BUILDING CONTROLS

coster group

THE POWER OF SEMPLICITY
THE POWER OF SIMPLICITY

Photo by Tim Stief, unsplash.com

automation is efficiency

COSTER GROUP IS PERSONAL AUTOMATION

Intelligent application of electronics, programming and implementation of an infinite variety of unique solutions. Efficient, because they are attentive to the operating logics of the plants, rational in the use of energy resources, for maximum environmental comfort.e.

full adjustment, remote control

We offer a complete and integrated range of hardware and software products for the automation, management and supervision of medium sized technological systems: controllers for air conditioning systems (boilers, heat pumps, air treatment units, distribution circuits, etc.), domestic hot water.

Our solutions are easily engineered.

They offer complete remote control and telemanagement of plants to operators who use and perform maintenance on the systems. Thousands of civil and commercial buildings, schools and healthcare facilities, sports facilities and logistical infrastructures have already adopted our solutions.

Through the field equipment and the WebGarage supervision platform, facility managers can effectively and professionally manage the plants and meet the monitoring requirements imposed by the current contractual models.

HEATING

Controlled and remotely assisted heating plants.

METERING

Measurement of heat and electrical energy.

CONDITIONING

Zero-Km comfort and energy saving.

DOMESTIC HOT WATER

Efficient solutions for production and storage.

THE ADVANTAGES OF COSTER TECHNOLOGY

- **Flexibility**: any control need (new plant, upgrading, replacement of existing controllers) can be fulfilled by a single device, fully customizable and easily upgradable at any time remotely.
- **Scalability**: the use of expansion modules permits a large number of inputs and outputs, enabling installation of any type and size to be controlled.
- **Intuitiveness**: CosterCAD software allows you to "draw" the control. The programming menu is easy to understand.
- **Supervision**: it is possible to control the plants remotely in an easy and complete way through a web access platform that communicates with the plants using the latest generation connectivity.
- **Saving**: attention to waste and energy efficiency is a fundamental value, without sacrificing comfort.

WEBGARAGE

OPEN INTEGRATION

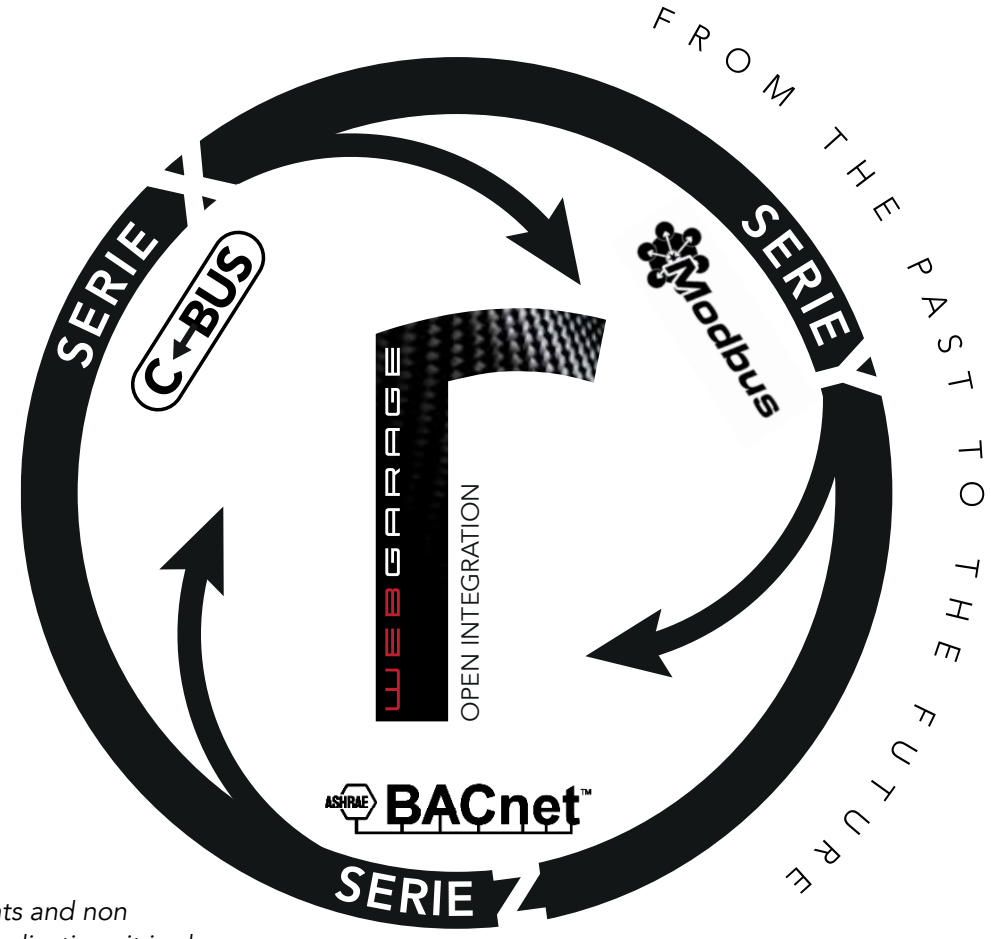
The distances between the plant and the office are eliminated

