energía inteligente

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# $70_{\text {Years }}$ OF ENERGY 

Always with you, innovaling every day

More than 600 products, with the largest multi-specialist offer in the electrical installation, measuring, renewable energies, home automation, pubic lighting and industry sectors. Integrated with powerful data management tools and connectivity of products on the Internet, applications and systems.

Our motto, "energía inteligente", embodies a firm commitment to sustainability, management and energy efficiency, and an industrial culture and offering of "connected" products in systems and applications integrated with industry 4.0 environments, augmented reality, artificial intelligence (AI), smart cities or the Internet of Things (IOT)/energy applications).


## QUALITY

The experience we have gained over the past 72 years and our powerful own engineering allow us to manage and control the development of our products, from the design and manufacture of components to assembly and laboratory checks.

All the above, along with exhaustive company and product audits, allows us to certify conformity with European and international quality and safety standards, thus achieving a higher grade of customer satisfaction.

## SERVICE

We work hard to ensure the functionality of our products, information and training.

We maintain a "direct line" with our engineering department via diverse channels such as product promoters, on-site technical and telephone assistance and our websites, orbis.es and energiainteligente.com. If you prefer, you can follow us on Facebook, Instagram and Linkedln where we provide information on forthcoming events, projects and new products.


## INTERNATIONAL PRESENCE

During these 72 years we have manufacture over 25 million products, installed in more than 60 countries. We have consolidated our brand through our four production centres in Europe, which distribute electrical material to more than 100 importers, distributors and collaborators across the world. We have our own offices in Spain, Italy and Germany.

Above all, thanks to the trust and loyalty of our customers and our dedicated, highly qualified, committed staff, we are one of the top European manufacturers of products and services for the energy management and efficiency industry.


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## TIME PROGRAMMING

## ANALOGUE TIME PROGRAMMERS

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## USES AND APPLICATIONS

Designed to monitor the operation schedule of machines and systems according to the production or service needs. There are numerous examples of installations where they can provide both convenience and energy efficiency:

- Irrigation of parks, gardens or sports grounds.
- Preheat of hydraulic accumulators in dwellings, offices or gyms.
- Alternation of water pumps.
- Heating or air conditioning machines in buildings.
- Automatic feeding systems in farms.
- Ventilation in factories and garages.
- Activation/deactivation of access barriers and doors
- Shift change sirens in schools and factories.
- Control of lightning and purification in swimming pools.
- Preheating of water for coffee machines in bars and restaurants.
- Start-up of resistors or fans in industrial machinery.
- Programming of radiators and accumulators with night rate.



## Coffe machines preheat

In coffee shops, bars and restaurants, the water in the coffee machine needs to be heated in order to be able to serve coffee to customers at the moment when store is open.

SUPRA can perform this task and turn it off during the business closing hours to avoid that the machine is on all night.


Lighting and purification in swimming pools
DATA MULTI ANUAL allows the control of up to 4 circuits with different schedules. For example, in a house with garden and a swimming pool we can associate each of the four outputs to: purifying pump, internal pool lighting, garden lighting and irrigation system.


Preheating of machinery
Some industrial machines need to be connected for their heating before operating at full capacity, for example welding machines, sealing machines, hot presses, liquid or steam machinery, etc. For its versatility, MINI T can be installed both on DIN rail and in the door of the electrical cabinet or in the machine itself so it is accessible to the operator.


## Shift change in chools and factories

To indicate the entrance and exit times in classrooms or workstations, we can perform to pulse programming through DATA LOG and its programming via App for mobile phones. It also allows us to cancel the siren activation during holiday periods.


## ANALOGUE

- Easy programming through movable safety tappets.
- Daily or weekly programming versions to perform different programs depending on the day of the week.
- Models with replaceable backup battery that, in the event of to power cut, guarantees the operation of the clock and avoids having to reprogram it when power is restored.

- Sealable cover to avoid unwanted handling and protect the sphere from dust and dirt.
- They have to manual switch that allows their permanent activation/deactivation ignoring the set programming. Very useful in summer or holiday periods when we wish to cancel the timer. It also allows voluntary switch-ons to check the operation of the installation or machinery.



## DIGITAL

- They allow daily, weekly or monthly programming.
- There are versions of one or two channels for the independent control of circuits (e.g. lightning and irrigation, heating and lighting).
- Pulse programming from 1 second for siren rings in schools or factories, and cycle programming for alternation of water pump equipment or CO extraction periods in garages.
- Possibility of setting special or holiday programs between two dates for seasonal applications, such as agricultural, fairgrounds, ski resorts or according to the installation's activity.
- Random switch-ons for presence simulation in empty facilities or dwellings.
- Keypad lock with PIN code to avoid unauthorised handling.
- Automatic winter/summer seasonal time change.
- Operation hours meter to plan cleaning and maintenance tasks in installations and machinery (e.g. belt replacement, cleaning of filters, etc.)
- The DATA LOG models have replaceable battery with up to 10 years backup memory.
- Easy programming guided by text menus available in different languages.
- Large backlit screen of clear display that allows for programming even at night without to torch
- The DATA LOG series can be programmed from mobile phone or tablet via the BLUETOOTH DONGLE accessory and the download of the application developed for iPhone or Android.


## INSTALLATION



## DIN RAIL

Inside electrical cabinets on standardised DIN profile $35 \mathrm{~mm} \times 7.5 \mathrm{~mm}$ according to EN 50022 .


## PLUGGABLE

Quick and direct wiring in electrical outlet with no need of carrying out works, perfect for houses and offices.


## SURFACE

On wall or board with screws and powered through cable track.


## FLUSH MOUNTING

Performing to mortising at the door of the electrical cabinet so that it is accessible and operable.


INDUSTRIAL
Designed for their integration in any type of machine.

## ANALOGUE TIME PROGRAMMERS／MODULAR

## UNO

－One module width： 17.5 mm ．
－Single contact．
－Replaceable battery．

## Description

－Installation on DIN rail，one module wide（ 17.5 mm ．）．
－Its small size allows mounting in existing cabinets with little space available．
－Lateral sphere easy to program by movable tappets．
－Models with backup battery available（＝ 150 h replaceable）．
－Switch for manual control with three positions：automatic，and permanent on／off．Particularly useful to cancel existing programming during holiday periods．
－Sealable clear window to avoid unauthorised handling．
－Minimum operation time for the daily model 15 minutes and 2 hours for the weekly model．
－Accessories：Battery NiMH 1.2 V type V80H（ref．54225），surface box 2 modules（OB140601）．

## Technical specifications

－Power supply： $12,24,48,120$ or 230 V a．c．， $50-60 \mathrm{~Hz} ; 12,24,48 \mathrm{~V}$ d．c．
－Simple contact NO
－Switching capacity $16(4) \mathrm{A} 250 \mathrm{~V}$ a．c．
－Operating temp．：$-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
－Protection degree：IP20 according to EN 60529
Max．Recomm．Load

－Max．cross section： 4 mm²
－Quality marks：VDE／ENEC10

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Code | Reference | Programming | Battery back up |
| OB400132 | UNO D＿230 V a．c．， $50-60 \mathrm{~Hz}$ | Daily $/ 15$ min | No |
| OB400232 | UNO QRD＿230 V a．c．， $50-60 \mathrm{~Hz}$ | Daily $/ 15$ min | 150 h |
| OB400432 | UNO QRS＿230 V a．c．， $50 / 60 \mathrm{~Hz}$ | Weekly $/ 2 \mathrm{~h}$ | 150 h |

## INCA DUO

－Two modules width．
－Changeover contact．
－Battery back－up＋100h．

## Description

－Installation on DIN rail，two modules wide（ 35 mm ．）．
－Lateral sphere easy to program by movable tappets．
－Models with backup battery available（＝ 100 h ）．
－Switch for manual control with two positions：automatic and permanent．
－Sealable clear window to avoid unauthorised handling．
－Minimum operation for the daily model 15 minutes and 2 hours for the weekly model．
－Accessories：Surface box 2 modules（OB140601）．

## Technical specifications

－Power supply： $12,24,120$ or 230 V a．c．， $50-60 \mathrm{~Hz} ; 12,24,48 \mathrm{~V}$ d．c．
－Change over contact
－Switching capacity： 16 （4）A to 250 V a．c．
－Operating temp．：$-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
－Protection degree：IP 20 according to EN 60529
－Max．cross section： 4 mm²

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Code | Reference | Programming | Battery back up |
| OB330132 | INCA DUO D＿230 V a．c． $50 / 60 \mathrm{~Hz}$ | Daily $/ 15 \mathrm{~min}$ | No |
| OB330232 | INCA DUO QRD＿230 V a．c． $50 / 60 \mathrm{~Hz}$ | Daily $/ 15 \mathrm{~min}$ | 100 h |
| OB330432 | INCA DUO QRS＿230 V a．c． $50 / 60 \mathrm{~Hz}$ | Weekly $/ 2 \mathrm{~h}$ | 100 h |

Max．Recomm．Load

| \％ | 3000 W |
| :---: | :---: |
|  | 1200 |
|  | 2000 VA |
| 止 | 3000 W |
| 吅 $\triangle$ | 1000 |
| ＝ | 900 |
| \％2 | 100 |



## DUO

- Front dial for easy programming.
- Daily / 30 min., Weekly / 3.5 h .
- Changeover output and replaceable battery.


## Description

- Installation on DIN rail, two modules wide ( 35 mm .).
- Front sphere easy to read and program.
- Models with backup battery available (= 150 h . replaceable).
- Switch for manual control with three positions: automatic, and permanent on /off. Particularly useful to cancel existing programming during holiday periods.
- Sealable clear window to avoid unauthorised handling.
- Minimum operation time for the daily model 30 minutes and 3.5 hours for the weekly model.
- Accessories: Battery NiMH 1.2 V type V80H (ref. 54225), surface box 2 modules (0B140601).


## Technical specifications

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz}$; Inquire about other voltages
- Change overcontact
- Switching capacity: 16 (4) A to 250 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²
- Quality marks: VDE / ENEC10

| Code | Reference | Programming | Battery back up |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| OB291032 | DUO D_230 V a.c., 50 Hz | Daily / 30 min | No |  |  |
| OB292032 | DUO QRD_230 V a.c., $50-60 \mathrm{~Hz}$ | Daily / 30 min | 150 h |  |  |
| OB293032 | DUO QRS_230 V a.c., $50-60 \mathrm{~Hz}$ | Weekly / 3.5 hours | 150 h |  |  |

## SUPRA

- Front dial for easy programming.
- Daily / 15 min., Weekly / 2h.
- Changeover contact and replaceable battery.


## Description




- Installation on DIN rail, two modules and a half wide ( 44 mm .).
- Front sphere easy to read and program.
- Models with backup battery available (= 150 h . replaceable).
- Switch for manual control with three positions: automatic, and permanent on/off. Particularly useful to cancel existing programming during holiday periods.
- Sealable clear window to avoid unauthorised handling.
- Minimum operation time for the daily model 15 minutes and 2 hours for the weekly model.
- Accessory: Battery NiMH 1.2 V type V80H (ref. 54225).


## Technical specifications

- Power supply: $12,24,120$ or 230 V a.c., $50-60 \mathrm{~Hz} ; 12,24,48 \mathrm{~V}$ d.c.
- Change overcontact
- Switching capacity: 16 (4) A to 250 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

| Code | Reference | Programming | Battery back up |
| :--- | :--- | :--- | :--- |
| OB290132N | SUPRA D_230 V a.c., $50-60 \mathrm{~Hz}$ | Daily $/ 15 \mathrm{~min}$ | No |
| OB290232N | SUPRA QRD_230 V a.c., $50-60 \mathrm{~Hz}$ | Daily $/ 15 \mathrm{~min}$ | 150 h |
| OB290332N | SUPRA QRS_230 V a.c., $50-60 \mathrm{~Hz}$ | Weekly $/ 2 \mathrm{~h}$ | 150 h |

Max. Recomm. Load

| \% | 3000 W |
| :---: | :---: |
| $\square \square$ | 1200 VA |
| $\bigcirc$ | 2000 VA |
| (1+) | 3000 W |
| 叫 | 1000 VA |
| = | 900 VA |
| (1) $_{\text {上о }}$ | 200 VA |

## ANALOGUE TIME PROGRAMMERS / SURFACE / PANEL / DIN



## CRONO

- Panel, DIN rail and surface mounting.
- Double sphere versions have two changeover contacts.
- Faston connections for panel mounting.


## Description

- Installation on DIN rail, surface or built in ( $65 x 65 \mathrm{~mm}$ ).
- Models with double programming sphere for two independent circuits. E.g. Lighting and irrigation in a garden or start up of a machine and its heating resistors, both operations from the same time switch.
- Versions with double sphere have two changeover contacts for programming: daily-daily or daily-weekly.
- Front sphere easy to program by movable tappets.
- Sealable clear window to avoid unauthorised handling.
- Models with backup battery available ( $\geq 100 \mathrm{~h}$.).
- Faston Connections $4.8 \times 0.5 \mathrm{~mm}$ for built-in mounting in the electrical cabinet door


## Technical specifications

- Power supply: 12, 24, 48, 120 ó 230 V a.c.; 12, 24, 48 V d.c.
- Nominal frequency: $50-60 \mathrm{~Hz}$
- Type of contact: Changeover
- Switching capacity: 16 (4) A / 250 V a.c.

Max. Recomm. Load


1000 W

- Degree of protection: IP20 according EN 60529
- Wire cross section: $4 \mathrm{~mm}^{2}$
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}$

| Code | Reference | Programming | Battery back up |
| :--- | :--- | :--- | :--- |
| OB050523 | CRONO D 230 V a.c., $50-60 \mathrm{~Hz}$ | Daily $/ 15$ min | No |
| OB050623 | CRONO QRD 230 V a.c., $50-60 \mathrm{~Hz}$ | Daily $/ 15 \mathrm{~min}$ | 100 h |
| OB050823 | CRONO QRD 230 V a.c., $50-60 \mathrm{~Hz}$ | Daily-Daily $/ 15-30$ min | 100 h |
| OB051023 | CRONO QRS 230 V a.c., $50-60 \mathrm{~Hz}$ | Weekly $/ 2 \mathrm{~h}$ | 100 h |
| OB051223 | CRONO QRSD 230 V a.c., $50-60 \mathrm{~Hz}$ | Weekly - Daily/2 $\mathrm{h}-30$ min | 100 h |



## ALPHA

- Installation on DIN rail, surface or built in (72x72 mm.).
- Front dial for easy programming.
- Faston connections for panel mounting.


## Description

- Front sphere easy to program by movable tappets.
- Switch for manual control with three positions: automatic,and permanent on/off. Particularly useful to check the operation of the machine or installation.
- Models with backup battery available (= 100 h .).
- Minimum operation time for the daily model 15 minutes and 2 hours for the weekly model.
- Faston Connections $6.3 \times 0.8 \mathrm{~mm}$. for built-in mounting in the electrical cabinet door.


## Technical specifications

- Power supply: $12,24,48,120$ or 230 V a.c., $50-60 \mathrm{~Hz} ; 12,24,48 \mathrm{~V}$ d.c.
- Change over contact
- Switching capacity: 16 (4) A to 250 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Code | Reference | Programming | Battery back up |
| OB270023 | ALPHA D_230 V a.c., 50-60 Hz | Daily $/ 15$ min | No |
| OB270123 | ALPHA QRD_230 V a.c., $50-60 \mathrm{~Hz}$ | Daily $/ 15$ min | 100 h |
| OB270323 | ALPHA QRS_230 V a.c., $50-60 \mathrm{~Hz}$ | Weekly $/ 2 \mathrm{~h}$ | 100 h |

Max. Recomm. Load


## MINI

- DIN rail and surface mounting.
- Front dial for easy programming.
- Sealable.


## Description

- Installation on DIN rail or surface.
- Front sphere easy to program by movable tappets.
- Models with backup battery available (= 150 h . replaceable).
- Switch for manual control with three positions: automatic, and permanent on/off.
- Sealable window and terminals cover to avoid unauthorised handling.
- Models with backup battery available (= 100 h .).


## Technical specifications

Max. Recomm. Load

- Power supply: 24,120 or 230 V a.c., $50-60 \mathrm{~Hz} ; 12,24 \mathrm{~V}$ d.c.
- Contact: Changeover
- Switching capacity: 16 (4) A 250 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 51 mounted on surface according to EN 60529; IP 20 mounted on DIN rail
- Max. cross section: 4 mm²

| Code | Reference | Programming | Battery back up | (\%) ${ }_{\text {Led }}$ |
| :---: | :---: | :---: | :---: | :---: |
| OB250132 | MINI D_230 V a.c., $50-60 \mathrm{~Hz}$ | Daily / 15 min | No |  |
| OB250232 | MINI QRD_230 V a.c., $50-60 \mathrm{~Hz}$ | Daily / 15 min | 100 h |  |
| OB251332 | MINI QRS_230 V a.c., $50-60 \mathrm{~Hz}$ | Weekly / 2 h | 100 h |  |

## MINI T

- Panel (72 x 72 mm.), DIN rail and surface mounting.
- New compact design.
- Front dial for easy programming.


## Description

- Installation on DIN rail, surface or built in ( $66 \times 66 \mathrm{~mm}$.).
- Compact design and installation base with pre-cuts for power supply through cable track or tube when installed on surface.
- Front sphere easy to program by movable tappets.
- Switch for manual control with three positions: automatic,and permanent on/off.
- Models with backup battery available (= 100 h .).
- Faston Connections $6,3 \times 0,8 \mathrm{~mm}$. for built-in mounting in the electrical cabinet door.


## Technical specifications

- Power supply: 12, 24, 120 or 230 V a.c., $50-60 \mathrm{~Hz} ; 12,24 \mathrm{~V}$ d.c.
- Contact: Changeover
- Switching capacity: 16 (4) A to 250 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

| Code | Reference | Programming | Battery back up |
| :--- | :--- | :--- | :--- |
| OB251032 | MINI T D_230 V a.c., 50-60 Hz | Daily $/ 15$ min | No |
| OB251232 | MINI T QRD_230 V a.c., 50-60 Hz | Daily $/ 15$ min | 100 h |
| OB251232 | MINI T QRS_230 V a.c., $50-60 \mathrm{~Hz}$ | Weekly $/ 2 \mathrm{~h}$ | 100 h |

Max. Recomm. Load


## ANALOGUE TIME PROGRAMMERS / INDUSTRIAL



## SINCRO 341 / 351

- Designed for industrial machinery
- Configurable specifications: connection, colors, etc.


## Description

- Design for installation in machinery and electrical equipment such as heating or ventilation systems, water pumps, etc.
- Different options of timing, fixing, type of contact, etc.
- Front sphere easier to read and program.
- Faston Connections $6.3 \times 0.8 \mathrm{~mm}$.
- Embedded or surface mounting.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10$ \%
- Switching capacity: 16 (4) A/ 250 V a.c.
- Degree of protection: IP20 according to EN 60529
- Operating temperature: $0^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Code | Reference | Programming | Manual Switch | Contact | Colour | Fixing |
| OB284101 | SINCRO $341.124 .8 .000 \_230 \mathrm{~V}$ a.c.; 50 Hz | Daily $/ 30 \mathrm{~min}$ | $\checkmark$ | NO | O | Front/Base |
| OB284103 | SINCRO $341.498 .8 .000 \_230 \mathrm{~V}$ a.c.; 50 Hz | Daily $/ 30 \mathrm{~min}$ | $\checkmark$ | NO/NC | $\bullet$ | Front / Base |
| OB280424 | SINCRO $351.001 \_230 \mathrm{~V}$ a.c., 50 Hz | Weekly $/ 2 \mathrm{~h}$ | $\checkmark$ | NO/NC | $\bullet$ | Front / Base |

SINCRO 346 / 356

- Designed for industrial machinery.
- Configurable specifications: connection, colors, etc.


## Description

- Design for installation in machinery and electrical equipment such as heating or ventilation systems, water pumps, etc.
- Different possibilities of timing, fixing, type of contact, etc.
- Front sphere easier to read and program.
- Faston Connections $6.3 \times 0,8 \mathrm{~mm}$.
- Embedded or surface mounting.


## Technical specifications

- Power supply: 110 / 230 V a.c. $\pm 10$ \%
- Switching capacity: 16 (4) A / 250 V a.c.
- Degree of protection: IP20 according to EN 60529
- Operating temperature: $0^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

| Code | Reference | Programming | Manual Switch | Contact | Colour | Fixing |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB280408 | SINCRO 346.001.8.000_230 V a.c., 50 Hz | Daily 30 min | X | NO | - | Front |
| OB280471 | SINCRO 346.034.8.000_230 V a.c., 50 Hz | Daily 30 min | $\checkmark$ | NO | $\bigcirc$ | Base |
| OB284659 | SINCRO 346.046.8.000_230 V a.c., 50 Hz | Daily 30 min | $\checkmark$ | NO | - | Base |
| OB280421 | SINCRO 346.066.8.000_230 V a.c., 50 Hz | Daily 30 min | $x$ | NO | $\bigcirc$ | Base |
| OB2834615 | SINCRO 346.253.8000_230 V a.c., 50 Hz | Daily 15 min | X | Changeover | $\bigcirc$ | Front |
| OB284614 | SINCRO 346.602.8.000_230 V a.c., 50 Hz | Start $60 \mathrm{~min} / \mathrm{Stop} 5 \mathrm{~min}$ | $x$ | Changeover | $\bigcirc$ | Front |
| OB284643 | SINCRO 346.606.8.000_230 V a.c., 50 Hz | Start 5,45h/Stop 5 min | $x$ | Changeover | $\bigcirc$ | Base |
| OB284602 | SINCRO 346.815.8.000_230 V a.c., 50 Hz | Countdown 150 min | $\checkmark$ | NO | $\bigcirc$ | Front |
| OB284628 | SINCRO 346.818.8.000_230 V a.c., 50 Hz | Countdown 60 min | X | NO | $\bigcirc$ | Front |
| OB284632 | SINCRO 346.830.8.000_230 V a.c., 50 Hz | Countdown 150 min | $x$ | NO | $\bigcirc$ | Front |
| OB284660 | SINCRO 346.840_230 V a.c., 50 Hz | Countdown 150 min | $x$ | NO | $\bigcirc$ | Front |
| OB284635 | SINCRO 346.842.8.000_230 V a.c., 50 Hz | Countdown 15 h | $X$ | NO | $\bigcirc$ | Frontal/Base |
| OB280473 | SINCRO 356.038.8.000_230 V a.c., 50 Hz | Weekly $1,45 \mathrm{~h}$ | $\checkmark$ | NO | - | Front |

## MODUL

- Surface mounting $60 \times 60 \mathrm{~mm}$.
- Configurable with or without manual switch, with or without clock hands.
- Daily and weekly versions.


## Description

- Surface mounting with fixing screws.
- Front sphere easy to program by movable tappets.
- Manual control switch with three positions: automatic, on and permanent off.
- Daily programming of 15 minutes and 2 hours for weekly models.
- Configurable with or without manual switch, with or without clock hands.
- Models with backup battery available (= 100 h .).
- Faston Connections $6,3 \times 0,8 \mathrm{~mm}$.


## Technical specifications

Max. Recomm. Load


## ANALOGUE TIME PROGRAMMERS / ELECTRICAL BOX



## ILUMATIC

- Analogic programmer for flush mounting in electrical box of $65 \times 65 \mathrm{~mm}$.
- Daily (D) or weekly (S) version.


## Description

- Programmer for mounting in installation box of $65 \times 65 \mathrm{~mm}$.
- In just a few minutes we can replace the existing manual switch with this programmer for indoor or outdoor lighting, preheating of water heaters, access doors, coffee machines, etc.
- Switch for manual control with three positions: automatic, on and permanent off. Particularly useful for
- canceling existing programming during vacation periods.
- In ILUMATIC 248, the manual control is independent from the programming sphere.
- In ILUMATIC 348, the manual control is in the programming sphere.
- Minimum operation for the daily model 30 minutes and 1 h .45 min. for the weekly model.
- Accessory: Surface box $65 \times 65 \mathrm{~mm}$. (0B280450).


## Technical specifications

- Power supply: 230 Va.c., 50 Hz
- Switching capacity: Models 248/258: 6(2) A / 230 V a.c. / Models 348/358: 10(4) A / 230 V a.c.
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529


## Max. Recomm. Load <br> 200 W $=250 \mathrm{VA}$ $=2$

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Code | Reference | Programming | Switching capacity | Manual Control |
| OB1618248 | ILUMATIC 248 D-30_230 V a.c., 50 Hz | Daily $/ 30 \mathrm{~min}$ | $6(2) \mathrm{A} / 230 \mathrm{~V}$ a.c. | Independent |
| OB1618348 | ILUMATIC $348 \mathrm{D}-30 \_230 \mathrm{~V}$ a.c., 50 Hz | Daily $/ 30 \mathrm{~min}$ | $10(4) \mathrm{A} / 230 \mathrm{~V}$ a.c. | In the sphere |
| OB1628258 | ILUMATIC $258 \mathrm{~S}-1,45$ h_230 V a.c., 50 Hz | Weekly $/ 1,45$ hours | $6(2) \mathrm{A} / 230 \mathrm{~V}$ a.c. | Independent |
| OB285803 | ILUMATIC $358 \mathrm{~S}-1,45$ h_230 V a.c., 50 Hz | Weekly $/ 1,45$ hours | $10(4) \mathrm{A} / 230 \mathrm{~V}$ a.c. | In the sphere |

## ANALOGUE TIME PROGRAMMERS / ELECTRICAL BOX

## ROLLMATIC

- Analogic programmer for flush mounting in electrical box of $65 \times 65 \mathrm{~mm}$.
- Allows the control of the rising and lowering in awnings and blinds.


## Description

- Awning and blind programmer for mounting in a $65 \times 65 \mathrm{~mm}$ installation box.
- In just a few minutes we can replace the existing switch with this easy-to-use programmer. Ideal for programming raising and lowering according to the house, office, business or school schedule.
- Switch for manual control with three positions: automatic, off or manual control.
- A second switch allows us to raise or lower the awning or blind manually.
- Minimum operation of 30 minutes.
- Accessory: Surface box $65 \times 65 \mathrm{~mm}$. (OB280450).


