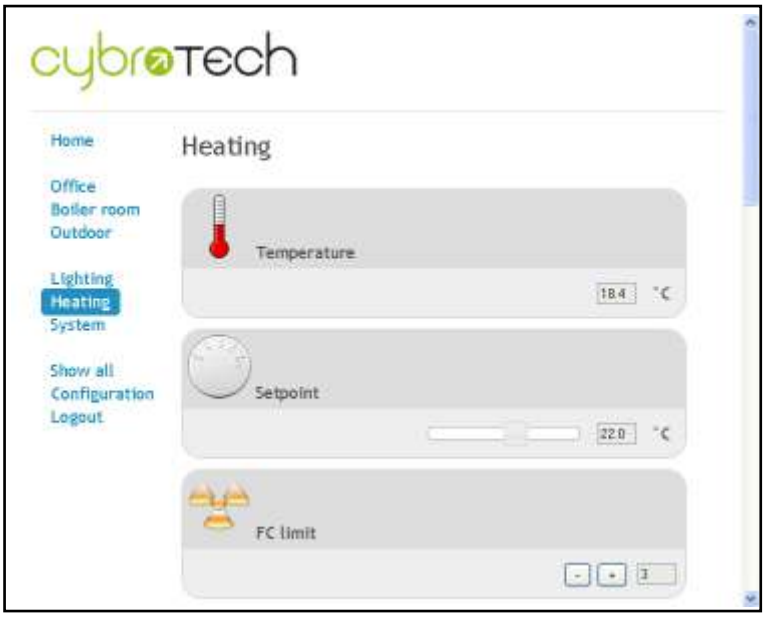
•CyBroScheduler may run on Microsoft Windows XP, Vista and Windows 7.
•No installation required.
•Occupies approximately 1.5MB of disk space.

Ordering information

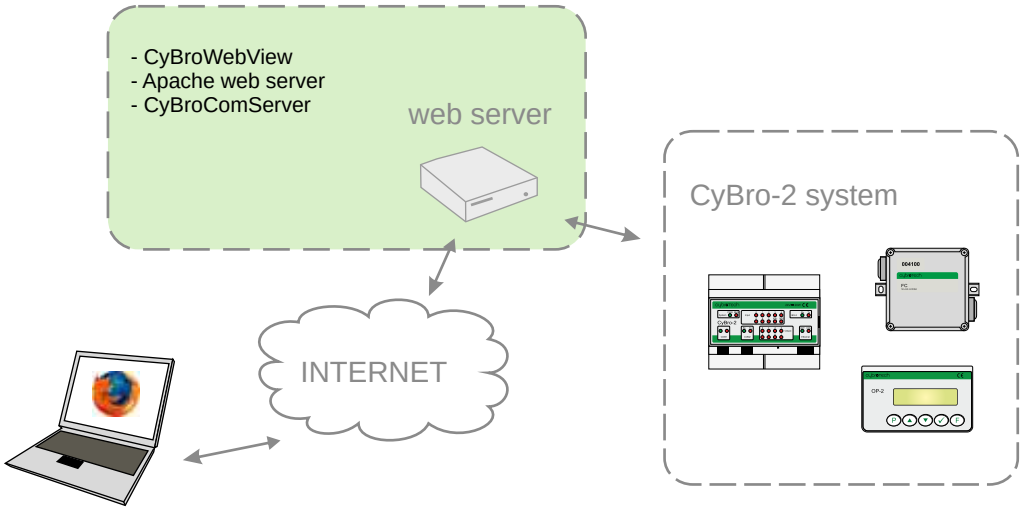
Latest version available free for download at:
http://www.cybrotech.co.uk

CyBroWebView NEW!

web access solution



•CyBroWebView is simple solution to access and control CyBro system using web browser.
•Both local and Internet access are suported.
•Server requirements are very low, most microcontroller-based devices (like network storage or network player) are capable enough. ,
•Server may run on Windows or Linux.