The platform integrates the basic functionality of a **Building Automation System (BACS)** which supervises and controls **HVAC systems**, offers the additional benefits of a **Building Operating System (BOS)** to govern, display and give value to relevant data.
The technology on which it is developed uses tagging and data modeling to ensure functionality and potential still unexplored.

WebGarage by Coster Group allows to collect, control and integrate data from different systems in order to optimise a building performance for its occupants in terms of comfort, productivity, energy efficiency and sustainability.

Communication between the Control Centre and the Peripheral Units is bidirectional and can use either a telephone SIM M2M or Ethernet connection.

The platform allows to remotely supervise and manage the two generations of Coster Group controllers, X-series and Y-series.



For small plants and non web based applications it is always possible to use the Coster Office remote management software.

COMFORT

Heating/cooling stations; substations; environments; comfort and energy saving with Zero-Km management.

AIR TREATMENT

Stand alone or integrated solutions for controlling air treatment units.

MONITORING

For metering and acquiring all the buildings consumption data and their environmental parameters.

DOMESTIC HOT WATER

Efficient solutions for temperature controlled production and distribution.

Full adjustment, easily programmable, web-based plant supervision

For the automation, management and supervision of technological systems we offer a complete and integrated range of DDC.

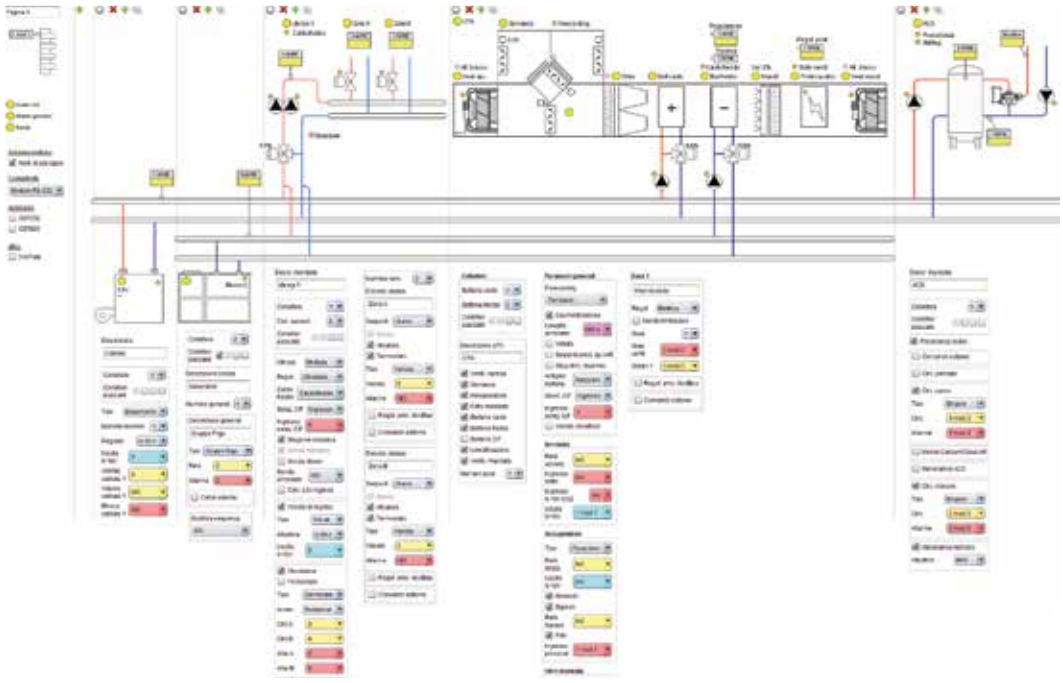
We supply complete remote control and telemanagement of plants to operators who use and perform maintenance on the systems by means of the latest generation connectivity.