## Technical specifications

- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 10 (4) to 250 V a.c.
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Programming |
| OB280493 | ROLLMATIC 248 D-30, 230 V a.c., 50 Hz | Daily / 30 min |



## METRO

- Analogic programmer Daily.
- Switching capacity 16 A.
- For flush mounting in electrical box.


## Description

- Programmer for mounting in electrical box of $86 \times 86 \mathrm{~mm}$. U.K. type.
- In just a few minutes we can replace the existing manual switch with this programmer for indoor or outdoor lighting, preheating of water heaters, access doors, coffee machines, etc.
- Daily programming.
- LED pilot operation indicator.
- Switch for manual control with three positions: automatic, on and permanent off.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c. $\pm 10$ \%
- Switching capacity: $\mu 16.1$ (4) A / 230 V a.c.
- Degree of protection: IP20 according to EN 60529
- Operating temperature: $0^{\circ} \mathrm{C}$ to $35^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB284318 | METRO D 230 V a.c., 50 Hz | Indoor or outdoor lighting, preheating of water heaters, <br> access doors, coffee machines, etc. |


| - | 3500 W |
| :---: | :---: |
| $\square \square$ | 1200 VA |
| $\stackrel{3}{\square}$ | 2000 VA |
| ) | 3000 |
| 凧 | 1000 V |
|  | 900 |
| (2) | 200 |

TIME PROGRAMMING
ANALOGUE TIME PROGRAMMERS / PLUG-IN

## CONTROL



- Daily or weekly versions.
- Lateral dial.
- Schuko socket ( $4.8 \mathrm{~mm}^{2}$ ) and child protection.


## Description

- Installation pluggable in schuko outlet with ground connection (4,8 mm²).
- Lateral sphere easy to program by movable tappets.
- With child protection.
- Switch for manual control with three positions: automatic, and permanent on/off. Particularly useful to cancel existing programming during holiday periods.
- Minimum operation for the daily model 15 or 30 minutes and 1 h 45 min hours for the weekly model.


## Technical specifications

Max. Recomm. Load

- Power supply: 220-240 V a.c., 50 Hz
- Switching capacity: 16 (4) A to 250 V a.c.
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Plug-in: Type F, CEE 714, schuko

| Code | Reference | Programming |
| :--- | :--- | :--- |
| OB161533 | CONTROL D-15_230 V a.c., 50 Hz | Daily / 15 min |
| OB161532 | CONTROL D-30_230 V a.c., 50 Hz | Daily / 30 min |
| OB161632 | CONTROL S-1 h.45 min_230 V a.c., 50 Hz | Weekly /1 h 45 min |



## DOMO

- Daily or weekly version.
- Front dial for easy viewing.
- Schuko socket (4.8 $\mathrm{mm}^{2}$ ) and child protection.


## Description

- Installation pluggable in schuko outlet with ground connection (4,8 $\mathrm{mm}^{2}$ ).
- Front sphere easy to program by movable tappets.
- Daily, weekly or countdown versions.
- With child protection.
- Minimum operation for the daily model 15 or 30 minutes and 1 h 45 min hours for the weekly model.
- Switch for manual control with three positions: automatic, and permanent on/off. Particularly useful to cancel existing programming during holiday periods.


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Switching capacity: 16 (4) A to 250 V a.c.
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load



## DOMO OUTDOORS

- Weatherproof IP 24 in accordance with EN 60529.
- Daily or weekly versions.
- Schuko socket ( $4.8 \mathrm{~mm}^{2}$ ) and child protection.


## Description

- Installation pluggable in schuko outlet with ground connection ( $4.8 \mathrm{~mm}^{2}$ ).
- Front sphere easy to program by movable tappets.
- Weekly or daily versions. With child protection.
- Switch for manual control with three positions: automatic,and permanent on/off. Particularly useful to cancel existing programming during holiday periods.
- Minimum operation for the daily model 15 minutes and 1 h 45 min for the weekly model.


## Technical specifications

Max. Recomm. Load
3500 W
2250 VA
3500 W

- Operating temp.: $0^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
- Protection degree: IP 24 according to EN 60529. Plug-in: Type F, CEE 714, schuko

| Code | Reference | Programming |
| :--- | :--- | :--- |
| OB1622321 | DOMO D T-15 OUTDOORS_230 V a.c., 50 Hz, schuko | Daily / 15 min |
| OB1624321 | DOMO S T-1h45min OUTDOORS_230 V a.c., 50Hz, schuko | weekly / 1h 45 min |

DIGITAL TIME PROGRAMMERS / MODULAR


## DATA UNO

- Only 1 module wide.
- Daily (DATA UNO D) or weekly (DATA UNO S) programming.
- 1 N/O potential free contact.


## Description

- Only 1 module wide.
- Daily (DATA UNO D) or weekly (DATA UNO S) programming.
- 1 N/O potential free contact.
- Easy programming. Minimum switching time 30 minutes.
- Copy/paste program function. Manual override.
- Backlit display.
- Display of operating schedule and relay status.
- Low battery indicator. Replaceable battery.
- Automatic DST change according to the geographical zone.


## Technical specifications

- Power supply: 230 V a.c. (- $15 \% .+10 \%$ )
- Nominal frequency: 50 / 60 Hz
- Power consumption: 1 W (5,5 VA)
- Power reserve: 4 years (Lithium battery CR1632)
- Switching capacity: $16 \mathrm{~A} / 250 \mathrm{~V}$ a.c.
- LCD: backlighting display
- Minimum switching time: 30 min
- Number of circuits: 1 (potential free)
- Number of programs:

| Max. Recomm. Load |  |
| :---: | :---: |
| \% | 2000 W |
| ]: | 250 VA |
| 号 | 1000 VA |
|  | 2000 W |
| 畍 | 200 VA |
| = | 200 VA |
| $\bigcirc^{\circ} \mathrm{LE}$ | 25 VA |

- DATA UNO D: 1 (DAILY)
- DATA UNO S: 7 (WEEKLY)
- DST changes: Automatic according to the geographical zone
- Degree of protection: IP 20 according to EN 60529
- Operating temperature: $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Programming |
| OB178512 | DATA UNO D 230 V a.c., $50 / 60 \mathrm{~Hz}$ | Daily |
| OB178612 | DATA UNO S 230 V a.c., $50 / 60 \mathrm{~Hz}$ | Weekly |

DIGITAL TIME PROGRAMMERS／MODULAR

## DATA MICRO＋／DATA MICRO 2＋

－Programming by icon menu．
－Up to 32 daily and weekly programs．
－One or two changeover outputs．

## Description

－Digital time switch for daily，weekly or second programming．
－Installation on DIN rail，two modules wide．
－Easy programming guided by icons．
－Up to 32 daily or weekly programs．
－Able to program pulses from 1 second and holiday period of up to 99 days that deactivates existing programmings．
－Manual activation or deactivation，temporary or permanent．
－Change standard time／daylight saving automatic for Europe，deactivated or programmable．
－Versions of one or two changeover contacts．
－Backup battery of up to 4 years operation．
－Sealable clear window to avoid unauthorised handling．
－Accessories：Surface box 2 modules（OB140601）．

## Technical specifications

Max．Recomm．Load
－Power supply： 120 or 230 V a．c．， $50-60 \mathrm{~Hz}$ ； 12,24 or 48 V a．c．／d．c．， $50-60 \mathrm{~Hz}$
－Switching capacity： 16 （10）A 250 V a．c．（DATA MICRO＋）／ 2 X 16 （10）A 250 V a．c．（DATA MICRO $2+$ ）
－Operating temp．：$-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
－Protection degree：IP20 according to EN 60529
－Max．cross section： 4 mm²

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Contact |
| OB172012N | DATA MICRO +2230 V a．c．， $50-60 \mathrm{~Hz}$ | 1 changeover |
| OB171912N | DATA MICRO $2+230$ V a．c．， $50-60 \mathrm{~Hz}$ | 2 changeover |


| \％ | 3000 W |
| :---: | :---: |
|  | 1200 VA |
| ® | 2000 VA |
| 安 | 3000 W |
| 吅 | 600 VA |
| 曲 | 400 VA |
| （\％） | 90 VA |

DIGITAL TIME PROGRAMMERS / MODULAR


## DATA LOG / DATA LOG 2

- With communications Bluetooth Dongle slot.
- Free App available on Google Play and App Store.
- Daily or weekly programming or seconds.
- High-contrast backlit display.
- Replaceable battery.
- Up to 40 daily or weekly programs.
- Available versions with one or two changeover contacts.


## Description

- Daily, weekly or second programmings.
- Connection port for programming through BLUETOOTH DONGLE.
- Installation on DIN rail, two modules wide.
- Easy programming guided by text menus in different languages.
- Up to 40 daily or weekly programs.
- Large back-lit display with contrast adjustment.
- 4 annual periods for special programming.
- Able to program cycles from hours, minutes and seconds and pulses from 1 second.
- Manual activation or deactivation, temporary or permanent.
- Automatic daylight savings changes according to country or de activate.
- Contacts operation hours meter.
- Keyboard blocking using password.
- Replaceable reserve battery of up to 4 years.
- Accessories: BLUETOOTH DONGLE (OB709971), surface box 2 modules (OB140601).


## Technical specifications

- Power supply: 120 or 230 V a.c., $50-60 \mathrm{~Hz}$; 12,24 or 48 V a.c./d.c., $50-60 \mathrm{~Hz}$
- Nominal frequency: 50 / 60 Hz
- Switching capacity: 16(10) A / 250 V a.c.
- Degree of protection: IP20 according to EN 60529
- Wire cross section: $4 \mathrm{~mm}^{2}$
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code | Reference | Areas of application |
| :--- | :--- | :--- |
| OB175012 | DATA LOG 2 230 V a.c. | 2 changer-over |
| OB174012 | DATA LOG 230 V a.c. | 1 charge-over |

Max. Recomm. Load


3000 W 1200 VA 2000 VA 3000 W

鲉 600 VA
$=400 \mathrm{VA}$
(8)

90 VA


## BLUETOOTH DONGLE

- Blueetooth Communication Dongle for ASTRO NOVA CITY, ASTRO UNO y DATA LOG / LOG 2, allows for programming and controlling the device from an Android or iPhone smart-phone.


## Description

- Bidirectional Bluetooth communication with the following models: DATA LOG, DATA LOG 2, ASTRO NOVA CITY and ASTRO UNO.
- Compatible with: Apple (iPhone 4S or higher, IPad 3 or higher), Android (version 4.3 or higher and compatible with Bluetooth 4.0 LE ) and Free available at: Google Play and App Store.


## Technical specifications

- Wireless comunications type: Bluetooth 4.0
- Antenna: Built-in Antenna
- Receiver sensitivity: - 93 dBm
- Range: 30 m
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code | Reference | Area of application |
| :--- | :--- | :--- |
| OB709971 | BLUETOOTH DONGLE | Allows bidirectional Bluetooth communication |

## DATA LOG / DATA LOG 2 BLUETOOTH

- Integrated bidirectional Bluetooth communication for programming and reading on a smartphone.
- Operations by seconds, minutes, hours or weeks with 4 annual programs.
- Removable front battery.
- Backlit screen for better viewing, even in the dark.


## Description

- Daily, weekly or second programmings.
- Bluetooth communication for programming on a smart phone.
- Installation on DIN rail, two modules wide.
- Up to 40 daily or weekly programs.
- Large back-lit display with contrast adjustment.
- 4 annual periods for special programming.
- Able to program cycles from hours, minutes and seconds and pulses from 1 second.
- Manual activation or deactivation, temporary or permanent.
- Automatic daylight savings changes according to country or deactivate.
- Contacts operation hours meter.
- Replaceable reserve battery of up to 4 years.


## Technical specifications

Max. Recomm. Load

- Power supply: $230 \pm 10 \%$ V a.c.
- Nominal frequency: 50 / 60 Hz
- Switching capacity: 16(10) A / 250 V a.c.
- Degree of protection: IP20 according to EN 60529
- Wireless comunications type: Bluetooth 4.0
- Antenna: Integrated
- Receiver sensitivity: - 93 dBm
- Syncing range (outdoor): 30 m
- Wire cross section: $4 \mathrm{~mm}^{2}$


瞓 $\quad 600 \mathrm{VA}$
$=400 \mathrm{VA}$
(ㅇ)

- Operating temperature: $-10^{\circ} \mathrm{C}$ a $45^{\circ} \mathrm{C}$

| Code | Reference | Contact |
| :--- | :--- | :--- |
| OB171512 | DATA LOG 2 230 V a.c. BLUETOOTH | 2 change-over |
| OB171012 | DATA LOG 230 V a.c. BLUETOOTH | 1 change-over |

## APP DATA LOG

－Application to manage DATA LOG／DATA LOG 2 from a smartphone．

## Description

－DATA LOG／DATA LOG 2 can be programmed by iPhone or Android smartphone．Plugging the Bluetooth Dongle into DATA LOG／DATA LOG 2，the app allows us to：
－Read，edit，save，and download programs to the timers．
－Store several timers on your mobile．
－Share programs to other users．
－This app is free and available on Google Play and the App Store（search for：ORBIS DATA LOG）．


## DATA ANUAL

－Up to 30 programs daily，weekly，monthly or yearly．
－Two changeover contacts．
－Pulses，cycles，holidays and random programs．
－Replaceable lithium battery．

## Description

－Daily，weekly，monthly or annual programming．
－Installation on DIN rail，two module wide．
－Easy programming guided by text menus in：SPA，ENG，FRA，ITA，and DEU．
－In each contact we can carry out 30 programmings．
－ 4 special programming periods and 20 days of holidays for both contacts where the programmings are not carried out．
－Backlit display．
－Able to program cycles and pulses from 1 second．
－Random program for presence simulation．
－Contacts operation hours meter．
－Manual activation or deactivation，temporary or permanent．
－Change standard time／daylight saving automatic for Europe，deactivated or programmable．
－Keypad lock by password．
－Backup battery of up to 5 years operation with display warning．
－Sealable clear window to avoid unauthorised handling．
－Accessories：Surface box 2 modules（OB140601）．

## Technical specifications

－Power supply： 230 V a．c．， $50-60 \mathrm{~Hz}$
－Switching capacity： 16 （10）to 250 V a．c．
－Operating temp．：$-20^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
－Protection degree：IP 20 ／IP 41 according to EN 60529
－Max．cross section： 4 mm²

Max．Recomm．Load

| ［］ | 2000 |
| :---: | :---: |
| V1 | 250 VA |
|  | 1000 VA |
| 唯111） | 2000 |
| 甽 | 200 |
| 雨 | 200 |
| （\％） | 25 |

## DATA MULTI ANUAL

- Up to 100 daily, weekly, monthly or yearly programs.

- Four changeover contacts.
- Pulses, cycles, holidays and random programs.


## Description

- 4 outputs for seconds, daily, weekly, monthly or annual programmings.
- High memory capacity, up to 100 programmings.
- Installation on DIN rail, four modules wide.
- Possibility of having special programs between two dates.
- It also has 2 holiday periods during which programmings are not carried out.
- Able to program pulses from 1 sec .
- Random program for presence simulation.
- Contacts operation hours meter.
- Manual activation or deactivation, temporary or permanent.
- Change standard time/daylight saving automatic for Europe, deactivated or programmable.
- Backup battery of up to 5 years operation.
- Sealable clear window to avoid unauthorised handling.


## Technical specifications

- Power supply: 230 V a.c. (-15\% $\div-10 \%), 50-60 \mathrm{~Hz}$; 24 V a.c./d.c. ( $-15 \% \div-10 \%$ )
- Switching capacity: $4 \times 16$ (10) A to 250 V a.c.
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Contact |
| OB177200 | DATA MULTI ANUAL_230 V a.c., 24 V a.c.+ d.c. | 4 changeover |

Max. Recomm. Load

| [1] | 2000 W |
| :---: | :---: |
|  | 250 VA |
| $\stackrel{B}{B}$ | 1000 VA |
| 年(111) | 2000 W |
| $\mathbb{W}$ | 200 VA |
| \# | 200 VA |
| (\%) | 25 VA |

## MINI LOG

- Simple text menu programming.
- Up to 40 daily and weekly programs.
- One changeover contact.


## Description

- Daily or weekly programmings or programmings by seconds.
- Installation on surface or DIN rail.
- Easy programming guided by text menus in different languages.
- Up to 40 daily or weekly programs.
- Operation schedule on screen.
- 4 annual periods for special programming.
- Able to program cycles and pulses from 1 sec.
- Manual activation or deactivation, temporary or permanent.
- Change standard time/daylight saving automatic for Europe, deactivated.
- Contacts operation hours meter.
- Keyboard blocking using password.
- Reserve battery of up to 4 years.


## Technical specifications

- Power supply: 230 V a.c., 12 or 24 V a.c./d.c.
- Nominal frequency: 50 / 60 Hz
- Type of contact: Change over
- Switching capacity: 16 (10) A / $230 \mathrm{~V} \sim$
- Degree of protection: IP 51 according to EN 60529 on surface IP 20 according to EN 60529 on DIN rail
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$



## MINI T LOG

- Simple text menu programming.
- Up to 40 daily and weekly programs.
- One changeover contact.


## Description

- Daily or weekly programmings or programmings by seconds.
- Installation on surface, DIN rail or panel.
- Easy programming guided by text menus in different languages.
- Up to 40 daily or weekly programs.
- Operation schedule on screen.
- 4 annual periods for special programming.
- Able to program cycles and pulses from 1 sec.
- Manual activation or deactivation, temporary or permanent.
- Change standard time/daylight saving automatic for Europe, deactivated.
- Contacts' operation hours meter.
- Keyboard blocking using password.
- Reserve battery of up to 4 years.


## Technical specifications

- Power supply: 230 V a.c., 12 or 24 V a.c/dc
- Nominal frequency: 50 / 60 Hz

Max. Recomm. Load


- Switching capacity: 16 (10) A/230 V~
- Degree of protection: IP 20 according to EN 60529
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code |  |
| :--- | :--- |
| OB251512 | Reference |
| OB251552 | MINI TOG 230 V a.c., $50 / 60 \mathrm{~Hz}$ |
| OB251572 | MINI T LOG 24 V a.c./d.c., $50 / 60 \mathrm{~Hz}$ |

## MODUL LOG

- Simple text menu programming.
- Up to 40 daily and weekly programs.
- One changeover contact.


## Description

- Daily or weekly programmings or programmings by seconds.
- Installation on surface.
- Easy programming guided by text menus in different languages.
- Up to 40 daily or weekly programs.
- Operation schedule on screen.
- 4 annual periods for special programming.
- Able to program cycles and pulses from 1 sec.
- Manual activation or deactivation, temporary or permanent.
- Change standard time/daylight saving automatic for Europe, deactivated.
- Contacts' operation hours meter.
- Keyboard blocking using password.
- Reserve battery of up to 4 years.


## Technical specifications

- Power supply: 230 V a.c., 12 or 24 V a.c./d.c.
- Nominal frequency: 50 / 60 Hz

Max. Recomm. Load

- Type of contact: Change over
- Switching capacity: 16 (10) A / $230 \mathrm{~V} \sim$
- Degree of protection: IP 20 according to EN 60529
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code | Reference |
| :--- | :--- |
| OB176012 | MODUL LOG 230 V a.c., $50 / 60 \mathrm{~Hz}$ |
| OB176062 | MODUL LOG 24 V a.c./d.c., $50 / 60 \mathrm{~Hz}$ |
| OB176072 | MODUL LOG 12 V a.c./d.c., $50 / 60 \mathrm{~Hz}$ |


| \% | 3000 W |
| :---: | :---: |
|  | 1200 VA |
| - | 2000 VA |
|  | 3000 |
| 吅 | 600 V |
| \# | 400 VA |
| $)_{\text {Ote }}$ |  |

DIGITAL TIME PROGRAMMERS / PLUG-IN


## TEMPO +

- Programming by menu icons.
- 32 daily or weekly programs.
- Schuko socket (4.8 mm²) and child protection.


## Description

- Digital time switch for daily or weekly programmings or programmings by seconds.
- Installation pluggable in schuko outlet with ground connection ( $4.8 \mathrm{~mm}^{2}$ ).
- Easy guided programming.
- Up to 32 daily or weekly programs.
- Able to program cycles and pulses from 1 sec . and holiday period of up to 99 days.
- Manual activation or deactivation, temporary or permanent.
- Change standard time/daylight saving automatic for Europe, deactivated or programmable.
- With child protection.
- Replaceable backup battery of up to 1 year operation.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz}$
- Switching capacity: 16 (4) A to 230 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP $20^{\circ} \mathrm{C}$ according to EN 60529
- Plug-in: Type F, CEE 714, schuko

|  |  |
| :--- | :--- |
| Code | Reference |
| OB162532 | TEMPO +2230 V a.c., $50-60 \mathrm{~Hz}$ |

Associated to a switch, they allow for timing any electrical circuit. Normally used to control the switching on/off the lights of stairways and common areas in residential and office buildings, so that energy consumption is generated only when it is necessary.
We can also use them to control the lighting of basements and storage rooms, cleaning rooms, bathrooms, changing rooms, garages, timing of towel driers, fans, water pumps or signaling equipment.


FEATURES


## Electromechanical models

- Electromechanical contact that allows up to $3,000 \mathrm{~W}$ in incandescence for DIN rail format and $4,000 \mathrm{~W}$ in the surface installation version.
- Possibility of 3 or 4 wire connection.
- High reliability and immunity against interference.
- Does not present power consumption in standby.
- Manual control of lighting for cleaning, moving, painting, emergency works, etc.
- Restart timing by pressing twice.
- Timing of up to 30 minutes.



## Electronic models

- There are models without neutral, so that wiring is not necessary.
- They admit additional switches.
- Pilot light that facilitates their viewing in the dark.
- Input for additional switches with protection against overcharge.
- PULSAMAT can be used with low-consumption and LED lamps.


## T-16 G

- DIN rail mounting.
- Timing G-16 G: 3 min. to 30 min .


## Description

- Installation in DIN rail, one module wide (17.5 mm).
- Front timing selector
- Resettable timing.
- Manual control with two positions: automatic operation, or permanent on that cancels timing during repairing, maintenance or cleaning tasks of the installation.
- Timing from 3 min. to 30 min.
- Neon lamps with additional switches, up to 50 mA
- Valid for three or four wire installations.
- Accessories: Surface box 2 modules (ref. OB140601).


## Technical specifications

- Power supply: 120 or 230 V a.c., $50-60 \mathrm{~Hz}$
- Switching capacity: 10 A to 230 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

Max. Recomm. Load

- Protection degree: IP 20 according to EN 60529
- Max. cross section: $4 \mathrm{~mm}^{2}$. +
- Timing: from 3 min to 30 min
- Quality marks: VDE

| Code | Reference | Timming |
| :--- | :--- | :--- |
| OB060100 | T-16 G_230 V a.c. $50-60 \mathrm{~Hz}$ | From 3 min to 30 min |

## T-22

- DIN rail mounting.
- Suitable for 3 or 4 wires installations.
- Timing from 45 s. to 7 min.


## Description

- Installation in DIN rail, one module wide ( 17.5 mm ).
- Front timing selector.
- Dust and dirt protection window.
- Resettable timing.
- Manual control with two positions: automatic operation, or permanent on that cancels timing during repairing, maintenance or cleaning tasks of the installation.
- Timing of 45 seconds to 7 minutes.
- Neon lamps with additional switches, up to 50 mA .
- Valid for three or four wire installations.
- Accessories: Surface box 2 modules (ref. OB140601).


## Technical specifications

Max. Recomm. Load

- Power supply: 120 or 230 V a.c., $50-60 \mathrm{~Hz}$
- Switching capacity: 16 A to 230 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²
- Quality marks: VDE

| Code | Reference | Timming |
| :--- | :--- | :--- |
| OB063031 | Model - T-22_230 V a.c., $50-60 \mathrm{~Hz}$ | From 45 seg to 7 min |


| \% | 3000 |
| :---: | :---: |
|  | 1200 VA |
| B | 2000 VA |
|  | 3000 W |
| 吅 | 10 |
| \#\# | 900 |
| (2) |  |



## T-11 20 A

- Surface mounting. 3-wire installation.
- Switching capacity 20 A .
- Timing from 1 min. to 3 min.


## Description

- Installation on surface.
- Resettable timing.
- Manual control with three positions: automatic,or permanent on/off.
- Timing from 1 min . to 3 min .
- Neon lamps with additional switches, up to 50 mA .
- Valid for three wire installations.


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Switching capacity: 20 A to 230 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load
4000 W
$=1000 \mathrm{VA}$

- Max. cross section: 6 mm²

| Code | Reference | Timming |
| :--- | :--- | :--- |
| OB080232 | T-11_230 V a.c. | From 1 min to 3 min |

STAIRCASE TIMERS / INSTALLATION IN JUNCTION BOX

## PULSALUZ

- New design.
- No neutral. It only needs phase and return wires.
- Controls incandescent and halogen lamps.


## Description

- Installation in device box of $65 \times 65 \mathrm{~mm}$.
- It only needs phase and lamp cord, so that it replaces the existing switch without having to wire up.
- Saves time and simplifies the installation.
- Activation through capacitive touch sensor.
- LED indicators to be seen in the dark.
- Timing from 30 s . to 10 min .
- Admits additional switches.
- Neon lamps with additional switches, up to 6 mA .
- Resettable timing.
- Valid for incandescent and halogen lamps.


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

| Code | Reference |  |
| :--- | :--- | :--- |
| OB200000 | PULSALUZ_230 V a.c., 50 Hz | Timming |

Max. Recomm. Load


## PULSAMAT

- New design.
- Installation box mounting.
- Three-wire installation (phase, neutral and return).
- Suitable for all types of lamps including fluorescent and LED.