Ordering information

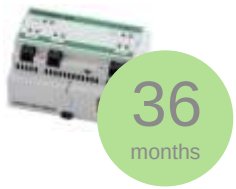
Latest version available free for download at:
http://www.cybrotech.co.uk

Warranty

and EN standards info

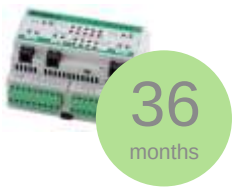
Controllers

RC



EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

CyBro-2-24
CyBro-2-230

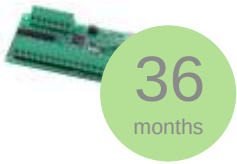


EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

uCyBro-2R
uCyBro-2T

EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

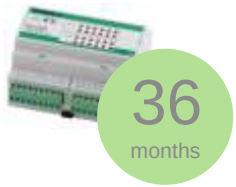
IPU



EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

Modules

Bi-24
Bio-24R
Bio-24T
Bio-8R4



EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

AiR-12
AiV-12
AiC-12
AoV-12

EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

HR

EN 50090-2-2,
EN 50090-2-2/A1

FC
8C

EN 50090-2-2,
EN 50090-2-2/A1

O2

EN 50090-2-2,
EN 50090-2-2/A1

TS

LC-S
LC-D
LC-DC

EN 50090-2-2,
EN 50090-2-2/A1

SW-L
SW-W
SW-W2
SW-W3

EN 50090-2-2,
EN 50090-2-2/A1

GSM-1

EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

COM-PRN

EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

CR-W2

EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

RC-A

EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

Sensors

ES
MS

THS02

LRI8143
LRM8114

EN 60950,
EN 50081-1,
EN 50082-1,
EN 55022

LRM8115

EN 60950,
EN 50081-1,
EN 50082-1,
EN 55022

Operator panels

OP-1
OP-3

EN 50090-2-2,
EN 50090-2-2/A1

OP-2
OP-4
OP-5

EN 61131-1,
EN 61131-2,
EN 50090-2-2,
EN 50090-2-2/A1

OP-MT6000i
OP-MT8000i
OP-MT8000X

EN 55011,
EN 50081-1,
EN 50082-1

Accessories

RE
RE-2

36 months

COM-ABUS
CAD-232-A2

36 months

GPRS Router

60 months

GSM-SA
TD-101

36 months

CAN-USB
CAD-POTI

12 months

CAD-BE
CAD-SPL

36 months

CAD-BA
CAD-BC
CAD-CEX

36 months

RGB-D

36 months

EN 50090-2-2,
EN 50090-2-2/A1

Power supply units

PS-30

12 months

EN 61558-1,
EN 50081,
EN 50082

PS-50

12 months

EN 61558-1,
EN 50081,
EN 50082

PS-80

12 months

EN 61558-1,
EN 50081,
EN 50082

Contacts

Headquarters

Cybrotech Ltd
14 Brinell Way
Harfreys Industrial Estate
Great Yarmouth
Norfolk, Nr31 0LU - UK
tel: +44 (0)1493 650 222
www.cybrotech.co.uk
info@cybrotech.co.uk
support@cybrotech.co.uk

Branch offices

Slovenia
Cybrotech d.o.o
Arja vas 19
3301 Petrovce - Slovenia
tel: +386 (0)3 713 1940
fax: +386 (0)3 570 7500

Croatia
Cybrotech d.o.o
Bohinjska 11
10000 Zagreb - Croatia
tel: +385 (0)1 307 9239
fax: +385 (0)1 307 9900

Slovenia
Cybrotech d.o.o
OIC - Hrpelje 38
6240 Kozina - Slovenia
tel: +386 (0)5 689 2020
fax: +386 (0)5 689 2039

Your local partner

Please visit www.cybrotech.co.uk to find a detailed list of distributers near you.

Notes

Notes

Cybrotech, Ltd.
14 Brinell Way, Harfreys Industrial Estate,
Great Yarmouth, Norfolk, Nr31 0LU - UK,
tel: +44 (0)1157 149 991, info@cybrotech.co.uk

Printed in EU, 09/2011

cybroTech