Logic functions pre-engineered and configured by the customer.

CosterCAD

Each item selected from the menu is interpreted by the software as a tile of the control system. The file generated by CAD provides the device with the necessary information to control the plant, communicate with the outside, configure the user interface, recognize and send alarms.

The software also implements the terminal board wiring diagram for the controller according to the control logic of the function blocks selected from the menu.



Compose your system, assemble function blocks easily and immediatelye.

YHC 700

NETWORK MANAGER MODBUS

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Panel casing for 6 module applicable to DIN bar
1	Ethernet port
2	RS485 expansion bus
1	RS232 pbus
1	Micro-USB port
1	USB port
4	Signalling LEDs

MECHANICAL SPECIFICATIONS

Operating temperature limits	0 – 60 (°C)
Storage temperature limits	–10 – +80 (°C)
Panel casing material	Plastic type NORYL SE1 GFN2
Dimensions	90 x 105 x 71 mm (h x l x p)
Weight	185 g

ELECTRICAL SPECIFICATIONS

Power supply	12V DC
Maximum Absorption	500 mA
Front protection degree	IP 20
Rear protection degree	IP 20
Radio interference	VDE 0875/0871

YHC CWE

NETWORK MANAGER
MODBUS EMBEDDED VERSION

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Panel casing for 6 module applicable to DIN bar
1	Ethernet port
2	RS485 expansion bus
1	RS232 pbus
1	Micro-USB port
1	USB port
4	Signalling LEDs

MECHANICAL SPECIFICATIONS

Operating temperature limits	0 – 60 (°C)
Storage temperature limits	–10 – +80 (°C)
Panel casing material	Plastic type NORYL SE1 GFN2
Dimensions	90 x 105 x 71 mm (h x l x p)
Weight	185 g

ELECTRICAL SPECIFICATIONS

Power supply	12V DC
Maximum Absorption	500 mA
Front protection degree	IP 20
Rear protection degree	IP 20
Radio interference	VDE 0875/0871

YLC 880

MULTI-CONFIGURABLE CONTROLLER

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Container for 8 DIN modules
1	16 x 2 mm backlit alphanumeric display
1	4-key keypad
8	230V, 5A output relay, overload protection
2	0-10 V outputs
8	Analogue/digital input
1	SD Card Reader
1	Real time clock
1	RS232/RS485 bus selectable from menu for remote connection
1	RS485 bus for connection to third-party devices
1	1-wire bus for connecting temperature sensors

MECHANICAL SPECIFICATIONS

One controller is able to simultaneously manage:

No.	DESCRIPTION
32	PI controllers
32	Weekly clocks (10 time program steps each)
32	Thermostatic adjustments
20	Holiday suspension periods (for each flow)
25	Extraordinary switch on (for each flow)
16	Climatic curves with three consecutive slopes (max and min limit of the flow temperature, heating curve correction with selfadaptation according to the room authority, optimization of switching on/off, frost protection function)
32	Temperature sensors
32	Pumps (single, double, twin) with anti-block function, delayed switch-on, run on time
16	Mixing valves
8	Generator (Management of thermal cascade modules with control of single stage, two-stage, 3-point and/or 0-10V power-modulating, 0-10V temperature-modulating burner, management of solar panels, refrigerating units, heat pumps and hysteresis generators)
4	DHW management units (with boiler priority function, fixed point recirculation control and antibacterial function)