## Description

- Installation in device box of $65 \times 65 \mathrm{~mm}$.
- Requires 3 wires (phase, neutral and lamp cord).
- Controls all types of loads including fluorescence, LED, small extractor engines, etc.
- Activation through capacitive touch sensor.
- LED indicators to be seen in the dark.
- Timing from 30 s . to 10 min .
- Admits additional switches.
- Neon lamps with additional switches, up to 6 mA .
- Resettable timing.
- Version compatible with Italian-type Installation box of 3 modules (503) or of $4 \times 2$ inches available: BTICINO (Living international, Axolute, Light and Màtix), VIMAR (Idea, Rondo, Plana, Eikon and Arkè), LEGRAND (Vela y Cross) GEWISS Chorus (Art, Lux and One). The brands Living International, Axolute, Light and Matix belong to BTICINO S.p.A. The brands Idea, Rondo, Plana, Eikon and Arkè belong to VIMAR S.p.A. The brands Vela and Cross belong to LEGRAND S.p.A. The brands Art, Lux and One belong to GEWISS S.p.A.
- Requires 3 modules.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c., 50 Hz
- Switching capacity: 6 A to 230 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

| Code | Reference | Installation | 畋 |
| :---: | :---: | :---: | :---: |
| OB200001 | PULSAMAT_230 V a.c., 50 Hz | Installation box $65 \times 65 \mathrm{~mm}$ | = |
| OB200005 | PULSAMAT 503_230 V a.c., 50 Hz | Italian-type installation box | (2) |

TIMERS AND REGULATORS FOR JUNCTION / INSTALLATION BOX

## MICROTEMP

- Hidden installation. Ideal for installation on junction box, false ceiling, etc...
- Compatible with any push button switch.
- No neutral. It only needs phase and return wires.


## Description

- It's small size allows hidden installation between the switch and the device box, in junction box, distribution box, etc.
- Compatible with any switch in the market.
- Only needs to be connected in parallel to the switch.
- Quick installation in just a few seconds.
- Timing from 30 s . to 10 min .
- Admits unlimited additional switches.
- Resettable timing.
- Valid for incandescent and halogen lamps.

Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Switching capacity: $1,5 \mathrm{~A} 230 \mathrm{~V}$ a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Timming |
| OB200004 | MICROTEMP_230 V a.c., 50 Hz | From 30 s to 10 min |

Max. Recomm. Load

| [ | 25-400 W |
| :---: | :---: |
| - $\square^{\text {a }}$ | NO |
| $\stackrel{B}{C}$ | 50-250 VA |
| 年111) | 18-400 W |
| $\mathbb{M}$ | NO |
| \#\# | NO |
| (1) | NO |

## TEMPO $\triangle$ LED

- Timer for concealed mounting in electrical box .
- Two wire installation (no neutral required).
- Suitable for LED lamps.


## Description

- Reduced size for fitting between a pushbutton and the electrical box, or concealed in junction boxes, suspended ceilings, etc.
- Quick non-disruptive installation; no neutral connection required.
- Compatible with all commercially available push buttons.
- Reduces lighting power consumption and increases lamp service life.
- Suitable for any lamp type, except LEDs operating with electromagnetic transformers or any type of fluorescent lights.
- Adjustable timing from 15 s to 15 min, resettable.
- Additional pushbuttons can be fitted.
- Provides for fan and extractor control.
- Includes overload, thermal and short-circuit protection.


## Technical specifications

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Stand-by consumption: 0,035 VA
- Resettable: Yes
- Timing range: $15 \mathrm{~s}-15 \mathrm{~min}$

Max. Recomm. Load
NO
$\square$
$\square$
(1) 150 W

- Degree of protection: IP 20 según EN 60529
- Operating temperature: $-10 \mathrm{a}+50^{\circ} \mathrm{C}$

| Code | Reference | Timming |
| :--- | :--- | :--- |
| OB200007 | TEMPO $\triangle$ LED_230 V a.c., 50 Hz | From 15 seg to 15 min |

## HAVE YOU THOUGHT ABOUT THE EXPENSE GENERATED BY THE LIGHTS THAT WE FORGET TO TURN OFF?

It is very common to enter the WC of a restaurant and find the light on because someone forgot to turn it off. That untimed light will consume energy and money for long hours.

With DIM LED and in less than 5 minutes, forgetting to turn off the lights will no longer be an expense.

Its application is ideal in restaurants, residential buildings, offices, hotels, homes... where it can be installed in corridors, stairs, dressing rooms, storage areas, cleaning rooms, garages, basements or any other transit area.

## Example of a WC in a restaurant



The installation is very fast and simple since it does not need additional wiring and you only need to replace the existing switch with a push button.


## TEMPO $\triangle$ LED 2N

- Timer-dimmer for concealed mounting in electrical box.
- Dims lights after a set time.
- Suitable for dimmable lamps.


## Description

- Reduced size for fitting between a pushbutton and the installation box, or concealed in junction boxes, suspended ceilings, etc.
- Quick non-disruptive installation; no neutral connection required.
- Initial 100\% lighting intensity during set time. Adjustable from 15 s to 15 min.
- After the set time has expired, lighting intensity is reduced to $25 \%$, maintaining a courtesy or safety level of light, either permanently or for a limited period of time (between 1 min and 5 min ).
- Reduces lighting power consumption and increases lamp service life.
- Compatible with all commercially available push buttons.
- Quick non-disruptive installation; no neutral connection required.
- Suitable for all dimmable lamps, except LEDs 12 V d.c. operating with electromagnetic transformers.
- Additional pushbuttons can be fitted.
- Includes overload thermal and short-circuit protection.


## Technical specifications

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Stand-by consumption: 0,035 VA
- Resettable: Yes
- Timing range: $15 \mathrm{~s}-15 \mathrm{~min}$

Max. Recomm. Load


- Degree of protection: IP 20 según EN 60529
- Operating temperature: $-10 \mathrm{a}+50^{\circ} \mathrm{C}$
- Stand-by light timing: 1... $5 / \infty$

| Code | Reference | Timming |
| :--- | :--- | :--- |
| OB200008 | TEMPO $\triangle$ LED 2N_230 V a.c., 50 Hz | From $15 \mathrm{~s}-15 \mathrm{~min}$ |



## CONTROL $\triangle$ LED

- Light dimmer for concealed mounting.
- Adjustable fixed reduction between $10 \%$ and $100 \%$.
- Suitable for all dimmable lamps.


## Description

- Reduced size for fitting between a pushbutton and the electrical box, or concealed in junction box. Provides fixed reduced lighting level selection and manual on/off switching feature.
- Suitable for museums, restaurants and hotels to create zones and scenarios for different events.
- Quick non-disruptive installation; no neutral connection required.
- Reduces lighting power consumption and increases lamp service life.
- Compatible with all commercially available push buttons.
- Includes overload, thermal and short-circuit protection.


## Technical specifications

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Power consumption: 0.035 VA
- Luminous push buttons: No
- Dimming range: $10 \%$... 100\%
- Adjustment type:

Max. Recomm. Load

150 W
150 W
遛 $\quad 100 \mathrm{VA}$
(®)
100 VA

- LAMP1 (trailing edge)
- LAMP2 (leading edge)
- Installation: Optional neutral connection (based on lamp characteristics)

| Code | Reference | Areas of application |
| :--- | :--- | :--- |
| OB200010 | CONTROL $\triangle$ LED 230 V a.c., 50 Hz Light dimming to create scenarios at hotels, spas, etc. |  |

## DIM $\triangle$ LED

- Light dimmer for concealed mounting in a universal box.
- On/Off switching or dimming by press and hold.
- Suitable for all dimmable lamps.


## Description

- Reduced size for fitting between a pushbutton and the mechanism box, or concealed in inspection boxes, suspended ceilings, etc.
- Press and let go will switch lights On/Off. Press and hold will dim the lights to the required level.
- Quick non-disruptive installation; no neutral connection required.
- Memory function for desired switch on level.
- Reduces lighting power consumption and increases lamp service life.
- Compatible with all commercially available push buttons.
- Suitable for 2-way switching installations.
- Suitable for all dimmable lamps, except 12 V d.c. LEDs operating with electromagnetic transformers.
- Includes overload, thermal and short-circuit protection.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Power consumption: 0,035 VA
- Luminous push buttons: No
- Minimum dimming range:10.30\%

Max. Recomm. Load
\& 150 W
150 W
回 100 VA

- Adjustment type: LAMP1 (trailing edge) / LAMP2 (leading edge)
- Installation: Optional neutral connection (based on lamp characteristics)
- Protection: Overcurrent short-circuit.Built-in thermal protection
- Degree of protection: IP 20 según EN 60529
- Operating temperature: $-10 \mathrm{a}+50^{\circ} \mathrm{C}$

| Code | Reference |
| :--- | :--- |
| OB200009 | DIM $\triangle$ LED 230 V a.c., 50 Hz |

## LIGHT DIMMER WITHOUT COMPLEX WIRING?



By adapting the lighting to our activity, we generate comfort, no matter if we need more light for activities such as studying and reading or to dim the light when we need a warmer and more cozy atmosphere.


It also makes lamps and bulbs to increase their durability when they are operated at full power, providing savings of between $20 \%$ and $40 \%$ in the energy consumption dedicated to lighting.


Assembly DIM LED is quick and easy, since it requires no additional wiring. Simply replace the existing switch with a button.

## LUMITEMP

- Automatic stairway time switch for mounting in an inspection or junction box.
- Suitable for all lamp types.
- Compatible with all commercially available push buttons.


## Description

- 4-wire installation: live, neutral, push button and lamp return.
- Suitable for all lamp types, fans and extractors.
- Operation through external push buttons.
- Adjustable timing from 30 s to 10 min , resettable.

Technical specifications

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Stand-by consumption: 0,7 W (5.5 VA)
- Switching capacity: $\mu 6 \mathrm{~A} / 230 \mathrm{~V} \sim \cos =1$
- Resettable: Yes
- Luminous push buttons: $6 \mathrm{~mA} / 230 \mathrm{~V}$ ~
- Timing range: $30 \mathrm{~s}-10 \mathrm{~min}$
- Degree of protection: IP 20 according to EN 60529

Max. Recomm. Load

- Operating temperature: - $10 \ldots+50$

| (1) | 1300 W |
| :---: | :---: |
| -1: | 1200 VA |
| B | 1000 VA |
| 立11) | 1300 W |
| 甽 | 600 VA |
| = | 400 VA |
| (\%) | 90 VA |


| Code | Reference | Temporisation |
| :--- | :--- | :--- |
| OB200006 | LUMITEMP_230 V a.c., 50 Hz | $15 \mathrm{~s}-15 \mathrm{~min}$ |

USES AND APPLICATIONS
These devices are perfect to control machines or installations that provide some type of service, since the client decides the temporization by introducing coins or tokens. Some application examples are:

- Lighting of sports fields.
- Tanning machines in gyms and solariums.
- Computer rental (internet cafes and hotels).
- Washers and dryers in launderettes.

- Televisions in hospitals and residences.
- Spa baths or air conditioning in guesthouses.
- Hot water for showers in campsites.
- Farming irrigation with shared well.


## Showers in campsites or residences

The use of coin or token operated timers in gym or campsite showers greatly reduces hot water consumption. ELECTRONIC CTM is the ideal model since it allows for connecting a pause switch to lather up and connect a warning signal of the end of temporization. For security reasons, in installations with water of humidity we will use a transformer of voltage from 230 V a.c. to 24 V a.c.

## Car vacuumig

The CTM mechanical model can be purchased with fixed temporization and without casing to attach to existing machinery. In this case we can associate a light signal to warn about the end of temporization so that the user has enough time to insert another coin and extend the temporization.


## Lightining of sports fields

Thanks to ELECTRONIC CTM the user will be able to turn on field lights for a minimum of 1 hour, each extra token inserted will add 30 minutes. In addition, we will connect a warning light that will be turned on 4 minutes before the end of the temporization.

- Car wash tunnels and air, water or vacuum machines in service stations.
- Battery charging stations.
- Gaming or kids entertainment machines.



## Tanning machines in solariums and gyms

The output contact of BASIC ELECTRONIC CTM will turn on the tanning machine during 5 minutes, after this time it will be turned off and a $\mathrm{T}-22$ timer will turn on the exhaust fan during 3 minutes. For monitoring the replacement of UV lamps we will use an hour meter of the CONTA series.



CTM

- Fixed timing.
- No additional timing, optional end-of-timing relay.
- Slot at the top.


## Description

- Fixed temporization of: $1,2,3,5,10,15,30,60,90$ or 120 min . Please inquire about other temporizations.
- Mechanical operation by coin or token insertion.
- Optional warning relay to activate an audio or light signal that warns the user about the end of temporization, this way we give time to insert more coins and extend the time before the lights, shower, television, computer, etc. are shut off.
- Warning configurable from 1 to 10 minutes.
- Top token slot.
- This model can be supplied without protective casing in order to be installed in car wash tunnels,kids entertainment machines, etc.
- Sheet metal casing with RAL 9016 polyester paint.
- Accessories: Activation tokens, modular transformer 24 V d.c. (0B86C1024).


## Technical specifications

- Power supply: 230 V a.c., $50 \mathrm{~Hz} / 24 \mathrm{~V}$ a.c.
- Switching capacity: 6 (2) A to 250 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

| Code | Reference |  |
| :--- | :--- | :--- |
| OB120330 | CTM MECHANIC | Features |
| OB120530 | CTM MECHANIC | Without casing, standardized temporization |
| OB120590 | CTM MECHANIC | With casing, standardized temporization |
|  |  | With casing special temporization |

TOKEN OR COIN TIMERS / ELECTRONIC


## CTM BASIC ELECTRONIC

- Programmable timing 1 min. to 150 h .
- No additional timing nor end-of-timing relay.
- End-of-timing warning by display.


## Description

- Timing programmable from 1 min . to 150 h . 1-digit display that counts up to 9 coins or tokens.
- End of temporization through display flushing, 1 minute before the end of the programmed time.
- No additional temporization, no end of temporization warning relay.
- A second token after the temporization has started, will add a new temporization.
- Memorises the used time in case of power outage.
- Sheet metal casing with RAL 9016 polyester paint.
- Top token slot.
- Accessories: Activation tokens, modular transformer 12 and 24 V d.c. (OB86C1024).


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Switching capacity: 10 (2)A to 250 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB120130 | CTM BASIC ELECTRONIC | Activation by token with two slots |
| OB120196 | CTM BASIC ELECTRONIC_24 V a.c. | Activation by €1 coin |
| OB120197 | CTM BASIC ELECTRONIC_24 V a.c. | Activation by coin |
| OB120198 | CTM BASIC ELECTRONIC_24 V a.c. | Activation by €2 coin |

## CTM ELECTRONIC

- Programmable timing 1 min. to 150 h .
- With additional timing, end-of-timing relay and pause function.


## Description

- Timing programmable from 1 min . to 150 h .
- Electronic operation activated by coin or token.
- Special temporization function when introducing more coins. For example, to allow extra time for the drying function in launderettes.
- Warning relay to activate an audio or light signal that warns the user about the end of temporization,this way we give time to insert more coins and extend the time before the lights, shower, television,computer, etc. are shut off.
- Short 10 -second warning that is activated 30 seconds before the end of temporization.
- Long 30 -second warning that is activated 4 minutes before the end of temporization.
- Stores up to 99 tokens or coins in memory.
- Connection terminals for exterior temporization pause switch. In campsite showers, a pause switch is usually installed to give the user time to lather up.
- 10-min. memory backup in case of power outage.
- Sheet metal casing with RAL 9016 polyester paint.
- Accessories: Activation tokens, modular transformer 12 and 24 V d.c. (OB86C1024).


## Technical specifications

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz} / 12$ or 24 V a.c./d.c.
- Switching capacity: 16 (4) A to 250 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{Ca}+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB120030 | CTM ELECTRONIC_230 V a.c. | Activation by token with two slots |
| OB120031 | CTM ELECTRONIC_230 V a.c. | Activation by €1 coin |
| OB120032 | CTM ELECTRONIC_230 V a.c. |  |
| OB120062 | CTM ELECTRONIC_24 V a.c./d.c. |  |
| OB120072 | CTM ELECTRONIC_12 V a.c./d.c. |  |

## HOUR METERS / MODULAR

## CONTA MODULAR

- Running hours meter for machinery.
- DIN rail mounting, 2 modules width.
- Available for 230 V a.c.


## Description

- Installation on DIN rail, two modules wide.
- Electromechanical meter.
- Integrator of 5 digits plus 2 decimals.
- Recording capacity of up to 99999.99 hours.
- Reading accuracy 0.01 hours.
- No reset to zero.
- Available for 230 V a.c. inquire about other voltages.
- Accessories: Surface box 2 modules (ref. OB140601).


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

| Code | Reference |
| :--- | :--- |
| OB180802 | CONTA MODULAR_230 V a.c., 50 Hz |

HOUR METERS / PANEL

## CONTA EMP

## manisi $h$

- Running hours meter for machinery.
- Panel mounting $45 \times 45 \mathrm{~mm}$.

E

- Multi-voltage models available for a.c. and d.c.


## Description

- Built-in panel mounting of $45 \times 45 \mathrm{~mm}$.
- Electromechanical meter.
- Integrator of 5 digits plus 2 decimals. Recording capacity of up to 99999.99 hours.
- Reading accuracy 0.01 hours.
- No reset to zero.
- Available for different power supply voltages, both in alternating and direct current.


## Technical specifications

- Power supply: $24,48,110$ or 230 V a.c., $50 \mathrm{~Hz} / 12-80 \mathrm{~V}$ d.c. inquire about other voltages and frequencies.
- Operating temp.: $-10^{\circ} \mathrm{Ca}+70^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

| Code | Reference |
| :--- | :--- |
| OB180801 | CONTA EMP_12-80 V d.c. |
| OB180824 | CONTA EMP_24 V a.c.,50 Hz |
| OB180848 | CONTA EMP_48 V a.c., 50 Hz |
| OB1808110 | CONTA EMP_110 V a.c.,50 Hz |
| OB180800 | CONTA EMP_230 V a.c.,5 Hz |
| OB1808400 | CONTA EMP_400 V a.c., 50 Hz |

## USES AND APPLICATIONS

Designed to monitor the filling and emptying in wells or deposits with conductive, non-flammable, non-corrosive liquids. They allow the detection of the maximum and minimum level to avoid overflowing, leak detection, activation of solenoid valves, blending control, etc., as well as protecting from the risk of dry running of water pumps.

We find examples of applications in hydraulic installations such as control panels of pressure groups for housing, water extraction in wells for consumption or irrigation, treatment of white or waste waters, etc.

Their operating principle is based on the discrimination between the resistance of two submerged probes. To ensure a use free of risks for persons and avoid electrolysis effects, the device separates the power supply voltage of the relay circuit and the probes circuit.

The EBR-2 allows for adjusting the sensitivity according to the resistance of the type of liquid. This table shows the resistance values depending on the type of water, EBR-2 allows for regulating the resistibility from 0 to $50 \Omega$.

| Type of water | Resistivity | Type of water | Resistivity |
| :--- | :--- | :--- | :--- |
| Drinking water | $5-10 \mathrm{k} \Omega$ | Seawater | $\sim 0,03 \mathrm{k} \Omega$ |
| Well water | $2-5 \mathrm{k} \Omega$ | Salt water | $\sim 2,2 \mathrm{k} \Omega$ |
| River water | $2-15 \mathrm{k} \Omega$ | Hard water | $\sim 5 \mathrm{k} \Omega$ |
| Rainwater | $15-25 \mathrm{k} \Omega$ | Chlorinated water | $\sim 5 \mathrm{k} \Omega$ |
| Waste water | $0,5-2 \mathrm{k} \Omega$ | Condensed water | $\sim 18 \mathrm{k} \Omega$ |

## Filling of tank and emptying of well

In this installations we want to fill the deposit that supplies the dwelling from a well with emptying pump.
EBR-2 will allow the emptying of the well until the water level is under probe 4 (opening circuit $9-10$ ), not servicing again until the water level overflows probe 5 (shutting circuit $9-10$ ).
To fill the deposit, it will activate the pump (shutting circuit $7-9$ ), when the level of the deposit reaches probe 2 it will deactivate (opening circuit $7-9$ ).

## Filling/emptying of well or deposit

Any of these operations can be performed with
EBR-1 and a kit of three probes.
Filling: when the level of liquid is lower than probe 3 the output commutes to activate the filling pump of the well or tank until reaching probe 1 that would commute relay again to deactivate the pump.
Emptying: when the level of liquid overflows the maximum probe (probe 1) the output commutes to activate the pump. When the level of liquid is lower than probe 3 , the relay will open deactivating the emptying pump.



EMPTYING

FILL


## EBR-1

- Liquid level relay by probes.
- Filling or emptying control water wells.
- Reinforced protection against lightning.


## Description

- Allows the filling or emptying of an element, either a well, deposit or tank.
- Modular format for installation on DIN rail, two modules wide.
- Enhanced protection against storm disruptions through varistors in the power and the probes.
- LED indicator of relay status.
- Switched relay that allows the filling or emptying function.
- Accessories: Kit of 3 probes (ref. OB230300), surface box of 2 modules (ref. OB140601).


## Technical specifications

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz}$
- Switching capacity: 6 (2) A to 250 V a.c.
- Probe voltage: 10 V a.c.
- Sensivility: 50 kO máx
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

Code Reference
OB230130 EBR-1 MODULAR_230 V a.c., $50-60 \mathrm{~Hz}$

LIQUID LEVEL RELAYS / WELL AND TANK


EBR-2

- Filling and emptying control of two elements (well and tank) with a single device.
- Adjustable sensitivity depending on water conductivity.
- Reinforced protection against lightning.


## Description

- Allows for monitoring the filling of a deposit or a tank from a well.
- Modular format for installation on DIN rail, four modules wide ( 70 mm .).
- Enhanced protection against storm disruptions through varistors in the power input and the probes.
- Front potentiometer to adjust probe sensitivity.
- LED indicator of relay status.
- Dual voltage power supply at 230 V a.c. or 400 V a.c.
- Accessories: Needs two kits of 3 probes ( $2 \times$ ref. OB230300).


## Technical specifications

- Power supply: 230 or 400 V a.c., $50-60 \mathrm{~Hz}$
- Switching capacity: 8 (2) A / 250 V a.c. - 4 (1) A / 400 V a.c.
- Probe voltage: 13 V
- Adjustable sensitivity: 0 to $50 \mathrm{k} \Omega$
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP20 according to EN 60529

| Code | Reference |
| :--- | :--- |
| OB230230 | EBR-2 MODULAR_230/400 V a.c., $50-60 \mathrm{~Hz}$. |

## EBR PROBES

- Electrode made of stainless steel, with nylon cover to avoid contacts with metallic deposits.


## Description

- The current circulating between probes is alternating, eliminating electrolysis problems.
- The probes are placed at the depth of the desired levels. It requires isolated cable of a minimum of $1.5 \mathrm{~mm}^{2}$ and a distance between the probe of the device of 100 meters. For greater distances, it is recommended to use shielded cable, connecting the mesh to the ground.

| Code | Reference |
| :--- | :--- |
| OB230300 | EBR probes EBR-1 needs 1 set of 3 probes, EBR-2 needs 2 sets of 3 probes |

## ((0))

## MOTION / PRESENCE DETECTORS

## MOTION DETECTORS

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## USES AND APPLICATIONS

They allow considerable savings to be achieved in relation to energy consumption of lighting, and are activated only when necessary in hallways, stairs, offices, meeting rooms, bathroom facilities, changing rooms, parkings, etc. They are also used to activate cooling, audio and other circuits.

## According to their operation mode they can be classified as:

## Motion detectors

- Especially suited for transit or short-distance areas such as hallways, stairs, bathroom facilities, etc.
- If lighting conditions are below the selected level and motion is being detected, the unit activates its output contact. It will remain active as long as it detects motion, and the timer starts once it stops detecting movement. The timer cycle is overridden if motion is detected.
- They measure ambient lighting only when switched off.
- Cost reduction generated via motion detector usage in hallways and stores is estimated at $30 \%$ to $80 \%$.


## Presence detectors

- Especially suited for areas such as offices, meeting rooms, classrooms, etc.
- They measure ambient lighting when they are on and, even if there is no continuous movement they are capable of switching off when there is sufficient natural lighting.
- Long delay times are recommended, over 10 minutes.
- The installation of presence detectors in offices can reduce consumption by $13 \%$ to $50 \%$.


## According to their technology they can be classified as:

## Passived infrared (P.I.R.) motion sensors

- Equipped with infrared sensors that detect heat radiation emitted by the human body when it moves. If there is any movement between two of the pick-up beams, the unit activates the output relay, starting up the lighting system, security cameras, heating, doorbells, access doors, etc.
- Avoid strong heat or ventilation sources during mounting as abrupt changes in temperature may activate the detector.
- Pick-up (detection) sensitivity may be compromised if the temperature of the object being detected is close to room temperature, particularly during warmer months. Models equipped with a temperature compensation circuit greatly improve the detection sensitivity in these instances.



## MOTION / PRESENCE DETECTORS

## Active ultrasonic detectors

- This type of sensor transmits and analyses ultrasonic signals (waves) that are imperceptible to the human ear. A disruption in the frequency of emitted and received waves is interpreted as a foreign body and the output circuit is activated.
- They detect even slight movements with high precision. Therefore, are the ideal technology for areas of more sedentary activities such as offices, meeting or waiting rooms, libraries, etc.
- Ultrasonic signals pass through non-metallic surfaces, which allow units to be hidden in false ceilings or on junction boxes inside or outside the
- building. Such qualities are highly useful in dusty or damp environments, such as the food or construction industry, kitchens and showers, or when it is not desirable for the detector to be visible for aesthetic or security reasons in hotels, offices, homes, industrial buildings, etc.



## According to their control mode they can be classified as:

## ON / OFF

- Equipped with an all or nothing output relay, they allow to act straight to the load or through the contactor.