GENERAL FUNCTIONS

- Management of utilities in climatic and fixed point mode
- Adjustments mixed with one or more room temperature sensors (selectable between MEDIUM, MAX, MIN) and thermostatic
- Complete management of UTA air treatment units (shutters, batteries, frost protection, free-cooling, recuperator, fans, humidifier)
- Frost protection function
- Automatic correction of summer time
- Perpetual calendar

I/O SPECIFICATIONS

1-cabletype [1] sensors	PT1000[2] sensors	Sensors NTC [2] 10kΩ	UI (digital/analog)	DI	DO	AO (0-10 V)
16	16	16	8	0	8	2

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – 45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module container class	DIN 43700
Container material	Grey plastic type NORYL SE1 GFN2
Dimensions	144 x 96 x 60,9 (mm)
Weight	300 (g)

ELECTRICAL SPECIFICATIONS

Power supply (V)	12V DC
Maximum possible voltage to relays	250V AC
Apparent power	5 (VA)
Maximum capacity	5 (A)
Front protection degree	IP 40
Rear protection degree	IP 20
Radio interference	VDE 0875/0871
Output contacts	Potential free
Data retention time in memory	7 years

ACCESSORIES

CODE	DESCRIPTION
YHC 700	Network manager modbus
MDM 232	GSM/3G modem
CST 800	PT 1000 receiver
PEU 002	Expansion module 0-10V
PEC 442	Expansion module (DI - T° - DO)
ESP 442	Expansion module (UI - T° - DO)
SDC 020	SD card
SAV 210	2 x 0-10V room temperature / humidity sensor
STA 001W	Air channel temperature sensor 1W
SAE 420	4-20mA digital outside sensor
SIH 001W	Immersion temperature sensor 1W
SAF 001W	Wired temperature sensor 1W
ALM 1210	DIN rail power supply 12V-10W
ALM 1225	DIN rail power supply 12V-25W

(1) *The 1-wire sensors (SIH 001W – STA 001W) are polarized and can be connected to a 2-wire bus. For more details see the technical data sheets for 1-wire sensors.*

(2) *The sensors type PT1000 (SIH 002 – SAB 002 – SAE 002 – STA 002 etc.) are passive elements that must be connected to the specific terminals of the PEC 442 or ESP 442 module (see wiring diagram) and to the CST 800Receivers.).*
The NTC10K sensors must be connected to the specific terminals of the ESP 442 module.
The type of sensors that can be connected cannot be mixed. If there are two or three different types of sensors, two or three different expansion modules must be used.

PEU 002

EXPANSION MODULE (AO 0-10V)

HARDWARE SPECIFICATIONS

No. DESCRIPTION
1 Container with 3 modules suitable for DIN rail
2 0-10V Outputs
1 Bus RS485 (Modbus)

ACCESSORIES

ALM 1210
DIN rail power supply 12V-10W

ALM 1225
DIN rail power supply 12V-25W

I/O SPECIFICATIONS

1-cabletype sensors	PT1000 sensors	UI (digital/ analog)	DI	DO	AO (0-10 V)
0	0	0	0	0	2

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – 45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module container class	DIN 43700
Container material	Grey plastic type NORYL SE1 GFN2
Dimensions	52,5 x 120 x 62 (mm)
Weight	90 (g)

ELECTRICAL SPECIFICATIONS

Power supply (V)	12V DC
Apparent power	5 (VA)
Front protection degree	IP 40
Rear protection degree	IP 20
Radio interference	VDE 0875/0871

PEC 442

EXPANSION MODULE (DI-T5-DO)

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Panel casing for 4 modules applicable to DIN
4	Relay output 230V, 5A, Surge Protection
4	Digital input
2	Inputs for temperature sensor PT1000
1	Bus RS485 (Modbus)

ACCESSORIES

SAB 002
PT 1000 room temperature sensor

STA 002
PT 1000 air channel temperature sensor

SAE 002
PT 1000 outdoor temperature sensor

SIH 002
PT 1000 immersion temperature sensor

STH 001
Immersion high temperature sensor

STF 001
Flue gas temperature sensor

ALM 1210
DIN 12V-10W bar power supply

ALM 1225
DIN 12V-25W bar power supply

I/O SPECIFICATIONS

1-cabletype sensors	PT1000[1] sensor	UI (digital/ analog)	DI	DO	AO (0-10 V)
0	2	0	4	4	0