## Dynamic control of ilumination

- Sensors with constant lighting or dynamic control of illumination function are able to control the intensity of artificial lighting, continually regulating combination of natural and artificial lighting for the desired brightness.
- They are always presence detectors, since they continuously measure brightness.
- In order to regulate artificial lighting there are models equipped with Dali or 1-10V by-type output.


## Orientation light function

- Wenn sie keine Bewegung erfassen, reduzieren Melder mit Orientierungslichtfunktion die Intensität der Beleuchtung nach Ablauf der gewöhnlichen Aktivierungszeit auf After the usual activation time, reduces the intensity of illumination until the safety lighting threshold. It is suited to stairs, hallways and garages.
- Orientation light tends to be between $10 \%$ and $30 \%$ of the activation level, it may be fixed or adjusted.
- Orientation light time can also be fixed or adjusted between 0 (without orientation light), from 1 to 30 min and ON (constant).
- To regulate this artificial lighting there are models equipped with Dali or 1-10V by-type output.


## CIRCUMAT＋

－Attractive oval design with polished white front cover．
－Reduced dimensions（only 2.4 cm wide）．
－Up to 500 VA LED switching capacity．

## Description

－Ceiling surface mounting．
－Basic functions cover most applications．
－Outside temperature compensation provides more precise detection．
－Pulse function： $1 \mathrm{~s} 0 \mathrm{ON} / 9 \mathrm{~s}$ OFF．
－Dual neutral connection terminal for easier installation．
－Adjustable parameters：timing and light sensitivity．
－Detection field limiter included，which allows detection cancelation in specific points within the detection area．
－Includes zero－crossing detection feature，required for LED，fluorescence or low energy lighting load control，etc．

## Technical specifications

－Power supply： 230 V a．c．$\pm 10$ \％
－Nominal frequency： 230 V a．c．： $50 / 60 \mathrm{~Hz}$
－Power consumption：5，2 VA（ $0,8 \mathrm{~W}$ ）
－Switching capacity：$\mu 6 \mathrm{~A} / 230 \mathrm{~V} \sim \cos \varphi=1$
－Detection angle： $360^{\circ}$

Max．Recomm．Load

| 曾 | 1200W |
| :---: | :---: |
|  | 400 V |
| $\stackrel{\square}{\square}$ | 1000 V |
|  | 1200 W |
| 吅 | 500 |
| $0 \square$ | 500 |
| $\bigcirc(2)_{\text {上eo }}$ | 500 |

－Brightness range： 3 to 2000 lux
－Timing range： 10 s to 30 min ．Pulse function 1 s ON
－Degree of protection：IP20 according to EN 60529
－Operating temperature：$-20^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
－Limit temperature of operation：$-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB137112 | CIRCUMAT +230 V a．c．， $50 / 60 \mathrm{~Hz}$ | Halls，Box rooms，Landings，Corridors， |
| OB137100 | CIRCUMAT $+120 / 230$ V a．c．， $50 / 60 \mathrm{~Hz}$ | Offices，Restrooms |



## MOVICAM CR

- Easy ceiling mounting with mounting base.
- Security camera appearance.
- Detection diameter of 6 meters.
- MANDO CR for remote control programming.
- Incorporates zero-crossing relay.


## Description

- Motion detector with security camera appeareance. It is perfect for porches, halls and corridors.
- Optionally it can be programmed using the remote control MANDO CR.
- Surface-mounting on the ceiling through a plug-in base.
- Equipped with a temperature compensator.
- Status LED: detects movement or changes in lighting conditions outside of the selected level.
- Stepped time selector.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Adjustable parameters: detection area, timing, and light sensitivity.
- Accesory: remote control MANDO CR (OB134712).


## Technical specifications

- Power supply: 230 V a.c. $50-60 \mathrm{~Hz}$
- Swicht capacity: 5 to 230 V a.c.
- Timing: from 30 s to 30 min . Pulse function 1 sec . ON
- Light sensibility: adjustable 2-1.000 lux
- Operating Temp: $-10^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Detection angle: $360^{\circ}$
- Installation height: Surface on ceilings of up to 2.4 m high
- Detection field: Frontal: 6m / Lateral: 3m / Rear: 1 m

Max. Recomm. Load
1000 W
250 VA
500 VA
2
0

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB135912 | MOVICAM CR_230 V a.c., $50-60 \mathrm{~Hz}$ | Meeting rooms, Car parks, Corridors, |
|  |  | Landings, Lift access, Receptions |

## DICROMAT +

- Suspended ceiling recessed mounted.
- Unobtrusive design and basic functions.
- Up to 500 VA LED switching capacity.


## Description

- Suspended ceiling recessed mounted (65 mm hole).
- Discreet design in polished white finish with high detection flat lens.
- Basic functions cover most applications.
- Outside temperature compensation provides more precise detection.
- Dual neutral connection terminal for easier installation.
- Adjustable parameters: timing and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- Includes zero-crossing detection feature, required for LED, fluorescence or low energy lighting load control, etc.
- Ideal for installation in landings, halls, bathroom facilities, sanitary cabins, etc.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: $50 / 60 \mathrm{~Hz}$
- Power consumption: 5,5 VA ( $0,8 \mathrm{~W}$ )
- Switching capacity: $\mu 6 \mathrm{~A} / 230 \mathrm{~V} \sim \cos \varphi=1$
- Detection angle: $360^{\circ}$
- Detection field: Up to 10 m diameter at $2,5 \mathrm{~m}$ height
- Brightness range: 3 to 2000 lux
- Timing range: 10 s to 15 min
- Degree of protection: IP20 according to EN 60529

Max. Recomm. Load


1200 W 400 VA 1000 VA
1200 W
㭡 500 VA
$=500 \mathrm{VA}$
®(2)
500 VA

- Operating temperature: $-20^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Limit temperature of operation: $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB136112 | DICROMAT +230 V a.c. $50 / 60 \mathrm{~Hz}$ | Landings, halls, bathroom facilities, sanitary |
| OB136100 | DICROMAT $+120 / 230 \mathrm{~V}$ a.c. $50 / 60 \mathrm{~Hz}$ | cabins, etc |

## DICROMAT MICRO

- Installation: Built-in to the ceiling.
- Small detector head, only 16 mm .
- Ideal for small spaces such as closets, elevators, entrance door or toilet cabinets.


## Description

- Built-in ceiling installation.
- The small size of the detector and of the detection area makes it the ideal unit for small spaces such as entrance halls, wardrobes, lifts, sanitary cubicles, etc.
- It is composed of two elements: the connection device that is installed on the ceiling and the small builtin 16 m detector.
- Status LED that activates when the system detects motion.
- Adjustable parameters: timing, and light sensitivity.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c., 50 Hz
- Swicht capacity: 10 A to 230 V a.c.
- Timing: from 6s to 12 min.
- Light sensibility: adjustable from 5 to 3.000 lux
- Protection degree: IP 20 according to EN 60529
- Detection angle: $360^{\circ}$
- Detection field: Up to 4 m diameter
- Installation height: 2.5 m


2000 W
100 VA
1000 VA
2000 W
甽 100 VA
$\Rightarrow 100 \mathrm{VA}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB133612 | DICROMAT MICRO_230 V a.c., 50 Hz | Lifts, Halls, Sanitary cabins |

## DICROMAT MINI / DICROMAT MINI 2

- Installation: Built-in to the ceiling.
- DICROMAT MINI 2 has two outputs with different timings.
- Adjustable parameters: timing, and light sensitivity.


## Description

- Built-in roof installation using a 55 mm drill.
- DICROMAT MINI 2 has two output contacts with different timings. It is ideal for timing two circuits with one detector. For instance, lighting, and bathroom ventilation facilities; lighting and piped music in waiting rooms; lighting and security camera in offices and homes etc.
- The second contact of DICROMAT MINI 2 reacts regardless of light setting.
- It is composed of two elements: the connection device that is installed on the ceiling and the built-in detector.
- Adjustable parameters: timing, and light sensitivity.


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Swicht capacity Circuit 1:10 A to 230 V a.c.
- Swicht capacity Circuit 2:5 A to 230 V a.c.
- Timing Circuit 1: from 6s to 12 min
- Timing Circuit 2: from 10s to 30 min
- Light sensibility:a djustable from 5 to 3.000 lux
- Circuit 2 of DICROMAT MINI 2 always reacts regardless of light setting
- Protection degree: IP 20 according to EN 60529
- Detection angle: $360^{\circ}$, detection field: Up to 7 m diameter, installation height: 2.5 m
- Detection field: Up to 7 m diameter
Max. Recomm. Load

| Code | Reference | Contacts | Applications |
| :--- | :--- | :--- | :--- |
| OB133512 | DICROMAT MINI_230 V a.c., 50 Hz | 1 | Lifts, Halls, Sanitary cabins |
| OB133912 | DICROMAT MINI 2_230 V a.c., 50 Hz | 2 |  |

## COMBIMAT

- Recessed ceiling or fitting box $65 \times 65 \mathrm{~mm}$ or surface installation.
- Up to 24 m detection diameter with a $360^{\circ}$ angle.
- Input for external push buttons, ideal for long corridors and staircases.


## Description

- Recessed ceiling installation via a 68 mm hole and included accessory.
- It can also be installed in a $65 \times 65 \mathrm{~mm}$ fitting box via included accessory.
- Surface installation with adapter (additional accessory OB137860).
- Contains detection limiter for small spaces or to prevent detection areas.
- Ideal installation height between 2 and 4 m .
- $360^{\circ}$ detection angle and up to 24 m diameter.
- Double terminal for neutral connection.
- Input to activate timed switching from additional push buttons, external to COMBIMAT.
- High sensitivity PIR detector.
- Timing adjustable from 30 s to 30 min.
- Pulse function ( $1 \mathrm{~s} \mathrm{ON} / 9 \mathrm{~s}$ OFF) to activate sound signals for presence of people or other circuit types.
- Light sensitivity adjustable from 10 to 2,000 lux, so that it only switches on from dusk.
- Learning mode to guarantee the light level below which the lighting is activated.
- Equipped with a relay to improve maximum connecting power up to 300 VA for LED lamps or 1200 VA for fluorescent ones.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: 50 / 60 Hz
- Power consumption: 5.5 VA ( 0.2 W ) $50 \mathrm{~Hz} / 6.7 \mathrm{VA}(0.3 \mathrm{~W}) 60 \mathrm{~Hz}$
- Switching capacity: $\mu 10 \mathrm{~A} / 230 \mathrm{~V} \sim \cos \varphi=1$
- Detection angle: $360^{\circ}$
- Detection field: Up to 24 m diameter at 2.5 m height
- Lux level range: 10 lux to 2000 lux, FIXED, LEARNING
- Timing range: 30 s to 30 min , PULSE, TEST
- Degree of protection: IP20 according to EN 60529 (EU standard box or spring clips) / IP54 according to EN 60529 (surface mount box)
- Operating temperature: $-20^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Applications |
| OB 0B137812 | COMBIMAT | Doorways, landings, corridors, meeting rooms, |
|  |  | warehouses, classrooms, garages, etc. |

## Recessed ceiling mounting through 68 mm drill:

Surface ceiling mounting by additional accessory:

COMBIMAT 12M

- Recessed ceiling or fitting box $65 \times 65 \mathrm{~mm}$ or surface installation.
- Up to 12 m installation height and 20 m diameter.
- Specially designed for high ceiling spaces, such as industrial plants and warehouses.


## Description

- Recessed ceiling installation via a 68 mm hole and included accessory.
- Surface installation with adapter (additional accessory OB137860).
- It can also be installed in a $65 \times 65 \mathrm{~mm}$ fitting box via included accessory.
- Contains detection limiter for small spaces or to prevent detection areas.
- Its high capturing capacity enables installation heights of up to 12 metres.
- $360^{\circ}$ detection angle and up to 20 m diameter.
- Double terminal for neutral connection.
- Input to activate timed switching from additional push buttons, external to COMBIMAT.
- High sensitivity PIR detector.
- Timing adjustable from 30 s to 30 min.
- Pulse function ( $1 \mathrm{~s} \mathrm{ON} / 9 \mathrm{~s}$ OFF) to activate sound signals for presence of people or other circuit types.
- Light sensitivity adjustable from 10 to 2,000 lux, so that it only switches on from dusk.
- Learning mode to guarantee the light level below which the lighting is activated.
- Equipped with a relay to improve maximum connecting power up to 300 VA for LED lamps or 1200 VA for fluorescent ones.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: 50 / 60 Hz
- Power consumption: 5.5 VA ( 0.2 W ) $50 \mathrm{~Hz} / 6.7 \mathrm{VA}$ (0.3 W) 60 Hz
- Switching capacity: $\mu 10 \mathrm{~A} / 230 \mathrm{~V} \sim \cos \varphi=1$
- Detection angle: $360^{\circ}$
- Detection field: Up to 20 m diameter at 12 m height
- Lux level range: 10 lux to 2000 lux, FIXED, LEARNING
- Timing range: 30 s to 30 min , PULSE, TEST
- Degree of protection: IP20 according to EN 60529 (EU standard box or spring clips) / IP54 according to

Max. Recomm. Load
 EN 60529 (surface mount box)

- Operating temperature: $-20^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB 0B137820 | COMBIMAT 12M | Doorways, landings, warehouses, classrooms, |
|  |  | gym rooms and any space with high ceilings |

## Recessed ceiling mounting through 68 mm drill:

Surface ceiling mounting by additional accessory:

## COMBIMAT 40.5

- Recessed ceiling or fitting box $65 \times 65 \mathrm{~mm}$ or surface installation.
- $40 \times 5 \mathrm{~m}$ rectangular capture area.
- Designed to be installed in corridors.


## Description

- Recessed ceiling installation via a 68 mm hole and included accessory.
- It can also be installed in a $65 \times 65 \mathrm{~mm}$ fitting box via included accessory.
- Surface installation with adapter (additional accessory OB137860).
- Contains detection limiter for small spaces or to prevent detection areas.
- Installation height 2.5 m .
- $360^{\circ}$ detection angle, $40 \times 5 \mathrm{~m}$ rectangular area.
- Specially designed to be installed in corridors.
- Double terminal for neutral connection.
- Input to activate timed switching from additional push buttons, external to COMBIMAT.
- High sensitivity PIR detector.
- Timing adjustable from 30 s to 30 min.
- Pulse function ( 1 s ON / 9 s OFF) to activate sound signals for presence of people or other circuit types.
- Light sensitivity adjustable from 10 to 2,000 lux, so that it only switches on from dusk.
- Learning mode to guarantee the light level below which the lighting is activated.
- Equipped with a relay to improve maximum connecting power up to 300 VA for LED lamps or 1200 VA for fluorescent ones.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: 50 / 60 Hz
- Power consumption: $5.5 \mathrm{VA}(0.2 \mathrm{~W}) 50 \mathrm{~Hz} / 6.7 \mathrm{VA}(0.3 \mathrm{~W}) 60 \mathrm{~Hz}$
- Switching capacity: $\mu 10 \mathrm{~A} / 230 \mathrm{~V} \sim \cos \varphi=1$
- Detection field: $40 \mathrm{~m} \times 5 \mathrm{~m}$
- Lux level range: 10 lux to 2000 lux, FIXED, LEARNING
- Timing range: 30 s to 30 min , PULSE, TEST
- Degree of protection: IP20 according to EN 60529 (EU standard box or spring clips) / IP54 according to EN 60529 (surface mount box)

Max. Recomm. Load


- Operating temperature: $-20^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB 0B137840 | COMBIMAT 40.5 | Corridors and rectangular areas in residential |
|  |  | buildings, offices, hotels, hospitals, school,etc. |

## Recessed ceiling mounting through 68 mm drill:

Surface ceiling mounting by additional accessory:

## COMBIMAT KNX

- Recessed ceiling or fitting box $65 \times 65 \mathrm{~mm}$ or surface installation.
- Up to 24 m detection diameter with a $360^{\circ}$ angle.
- Compatible with the KNX communication standard for smart buildings.


## Description

- Recessed ceiling installation via a 68 mm hole and included accessory.
- It can also be installed in a $65 \times 65 \mathrm{~mm}$ fitting box via included accessory.
- Surface installation with adapter (additional accessory OB137860).
- Contains detection limiter for small spaces or to prevent detection areas.
- Ideal installation height of 2.5 m .
- $360^{\circ}$ detection angle and up to 24 m diameter.
- Integrated in a KNX system, it enables regulating the lighting, heating or any other KNX device, such as security elements, access control, etc.
- It includes one lighting level, on standby or double level to maintain a reduced level of lighting (between $10 \%$ and $60 \%$ ) while no movement is detected. This prevents having completely dark corridors in housing corridors, hotels, offices etc.
- Optional input for ON/OFF switching or lighting regulation by means of an external manual push button.
- High sensitivity PIR detector.
- Timing adjustable from 30 s to 60 min.
- Pulse function ( 1 s ON / 9 s OFF) to activate sound signals for presence of people or other circuit types.
- Light sensitivity adjustable from 10 lux, so that it only switches on from dusk.
- Learning mode to guarantee the light level below which the lighting is activated.


## Technical specifications

- Power supply: 21 a 30 Vdc (via KNX)
- Power consumption:10 mA
- Detection angle: $360^{\circ}$
- Detection field: Up to 24 m diameter at 2.5 m height
- Sensitivity range: $20 \%$ a $100 \%$
- Lux level range: 10 a 2000 lux - $-\underset{1}{ }$
- Timing range: 30 s a 60 min
- Degree of protection: IP20 according to EN 60529
- Operating temperature: $-20^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB OB137850 | COMBIMAT KNX | Corridors, meeting rooms, offices, warehouses, |
|  |  | classrooms, etc. |

## Recessed ceiling mounting through 68 mm drill:

## Surface ceiling mounting <br> by additional accessory:

MAT

- Surface wall installation. IP55.
- Angle: $140^{\circ}$ with $180^{\circ}$ horizontal rotation.
- Timing, light sensitivity adjustable


## Description

- Surface-wall installation motion detector.
- IP 55 protection from dust ingress and water jets in accordance with EN 60529
- Adjustable parameters: timing, and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- Detector head rotation to direct towards detection area.


## Technical specifications

- Power supply: 230 V a.c., $50 / 60 \mathrm{~Hz}$
- Swichting capacity: 10 A 230 V a.c.
- Timing: from 3s to 30 min
- Light sensibility: adjustable 5-2.000 lux
- Operating Temp: $-30^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP55 according to EN 60529
- Detection area: $140^{\circ}$
- Detection field frontal: 12 m at $20^{\circ} \mathrm{C}$
- Detection field slide: 8 m at $20^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB134312 | ISIMAT_140, 230 V a.c., $50 / 60 \mathrm{~Hz}$ | Halls, Boxrooms, Landings |
| OB134342 | ISIMAT_140, 120 V a.c., 60 Hz |  |

## ISIMAT +



- Wall installation smooth. IP55.
- Angle: $200^{\circ}$ with $180^{\circ}$ horizontal rotation.
- Timing, light sensitivity adjustable.


## Description

- Surface-wall installation motion detector.
- IP55 protection from dust ingress and water jets in accordance with EN 60529.
- Adjustable parameters: timing, and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- Detector head rotation to direct towards detection area.


## Technical specifications

- Power supply: 230 V a.c., $50 / 60 \mathrm{~Hz}$
- Swichting capacity: 10 A 230 V a.c.
- Timing: from 3s to 30 min .
- Light sensibility: adjustable 5-2.000 lux
- Operating Temp: $-30^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Limit temperature of operation: $-30^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

Max. Recomm. Load

- Protection degree: IP55 according to EN 60529
- Detection angle: $200^{\circ}$
- Detection field frontal: 12 m at $20^{\circ} \mathrm{C}$
 1200 VA 1200 VA 2000 W
(u) 1200 VA
$\Rightarrow 1200$ VA
- Detection field slide: 8 m at $20^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB134112 | ISIMAT +_200, $230 ~ V ~ a . c ., ~$ | $50 / 60 \mathrm{~Hz}$ | Halls, Boxrooms, Landings.

## NEOMAT

- Elegant design, small size ( $10 \times 10 \mathrm{~cm}$ ) and discreet look.
- Surface-wall or in corners and nooks installation.
- Zero-crossing relay for LED.


## Description

- Its elegant design and small dimensions $(10 \times 10 \mathrm{~cm})$ give it a discreet appearance ideal for installation in hotels, offices and homes.
- Installation on smooth walls or in corners and nooks by means of included accessory.
- Equipped with zero-crossing relay for better switching of LED, fluorescent or energy-saving loads.
- Silicone plug for better insulation of power cables.
- Adjustable parameters: timing from 10 s to 15 min . and luminous sensitivity so that the lighting turns on only at night.
- IP54 protection against dust and water jets according to EN 60529.


## Technical specifications

Max. Recomm. Load

- Alimentación: $230 \mathrm{~V} \mathrm{ac} \pm 10 \%$
- Frecuencia nominal: $50 / 60 \mathrm{~Hz}$
- Consumo propio: 0,7 W (6 VA)
- Poder de ruptura: $\mu 6$ A $230 \mathrm{~V} \sim \cos \varphi=1$
- Ángulo de detección: $180^{\circ}$
- Campo de detección: $11 \mathrm{~m}\left(24^{\circ} \mathrm{C}\right)$
- Sensibilidad lumínica: 3 a 2000 lux
- Rango de temporización: 10 s a 15 min
- Grado de protección: IP54 según EN 60529
- Temperatura de funcionamiento: $-20^{\circ} \mathrm{C}$ a $40^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB131512 | NEOMAT 230 Vac $50-60 \mathrm{~Hz}$ | Corridors, stairways and landings in hotels, |
|  |  | offices, homes, etc. |

## PROXIMAT

- Flat wall, inner and outer corners mounting.
- Angle: $240^{\circ}$ with $180^{\circ}$ horizontal rotation.
- Timing, light sensitivity and detection field adjustable.


## Description

- Flat wall, inner or outer corner surface-mounting motion detector.
- Broad detection capacity, $240^{\circ}$ detection angle with $180^{\circ}$ horizontal rotation.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- LED indicator light that turns on when the unit detects motion.
- IP 45 protection from dust ingress and water jets in accordance with EN 60529.
- Adjustable parameters: detection area, timing, and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- Flat wall, inner or outer corners installation.
- Detector head rotation to direct towards detection area.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c., 50 Hz
- Swicht capacity: 10 to 230 V a.c.
- Timing: from 10 s to 10 min. Pulse function 1 S ON
- Light sensibility: adjustable 5-2.000 lux
- Protection degree: IP 45 according to EN 60529

- Maximum detection area: Angle: $240^{\circ}$. Height: $2,5 \mathrm{~m}$
- Frontal distance: 12 m at $20^{\circ} \mathrm{C}$
- Lateral distance: 15 m at $20^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB132312 | PROXIMAT_230 V a.c., 50 Hz | Halls, Landings, Landing with stairs, Corridors, etc. |

## MOTION DETECTORS / ON WALL / CEILLING

## MULTIMAT

- Installation: Flat wall, inner and outer corners or surface ceiling by plug-in connection base. IP55.
- Angle: $200^{\circ}$ with $180^{\circ}$ horizontal rotation.
- Timing and light sensitivity adjustable.


## Description

- Wall or ceiling surface-mounting motion detector, it can also be installed in inner or outer corners.
- IP55 protection from dust ingress and water jets in accordance with EN 60529.
- Adjustable parameters: timing, and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- LED indicator light that turns on when the unit detects motion.


## Technical specifications

- Power supply: $230 \mathrm{Vac}, 50 \mathrm{~Hz}$
- Swichting capacity: 10 A 230 Vac
- Timing: from 3s to 30 min.
- Light sensibility: adjustable 5-2.000 lux
- Operating Temp: $-20^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Protection degree: IP55 according to EN 60529
- Detection: angle: $200^{\circ}$, field frontal: 12 m at $20^{\circ} \mathrm{C}$, field slide: 8 m at $20^{\circ} \mathrm{C}$

| Max. Recomm. Load |  |
| :---: | :---: |
| 2000 W |  |
|  | 1200 VA |
|  | 1200 VA |
|  | 2000 W |
|  | 1200 VA |
| 2 | 1200 VA |
| 20 | 400 VA |


| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB134212 | MULTIMAT_230 Va.c., 50 Hz | Halls, Landings |

## PROXIMAT PRO CR

- Flat wall, inner or outer corner surface-mounting.
- Detector range up to $\varnothing 30 \mathrm{~m}$. at 3.5 m in height. Maximum height 7 m .
- Compatible with MANDO CR for remote programming without ladder or screwdriver.


## Description

- Wall or ceiling surface-mounting motion detector, it can also be installed in inner or outer corners.
- It stands out for its great detection capacity: 7 m high, 10 m in diameter; $3,5 \mathrm{~m}$ high 30 m in diameter.
- Equipped with a temperature compensator
- Optionally it can be programmed using the remote control MANDO CR which allows the changing of parameters and functions without the need of a ladder or tools. It streamlines both maintenance and cleaning.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Status LED: detects movement or changes in lighting conditions outside of the selected level.
- Adjustable parameters: detection area, timing, and light sensitivity.
- Stepped time selector.
- Pulse function: 1 s. ON / 4 s. OFF.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area
- Accessory: remote control MANDO CR (OB134712).
- Flat wall, inner or outer corner, or ceiling installation.
- Detector head rotation to direct towards detection area.


## Technical specifications

- Power supply: 230 V a.c., $50 / 60 \mathrm{~Hz}$
- Swicht capacity: 10 to 230 V a.c.
- Timing: from 10 s to 10 min . Pulse function 1 S 0 N
- Light sensibility: adjustable 10-1.000 lux
- Operating Temp: $-30^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP55 according to EN 60529
- Maximum detection area: Angle: $360^{\circ}$. Height: 3,5 m
- Frontal distance: 13 m at $20^{\circ} \mathrm{C}$
- Lateral distance: 13 m at $20^{\circ} \mathrm{C}$

Max. Recomm. Load


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$\Rightarrow$
(1)ㄴำ

## ECOMAT MINI

- High Frequency detection (5,8 GHz), high performance detects even slight movements.
- It can pass through non metallic surfaces and can be installed covertly over plaster or false ceiling.
- Small enough to install hidden on installation box, junction box and even within the luminaire.