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – 45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module panel casing class	DIN 43700
Panel casing material	Grey plastic type NORYL SE1 GFN2
Dimensions	70 x 120 x 62 (mm)
Weight	175 (g)

ELECTRICAL SPECIFICATIONS

Power supply (V)	12V DC
Maximum applicable voltage to relays	250V AC (V)
Apparent power	5 (VA)
Protection rating rear	5 (A)
Front protection degree	IP 40
Rear protection degree	IP 20
Radio interference	VDE 0875/0871
Output contacts	Potential-free contacts

(1) *Type PT1000 sensors (SIH 002 – SAB 002 – SAE 002 – STA 002) are passive elements that must be connected to specific terminals of module PEC 442 or ESP 442 (refer to the wiring diagram)*

ESP 442

EXPANSION MODULE (UI-T°-DO)

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Panel casing for 4 modules applicable to DIN
4	Relay output 230V, 5A, Surge Protection
4	Digital input
2	Inputs for temperature sensor PT1000
1	Bus RS485 (Modbus)

ACCESSORIES

SAB 002
PT 1000 room temperature sensor

STA 002
PT 1000 air channel temperature sensor

SAE 002
PT 1000 outdoor temperature sensor

SIH 002
PT 1000 immersion temperature sensor

STH 001
Immersion high temperature sensor

STF 001
Flue gas temperature sensor

ALM 1210
DIN 12V-10W bar power supply

ALM 1225
DIN 12V-25W bar power supply

I/O SPECIFICATIONS

1-cabletype sensors	PT1000[1] sensor	UI (digital/ analog)	DO	AO (0-10 V)
0	2	4	4	0

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – 45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module panel casing class	DIN 43700
Panel casing material	Grey plastic type NORYL SE1 GFN2
Dimensions	70 x 120 x 62 (mm)
Weight	175 (g)

ELECTRICAL SPECIFICATIONS

Power supply (V)	12V DC
Maximum applicable voltage to relays	250V AC (V)
Apparent power	5 (VA)
Maximum capacity	5 (A)
Front protection degree	IP 40
Rear protection degree	IP 20
Radio interference	VDE 0875/0871
Output contacts	Potential-free contacts

(1) *Type PT1000 sensors (SIH 002 – SAB 002 – SAE 002 – STA 002) are passive elements that must be connected to specific terminals of module PEC 442 or ESP 442 (refer to the wiring diagram)*

BRG 868

BRIDGE MODULE WIRELESS

BRG 868 C

CONCENTRATOR BRIDGE WIRELESS

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Panel casing for 1 module applicable to DIN
1	12V DC power supply
1	PRS485 serial port for master connection
1	SMA type antenna connector

ACCESSORY FOR BRG 868C

ANT 868
Upgraded antenna for 868 concentrators

MECHANICAL SPECIFICATIONS

Operating temperature limits	0 – +45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module panel casing class	DIN 43700
Panel casing material	Grey plastic type NORYL SE1 GFN2
Dimensions	17 x 90 x 62 (mm)
Weight	55 (g)

ELECTRICAL SPECIFICATIONS BRG 868

Power supply	12V DC
Apparent power	5 (VA)
Front protection degree	IP 20
Rear protection degree	IP 20
Radio interference	VDE 0875/0871
Output contact	Open Collector (*)

ELECTRICAL SPECIFICATIONS BRG 868 C

Power supply	12V DC
Apparent power	5 (VA)
Front protection degree	IP 20
Rear protection degree	IP 20
Radio interference	VDE 0875/0871

(*) *The relay must use the same power supply as module BRG 868*

GPT 412

GSM/GPRS CONTROLLER

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Pump with delayed switch-on, post-circulation
2	Relays output 230V, 5A, Source Protection
1	0-10V outputs
4	Digital/counter inputs
2	Temp. sensors PT 1000
1	Real time clock
1	RS232 bus

MECHANICAL SPECIFICATIONS

One controller is able to simultaneously manage:

No.	DESCRIPTION
2	Weekly clocks (each with 10 program timing steps)
20	Holiday suspension periods (per heating circuit)
25	Non-scheduled switch-ons (per heating circuit)
1	Climate curve with three consecutive gradients, minimum and maximum supply temperature limit, correction of heating curve origin, auto-adaptation of heating curve depending on environmental regulations, optimization of switch-on/switch-off, antifreeze function based on outdoor/room temperature
2	Temperature sensors
2	Thermostats
1	Pump with delayed switch-on, post-circulation;

GENERAL FUNCTIONS

- Alarm reports via sms and/or e-mail
- GSM/GPRS modem with signal level display
- Economy based on outside temperature
- Antifreeze function
- Perpetual calendar
- Clock (solar/daylight adjusted time)
- Firmware with remote updates

hardware for adjustment

SPECIFICHE I/O

1-cable-type sensors	PT 1000 sensors	UI (digital/analog)	DI	DO	AO (0-10 V)
0	2	0	4	2	1

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – 45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module container class	DIN 43700
Panel casing material	Grey plastic type NORYL SE1 GFN2
Dimensions	52.5 x 120 x 62 (mm)
Weight	150 (g)

ELECTRICAL SPECIFICATIONS

Power supply (V)	12V DC
Maximum possible voltage to relays (V)	250V AC
Apparent power	5 (VA)
Maximum current	5 (A)
Front protection rating	IP 40
Rear protection rating	IP 20
Radio interference	VDE 0875/0871
Output contacts	Potential free

CST 800

SENSOR CONCENTRATOR

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Container with 3 modules suitable for DIN rail
8	Inputs for PT1000 temperature sensors
1	RS485 bus for connection of expansion modules (Modbus RS485)

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – +45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module container class	DIN 43700
Panel casing material	Grey plastic type NORYL SE1 GFN2
Dimensions	52.5 x 120 x 62 (mm)
Weight	90 (g)

ELECTRICAL SPECIFICATIONS

Power supply	12V DC
Apparent power	5 (VA)
Front protection rating	IP 40
Rear protection rating	IP 20

MAS ..../T

REMOTE CONTROLLED THERMOSTATIC MIXING VALVE

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Valve
1	Actuator
1	Controller and temperature sensor

CONTROLLER MECHANICAL SPECIFICATIONS

Setting range	30 ... 70 °C
Room temperature	operation: 0...55 °C storage: -20...60 °C
Ambient humidity class	F DIN 40040
Protection	IP 54
Materials	Lower base: nylon 66 Upper cup: polycarbonate

ELECTRICAL SPECIFICATIONS

Power supply	230V AC ±10%
Frequency	50 Hz
Rotation angle	90°
Run time for 90°	30 seconds
Consumption	6 VA

VALVE MECHANICAL SPECIFICATIONS

Test pressure	1000 kPa (10 bar)
Operation pressure	600 kPa (6bar)
Maximum differential pressure	600 kPa (6bar)
Fluid temperature	5 ... 99 °C
Materials	
Valve body	OT58 nickel-plated brass
Ball	OT58 thick chrome -plated brass
Shaft	OT58 brass (UNI5705)
Ball seal	PTFE (teflon)
Shaft seal	O-Ring in viton

MDM 232

MODEM GSM/3G

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Container with 1 module applicable to DIN rail
1	Digital input for sending alarms (sms and/or e-mail)
1	RS232 serial port)
1	Signalling LED
1	Slot for inserting the SIM card

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – 45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module container class	DIN 43700
Panel casing material	Grey plastic type NORYL SE1 GFN2
Dimensions	17.5 x 90 x 62 (mm)

ELECTRICAL SPECIFICATIONS

Power supply	12V DC
Apparent power	5 (VA)
Front protection rating	IP 40
Rear protection rating	IP 20
Radio interference	VDE 0875/0871

MDM 001

DESKTOP MODEM WITH ANTENNA AND USB PORT

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Terminal block adapor RS 232 9 pin / USB