## Description

- High Frequency detection, high performance detects even slight movements and can be inconspicuously installed.
- Its small size and the fact that it can detect through non-metallic surfaces.
- This feature allow the device to detect without being seen, which is ideal from an aesthetic and safety point of view in hotels, offices, meeting rooms, etc.
- Its detection capacity does not depend on ambient temperature. Therefore it maintains accuracy in hot or humid environments such as kitchen or showers.
- The detection improves in closed volumes such as corridors, entrance halls, bathroom facilities and offices. It decreases in open or large spaces such as garages, porches, etc.
- Test function to check the requested detection area.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Adjustable parameters: detection area, timing, and light sensitivity.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz}$
- Swicht capacity: 6 A to 230 V a.c.
- Timing: from 5 s to 30 min
- Light sensibility: adjustable from 5 to 2.000 lux
- Operating Temp: $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Detection angle: $360^{\circ}$


1000 W

- Detection field: Up to 10 m diameter at $2,5 \mathrm{~m}$ height.
$\qquad$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB135012 | ECOMAT MINI_230 V a.c., $50-60 \mathrm{~Hz}$ | Halls, Home Corridors, Offices, |
|  |  | Box room corridors, Meeting rooms |

ORBIMAT

- Suitable for any type of loads.
- Mounting in installation box.
- Timing and light sensitivity adjustable.


## Description

- In a matter of minutes the existing manual switch can be replaced and significant savings can be achieved without building work.
- Allows the connection of additional push-buttons. Therefore it can also work as staircase timer
- 3-position hidden manual control: automatic, ON or permanently OFF.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Status LED: detects movement or changes in lighting conditions outside of the selected level.
- Quick plug-in terminals.
- Equipped with a temperature compensator.
- Adjustable parameters: timing, and light sensitivity.
- Stepped time selector.
- Pulse function: $1 \mathrm{~s} .0 \mathrm{~N} / 4 \mathrm{~s}$. OFF.


## Technical specifications

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz}$
- Swicht capacity: 6 A to 230 V a.c.
- Timing: from 30 s to 20 min. Pulse function 1 S ON
- Light sensibility: 5 to 2.000 lux
- Operating Temp: $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

- Detection angle: $200^{\circ}$
- Detection field: 0 to 6 meters
- Installation height: 0.8 m to 1.5 m

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Applications |
| OB132612 | ORBIMAT 230 V ac. $50-60 \mathrm{~Hz}$ | Halls, |

## MINIMAT

- Mounting in installation box with 3 modules.
- The existing manual switch can be replaced.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.


## Description

- Motion detector mounted in Italian style installation box with 3 modules (503) or $4 \times 2$ inches.
- In a matter of minutes the existing manual switch can be replaced and significant savings can be achieved without building work.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Status LED: detects movement.
- Adjustable parameters: timing, and light sensitivity.
- Includes replaceable front panels in white, black and charcoal.
- Adapter frames compatible with the following series of mechanism: BTICINO* (Living, LivingLight, LivingLight Tech, LivingLight Air, Axolute, Axolute Air, Matix), IVIMAR* (Plana, Eikon, Arké), GEWISS* (Chorus), AVE* (Sistema 44), SCHNEIDER* (Unica 3 modules).


## Technical specifications

- Power supply: 230 V a.c. $\pm 10$ \%
- Nominal frequency: 50 Hz
- Power consumption: 1,1 W (5,4 VA)
- Switching capacity: $\mu 4 \mathrm{~A} / 230 \mathrm{~V} \sim \cos \varphi=1$
- Detection angle: $120^{\circ}$ @ $22^{\circ} \mathrm{C}$
- Detection field: Up to $7 \mathrm{~m} @ 22^{\circ} \mathrm{C}$
- Brightness range: 10 ... 2000 lux
- Timing range: 10 s ... 3 min

Max. Recomm. Load


800 W
200 VA
500 VA
800 W

- Degree of protection: IP 20 según EN 60529
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Applications |
| OB135312 | MINIMAT_230 Va.c., 50 Hz | Halls, Home corridors, Sanitary cabinets |

## CIRCUMAT PRO CR

- Easy installation on surface ceiling by plug-in base.
- Detection range up to ø 30 m . at 3.5 m . height. Maximum height 7 m .
- Compatible with MANDO CR for remote programming without ladder or screwdriver.


## Description

- Great detection capacity: 7 m high 10 m diameter to 3.5 m high 30 m diameter.
- Surface-mounting on the ceiling through a plug-in base for faster installation.
- Classified as a presence detector by its high detection capacity and because it is equipped to continuously measure ambient light levels.
- Optionally it can be programmed using the remote control MANDO CR which allows the changing of parameters and functions without the need of a ladder or tools. It streamlines and simplifies both installation and maintenance.
- Status LED: detects movement or changes in lighting conditions.
- Stepped time selector.
- Pulse function: $1 \mathrm{~s} 0 \mathrm{~N} / 4 \mathrm{~s}$ OFF.
- Zero-crossing relay for a better switching of LED-type loads.
- Adjustable parameters: detection area, timing, and light sensitivity.
- Detection field limiter included.
- Accesory: remote control MANDO CR (OB134712).


## Technical specifications

- Power supply: 230 V a.c., $50 / 60 \mathrm{~Hz}$
- Swicht capacity: 10 to 230 Va.c.
- Timing: from 10 s to 10 min. Pulse function 1 S ON
- Light sensibility: adjustable from 10 to 1.000 lux
- Operating Temp: $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 44 according to EN 60529
- Detection angle: $360^{\circ}$
- Detection field: Up to 18 m diameter at $2,5 \mathrm{~m}$ height / Up to 30 m diameter at $3,5 \mathrm{~m}$ height / Up to 20 m diameter at 5 m height


## Max. Recomm. Load <br> 

- Installation height: Ceilling up to 7 metres

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB134912 | CIRCUMAT PRO CR_230 V ac, $50 / 60 \mathrm{~Hz}$ | Classrooms, Changing rooms, |
|  |  | Meeting rooms, Industrial premises |

## CIRCUMAT CR 12 M

- Easy installation on ceiling through pluggable base.
- Admits an installation height of up to 12 metres with 17 metres diameter.
- Compatible with MANDO CR remote control for distance programming without the need for a ladder or a screwdriver.
- Specifically designed for spaces with high ceilings such as industrial plants and warehouses.


## Description

- Specially designed for rooms with high ceilings such as warehouses and industrial buildings. It allows for an installation height up to 12 meters, and 17 meters in diameter.
- Classified as a presence detector by its high detection capacity and because it is equipped to continuously measure ambient light levels.
- Optionally it can be programmed using the remote control MANDO CR.
- Status LED: detects movement or changes in lighting conditions outside of the selected level.
- Stepped time selector. Pulse function: 1 s . ON / 4 s . OFF.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Adjustable parameters: detection area, timing, and light sensitivity.
- Accesory: remote control MANDO CR (OB134712).


## Technical specifications

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz}$
- Swicht capacity: 10 A to 230 V a.c.
- Timing: from 10s to 10 min. Pulse function 1 S 0 N .
- Light sensibility: adjustable from 10 to 1.000 lux
- Operating Temp: $-10^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Protection degree: IP 44 according to EN 60529
- Detection angle: $360^{\circ}$
- Installation height: Surface on ceilings of up to 12 m maximum height
- Detection field: Up to 17 m diameter at 12 m height

| Max. Recom | Load |
| :---: | :---: |
| - | 2200 W |
| [ | 1200 VA |
| $B$ | 2000 VA |
| (11) | 2200 W |
| 吅 | 1000 VA |
| =0] | 900 VA |
| (2) | 500 VA |

## CIRCUMAT PRO 1 - 10 V

- Presence detector with analogue output 1-10 V for dimmable lighting control.
- Surface-mounting on the ceiling through a plug-in base for faster installation.
- Broad detection height of 5 meters and 20 meters in diameter.


## Description

- Presence detector with analogue output 1-10 V for dimmable lighting control.
- It allows for individual light level regulation, providing comfort and cost reduction.
- Functions: Switching ON/OFF, dynamic control in accordance with natural light., fixed or timed orientation light Mode.
- Surface-mounting on the ceiling through a plug-in base for faster installation.
- Broad detection height of 5 meters and 20 meters in diameter.
- Status LED: detects movement or changes in lighting conditions outside of the selected level.
- Stepped time selector and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Timing: from 10 s to 30 min .
- Light sensibility: adjustable 10-1.000 lux
- Operating Temp: $-10^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Protection degree: IP20 according to EN 60529
- Detection angle: $360^{\circ}$
- Detection field: Up to 18 m diameter at $2,5 \mathrm{~m}$ height / Up to 30 m diameter at $3,5 \mathrm{~m}$ height / Up to 20 m diameter at 5 m height
- Installation height: Ceilling up to 7 metres

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB134910 | CIRCUMAT PRO 1-10 V_230 V a.c., 50-60 Hz | Meeting rooms, Offices, Hallways, Class- |
|  |  | rooms, Corridors |

## CIRCUMAT PRO DALI

- Presence detector equipped with DALI (Digital Addressable Lighting Interface).
- Integratable with advanced management systems in smart buildings, car parks, industrial.warehouses, etc.
- Large detection height of 5 meters and 20 meters in diameter.


## Description

- Presence detector equipped with DALI (Digital Addressable Lighting Interface) two-way communication.
- DALI is a communication standard, in accordance with IEC 62386, for control of dimmable electronic equipment associated with lamps. Through a single two-wire line it enables the independent control of a lighting installation in groups of 16 or in broadcast mode.
- Integratable with advanced management systems in smart buildings, car parks, industrial warehouses, etc.
- Functions: Switching ON/OFF, dynamic control in accordance with natural light.
- Fixed or timed orientation light Mode, it supports an additional external push-button for power on/off or regulation of intensity.
- Broad detection height of 5 meters and 20 meters in diameter.
- Status LED: detects movement or changes in lighting conditions.
- Stepped time selector and light sensitivity.
- Detection field limiter included.


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Timing: from 10 s to 30 min
- Light sensibility: adjustable 10-1.000 lux
- Operating Temp: $-10^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Detection angle: $360^{\circ}$
- Detection field: Up to 18 m diameter at $2,5 \mathrm{~m}$ height / Up to 30 m diameter at $3,5 \mathrm{~m}$ height / Up to 20 m diameter at 5 m height
- Installation height: Ceiling up to 7 metres

| Code | Reference |  |
| :--- | :--- | :--- |
| OB134930 | CIRCUMAT PRO DALI_230 V a.c., 50 Hz | Aplications |
| Offices, Shopping centres, Garages, Halls |  |  |

DICROMAT + 1-10 V

- Discreet design for built-in ceiling.
- It regulates artificial lighting based on available sunlight.


## Description

- Presence detector with analogue output 1-10 V for dimmable lighting control.
- It adjusts indoor lighting based on the outdoor natural light provided to maintain the desired lighting level.
- Making good use of sunlight results in significant energy and economic savings in office buildings, business premises, hotels, apartment blocks, schools, etc.
- It enables large spaces to be divided up into areas with higher or lower levels of outdoor light in order to regulate by area.
- Suitable for all 1-10 V dimmable lamps (incandescent, halogen, fluorescent, LED, etc.).
- The on time can be set from 10 sec to 30 min . After this time, the lighting can be switched off or kept at a reduced level permanently or for a specified period. This feature is ideal for corridors in hotels and residential buildings.
- The NIGHT mode maintains a reduced level of lighting from dusk until dawn. If movement is detected, the lighting level is increased to $100 \%$.
- It can also operate as a twilight switch, without timing, switching the lighting on below 60 Lux and switching it off above 400 Lux.
- Detection area: 10 m diameter at 2.5 m high.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: $50 / 60 \mathrm{~Hz}$
- Power consumption: $6.5 \mathrm{VA}(0.5 \mathrm{~W})$
- Detection angle: $360^{\circ}$
- Detection field: Up to 10 m diameter at $2,5 \mathrm{~m}$ height
- Brightness range: 100 lux to 2000 lux
- Timing range: 10 s to 30 min . TWILIGHT mode ( $0 \mathrm{~N}<60 \mathrm{lux}, \mathrm{OFF}>400 \mathrm{lux}$ )
- STAND BY Timing range: 5, 10, 30, 60 min. at night (NIGHT) permanent( $\infty$ )

Max. Recomm. Load


1200 W
500 VA
1000 VA
1200 W
$\mathbb{W}$ 500 VA

- STAND BY Lamp light level: OFF, 10\%, 20\%, 30\%
- Degree of protection: IP20 according to EN 60529
- Method of mounting control: Built in
- Operating temperature: $-20^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB136212 | DICROMAT +1-10V 230 V a.c., 50-60 Hz | Corridors, meeting rooms, classrooms, |
|  |  | offices, business premises, etc. |

## DICROMAT + CR / DICROMAT 2+ CR with remote control (CR)

- Same technical features as DICROMAT + with the possibility of being programmed by MANDO CR remote control.
- Facilitates the setting of parameters without having to climb a ladder. Saves time in both installation and maintenance.
- Ideal for installations with several detectors such as hotels, offices, buildings, etc.


## Description

- Additional sensors streamline, simplify and economize the installation, it is not necessary to buy or wire several DICROMAT +CR.
- Also, DICROMAT $2+$ CR 2 has two output contacts with different timings. It is deal for timing two circuits with one detector.
- DICROMAT +CR has an input for push-button connection. Therefore it is also works as staircase timer.
- Status LED that activates when the system detects motion.
- Stepped time selector. Adjustable parameters: detection area, timing, and light sensitivity.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Accessory: additional sensor DICROMAT SENSOR + (OB133412), remote control MANDO CR (OB134712).


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Swicht capacity: 10A 230 V a.c.
- Timing Circuit 1: from 10 s to 10 min.Pulse function 1 S ON
- Timing Circuit 2: from 10 s to 15 min
- Light sensibility: adjustable from 2 to 2.000 lux
- Circuit 2 of DICROMAT 2+ CRalways reacts regardless of light setting
- Operating Temp: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Detection angle: $360^{\circ}$
- Detection field: Up to 7 m at 2.5 m height

Max. Recomm. Load


2200 W 1200 VA

| Code | Reference | Contacts | Applications |
| :--- | :--- | :--- | :--- |
| OB134512 | DICROMAT + CR_230 V a.c., 50 Hz | 1 | Halls, Landings, Corridors, |
| OB134612 | DICROMAT 2+ CR_230 V a.c., 50 Hz | 2 | Offices, Restrooms |

## DICROMAT SENSOR +

- Additional detector compatible with DICROMAT + CR, DICROMAT 2 + CR and pre-2017 models DICROMAT + and DICROMAT $2+$.
- It is the ideal for long corridors in hotels and residential buildings.
- It streamlines, simplifies and economizes the installation.


## Description

- Additional detector compatible with DICROMAT + CR, DICROMAT $2+$ CR and pre-2017 models DICROMAT + and DICROMAT $2+$.
- It is the ideal model for installations with long corridors given that it can be connected to master unit DICROMAT +CR/2 +CR.
- It streamlines, simplifies and economizes the installation given that it is not necessary to buy or wire all the detectors of the corridor or area to be covered.
- Adjustable detection area.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- DICROMAT SENSOR + includes a 7 m extender cable.


## Technical specifications

- Detection angle: $360^{\circ}$
- Detection field: Up to 7 m diameter at 2.5 m height
- Degree of protection: IP 20 according to EN 60529
- Method of mounting control: Ceiling (reccesed)
- Connection: Adapter wire
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB133412 | DICROMAT SENSOR + | Long corridors in hotels and residential buildings |



## ECOMAT MINI 2N

- High Frequency detection (5,8 GHz).
- Concealed installation.
- Includes a time-based reduced lighting level.


## Description

- High frequency ( 5.8 GHz ) presence detector with high sensitivity and to be concealed.
- Sensitivity to small movements makes it ideal for both individual and open offices.
- Detection sensitivity is not dependant on direction of motion or ambient temperature and improves in closed spaces such as corridors, doorways, bathrooms or individual offices.
- Suitable for concealed installation in gypsum, plasterboard, glass fibre or any other non-metallic suspended ceiling types. It can also be installed inside luminaries, inspection boxes, etc.
- After the delay time expires, lighting is reduced to $20 \%$ of its maximum level. This function prevents a loss of lighting in dark areas such as closets, garages, hotel corridors... ECOMAT MINI 2 N shall remain at this level until a new detection occurs or shall switch the lighting off when so determined by natural light conditions.
- Suitable for dimmable lamps by voltage control.
- The 4-hour permanent lighting option provides for general cleaning, painting, repair or maintenance tasks.
- Includes TEST feature to support detection pattern setting during installation.
- Includes zero-crossing detection feature, required for LED load control.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: $50-60 \mathrm{~Hz}$
- Power consumption: 10 VA (1 W)
- Detection angle: $360^{\circ}$
- Detection field: Up to 10 m diameter at $2,5 \mathrm{~m}$ height
- Brightness range: 5 to 2000 lux
- Timing range: 5 s to 30 min
- Degree of protection: IP 20 according to EN 60529
- Method of mounting control: Surface, Hidden
- Operating temperature: -20 to $+50^{\circ} \mathrm{C}$

Code
Reference
OB1350122N ECOMAT MINI 2N_230 V a.c., 50 Hz
Applications

Lockers, garages, hotel corridors

## MANDO CR

- Remote control unit for CR proximity switches.


## Description

- Remote control for parameter setting on CR compatible models: PROXIMAT PRO CR, CIRCUMAT PRO CR, CIRCUMAT PRO CR 12M, DICROMAT +CR/2 +CR and MOVICAM CR.
- It streamlines and simplifies both installation and maintenance without the need of a ladder, tools, and without having to remove the detector for its regulator.
- With one single CR CONTROL we can control all installation detectors.
- Adjustable parameters: 1 and 2 output timing, light sensitivity and detection area.
- Operating modes:

Test: Very useful during commissioning given that the detector will not activate the lighting. Instead it activates the LED pilot light if it detects motion. It allows the detection area to be check quickly without the need to wait until the end of its cycle.

The copy and paste function facilitates the detectors adjustment with the same parameters. For example in installations with a number of detectors such as hotels, residential buildings and offices.

Permanent ON: very useful for maintenance, cleaning tasks, etc.
Holidays: The device will randomly activate to simulate presence 3 hours after the ambient light has faded.

Alarm: In the case of presence detection the output detector will rapidly change between light settings causing a flickering effect to call the attention of neighbours, pedestrians and drivers.

- Battery level indicated by flashing LED.


## Technical specifications

- Power supply: Batery CR2025, 3V
- Approx. range: 6 metros
- Timing: 1:pulse ( 1 s ON / 4 s OFF), $10 \mathrm{~s}, 30 \mathrm{~s}$, 1 min., 2 min., 3 min., 5 min. and 10 min
- Timing: $2: 10 \mathrm{~s}, 30 \mathrm{~s}, 1 \mathrm{~min}$., 2 min ., 3 min ., 5 min ., 10 min . y 15 min . (For two output relays detectors only)

| Code | Reference |
| :--- | :--- |
| OB134712 | MANDO CR |

$\qquad$
PROXIMAT PRO CR
MOVICAM CR
Code: OB134812


Code: OB135912
$\qquad$


DICROMAT +CR
DICROMAT 2 +CR
Code: OB134612
Code: OB134512

CIRCUMAT PRO CR
CIRCUMAT PRO CR 12 M
Code: OB134912
Code: OB134920

## PLADILED METAL PIR

- Ideal for energy saving both in residential and office buildings.
- PIR technology based movement detection.


## Description

- Ceiling mounted from 2.5 m to 4 m high.
- 360 degree detection pattern, up to 6 m in diameter.
- Shrouding accessory included to limit or exclude detection areas.
- 1100 Im luminous flux LED lamp.
- Adjustable parameters: timing and light sensitivity.
- Programmable switch-off delay ( 10 s to 3 min ).
- Responds only when lighting conditions are below the selected level.


## Technical specifications

- Power supply: 230 V a.c.
- Nominal frequency: $50-60 \mathrm{~Hz}$
- Power consumption (max.):
- OFF: 0.1 W (6 VA)
- ON: 16 W (18 VA)
- LED colour: 4000 K
- Detection angle: $360^{\circ}$
- Detection field: <6 m
- Brightness range: 3 to 2000 lux
- Timing range: 10 s to 3 min
- Degree of protection: IP 20 según EN 60529
- Operating temperature: $-20^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB136612 | PLADILED METAL PIR | Suitable for public areas such as corridors, hallways, etc. |

## PLADILED 80 2N SWING

- Dual lighting level LED light unit and 3 colour temperature available.
- Highfrequency technology (HF), high performance detects even slight movements.
- Direct substitution of the already existed lamp.


## Description

- High detection capability, even to minimal movements.
- Sensitivity is not dependent on movement direction or ambient temperature.
- The detection improves in closed volumes such as corridors, entrance halls, bathroom facilities and offices.
- Allows to choose the light colour temperature among: 3000 K (warm white), 4000 K (neutral white) and 6000 K (cool white).
- After the set delay time, lighting will remain at $30 \%$ of its maximum level for a certain time or permanently.
- Timing for $100 \%$ lighting level: adjustable between 10 s and 12 min.
- Timing for $30 \%$ lighting level: adjustable between 0 s and permanent.
- $100 \%$ luminosity level: 1200 Im .
- 30\% luminosity level: 360 Im .
- Threaded cable gland provided for wiring.
- Fitting plate included for quick and easy installation.
- High Index of Protection: IP66.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: $50 \mathrm{~Hz} / 60 \mathrm{~Hz}$
- Lamp light level: $1200 \mathrm{Im} / 2 \mathrm{~N}$ : 360 Im
- Colour temperature: 3000 K (warm white) / 4000 K (neutral white) / 6000 K (cool white)
- Detection angle: $360^{\circ}$
- Detection field: from 4 to 16 m diameter at 2.5 m height (ceilling) / from 5 to 15 m diameter at 2 m height (wall)
- Brightness range: 3 to 2000 lux
- Timing range: 10 s to 12 min
- Degree of protection: IP66 according to EN 60529, IK10 according to EN 62262
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

| Code | Reference |
| :--- | :--- |
| OB137412 | PLADILED 80 2N SWING |

## PLADILED 80 2N

- Dual lighting level LED light unit.
- High frequency technology (HF), high performance detects even slight movements.
- Direct substitution of the already existed lamp.


## Description

- High detection capability, even to minimal movements.
- Sensitivity is not dependent on movement direction or ambient temperature.
- The detection improves in closed volumes such as corridors, entrance halls, bathroom facilities and offices.
- After the set delay time, lighting will remain at $30 \%$ of its maximum level.
- By maintaining a reduced light level it prevents a loss of lighting in dark areas such as closets, garages, hotel corridors, etc.
- Timing for $100 \%$ lighting level: adjustable between 10 s and 12 min.
- Timing for $30 \%$ lighting level: adjustable between 0 s and permanent.
- $100 \%$ luminosity level: 1200 Im .
- 30\% luminosity level: 360 Im .
- Fitting plate included for quick and easy installation.
- Threaded cable gland provided for wiring.
- High Index of Protection: IP66.
- Quick plug-in terminals.
- Detection pattern from 4 m to 16 m in diameter.
- Adjustable parameters: timing for $100 \%$ luminosity, timing for $30 \%$ luminosity, detection area and light sensitivity.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: $50 \mathrm{~Hz} / 60 \mathrm{~Hz}$
- Lamp light level: $1200 \mathrm{~lm} / 2 \mathrm{~N}: 360 \mathrm{Im}$
- Colour temperature: 4000 K (neutral white)
- Detection angle: $360^{\circ}$
- Detection field: 4 to 16 m diameter at 2.5 m height (ceilling) / 5 to 15 m diameter at 2 m height (wall)
- Brightness range: 3 lux to 2000 lux
- Timing range: 10 s to 12 min
- Degree of protection: IP66 according to EN 60529, IK10 according to EN 62262
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Applications |
| OB136712 | PLADILED 802 N 230 V a.c., $50 / 60 \mathrm{~Hz}$ | Suitable for corridors, hallways, |
| OB136712N | PLADILED 80 2N 230 V a.c., 50/60 Hz. Grafito | closets, landings, hotel corridors, etc. |

## PLADILED 80 E

- Dual lighting level LED light unit.
- High frequency (HF) technology, high performance detects even slight movements.
- Direct substitution of the already existed lamp.


## Description

- High detection capability, even to minimal movements.
- Sensitivity is not dependent on movement direction or ambient temperature.
- The detection improves in closed volumes such as corridors, entrance halls, bathroom facilities and offices.
- After the set delay time, lighting will remain at $30 \%$ of its maximum level.
- By maintaining a reduced light level it prevents a loss of lighting in dark areas such as closets, garages, hotel corridors, etc.
- In the event of a power cut, PLADILED 80 E is equipped with a battery that will keep it lit for approximately 2 hours at 180 lm .
- Timing for $100 \%$ lighting level: adjustable between 10 s and 12 min.
- Timing for $30 \%$ lighting level: adjustable between 0 s and permanent.
- $100 \%$ luminosity level: 1200 lm .
- 30\% luminosity level: 360 lm .
- Supplementary emergency lighting at $15 \%$ : 180 Im .
- Fitting plate included for quick and easy installation.
- Threaded cable gland provided for wiring.
- High Index of Protection: IP66.
- Quick plug-in terminals.
- Detection pattern from 4 m to 16 m in diameter.
- Adjustable parameters: timing for $100 \%$ luminosity, timing for $30 \%$ luminosity, detection area and light sensitivity.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$ + battery
- Nominal frequency: $50 \mathrm{~Hz} / 60 \mathrm{~Hz}$
- Lamp light level: $1200 \mathrm{~lm} / 2 \mathrm{~N}: 360 \mathrm{Im} / \mathrm{E}: 180 \mathrm{~lm}$
- Colour temperature: 4000 K (neutral white)
- Detection angle: $360^{\circ}$
- Detection field: 4 to 16 m diameter at 2.5 m height (ceilling) / 5 to 15 m diameter at 2 m height (wall)
- Brightness range: 3 lux to 2000 lux
- Tming range: 10 s to 12 min
- Degree of protection: IP66 according to EN 60529, IK10 according to EN 62262
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB136812 | PLADILED 80 E 230 V a.c., 50/60 Hz | Suitable for corridors, hallways, landings, closets, |
|  |  | garages, hotel corridors, etc. |

## PLADI-E27

- Flush ceiling light with High Frequency detection (5,8 GHz) plus E27 bulb.
- High Frequency technology, high performance detects even slight movements
- Direct substitution of the already existed lamp.


## Description

- Movement detector plus E27 bulb.
- High Frequency detection ( $5,8 \mathrm{GHz}$ ), high performance detects even slight movements.
- Direct substitution of the already existed lamp.
- Adjustable parameters: detection area, timing, and light sensitivity.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c., 50 Hz
- Timing: from 8 sto 12 min
- Light sensibility: adjustable from 2 to 2.000 lux
- Operating Temp: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Detection angle: $360^{\circ}$
- Detection field: Up to 18 m diameter at $2,5 \mathrm{~m}$ high.


| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB136527 | PLADI-E27 | Halls, Landings, Corridors, Restrooms, Fitting rooms. |

## SPOTMAT LED

- Ceiling or wall mounting.
- Powered by 3 AAA batteries.
- Wireless and installation-free.
- Angle: 360zº
- Three types of mounting.


## Description

- Small detector for homes with built-in LED.
- Powered by batteries so it does not need wiring nor installation.
- It is ideal for inside wardrobes, kitchen worktops, supplementary night lighting in bedrooms, stairs, corridors...
- Two mounting types.


## Technical specifications

- Power supply: $3 \times 1,5 \mathrm{~V}$ AAA
- Timing: fix from 15 s .
- Light sensibility: 90 lux
- Operating Temp: $-10^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Area: 2 m

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB135512 | SPOTMAT LED | Inside wardrobes, Courtesy light in house corridors, Kitchen |
|  |  | worktops, Nursery night lighting. |

LED LIGHTS / LED LIGHTS

## PLALED 80 SWING

- LED light unit with 3 colour temperature available.
- Lamp light level 1200 Im.
- Direct substitution of the already existed lamp.


## Description

- Allows to choose the light colour temperature among: 3000 K (warm white), 4000 K (neutral white) and 6000 K (cool white).
- Fitting plate included for quick and easy installation.
- Threaded cable gland provided for wiring.
- High Index of Protection: IP66.
- Quick plug-in terminals.


## Technical specifications

- Power supply: $230 \mathrm{~V} \mathrm{ac} \pm 10 \%$
- Nominal frequency: $50 \mathrm{~Hz} / 60 \mathrm{~Hz}$
- Lamp light level: 1200 Im
- Colour temperature: 3000 K (warm white) / 4000 K (neutral white) / 6000 K (cool white)
- Degree of protection: IP66 according to EN 60529, IK10 according to EN 62262
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB137612 | PLALED 80 SWING 230 V a.c., $50 / 60 \mathrm{~Hz}$ | Suitable for corridors, hallways, landings, |
|  |  | closets, garages, hotel corridors, appartment <br> blocks, offices, etc. |



## CLIMATE CONTROL AND HOME AUTOMATION

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## CLIMA AND HOME AUTOMATION

## USES AND APPLICATIONS

During the winter months, heating costs increase enormously and even make up $40 \%$ of total energy consumption. The principal way to save when using climate control systems is by controlling the temperature in homes and offices. It is estimated that by reducing the controlled temperature by one centigrade, we make a $6 \%$ saving on heating costs.

The use of thermostats or chronothermostats also optimises the functioning of the heating system, improving its performance.

Chronothermostats allow the switch-on and switch-off times of the system to be set, so we avoid forgetting to turn off the boiler. We can also program the desired temperature for days or times of the week, according to our activities, so that the house will be warm when we wake up in the morning, when we come home, etc.


The recommended temperature during the day is between $19{ }^{\circ} \mathrm{C}$ and $21^{\circ} \mathrm{C}$, during the night or during short absences from the home, the system should not be switched off to avoid a large temperature drop, rather, it should be set between $15^{\circ} \mathrm{C}$ and $17^{\circ} \mathrm{C}$.

Although their use is more common with heating systems, the majority of air conditioning systems can also be controlled using thermostats or chronothermostats.

To obtain a greater feeling of comfort, we can utilise climate regulation using an external sensor, this sensor will compare the external temperature with the internal one, in such a way that any change in external temperature will be subtly compensated for by the chronothermostat.

This anticipation of heating needs ensures comfort inside the home and efficiency in the functioning of the boiler.


## CLIMA AND HOME AUTOMATION

## CHRONOTHERMOSTAT WITH TELEPHONE CONTROL IN A SECOND HOME

Because of its attractive design and simple programming through a touch-screen, CHRONOS is the ideal model to install in second homes. In conjunction with CODITEL, we can pre-set the heating activation remotely, so that the house is warm when we arrive. And we can deactivate it in the same way if it is no longer required. All this at no cost to the user, since CODITEL works on a missed call.


## HEATING CONTROL WITH INTRUDER ALARM

We can use the ORUS GSM model, to remotely regulate, switch-on or switch-off heating, using a smartphone. In this situation we can use the auxiliary input to activate an home intruder alarm message through movement detectors or limit switch relays located on doors and windows.


## CLIMA ML

- Gas membrane operation makes them reliable and durable in their precision.
- No power supply needed.
- Changeover output a.c. / heating.


## Description

- Small, precision ambient thermostat with a compact design.
- Functions using a gas membrane, making them reliable, hard-wearing and precise.
- Do not need power supply.
- Allows blocking of temperature to avoid changes.
- Without manual control.


## Technical specifications

- Switching capacity: 16 A 250 V a.c.
- Temp. regulation: from $+5^{\circ} \mathrm{C}$ to $+30^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Assembly: surface mounted or on installation box

| Code | Model |
| :--- | :--- |
| OB320422 | CLIMA ML |

## CLIMA MLI

- Operation by gas membrane generates reliability and durability in terms of accuracy.
- No power supply needed.
- Changeover output a.c./heating, ON-OFF manual switch and pilot light.


## Description

- Small, precision ambient thermostat with a compact design.
- Functions using a gas membrane, making them reliable, hard-wearing and precise.
- Do not need power supply.
- Allows blocking of temperature to avoid changes.
- Includes a functioning indicator light.
- ON / OFF manual control.


## Technical specifications

- Switching capacity: 10 A 250 V a.c.
- Temp. regulation: from $+5^{\circ} \mathrm{C}$ to $+30^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Assembly: surface mounted or on installation box

| Code | Model |
| :--- | :--- |
| OB320522 | CLIMA MLI |

## CLIMA MLW

- The operation by gas membrane makes them reliable and durable in accuracy.
- No power supply needed.
- Changeover output a.c./heating, a.c./heating manual switch.


## Description

- Small, precision ambient thermostat with a compact design.
- Functions using a gas membrane, making them reliable, hard-wearing and precise.
- Do not need power supply.
- Allows blocking of temperature to avoid changes.
- ON / OFF or Heating / Air conditioning manual controls.


## Technical specifications

- Switching capacity: 10 A 250 V a.c.
- Temp. regulation: from $+5^{\circ} \mathrm{C}$ to $+30^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Assembly: surface mounted or on installation box

| Code | Reference |
| :--- | :--- |
| OB320622 | CLIMA MLW |

## CLIMA FANCOIL

- Operation by gas membrane generates reliability and durability in terms of accuracy.
- No power supply needed.
- Changeover output ac/heating, ac/heating manual switch, two speed manual switch.


## Description

- Small, precision ambient thermostat with a compact design.
- Functions using a gas membrane, making them reliable, hard-wearing and precise.
- Do not need power supply.
- Allows blocking of temperature to avoid changes.
- Heating / Air conditioning + 2 fan speeds manual controls.


## Technical specifications

- Switching capacity: 10 A 250 V a.c.
- Temp. regulation: from $+5^{\circ} \mathrm{C}$ to $+30^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Assembly: surface mounted or on installation box

| Code | Model |
| :--- | :--- |
| OB321232 | CLIMA FANCOIL |

NEO ML +

- Electronic thermostat for air conditioning, heating or underfloor heating.
- Large display and simple programming. Anti-freeze, comfort and saving temperatures.
- Accepts external probe X. TEMP 100K and X.TEMP 10K for underfloor heating.


## Description

- Compatible with under-floor heating systems (water or electric) with the X TEMP 10K sensor.
- Allows control with external temperature sensor X TEMP 10K.
- Large LCD screen and simple programming.
- Anti-icing, comfort and savings temperature.
- Three available colours, white, aluminium and anthracite.
- Accessories: Temperature sensor for under-floor heating X TEMP 10K (OB320055) I.


## Technical specifications

- Power supply: 2 alkaline batteries $1,5 \mathrm{~V}$ AAA (LR03)
- Switching capacity: 5 A 250 V a.c.
- Temperature updating: every 70 seconds
- Temp. regulation with internal sensor: from $+5^{\circ} \mathrm{C}$ to $+35^{\circ} \mathrm{C}$
- Temp. regulation with external sensor: from $+5^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 40 according to EN 60529
- Assembly:surface mounted or on installation box using a plug-in base

| Code | Reference |
| :--- | :--- |
| OB324400 | NEO ML + WHITE |
| OB324410 | NEO ML + ANTHRACITE |
| OB324420 | NEO ML + ALUMINIUM |



THALOS

- Touchscreen.
- Easy and intuitive programming.
- Large backlit display for easy reading.
- Input for night temperature reduction.


## Description

- Large blue back-lit touchscreen with large numbers and programming icons.
- Easy to read even in darkness.
- Does not require programming, it is simply necessary to select the desired temperature.
- 3 temperature settings plus anti-freeze to prevent freezing of pipes.
- Terminals for night-time temperature reduction, normally activated using a time switch. Reduces the temperature by $3^{\circ} \mathrm{C}$.
- Keypad password block to avoid unauthorised changes.
- Battery level indicator.


## Technical specifications

- Power supply: 2 alkaline batteries $1,5 \mathrm{~V}$ AAA (LR03)
- Switching capacity: 5 A 250 V a.c.
- Temperature updating: every 60 seconds
- Temp. regulation: from $+5^{\circ} \mathrm{C}$ to $+35^{\circ} \mathrm{C}$
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 40 according to EN 60529
- Assembly: surface mounted or on installation box using a plug-in base

| Code | Model |
| :--- | :--- |
| OB325400 | THALOS WHITE |

## VELUS TOUCH



- Touchscreen.
- Large backlit display for easy reading.
- Adjustable temperature values for Summer/Winter modes.


## Description

- Back-lit touch screen with contrast adjustment.
- Large display numbers and setting icons ensure readability even in dark conditions.
- Only requires setting the desired temperature value for each mode-Summer (air conditioning) Winter (heating).
- Each mode includes three temperature configurations (Comfort, Economy or Anti-freeze).
- Manual regulation operation or standby.
- Keypad password block to avoid unauthorised changes.
- Low battery indicator.


## Technical specifications

- Power supply: 2 Alkaline battery LR6/AA 1.5 V
- Switching capacity: $\mu 10$ (3) A/250 V ~
- Measurement range in the $\mathrm{LCD}: 0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Regulation margin: $+5^{\circ} \mathrm{C}$ to $+35^{\circ} \mathrm{C}$
- Degree of protection: IP 40 according to EN 60529
- Method of mounting control: Wall (surface)/Mechanism box
- Operating temperature: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$

| Code | Model |
| :--- | :--- |
| OB326000 | VELUS TOUCH BIANCO |
| OB326010 | TOUCH ANTRACITA |

## CHRONOTHERMOSTATS / DIGITAL

## MIRUS

- Easy programming by means of rotary selector.
- Large backlight display for easy reading.
- Three levels of temperature and manual function.


## Description

- Large back-lit LCD screen.
- Clear display even in darkness.
- Simple programming using rotating selector.
- 7 programmes with 2 temperatures plus anti-icing to avoid prevent pipes.
- Can function as a thermostat, temporarily or permanently cancelling the program.
- Battery level indicator.
- Two available colours, white and anthracite.


## Technical specifications

- Power supply: 2 alkaline batteries $1,5 \mathrm{~V}$ AA (LR06)
- Switching capacity: 10 A 250 V a.c.
- Minimum programmable time: 30 min.
- Temperature updating: every 60 seconds
- Measurement scale: internal sensor from $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Temp. regulation: from $+5^{\circ} \mathrm{C}$ to $+35^{\circ} \mathrm{C}$
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 40 according to EN 60529
- Assembly: surface mounted or on installation box using a plug-in base

| Code | Model |
| :--- | :--- |
| OB324700 | MIRUS White |
| OB324710 | MIRUS Anthracite |

## TUO

- Digital touch-sensitive chronothermostat with large backlit display.
- Designed to control room temperature by heating or air conditioning systems.
- Large backlit display with information about the selected program, temperature and relative humidity of the room.


## Description

- Allows to create independent programs for each day of the week with temperature selection according to the activity of the house, office or business.
- Configurable display backlighting:
- always off
- color chosen from 48 possible shades
- variable between red, green and blue depending on the difference between the measured temperature and the one set in the program.
- Display of the relative humidity in the environment and operation schedule on the screen.
- Operating hours counter to schedule maintenance and cleaning tasks or to calculate energy consumption.
- Daily maximum/minimum temperature and relative humidity display.
- Wall mounting or installation in a rectangular three-module electrical installation box (type 503).
- Power supply 230 V a.c.


## Technical specifications

- Power supply: 230 V AC - $50 / 60 \mathrm{~Hz}$
- Switching capacity: 5A / 250V AC
- Minimum programmable time: 1 hour
- Temperature updating: every 20 seconds
- Measurement scale: internal sensor from $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Temp. regulation: from $+2^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Operating temp.: Wall mounting or installation in a rectangular three-module electrical installation box (type 503)

| Code | Model |
| :--- | :--- |
| OB326800 | TUO |

CLIMATE CONTROL

## CHRONOTHERMOSTATS / DIGITAL

## TUO WIFI + RF

- Chronothermostat with wifi and radio frequency communication.
- Programmable remotely via cell phone and compatible with Google Assistant and Amazon Alexa.
- Allows radiofrequency control of the most important parameters: temperature, humidity and ventilation.


## Description

- Chronothermostat with wifi and radio frequency communication and programming through application developed for smartphone or tablet.
- Compatible with Google Assistant and Amazon Alexa voice assistants.
- Three independent communication channels with radiofrequency receivers to control: temperature, humidity and/or ventilation without the need for any wiring.
- Display backlight configurable between 48 possible tones.


## The app allows

- Visualize the temperature and relative humidity of the house or room, edit programs, manually control the temperature, turn the system on or off.
- Manage several TUO individually or in groups, especially useful in office buildings with several floors or rooms.
- Password locking in the app or with the keypad to prevent unauthorized modifications.
- Free app available on: Google Play and App Store.


## Technical specifications

- Power supply: 5A / 250V AC
- Switching capacity: 5A / 250 V AC
- Minimum programmable time: 1 hour
- Temperature updating: every 20 seconds
- Measurement scale: internal sensor from $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Temp. regulation: from $+2^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Operating temp.: Wall mounting or installation in a rectangular three-module electrical installation box (type 503)

| Code | Model |
| :--- | :--- |
| OB327100 | TUO WIFI RF + RX. 16 A |



## TUO GSM

- Timed thermostat with GSM communication for isolated installations or houses without communication network.
- Thanks to the integrated GSM module, you can manage the chronothermostat remotely by sending SMS messages or the TUO app.


## Description

- Display backlighting configurable color from 48 possible colors
- Creation of up to seven independent programs for each day of the week with three selectable temperatures.


## The app allows

- Visualize the temperature and relative humidity of the house or room, edit programs, manually control the temperature, turn the system on or off.
- Manage several TUO individually or in groups, especially useful in office buildings with several floors or rooms.
- Copy/paste function for easy programming.
- 5 authorized numbers can be stored to control the device.
- Activation/deactivation by call.
- SMS commands: operating mode (automatic or manual) and temperature setting.
- Receipt of SMS alarms: measured temperature exceeds a set minimum or maximum value, or mains power failure.
- Programming of shutdown/vacation period on annual calendar.
- Password locking in the app or with the keypad to prevent unauthorized modifications.
- The local lock function allows control of the device exclusively with the app, thus making manipulation with the TUO keypad impossible.
- Free app available on: Google Play and App Store.


## Technical specifications

- Power supply: 230 V AC - $50 / 60 \mathrm{~Hz}$
- Switching capacity: 5A / 250V AC
- Minimum programmable time: 1 hour
- Temperature updating: every 20 seconds
- Measurement scale: internal sensor from $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Temp. regulation: from $+2^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Operating temp.: Wall mounting or installation in a rectangular three-module electrical installation box (type 503).

| Code | Model |
| :--- | :--- |
| OB327200 | TUO GSM |

## BIKO APP

- 3 modules installation box mounted.
- Smartphone programmable.
- Features Bluetooth communication.


## Description

- Chronothermostat with Bluetooth communication and programming through a smartphone or tablet app.
- Programming of up to 6 daily scenarios with independent temperature for the 7 days of the week.
- Each scenario corresponds to the most common daily activities: waking up, leaving the house, returning to eat, going out again, returning in the afternoon and going to bed. It is simply a case of assigning the desired temperature to each scenario.
- Keypad password block to avoid unauthorised changes.
- Can function as a thermostat, temporarily or permanently cancelling the program.
- Temperature measurement compensation for larger rooms.
- Switch-off and anti-icing function.
- Time updating through the App.
- Three available colours, white, anthracite and aluminium.
- Includes adaptable settings compatible with the following installations:BTICINO* (Living international, Axolute, Light y Matix) / VIMAR* (Idea, Rondo, Plana, Eikon y Arké).LEGRAND* (Vela y Cross) / GEWISS* (Chorus Lux y Art) / AVE* (Sistema 44) / MASTER* (*Brands independent of ORBIS.).
- Requires 3 modules of 503 installation box.
- Free app available at Google Play and App Store.


## Technical specifications

- Power supply: 2 Alkaline battery LR03/AAA 1.5 V
- Switching capacity: 5 (1) A/250 V~
- RF Frequency: $2,4 \mathrm{GHz}$ (Bluetooth 4.0/Bluetooth Low Energy Profile)
- Regulation margin: $5^{\circ} \mathrm{C}$ to $35^{\circ} \mathrm{C}$
- Degree of protection: IP40 according to EN 60529
- Method of mounting control: In Italian style installation box with 3 modules (503) or $4 \times 2$ inches
- Operating temperature: $0^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}$

| Code | Model | Aplications |
| :--- | :--- | :--- |
| OB325800 | BIKO APP WHITE | Heating installations in residential and tertiary sectors |
| OB325810 | BIKO APP ANTHRACITE |  |
| OB325820 | BIKO APP ALUMINIUM |  |



Allows you to manage your heating remotely, via Blue tooth, using the ORBIS BIKO APP Chronothermostat.


Up to 6 programmable daily temperarure levels.


Choice of 4 or 6 daily scenarios, programmable and diversifiable for the 7 days of the week.


Compatible with Android 4.4 devices, Bluetooth 4.0 LE

## CHRONOTHERMOSTATS / WIFI

## NEXU

- Chronothermostat with wifi communication.
- Remotely programmable via mobile phone or tablet.
- App compatible with Android and iOS.


## Description

- Chronothermostat with wifi communication and programming through a smartphone or tablet app.
- Programming of up to 6 daily scenarios with independent temperature for the 7 days of the week.
- Each scenario corresponds to the most common daily activities: waking up, leaving the house, returning to eat, going out again, returning in the afternoon and going to bed. It is simply a case of assigning the desired temperature to each scenario.
- Geolocation function enables the heating to be switched on or off when you move closer to or further away from your home.
- In buildings with several NEXUs, each one can be labelled with their own name and managed independently.
- Remote management can be shared with other users.
- Copy/paste function to facilitate programming.
- Thermostat mode, temporarily or permanently cancelling the program.
- A holiday period, where the heating system will remain switched off or in anti-icing mode, can be edited.
- Password lock in the App or with the keyboard to prevent unauthorised modifications.
- Free app available at Google Play and App Store.
- Only valid for EU countries. Contact us for other countries.


## Technical specifications

- Power supply: $230 \pm 10 \%$ V a.c.
- Nominal frequency: 50 / 60 Hz
- Switching capacity: 5 (2) A/250 V~
- RF Frequency: 2,4 GHz IEEE $802.11 \mathrm{~b} / \mathrm{g} / \mathrm{n}$
- Minimum programmable time: 10 min
- Regulation margin: $5^{\circ} \mathrm{C}$ to $35^{\circ} \mathrm{C}$
- Temperature update period: 1 min
- Degree of protection: IP20 according to EN 60529
- Operating temperature: $0^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}$

|  |  |  |
| :--- | :--- | :--- |
| Code | Model | Aplications |
| OB326200 | NEXU | Heating installations in residential and tertiary sectors |
| OB326300 | NEXU IN | Assembly in $65 \times 65 \mathrm{~mm}$ electrical installation box |

## APP NEXU

- The application enables remote control of The NEXU programmable thermostat via a smart phone.


## Description

With this application, the user can know the temperature inside the house, manually or automatically set up the switching on and off of the heating system, switch on or off the chronothermostat, or schedule actions for each day of the week. Additionally, it provides flexibility over the set programme in the event of unexpected situations, such as leaving the house or coming back outside of the scheduled hours. The Geolocation feature can be activated to ensure that the device takes our location with respect to the installation location into account, so we can temporarily modify the scheduling from here.

- Optionally schedule 4 or 6 daily scenarios, configurable 7 days a week.
- Configure up to 6 daily temperature levels with 6 scenarios and up to 4 daily temperature levels with 4 scenarios.
- Copy a daily programme to other week days with the COPY function.
- Select the Automatic, Temporary Manual or Permanent Manual (thermostat) option.
- Set temperature from $+5^{\circ} \mathrm{C}$ to $+35^{\circ} \mathrm{C}$.
- Extend the current scenario time for up 3 hours.
- Switch the chronothermostat off (switched off or anti-freeze temperature mode) during holiday periods.
- Activate and administrate the geolocation feature in order to optimise consumption with regards to trips out of the home.
- Share the chronothermostat's management with other users.
- Administrate multiple chronothermostats installed in different location in the same house.
- Correct the measured temperature reading from $-3.5^{\circ} \mathrm{C}$ to $+3.5^{\circ} \mathrm{C}$.
- Assign a name to the controlled chronothermostat.
- Switch the chronothermostat on or off.


Ambient temperature display


Manual temperature setting


Weekly schedule


Operation by location

## TUO WIFI AA

- Chronothermostat with wifi communication.
- Programmable remotely via cell phone and compatible with Google Assistant and Amazon Alexa.
- Powered by 4 batteries of 1.5 V (AA).


## Description

- Chronothermostat with wifi communication and programming via app developed for smartphone or tablet.
- Creation of up to seven independent programs for each day of the week with three selectable temperatures.
- Display can be turned off so as not to disturb at night in sleeping rooms.
- Daily maximum/minimum temperature and relative humidity display.
- Energy saving function allows setting the daily frequency with which the chronothermostat connects to the cloud, thus optimizing battery life (up to 30 months).


## The app allows

- Display the temperature and relative humidity of the home or room, edit programs, manually control the temperature, turn the system on or off.
- Manage several TUO individually or in groups, especially useful in office buildings with several floors or rooms.
- Any alarm situation, such as exceeding temperature limits or approaching battery discharge, is notified via email or app notification.
- The local lock function allows control of the device exclusively with the app, thus making manipulation with the TUO keyboard impossible.
- Free app available on: Google Play and App Store.


## Technical specifications

- Power supply: 4 batteries of 1.5 V (AA)
- Switching capacity: 5A / 250V AC
- Minimum programmable time: 1 hour
- Temperature updating: every 20 seconds
- Measurement scale: internal sensor from $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Temp. regulation: from $+2^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Operating temp.: Wall mounting or installation in a rectangular three-module electrical installation box (type 503).
- Temperature updating: every 60 seconds
- Temp. regulation: from $+2^{\circ} \mathrm{C}$ to $+35^{\circ} \mathrm{C}$
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP40 according to EN 60529
- Assembly: surface mounted or on installation box using a plug-in base

| Code | Model |
| :--- | :--- |
| OB327000 | TUO WIFI AA |

## CHRONOTHERMOSTATS / TOUCHSCREEN

## MIRUS TOUCH

- Touchscreen.
- Easy and intuitive programming with copy / paste function.
- Large backlit display for easy reading.
- Three adjustable temperature levels, manual mode and temporary manual.


## Description

- Large white back-lit touch screen with contrast adjustment.
- Easy to read screen even in darkness.
- 7 easy to configure programs.
- Copy and paste function for easier creation of programs.
- 2 temperature settings plus anti-icing to avoid frozen pipes.
- Automatic daylight saving changes for Europe, or can be deactivated.
- Keypad password block to avoid unauthorised changes. Thermostat function.
- Battery level indicator and 1 minute replacement time without memory loss.


## Technical specifications

- Power supply: 2 alkaline batteries LR6/AA de $1,5 \mathrm{~V}$
- Switching capacity: 10 A 250 V a.c.
- Minimum programmable time: 30 min
- Temperature updating: every 60 seconds
- Temp. regulation: from $+5^{\circ} \mathrm{C}$ to $+35^{\circ} \mathrm{C}$
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 40 according to EN 60529
- Assembly: surface mounted or on installation box using a plug-in base

Code Model
OB325300 MIRUS TOUCH White
OB325310 MIRUS TOUCH Anthracite

## CHRONOTHERMOSTATS / ACCESORIES

## RX1 8A

- RF receiver to connect the air conditioning or heating machine.
- 8A relay.
- Compatible with TUO RF.