GENERAL SPECIFICATIONS

UMTS five-band: Bande 800, 850, 900, 1900 and 2100 MHz	
GSM quad-band: Bande 850, 900, 1800 and 1900 MHz	
Operating temperature	-30 – +65 (°C)
Weight	130 g
Dimensions	115 x 86 x 26 (mm)

ELECTRICAL SPECIFICATIONS

Supply voltage range	8- 30 V

CDP 120
CDP 180

MBUS/MODBUS CONVERTER 2 AND 8 DEVICES

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Panel casing for 1 DIN modules
1	RS 232 serial port
1	Signalling LEDs

ELECTRICAL SPECIFICATIONS

Power supply	24 V
Apparent power	1 (VA)
Protection	IP 20

ADF 485

MODBUS TCP SLAVE/MODBUS MASTER CONVERTER

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	35 mm panel casing for 3 DIN modules
1	RS 232 serial port
1	Signalling LEDs

ELECTRICAL SPECIFICATIONS

Power supply	8 ... 24 V AC 12 ...35 V DC
Apparent power	3.5 (VA)

STE 000

CONVERTER RS 232 – ETHERNET

HARDWARE SPECIFICATIONS

Serial
RS232 - da 300 bps a 230400 bps

Protocols
TCP, UDP, IP, ICMP, ARP, Ethernet, TELNET TFTP, DHCP, PPPoE, DNS, DDNS

Network interface
RJ45 10/100Base-T Ethernet, auto MDI/MDX

Security filter on IP and MAC

ACCESSORIES

ALM 1510
DIN rail power supply 5V...10W

OPERATIONAL SPECIFICATIONS

Supports UDP and TCP protocols, in Client or Server mode. Equipped with one serial port with DB9 male connector

MECHANICAL SPECIFICATIONS

Industrial temperature limits	-40 – +85 (°C)
Dimensions	87 x 57 x 24 (mm)
Weight	70 (g)

ELECTRICAL SPECIFICATIONS

Power supply	5V

SAB 002

ROOM TEMPERATURE SENSOR

HARDWARE SPECIFICATIONS

No.	DESCRIPTION
1	Container 80 x 80 (mm)
1	Bracket for wall mounting

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – +50 (°C)
Storage temperature limits	-25 – +50 (°C)
Temperature measurement accuracy PT1000	±1.3 °C from -10 to +75 °C
Ambient humidity class	–
Module container class	IP 30
Container material	Self-extinguishing ABS UL 94 V0
Dimensions	80 x 80 x 25 (mm)
Weight	100 (g)

STA 002

AIR-DUCT TEMPERATURE SENSOR PT 1000

TECHNICAL DATA

Module container class	IP 54
Temperature measurement accuracy	±1.3 °C da -10 a +75 °C
Installation	in air duct
Temperature range	-20 … +100 °C
Construction regulations	IEC
Weight	350g

SAE 002

OUTSIDE TEMPERATURE SENSOR PT 1000

TECHNICAL DATA

Module container class	IP 54
Temperature measurement accuracy	±1,3 °C from -10 to +75 °C
Temperature range	-20 … +40 °C
Construction regulations	IEC

SIH 002
SIH 001W(*)

IMMERSION SENSOR

TECHNICAL DATA

Module container class	IP 54
Temperature measurement accuracy PT 1000	±1.3°C from -10 to +75°C
Temperature measurement accuracy 1W	± 0.5°C from -10 to +85°C
Temperature range	-20 … +100 °C
Construction regulations	IEC

(*) *The SIH 001W sensor is able to acquire and transmit temperature values to regulating control units (YLC 880) via 1-cable-type Bus*

SAF 002
SAF 001W(*)

CABLE-TYPE TEMPERATURE SENSOR

TECHNICAL DATA

Cable length	1.5 meters
Temperature measurement accuracy PT 1000	±1.3°C from -10 to +75°C
Temperature measurement accuracy 1W	± 0.5°C from -10 to +85°C
Temperature range PT 1000	-40 ... +150 (°C)
Temperature range 1W	-55 ... +125 (°C)
Construction regulations	IEC

(*) *The SAF 001W sensor is able to acquire and transmit temperature values to regulating control units (YLC 880) via 1-cable-type Bus.*