## Description

- Radiofrequency receiver for control of heating or air-conditioning.
- Equipped with an 8 amp switched relay.
- LED functioning indicator light.
- Accessories: 2 module polyester surface box (OB140601).


## Technical specifications

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz}$.
- Switching capacity: 8A
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 40 according to EN 60529
- Assembly: mounted on DIN rail, 2 modules.

| Code | Model |
| :--- | :--- |
| OB329904 | RX1 8A |

## RX. ANT

- Accessory antenna to increase the scope of RX1 8A.


## Description

- Antenna accessory to increase range of the RX1 8 A .
- Fixing by screws.


## Technical specifications

- Frequency: $433.92+-10 \mathrm{MHz}$
- Impedance: $50 \Omega$
- Cable length: $4,5 \mathrm{~m}$

| Code | Model |
| :--- | :--- |
| OB329906 | RX ANT |



## X.TEMP 10K

- Temperature probe for floor heating compatible with NEO ML+.


## Description

- Temperature sensor compatible with NEO ML+ for control of external temperature or under-floor heating.
- Necessary for the thermostat to adjust to variations in external temperature. This anticipation of heating needs ensures comfort inside the home and efficiency in the functioning of the boiler.


## Technical specifications

- Type of sensor: NTC ( $10 \mathrm{~K} \Omega$ at $25^{\circ} \mathrm{C}$ )
- Operating temp.: from $-40^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
- Cable: length 4 m , section $1 \mathrm{~mm}^{2}$
- Protection degree: IP 66 according to EN 60529

| Code | Model |
| :--- | :--- |
| OB320055 | X TEMP 10K |

## X.TEMP 100K

- External temperature probe.


## Description

- External temperature sensor.
- Necessary for the thermostat or chronothermostat to adjust to variations in external temperature. This anticipation of heating needs ensures comfort inside the home and efficiency in the functioning of the boiler.


## Technical specifications

- Sensor type: NTC ( $100 \mathrm{~K} \Omega$ a $25^{\circ} \mathrm{C}$ )
- Operating temp.: from $-40^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
- Cable: length 2 m , section $1 \mathrm{~mm}^{2}$
- Protection degree: IP66 according to EN 60529

| Code | Model |
| :--- | :--- |
| OB329907 | X TEMP 100K |

CLIMATE CONTROL

## TELEPHONE CONTROLLERS

USES Y APPLICATIONS

With this system it is possible to control and view the status of any systemin your home or business, using a phone call or SMS.

When an authorised user makes a call, CODITEL activates the electrical circuit connected to the output, without disconnecting the call, so that the mobile phone becomes a remote controller, at no cost to the user. CODITEL 2 has 2 digital outputs, 1 analogLue input and 2 digital inputs. It incorporates SMS warnings for power outages. There are multiple uses:

- Activation / deactivation of heating system in a second home.
- Garden irrigation automation.
- Temperature control in cold stores.
- Empty notifications in vending machines
- Monitoring wells and storage levels in agricultural irrigation.
- Opening of access or garage doors in gated communities or offices.
- Consumption reading through SMS.
- Incidents in remote installations such as telephone repeater stations
- Automatic feeding systems for farm animals.
- Temperature or humidity monitoring in greenhouses.
- Intrusion into home or business.
- Control of variables such as temperature, humidity, pressure, flow, level, etc.
- Illumination of sporting arenas or nocturnal golf.


## FAULT DETECTION AND ENERGY METER

In the service sector there are many applications such as petrol stations restaurants, shops, etc. where the CODITEL 2 telephone controller can be an indispensable element for immediate reporting on circuit board trip switches, receiving a periodic SMS on energy consumption of the system or even receiving alerts in the event of power outage.

Through an energy meter with S0 pulse output, such as CONTAX D-9073 SO, we can obtain consumption data from the system through a daiy or weekly SMS.
We can use auxiliary contacts in the differential and thermal-magnetic switches of the critical circuits from which we want to receive trip alerts.
In INPUT 1 we associate the auxiliary contacts of the differential and thermal-magnetic switches of the distribution board (terminal 10). INPUT 2 we connect the pulse output of CONTAX D-9073 SO (terminal 11).


## CODITEL 2

- To the CODITEL 2 benefits has been added 2 relay outputs, 1 analog input and 2 digital inputs.
- Can control parameters like temperature, water levels, liquid flow and others. When any of these paramiters gets the set point, CODITEL 2 will send an SMS allowing the user to act on the output relays.


## Description

- Instantaneous awareness of alarms, and remote management of isolated systems or without physical vigilance.
- Alerts are by text message or telephone call.
- It is possible to program the entrances and exits as a function of situations or events.
- Programmed sending of message updates about the status of the system.
- Can allow up to 2000 users with activation permissions, apart from the administrator.
- For the receiving of alerts, 10 priority numbers can be configured.
- The configuration and creation of events is carried out in a simple and intuitive manner using a computer and the CODITEL 2 Configuration software. Software available at www.orbis.es
- CODITEL 2 has a USB port (mini B type) for connection to a computer.
- The 2 outputs allow the simple control of two systems from a mobile phone. It is ideal for controlling heating and irrigation in holiday homes to which intruder and leak monitoring can be added using digital inputs.
- Functioning hours meter for both outputs with configurable alarm.
- The digital inputs can be connected to motion sensors to detect intruders, or water or gas detectors to identify leaks, to limit switches for the stocking of vending machines, to pulse counters for energy, gas or water meters, etc.
- Configurable digital inputs such as: pulse meter, voltage free, with 40 Vd.c. maximum or open collector.
- By connecting the analogue input, to a sensor for temperature, humidity, level, flow or another sensor, we can control the maximum and minimum temperature levels in a cold store or freezer of a food business, of water or feed in a farm, of liquids in irrigation or industry, etc.
- Analogue input 0-10 V or 0-20 mA.
- LED indicator light for: GSM signal, status of outputs and status of digital inputs.
- GSM ANTENNA included.
- Using this software it is possible to: Create and edit different CODITEL 2 programs. Manage profiles: administrator, user and maintenance. Configure the inputs. Program the functioning of the outputs. Create alerts: for the status of inputs (analogue or digital), temperature level and pulse meter. Program a periodic informative SMS with readings of inputs in: time, pulses, state of digital inputs or outputs, or a reading of analogue input.


## Technical specifications

- Power supply: 230 V a.c., $50 / 60 \mathrm{~Hz}$
- Digital inputs: Free of voltage / Voltage max. 40 V d.c. / Open collector.
- Analogue input: 0-10 V/0-20 mA
- Output 1: switch 8 A 250 V a.c.
- Output 2: simple NO 5 A 250 V a.c.
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 40 according to EN 60529
- Assembly: mounted on DIN rail, 4 modules
- GSM Module: Quadband (900-950-1800-1900 MHz). Check the application country for compatibility with the local GSM communication network.

| Code | Model |
| :--- | :--- |
| OB322820 | CODITEL 2 |



## GSM ANTENA

- Accessory antenna to increase the scope of telephone controllers CODITEL 2.


## Description

- Antenna accessory to increase CODITEL signal range.
- Fixing by screws.


## Technical specifications

- Cable length: 3 m


## MA 16

- Connected to any phone-controller allows up to 16 A load.
- Power supply: 230 VAC 50/60 Hz.
- Output: 16A mechanical relay with resistive load.


## Description

- Linking to CODITEL 2 allows breaking capacity to be increased to 16 amps.
- Equipped with 1 simple N/O relay.
- Activated using potential-free contact.
- LED indicator light for power supply and relay status.
- Accessories: 2 module polyester surface box (OB140601).


## Technical specifications

- Power supply: 230 V a.c., $50-60 \mathrm{~Hz}$
- Operating temp.: $0^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 41 according to EN 60529
- Assembly: mounted on DIN rail, 2 modules

| Code | Model |
| :--- | :--- |
| OB329912 | MA 16 |

## DIM $\triangle$ LED

- Light dimmer for concealed mounting in a universal box.
- On/Off switching or dimming by press and hold.
- Suitable for all dimmable lamps.


## Description

- Reduced size for fitting between a pushbutton and the mechanism box, or concealed in inspection boxes, suspended ceilings, etc.
- Press and let go will switch lights On/Off. Press and hold will dim the lights to the required level.
- Quick non-disruptive installation; no neutral connection required.
- Memory function for desired switch on level.
- Reduces lighting power consumption and increases lamp service life.
- Compatible with all commercially available push buttons.
- Suitable for 2-way switching installations.
- Suitable for all dimmable lamps, except 12 V dc LEDs operating with electromagnetic transformers.
- Includes overload, thermal and short-circuit protection.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Power consumption: 0,035 VA
- Luminous push buttons: No.
- Minimum dimming range: 10-30 \%
- Adinum dimming range. $10-30$ \%
- Adjustment type: LAMP1 (trailing edge) /LAMP2 (leading edge)
- Installation: Optional neutral connection (based on lamp characteristics)
- Protection: Overcurrent short-circuit. Built-in thermal protection
- Degree of protection: IP 20 según EN 60529
- Operating temperature: $-10 \mathrm{a}+50^{\circ} \mathrm{C}$

| Code | Model | Areas of application |
| :--- | :--- | :--- |
| OB200009 | DIM $\triangle$ LED 230 V a.c., 50 Hz Light dimming through external push buttons for |  |
| meeting rooms, bedrooms, lounges, restaurants... |  |  |

CLIMATE CONTROL

## CONTROL $\triangle$ LED

- Light dimmer for concealed mounting.
- Adjustable fixed reduction between $10 \%$ and $100 \%$.
- Suitable for all dimmable lamps.


## Description

- Reduced size for fitting between a pushbutton and the electrical box, or concealed in junction box. Provides fixed reduced lighting level selection and manual on/off switching feature.
- Suitable for museums, restaurants and hotels to create zones and scenarios for different events.
- Quick non-disruptive installation; no neutral connection required.
- Reduces lighting power consumption and increases lamp service life.
- Compatible with all commercially available push buttons.
- Suitable for all dimmable lamps, except 12 V dc LEDs operating with electromagnetic transformers.
- Includes overload, thermal and short-circuit protection.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Power consumption: 0.035 VA
- Luminous push buttons: No.
- Dimming range: 10 \%... 100 \%
- Adjustment type:
- LAMP1 (trailing edge)
- LAMP2 (leading edge)
- Installation: Optional neutral connection (based on lamp characteristics)

| Code | Reference | Areas of application |
| :--- | :--- | :--- |
| OB200010 | CONTROL $\triangle$ LED 230 V a.c., 50 Hz | Light dimming to create scenarios at hotels, SPA, <br> restaurants, gardens, etc. |

INSTALLATION / JUNCTION BOX CONTROL ELEMENTS / TIMERS


## PULSALUZ

- New design.
- No neutral. It only needs phase and return wires.
- Controls incandescent and halogen lamps.


## Description

- Installation in device box of $65 \times 65 \mathrm{~mm}$.
- It only needs phase and lamp cord, so that it replaces the existing switch without having to wire up.
- Saves time and simplifies the installation.
- Activation through capacitive touch sensor.
- LED indicators to be seen in the dark.
- Timing from 30 s. to 10 min .
- Admits additional switches.
- Neon lamps with additional switches, up to 6 mA.
- Resettable timing.
- Valid for incandescent and halogen lamps.


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load


## INSTALLATION / JUNCTION BOX CONTROL ELEMENTS / TIMERS

## PULSAMAT

- New design.
- Installation box mounting.
- Three-wire installation (phase, neutral and return).
- Suitable for all types of lamps including fluorescent and LED.


## Description

- Installation in device box of $65 \times 65 \mathrm{~mm}$.
- Requires 3 wires (phase, neutral and lamp cord).
- Controls all types of loads including fluorescence, LED, small extractor engines, etc.
- Activation through capacitive touch sensor.
- LED indicators to be seen in the dark.
- Timing from 30 s . to 10 min .
- Admits additional switches.
- Neon lamps with additional switches, up to 6 mA .
- Resettable timing.
- Version compatible with Italian-type Installation box of 3 modules (503) or of $4 \times 2$ inches available: BTICINO (Living international, Axolute, Light and Màtix), VIMAR (Idea, Rondo, Plana, Eikon and Arkè), LEGRAND (Vela y Cross) GEWISS Chorus (Art, Lux and One). The brands Living International, Axolute, Light and Matix belong to BTICINO S.p.A. The brands Idea, Rondo, Plana, Eikon and Arkè belong to VIMAR S.p.A. The brands Vela and Cross belong to LEGRAND S.p.A. The brands Art, Lux and One belong to GEWISS S.p.A.
- Requires 3 modules.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c., 50 Hz
- Switching capacity: 6 A to 230 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

|  |  |  | (111) | 1300 W |
| :---: | :---: | :---: | :---: | :---: |
| Code | Reference | Installation | W10 | 600 VA |
| OB200001 | PULSAMAT_230 V a.c., 50 Hz | Installation box $65 \times 65 \mathrm{~mm}$ | = | 400 VA |
| OB200005 | PULSAMAT 503_230 V a.c., 50 Hz | Italian-type installation box | (2) | 90 VA |

## TEMPO $\triangle$ LED

- Timer for concealed mounting in electrical box.
- Two wire installation (no neutral required).
- Suitable for LED lamps.


## Description

- Reduced size for fitting between a pushbutton and the electrical box, or concealed in junction boxes, suspended ceilings, etc.
- Quick non-disruptive installation; no neutral connection required.
- Compatible with all commercially available push buttons.
- Reduces lighting power consumption and increases lamp service life.
- Suitable for any lamp type, except LEDs operating with electromagnetic transformers or any type of fluorescent lights.
- Adjustable timing from 15 s to 15 min, resettable.
- Additional pushbuttons can be fitted.
- Provides for fan and extractor control.
- Includes overload, thermal and short-circuit protection.


## Technical specifications

## Max. Recomm. Load



- Nominal frequency: 50 Hz
- Stand-by consumption: 0,035 VA
- Resettable: Yes
(1+1)
- Timing range: $15 \mathrm{~s}-15 \mathrm{~min}$
- Degree of protection: IP 20 según EN 60529
- Operating temperature: $-10 \mathrm{a}+50^{\circ} \mathrm{C}$

| Code | Reference | Timming |
| :--- | :--- | :--- |
| OB200007 | TEMPO $\triangle$ LED_230 V a.c., 50 Hz | From 15 seg to 15 min |



## TEMPO $\triangle$ LED 2N

- Timer-dimmer for concealed mounting in electrical box.
- Dims lights after a set time.
- Suitable for dimmable lamps.


## Description

- Reduced size for fitting between a pushbutton and the installation box, or concealed in junction boxes, suspended ceilings, etc.
- Quick non-disruptive installation; no neutral connection required.
- Initial $100 \%$ lighting intensity during set time. Adjustable from 15 s to 15 min .
- After the set time has expired, lighting intensity is reduced to $25 \%$, maintaining a courtesy or safety level of light, either permanently or for a limited period of time (between 1 min and 5 min ).
- Reduces lighting power consumption and increases lamp service life.
- Compatible with all commercially available push buttons.
- Quick non-disruptive installation; no neutral connection required.
- Suitable for all dimmable lamps, except LEDs 12 V d.c. operating with electromagnetic transformers.
- Additional pushbuttons can be fitted.
- Includes overload thermal and short-circuit protection.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Stand-by consumption: 0,035 VA
- Resettable: Yes
- Timing range: 15 s - 15 min

| (2) | 150 W |
| :---: | :---: |
| 150 W |  |
| 100 VA |  |
| 100 VA |  |

- Degree of protection: IP 20 según EN 60529
- Operating temperature: $-10 \mathrm{a}+50^{\circ} \mathrm{C}$
- Stand-by light timing: $1 . .5 / \infty$

| Code | Reference | Timming |
| :--- | :--- | :--- |
| OB200008 | TEMPO $\triangle$ LED 2N_230 V a.c., 50 Hz | From 15 $\mathrm{s}-15 \mathrm{~min}$ |

## MICROTEMP

- Hidden installation. Ideal for installation on junction box, false ceiling, etc...
- Compatible with any push button switch.
- No neutral. It only needs phase and return wires.


## Description

- It's small size allows hidden installation between the switch and the device box, in junction box, distribution box, etc.
- Compatible with any switch in the market.
- Only needs to be connected in parallel to the switch.
- Quick installation in just a few seconds.
- Timing from 30 s. to 10 min .
- Admits unlimited additional switches.
- Resettable timing.
- Valid for incandescent and halogen lamps.


## Technical specifications

- Power supply: 230 V a.c., 50 Hz
- Switching capacity: 1,5 A 230 V a.c.
- Operating temp.: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load


## LUMITEMP

- Automatic stairway time switch for mounting in an inspection or junction box.
- Suitable for all lamp types.
- Compatible with all commercially available push buttons.


## Description

- 4-wire installation: live, neutral, push button and lamp return.
- Suitable for all lamp types, fans and extractors.
- Operation through external push buttons.
- Adjustable timing from 30 s to 10 min, resettable.


## Technical specifications

Max. Recomm. Load

- Power supply: 230 V a.c.
- Nominal frequency: 50 Hz
- Stand-by consumption: 0,7 W (5.5 VA)
- Switching capacity: $\mu 6$ A / 230 V $\sim \cos =1$
- Resettable: Yes
- Luminous push buttons: $6 \mathrm{~mA} / 230 \mathrm{~V}$ ~
- Timing range: 30 s - 10 min
- Degree of protection: IP 20 according to EN 60529
- Operating temperature: - 10...+50
$\qquad$

| Code | Reference | Temporisation |
| :--- | :--- | :--- |
| OB200006 | LUMITEMP_230 V a.c., 50 Hz | $15 \mathrm{~s}-15 \mathrm{~min}$ |

INSTALLATION/JUNCTION BOX CONTROL ELEMENTS / BUILT-IN EMERGENCY LED LAMP

## MINISELF

- Additional emergency LED light for mounting on installation box with frame of SIMON 27 series.


## Description

- Additional emergency LED light for mounting on Italian style installation box with frame of SIMON 27 series.
- Allows lighting of stairways, rooms and passageways in the event of a power outage.
- Has a rechargeable battery with up to two hours of independent power.
- Equipped with two LED lights of 0.125 W which provide up to 20 lumens.
- A small blue frontal LED light indicated the presence of a power supply.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: 50 Hz
- Power consumption: 0.3 W (6 VA)
- Battery: Lithium Polymer 3.7 V 300 mAh
- Operating temperature: $-10^{\circ} \mathrm{Ca}+40^{\circ} \mathrm{C}$
- Degree of protection: IP20 according to EN 60529

| Code | Reference | Aplications |
| :--- | :--- | :--- |
| OB136312E | MINISELF | Stairways, Passageways, Offices, Bedrooms |

## MINISELF LED

- Additional emergency LED light for mounting on Italian style installation box with 3 modules (503) or of $4 \times 2$ inches.


## Description

- Additional emergency LED light for mounting on Italian style installation box with 3 modules (503) or of $4 \times 2$ inches.
- Allows lighting of stairways, rooms and passageways in the event of a power outage.
- Has a rechargeable battery with up to two hours of independent power
- Equipped with two LED lights of 0.125 W which provide up to 20 lumens.
- A small green frontal LED light indicated the presence of a power supply.
- Interchangeable front panels in white, anthracite and aluminum.
- Includes adaptable settings compatible with the following installations: BTICINO* (Living, LivingLight, LivingLight Tech, LivingLight Air, Axolute, Axolute Air, Matix) / VIMAR* (Plana, Eikon, Arké) / GEWISS* (Chorus) / AVE* (Sistema 44) /SCHNEIDER (Unica 3 modules*). (*Brands independent of ORBIS).


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: 50 Hz
- Power consumption: 0.3 W (6 VA)
- Battery:Lithium Polymer 3.7 V 300 mAh
- Operating temperature: $-10^{\circ} \mathrm{Ca}+40^{\circ} \mathrm{C}$
- Degree of protection: IP20 according to EN 60529

| Code | Model | Applications |
| :--- | :--- | :--- |
| OB136312 | MINISELF LED 230 V a.c. 50 Hz | Stairways, Passageways, Offices, Bedrooms. |

## MAXISELF LED

- Built-in emergency LED lamp for mounting on installation box with 3 modules (503).
- Courtesy lighting for staircases, corridors and rooms.
- Easily removable for use as a torch.


## Description

- When there is power, there is the choice of keeping the equipment switched off or switched on (5,30 or 150 Im ).
- In the event of a power cut, it can stay at 600 lumen for up to 2 hours.
- Equipped with three LED lights of 0.125 W which provide up to 600 lumen.
- A small green frontal LED light indicated the presence of a power supply and battery status.
- Includes replaceable front panels in white and charcoal.
- BTICINO* (Living International, Axolute, Axolute Air, Light Tech, Matix), VIMAR* (Idea, Rondo, Plana, Eikon, Arké), LEGRAND* (Vela, Cross), GEWISS* (Chrorus Art, Lux, One), AVE* (Sistema 44), MASTER*. (*Brands independent of ORBIS).


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$ + battery
- Nominal frequency: 50 Hz
- Lamp light level: $5 \mathrm{~lm} / 30 \mathrm{~lm} / 150 \mathrm{~lm} / 600 \mathrm{~lm}$
- Degree of protection: IP40 according to EN 60529
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $40^{\circ} \mathrm{C}$

| Code | Model | Applications |
| :--- | :--- | :--- |
| OB136400 | MAXISELF LED | Stairways, Passageways, Offices, Bedrooms |

## ORBISON

- Orbison: electromechanical door bell ding-dong sound.


## Description

- 2 notes chime.
- Electro-mechanic bell with high resonance and robustness.
- Ding-dong bell: 90 dB , Resonance frequency $700-900 \mathrm{~Hz}$.


## Technical specifications

- Power supply: 120 / 230 V a.c. 6, 12, 24 ó 48 V a.c.//c.c.
- Frecuency: $50-60 \mathrm{~Hz}$
- Case: white
Code Model

OB110316CH ORBISON_120+230 V a.c., $50-60 \mathrm{~Hz}$
OB110330CH ORBISON_230 V a.c., $50-60 \mathrm{~Hz}$
OB110366CH ORBISON_24 V a.c.+d.c
OB110376CH ORBISON 12 V a.c.+d.c., $50-60 \mathrm{~Hz}$
OB110386CH ORBISON_6-8 V a.c.+d.c., $50-60 \mathrm{~Hz}$

## ORBISON DUO

- Two sounds: electromechanical ding-dong sound for main door and buzzer for service door.


## Description

- Designed for homes with a double door as it has a ding-dong bell and a buzzer.
- Electro-mechanic bell with high resonance and robustness.
- Ding-dong bell: 90 dB , Resonance frequency $700-900 \mathrm{~Hz}$.
- Buzzer: 100 dB , Resonance frequency $1,30001,400 \mathrm{~Hz}$.


## Technical specifications

- Power supply: 230 V a.c.
- Frecuency: $50-60 \mathrm{~Hz}$
- Case: white

| Code | Model |
| :--- | :--- |
| OB110416CH | ORBISON DUO_230 V a.c., $50-60 \mathrm{~Hz}$ |

## DETECO 2

- $\mathrm{CO}_{2}$ detector to identify if the air renewal is appropriate to ensure the dissolution of aerosols in enclosed spaces.
- Light indicator based on $\mathrm{CO}_{2}$ concentration level.
- Equipped with two digital output relays and three 1-10 V analogue outputs for measured $\mathrm{CO}_{2}$ concentration, temperature and relative humidity values.


## Description

- DETECO2 continuously monitors the Carbon Dioxide levels present in the environment by taking the cumulative Carbon Dioxide measurement and ambient temperature and humidity values.
- It protects against colourless and odourless gases with harmful effects on human health in residential and industrial environments, as well as in offices or business premises.
- It enables associated solenoids or ventilation and temperature regulation systems to be activated.
- It is equipped with three LED light indicators: green, when the concentration is below 800 ppm , orange, when the concentration is between 800 and 1200 ppm , and red, when the concentration is above 1200 ppm .
- Output 1 is activated with concentration values higher than 700 ppm and output 2 , with values higher than 1300 ppm .
- The relay operation logic can be configured as normally open or normally closed.
- The measurements offered by the analogue outputs are: $\mathrm{CO}_{2}$ from 0 to 2000 ppm , temperature from 0 to $50^{\circ} \mathrm{C}$ and relative humidity from 0 to $100 \%$.


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: 50 Hz
- Power consumption: 1,4 W (3,8 VA)
- Switching capacity: $\mu 8$ (2) A/250 V~
- Degree of protection: IP40 según EN 60529
- Operating temperature: $0^{\circ} \mathrm{C}$ a $50^{\circ} \mathrm{C}$

| Code | Model | Applications |
| :--- | :--- | :--- |
| OB960001 | WALL MOUNT $\mathrm{CO}_{2}$ DETECTOR | Residential buildings, offices or business premises |

Maintaining good air quality is essential to avoid exposure to virsuses and other harmful microorganisms in closed spaces such as offices, classrooms, commercial premises, waiting rooms, restaurants, hotels, etc.


The DETECO $_{2}$ is an air quality detector that measures the Carbon Dioxide $\left(\mathrm{CO}_{2}\right)$ concentration in the environment, warning us when excessive levels are reached and controlling the ventilation systems to to guarantee the reduction of aerosols in suspension.


## ENERGY MEASUREMENT AND MANAGEMENT

## MODULAR ENERGY METERS

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## USES AND APPLICATIONS

The partial reading of consumptions or submetering allows for studying how much, when and where energy is used in order to draw up strategies of consumption improvement according to the installation needs.