SAE 420

OUTSIDE DIGITAL SENSOR MODULATION IN CURRENT

HARDWARE SPECIFICATIONS

1 Container
88 x 88 x 45 (mm)
1 Wall mounting
1 Screw terminal

TECHNICAL DATA

Module container class	IP 54
Temperature measurement accuracy	± 0.5°C from -20 to +80°C
Temperature range	-20 … +40 °C
Construction regulations	IEC

CSW 868

WIRELESS SENSOR RECEIVER

HARDWARE SPECIFICATIONS

1 Panel casing for 1 module applicable to DIN
1 12V DC power supply
1 PRS485 serial port for master connection
1 SMA type antenna connector

ACCESSORY

ANT 868
Upgraded antenna for 868 concentrators

MECHANICAL SPECIFICATIONS

Operational temperature limits	0 – 45 (°C)
Storage temperature limits	-25 – +60 (°C)
Ambient humidity class	F DIN 40040
Module container class	DIN 43700
Panel casing material	Grey plastic type NORYL SE1 GFN2
Dimensions	17 x 90 x 62 (mm)
Weight	55 (g)

ELECTRICAL SPECIFICATIONS

Power supply (V)	12V DC
Apparent power	5 (VA)
Front protection rating	IP 20
Rear protection rating	IP 20
Radio interference	VDE 0875/0871

THP 868

WIRELESS SENSOR

THP 868 wireless humidity/temperature sensor

HARDWARE SPECIFICATIONS

1 Container 80 x 80 (mm)
1 Acquisition button
1 Internal RTC
1 Indicator LED
1 Micro-USB port for data logger download
1 Built-in antenna
1 Bracket for wall mounting

MECHANICAL SPECIFICATIONS

Operational temperature limits	-1 – +50 (°C)
Storage temperature limits	-25… +50 (°C)
Ambient humidity	-20%-80% non-condensing
Module container class	IP 30
Container material	self-extinguishing ABS UL 94 V0
Dimensions	80 x 80 x 25 (mm)
Weight	100 (g)

ELECTRICAL SPECIFICATIONS

Power supply	2 AA lithium batteries
Duration of batteries (*)	Approximately 7 years (with transmissions every 15 min.)
Operating power bands	868.0 – 868.6 MHz (Subclass 28) 868.7 869.2 MHz (Subclass 29)
Transmission power	From 1.5 mW to 25 mW
Outdoor distance	5 Km
Temperature measurement accuracy	± 0,2 °C
Temperature range	- 5 °C / +50 °C
Humidity measurement accuracy	± 3% RH
Humidity measurement range	0% - 100% RH
Data transmission range	From 2 minutes to 60 minutes
Front protection rating	IP 30
Rear protection rating	IP 30
Device class	Class 1

(*) *Dependent on the difficulty of radio connection*

STT 868H
STU 868H

WATERTIGHT WIRELESS SENSORS

HARDWARE SPECIFICATIONS

1 Container
105 x 105 x 55 (mm)
1 Acquisition button
1 Built-in antenna
1 Bracket for wall mounting

MECHANICAL SPECIFICATIONS

Operational temperature limits	-20 – +50 (°C)
Storage temperature limits	-25… +50 (°C)
Ambient humidity class	-
Module container class	IP 55
Container material	GWT technopolymer (Halogen Free material)
Dimensions	105 x 105 x 55 (mm)
Weight	205 (g)

ELECTRICAL SPECIFICATIONS

Power supply (V)	3 AA lithium batteries
Duration of batteries (*)	Approximately 7 years (with transmissions every 15 min.)
Transmission frequency	Banda ISM 868 Mhz
Transmission power	From 1.5 mW to 25 mW (automatically controlled))
Outdoor distance	5 Km
Transmission frequency	± 0,2 °C
Temperatura range	- 20 °C / +50 °C
Humidity measurement accuracy	± 3% RH
Humidity measurement range	0% - 100% RH
Measurement interval	From 2 minutes to 60 minutes
Front protection rating	IP 55
Rear protection rating	IP 55
Radio interference	VDE 0875/0871

Note

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PERSONAL AUTOMATION

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ABANO TERME
EDOLO
NOVI LIGURE