Companies and industries can monitor, control and manage to use of energy by collecting accurate information about the consumption patterns of the different production lines or departments. This information can generate a consumption reduction of between $15 \%$ and $30 \%$, since it allows for:

- Identifying consumers and surges.
- Checking the supply quality.
- Measuring protections and electrical conductors.
- Analysing performance, reliability and useful life of the machines and devices.
- Negotiating rates or conditions with the energy providers.
- Monitoring other supplies such as water or gas.
- Optimising the contracted power.
- Moving the consumptions during the period with the highest rate to the most inexpensive period.
- Eliminating consumptions higher than the maximum contracted power, since they cause financial penalties by the electricity company.
- Avoiding fines for reactive energy consumption.
- Complying with environmental regulations and initiatives.
- Passing on the costs of power consumption.
- Raising awareness among the users about the energy cost.
- Remote or programmed connection/disconnection of consumers.

We also find applications in installations of rental of premises or services with power supply where the consumption costs are passed on to the user. This allows the lessor to generate monthly invoices for the exact consumption amount, delegate the cost control to the user, increase the value of the property or service, identify failures in the elements of the installation, replace the biggest consumers for more efficient devices, etc.
The users of the service or installation improve their satisfaction because they know and regulate their energy economic expenditure.
We find numerous examples in commercial, residential or entertainment facilities, such as:

- Rental of premises, sales booths or stands.
- Student residences or apartments.
- Rental of plots in campsites.
- Marinas
- Communal storerooms.
- Sports fields or night golf courses.
- Communal areas in residential buildings.
- Shared wells or irrigation systems.
- Vending machines.
- Solar energy production facilities.



## Local reading with supply activation and deactivation

- A very common application in sport or rental facilities is creating a prepayment system.
- We will develop this application in a marina with several boats moored and connected to a supply point. The users will request to the port administrator, and according to their needs, an amount of energy. The CONTAX BUS meter will cut off the supply when there is no credit left and will restore it when it receives the order from the administrator with a new recharge.
- To allow or cancel the power supply we will use the CONTAX D-6593 BUS-R V $3 \times 1$ model equipped with a cut-off relay.


## CONTAX 2511 SO

- Static, single-phase meter, one module width.
- Direct power metering to 25 A. Class 1.
- S0 pulse output communication.


## Description

- Analogue single-phase power meter in a single module.
- Direct measurement 5 (25) A.
- Analogical display, 5 digits + 1 decimal non-resettable.
- Opto-isolated pulse output communications.
- LED consumption indicator.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300), and 2-module surface box (OB140601).


## Technical specifications

- Nominal voltage: 230 V ac $50-60 \mathrm{~Hz}$
- Base and maximum current: 5 (25) A
- Operating current: from 0,25 to 25 A
- Approximate own consumption: 7,5 VA
- Accuracy class 1 according to UNE-EN 62053-21
- Communications: SO pulses according to EN 62053-31
- Constant: $2000 \mathrm{imp} / \mathrm{kWh}$
- Operating Temp: from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB701000 | CONTAX 2511 S0_230 V ac $(-20 \%+15 \%), 50 / 60 \mathrm{~Hz}$ | Single phase, 25 A |



## CONTAX 2521 SO MID

- It is certified according to the European directive MID.
- Direct measurement 5 (25) A. Class 1.
- S0 pulse output for communication.


## Description

- MID-certified analogue single-phase power meter according to European Directive 2004/22/CE concerning measuring instruments.
- Direct measurement 5 (25) A.
- Analogical display, 5 digits + 1 decimal non-resettable.
- Opto-isolated pulse output communications.
- Power and consumption LED indicators.
- Locking system in case of misconnection.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300), 2-module surface box (0B140601).


## Technical specifications

- Nominal voltage: 230 V ac $50-60 \mathrm{~Hz}$
- Base and maximum current: 5 (25) A
- Operating current: from 0,25 to 25 A
- Approximate own consumption: <4 VA
- Accuracy class 1 according to EN 50470-3
- Communications: SO pulses according to EN 62053-31
- Constant: 0,1 imp/kWh
- Operating Temp: from $-10^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- Width module: 2

| Code | Reference |  |
| :--- | :--- | :--- |
| OB702000 | CONTAX 2521 SO MID_230 V ac $(-20 \%+15 \%), 50 / 60 \mathrm{~Hz}$ | Seatures |
|  |  | Single phase, 25 A |

## CONTAX 3221 SO

- Analog single-phase kilowatt meter, two modules width, current rate 5(32) A.


## Description

- 2 module analog single-phase power meter.
- Direct measurement 5 (32) A.
- Analogical display, 5 digits + 1 decimal non-resettable.
- Opto-isolated pulse output communications.
- LED consumption indicator.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300), and 2-module surface box (OB140601).


## Technical specifications

- Nominal voltage: 230 V ac $50-60 \mathrm{~Hz}$
- Base and maximum current: 5 (32) A
- Operating current: from 0,25 to 32 A
- Approximate own consumption: 7,5 VA
- Accuracy class 1 according to UNE-EN 62053-21
- Communications: SO pulses according to EN 62053-31
- Constant: $2000 \mathrm{imp} / \mathrm{kWh}$
- Operating Temp: from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- Width module: 2

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB703099 | CONTAX $3221 \mathrm{SO} \_230 \mathrm{VaC}(-20 \%+15 \%), 50 / 60 \mathrm{~Hz}$ | Single phase, 32 A |



## CONTAX 6521 SO

- Analog single-phase kilowatt meter, two module width.
- Direct measurement 10 (65) A. Class 1.
- SO pulse output communication.


## Description

- 2 module analog single-phase power meter.
- Direct measurement 10 (65) A.
- Analogical display, 5 digits +1 decimal non-resettable.
- Opto-isolated pulse output communications.
- LED consumption indicator.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300), and 2-module surface box (OB140601).


## Technical specifications

- Nominal voltage: 230 V ac $50-60 \mathrm{~Hz}$
- Base and maximum current: 10 (65) A
- Operating current: from 0,5 to 65 A
- Approximate own consumption: 7,5 VA
- Accuracy class 1 according to UNE-EN 62053-21
- Communications: SO pulses according to EN 62053-31
- Constant: $1000 \mathrm{imp} / \mathrm{kWh}$
- Operating Temp: from $-20^{\circ} \mathrm{C} t 0+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- Width module: 2

| Code | Reference |  |
| :--- | :--- | :--- |
| OB707000 | CONTAX 6521 SO_230 V ac $(-20 \%+15 \%), 50 / 60 \mathrm{~Hz}$ | Seatures |

ENERGY MEASUREMENT

## CONTAX 0641 SO

- Analog single-phase kilowatt meter, 4 modules width.
- Indirect measurement up to 1000/5 A. Class 2.
- SO pulse output communication.


## Description

- Analog single-phase power meter with direct measurement via current transformers.
- Indirect measurement up to 1000/5 A (selectable).
- Analogical display, 7 digits non-resettable.
- Opto-isolated pulse output communications.
- Power and consumption LED indicators.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300) and output (OB708310).


## Technical specifications

- Nominal voltage: 230 V ac $50-60 \mathrm{~Hz}$
- Base and maximum current: 5 (6) A
- Approximate own consumption: <2,5 VA
- Accuracy class 2 according to UNE-EN 62053-21
- Communications: SO pulses according to EN 62053-31
- Constant: $16 \mathrm{imp} / \mathrm{kWh}$
- Operating Temp: from $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Features |
| OB708500 | CONTAX 0641 SO_230 V ac $(-15 \%+10 \%), 50 / 60 \mathrm{~Hz}$ | Single phase, 1000/5 A |

MODULAR ENERGY METERS / SINGLE-PHASE / DIGITAL

## CONTAX D-2221

- Digital single-phase kilowatt-meter, two modules width.
- Direct measurement up to 22 A. Class 2.
- Partial meter reset.


## Description

- 2 module digital single-phase power meter.
- Direct measurement 10 (22) A.
- Backlit LCD display for good visibility even in darkness.
- Partial power meter with reset to zero.
- Totalizer power meter: 6 digits + 1 decimal.
- Partial power meter with reset to zero: 4 digits + 1 decimal.
- Power and consumption LED indicators.
- Accessories: 2-module surface box (0B140601).


## Technical specifications

- Nominal voltage: 230 V ac $50-60 \mathrm{~Hz}$
- Base and maximum current: $10(22,5) \mathrm{A}$
- Operating current: from 0,25 to $22,5 \mathrm{~A}$
- Approximate own consumption: 4 VA
- Accuracy Class 2 according to UNE-EN 62053-21
- Operating Temp: from $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{Ct}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB708700 | CONTAX D-2221 _230 V ac $(-15 \%+10 \%), 50 / 60 \mathrm{~Hz}$ | Single phase, 22 A |

## CONTAX D-2511 SO

- Static, single-phase meter, one module width.
- Direct power metering to 25 A. Class 1.
- SO pulse output communication.


## Description

- Digital single-phase kilowatt meter, one module width.
- Reduced dimensions for electric panels with space restrictions.
- Direct measurement 5 (25) A.
- Digital display, 5 digits +1 decimal non-resettable.
- Opto-isolated pulse output communications.
- LED consumption indicator.


## Technical specifications

- Reference Voltage (Un): 230 Vac
- Nominal frequency: 50 Hz - 60 Hz
- Power consumption voltage circuits: 0.7 W (7.6VA)
- Active class index: 1 (according EN 62053-21)
- Constant: 2000 imp./ kWh
- Reference current: 5 A
- Maximum current: 25 A
- Specified operating temperature range: $-20^{\circ} \mathrm{C} \ldots+50^{\circ} \mathrm{C}$
- Degree of protection: IP 20 according to EN 60529

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Features |
| OB701100 | CONTAX D-2511 S0_230 V ac $(-20 \%+15 \%), 50 / 60 \mathrm{~Hz}$ | Single phase, 25 A |



## CONTAX D-3221 SO

- 2-module, single-phase, static, 5(32) A energy meter.
- Direct measurement up to 32 A . Class 1 .
- Communication through SO impulse output.


## Description

- LCD display, 5 digits + 1 decimal non-resettable.
- LED consumption indicator.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300), and 2-module surface box (OB140601).


## Technical specifications

- Nominal voltage: 230 V ac $50-60 \mathrm{~Hz}$
- Base and maximum current: 5 (32) A
- Operating current: from 0,25 to 32 A
- Approximate own consumption: 7,5 VA
- Accuracy class 1 according to UNE-EN 62053-21
- Communications: SO pulses according to EN 62053-31
- Constant: 2000 imp/kWh
- Operating Temp: from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- Width module: 2

| Code | Reference |  |
| :--- | :--- | :--- |
| OB703100 | CONTAX D-3221 SO_230 Vac $(-20 \%+15 \%), 50 / 60 \mathrm{~Hz}$ | Features |
| Single phase, 32 A |  |  |



## CONTAX D-6331 SO

- Digital single-phase kilowatt-meter, three modules width.
- Direct measurement up to 63 A. Class 1.
- Partial meter with reset and SO pulse communication.


## Description

- 3 module digital single-phase power meter.
- Direct measurement 10 (63) A.
- It does not require a line phase connection given that the reading is made through an integral current transformer.
- It streamlines the installation given that it is not necessary to handle the phase wire, up to $25 \mathrm{~mm}^{2}$.
- Backlit LCD display for good visibility even in darkness. Partial power meter with reset to zero.
- Totalizer power meter: 6 digits + 1 decimal.
- Partial power meter with reset to zero: 4 digits + 1 decimal.
- Opto-isolated pulse output communications. Power and consumption LED indicators.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300).


## Technical specifications

- Nominal voltage: 230 V ac $50-60 \mathrm{~Hz}$
- Base and maximum current: 10 (63) A
- Approximate own consumption: <2,5 VA
- Accuracy Class 1 according to UNE-EN 62053-21
- Communications: SO pulses according to EN 62053-31
- Constant: $100 \mathrm{imp} / \mathrm{kWh}$
- Operating Temp: from $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{Ct}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB708100 | CONTAX D-6331 S0_230 Vac $(-15 \%+10 \%), 50 / 60 \mathrm{~Hz}$ | Single phase, 63 A |



## CONTAX D-6521 SO

- 2-module, single-phase, static, 10(65) A energy meter.
- Direct measurement up to 65 A. Class 1 .
- Communication through SO impulse output.


## Description

- Analogical display, 5 digits + 1 decimal non-resettable.
- Opto-isolated pulse output communications.
- LED consumption indicator.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300), and 2-module surface box (OB140601).


## Technical specifications

- Nominal voltage: 230 V ac 50 Hz
- Base and maximum current: 10 (65) A
- Operating current: from 0,5 to 65 A
- Approximate own consumption: 7,5 VA
- Accuracy class 1 according to UNE-EN 62053-21
- Communications: SO pulses according to EN 62053-31
- Constant: $1000 \mathrm{imp} / \mathrm{kWh}$
- Operating Temp: from $-20^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB707100 | CONTAX D-6521 S0_230 V ac $(-20 \%+15 \%), 50 / 60 \mathrm{~Hz}$ | Single phase, 65 A |

## CONTAX 0643i SO

- Analog three-phase kilowatt-meter, four modules width.
- Indirect measurement up to 1000/5 A. Class 2. S0 pulse communication.
- Allows grounding of CT.


## Description

- Analogue power meter for fast reading of active energy consumption in three-phase lines with or without neutral.
- Indirect measurement through current transformers.
- It allows current transformers up to 1000/5 A Easy ratio adjustment in the unit
- Analogical display, 7 digits non-resettable.
- Opto-isolated pulse output communications.
- LED indicators: power, consumption, and incorrect connection.
- Allows earth bonding (grounding) of current transformers. See connection diagram below
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300).


## Technical specifications

- Supply voltage: $3 \times 230$ (400) V ac, $50-60 \mathrm{~Hz}$
- Variation permitted: -10\% $\div+10 \%$
- Base and maximum current: 5 (6) A
- Start current: 15 mA
- Max. own consumption: 2,5 VA
- Accuracy Class A according to EN 50470-3
- Communications: SO pulses according to EN 62053-31
- Constant: 4 imp/kWh
- Operating Temp: from $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- Width module: 4

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB708800 | CONTAX D-3221 S0_230 Vac $(-20 \%+15 \%), 50 / 60 \mathrm{~Hz}$ | Single phase, 32 A |

## CONTAX D-9073 SO

- Digital three-phase kilowatt-meter direct measurement up to 90 A .
- S0 pulse communication. Class 1.
- Partial meter with reset.


## Description

- Analogue power meter for fast reading of active energy consumption in three-phase lines with or without neutral.
- Direct measurement 10 (90) A.
- It does not require a line phase connection given that the reading is made through integral current transformers.
- It streamlines the installation given that it is not necessary to handle phase wires, up to $25 \mathrm{~mm}^{2}$.
- Backlit LCD display for good visibility even in darkness.
- Totalizer power meter: 6 digits +1 decimal.
- Partial power meter with reset to zero: 4 digits +1 decimal.
- LED indicators: power, active consumption, and incorrect connection.
- Accessories: Pulse collector with RS485 ASCII CONTAX NET output (OB708300) / Pulse collector with RS485 RF CONTAX NET RF output (OB708310).


## Technical specifications

- Line voltage: $3 \times 230$ (400) V ac, $50-60 \mathrm{~Hz}$
- Base and maximum current: $10(90) \mathrm{A}$
- Operating voltage: from 195 to 253 V ac
- Approximate own consumption: <2,5 VA
- Accuracy class 1according to UNE-EN 62053-21
- Communications: SO pulses according to EN 62053-31
- Constant: $100 \mathrm{imp} / \mathrm{kWh}$
- Operating Temp: from $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP20 according to EN 60529
- Mounted: on DIN rail according to EN 60715
- Width module: 7

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB708400 | CONTAX D-9073 SO | Three-phase, 90 A. |

MODULAR ENERGY METERS / THREE-PHASE / DIGITAL


## CONTAX D-8043 SO MID

- Digital three-phase power meter for direct measurement 5 (80) A.
- Complies with the legal metrology regulations: certified according to the MID Directive (2014/32/EU).


## Description

- Digital display, 6 digits +2 decimals.
- Pulse output communications SO de $800 \mathrm{imp} . / \mathrm{kWh}$.
- Class B according to EN 50470-3.
- 4.5 -width module.


## Technical specifications

- Reference Voltage (Un): $3 \times 230(400) \pm 10 \% \mathrm{~V}$ ac
- Nominal frequency: 50 Hz
- Power consumption voltage circuits: $0,8 \mathrm{~W}$ (7,5 VA cap.)
- Constant: $800 \mathrm{imp} / \mathrm{kWh}$
- Reference current: 5 A
- Maximum current: 80 A
- Specified operating temperature range: $-25^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$
- Degree of protection: IP51 according to EN 60529
- DIN modules: 4,5

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB709700 | CONTAX D-8043 S0 MID | Three phase, 80 A |

## CONTAX D-6041-BUS

- Digital single-phase kilowatt meter direct measure 10 (60) A.
- RS485 communication, 4 tariffs, Max values, load curve.
- Class 1 active and reactive. Bidirectional.


## Description

- Digital single-phase power meter with internal memory and MODBU (RTU) communications.
- Direct measurement 10 (60) A. Up to 6 daily periods with 4 possible tariffs.
- Recording of import and export data for energy-generating installations, solar installations...
- Upper limit register: V, A, Wh y VArh. Power cut register.
- 12 monthly closures: Wh import./export. y VArh import./export.
- Load curve of V, A, Wh y VArh. It is configurable every 15,30 and 60 minutes.
- LCD display with the following instantaneous parameters: V, A, W, VAr, VA, cos Phi, Hz
- Opto-isolated pulse output or RS485 communications.
- 10-year memory backup by lithium battery.
- Accessories: USB-RS485 adapter (OB707022) and MODBUS/TCP gateway (OB709972).


## Technical specifications

- Supply voltage: 230 V ac (-20\% to $+15 \%$ ), 50 Hz
- Base and maximum current:10 (60) A
- Start current:of 25 mA
- Max. own consumption:1 VA
- Accuracy active class1 according to UNE-EN 62053-21
- Accuracy reactive class2 according to UNE-EN 62053-23
- RS485serial port
- MODBUScommunication protocol
- Type of codification:RTU (Remote Terminal Unit)
- Communications:SO pulses according to EN 62053-31
- Constant:1000 imp/kvar
- Operating Temp:from $-25^{\circ} \mathrm{C}$ to $+65^{\circ} \mathrm{C}$
- Protection degree:IP 20 according to EN 60529
- Mountedon DIN rail according to EN 60715
- Width module:4

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Features |
| OB709300 | CONTAX D-6041 BUS | Single phase, 60 A. |

## CONTAX D-6593-BUS-R

- Digital three-phase kilowatt meter $3 \times 230 / 400 \mathrm{~V}$ up to 65 A .
- RS485 communication, 4 tariffs, max values, load curve.
- Relay controlled by RS485 communication.


## Description

- Digital three-phase power meter with built-in cut-off relay for telemanagement of the line.
- Internal memory for Modbus (RTU) registers and communications.
- Direct measurement 10 (65) A.
- The cut-off relay is three-phase and can be programmed for backward and forward scheduling of consumption (kWh), time, etc.
- This feature is ideal for consumer management or prepaid installations such as machinery rental or three-phase installations.
- Load curve of 9000 depth information. It corresponds to 3 months with integration every 15 min .
- Independent recording of import and export data for energy-generating installations, solar installations, etc.
- Up to 6 daily periods with 4 possible tariffs.
- It distinguishes between Monday-Friday, Saturday, Sunday and public holidays. Winter and summer.
- Upper limit register: V, A, Wh and VArh
- Power cut register.
- 12 monthly closures: Wh import./export. and VArh import./export.
- Load curve of $\mathrm{V}, \mathrm{A}, \mathrm{Wh}$ and VArh. It is configurable every 15,30 and 60 minutes.
- Reading on the LCD display of the following instantaneous parameters. V, A, W, VAr, VA, cos Phi and Hz.
- Opto-isolated pulse output or RS485 communications.
- LED indicators: active consumption, reactive consumption, memory error, phase sequence error, and phase error.
- 10-year memory backup by lithium battery.
- Accessories: USB-RS485 adapter (OB707022) / MODBUS/TCP gateway (OB709972).


## Technical specifications

- Supply voltage: $3 \times 230(400) \mathrm{V}$ ac with neutral, 50 Hz
- Base and maximum current: $10(65) \mathrm{A}$
- Start current: of 40 mA
- Max. own consumption: 1 VA
- Accuracy active class 1 according to UNE-EN 62053-21
- Accuracy reactive class 2 according to UNE-EN 62053-23
- Serial port: RS485
- Communication protocol: MODBUS
- Type of codification: RTU (Remote Terminal Unit)
- Communications: SO pulses according to EN 62053-31
- Active constant: $800 \mathrm{imp} / \mathrm{kWh}$
- Reactive constant: $800 \mathrm{imp} / \mathrm{kvarh}$
- Operating Temp: from $-25^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$
- Protection degree: IP20 according to EN 60529
- Mounted: on DIN rail according to EN 60715
- Width module: 9
Code Reference Features

OB709400 CONTAX D-6593-BUS-R_3x230(400) V ac $(-20 \%+15 \%), 50 \mathrm{~Hz}$ Three phase, 65 A

## MULTIFUNCTION METERS / THREE-PHASE

## CONTAX D-10093-BUS

- Digital three-phase kilowatt meter $3 \times 230 / 400 \mathrm{~V}$ up to 100 A .
- RS485 communication, 4 tariffs, max values, load curve.
- Class 1 active and reactive. Bidirectional.


## Description

- Digital three-phase power meter with Modbus (RTU) registers and communications.
- Direct measurement 10 (100) A.
- It does not require a line phase connection given that the reading is made through integral current transformers.
- It streamlines the installation given that it is not necessary to handle phase wires, which can be up to $25 \mathrm{~mm}^{2}$.
- Load curve of 9000 depth information. It corresponds to 3 months with integration every 15 min .
- Independent recording of import and export data for energy-generating installations, solar installations, etc.
- Up to 6 daily periods with 4 possible tariffs.
- It distinguishes between Monday-Friday, Saturday, Sunday and public holidays. Winter and summer season.
- Upper limit register: V, A, Wh and VArh
- 12 monthly closures: Wh import./export. and VArh import/export.
- Load curve of V , A , Wh and VArh. It is configurable every 15,30 and 60 minutes.
- Reading on the LCD display of the following instantaneous parameters. V, A, W, VAr, VA, cos Phi and Hz angle and phase-to-phase voltage.
- Power cut register.
- Opto-isolated pulse output or RS485 communications.
- LED indicators: active consumption, reactive consumption, memory error, phase sequence error, and phase error.
- 10-year memory backup by lithium battery.
- Accessories: USB-RS485 adapter (OB707022) / MODBUS/TCP gateway (OB709972).


## Technical specifications

- Supply voltage: $3 \times 230(400) \mathrm{V} \mathrm{ac}, 50 \mathrm{~Hz}$
- Base and maximum current: 10(100) A
- Start current: of 40 mA
- Max. own consumption: 1 VA
- Accuracy active class 1 according to UNE-EN 62053-21
- Accuracy reactive class 2 according to UNE-EN 62053-23
- Serial port: RS485
- Communication protocol: MODBUS
- Type of codification: RTU (Remote Terminal Unit)
- Communications: SO pulses according to EN 62053-31
- Active constant: $800 \mathrm{imp} / \mathrm{kWh}$
- Reactive constant: $800 \mathrm{imp} / \mathrm{kvarh}$
- Operating Temp: from $-25^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$
- Protection degree: IP20 according to EN 60529
- Mounted: on DIN rail according to EN 60715
- Width module: 9

| Code | Reference | Features |
| :--- | :--- | :--- |
| OB709200 | CONTAX D-10093-BUS_3x230(400) V ac $(-20 \%+15 \%), 50 \mathrm{~Hz}$ | Three phase, 100 A |

## MULTIFUNCTION METERS / THREE-PHASE



## CONTAX D-0643-BUS

- Digital three-phase power meter for indirect measurement with Modbus (RTU) registers and communications.
- Indirect measurement through current transformers.
- It allows current transformers up to 5000/5 A (via Modbus) Easy ratio adjustment in the unit.


## Description

- Load curve of 9,000 depth information. It corresponds to 3 months with integration every 15 min.
- Independent recording of import and export data for energy-generating installations, solar installations, etc.
- Up to 6 daily periods with 4 possible tariffs.
- It distinguishes between Monday-Friday, Saturday, Sunday and public holidays. Winter and summer.
- Upper limit register: V, A, Wh and VArh.
- Power cut register.
- 12 monthly closures: Wh import./export. and VArh import/export.
- Load curve of V, A, Wh and VArh. It is configurable every $5,15,30$ and 60 minutes.
- Reading on the LCD display of the following instantaneous parameters. V, A, W, VAr, VA, cos Phi and Hz angle and phase-to-phase voltage.
- RS485 communications.
- LED indicators: active consumption, reactive consumption.
- 10-year memory backup by lithium battery.
- Accessories: USB-RS485 adapter (OB707022) / MODBUS/TCP gateway (OB709972).


## Technical specifications

- Supply voltage: $3 \times 230$ (400) V ac, 50 Hz
- Base and maximum current: 15(6) A
- Start current: of 3 mA
- Max. own consumption: 1,5V
- Accuracy active class 1 according to UNE-EN 62053-21
- Accuracy reactive class 2 according to UNE-EN 62053-23
- Serial port: RS485
- Communication protocol: MODBUS
- Type of codification: RTU (Remote Terminal Unit)
- Communications: SO pulses according to EN 62053-31
- Active constant: $10.000 \mathrm{imp} / \mathrm{kWh}$
- Reactive constant: $10.000 \mathrm{imp} / \mathrm{kvarh}$
- Operating Temp: from $-25^{\circ} \mathrm{C}$ to $+55^{\circ} \mathrm{C}$
- Protection degree: IP20 according to EN 60529
- Mounted: on DIN rail according to EN 60715
- Width module: 4


## Code Reference

OB709600 CONTAX D-0643-BUS_3x230(400) V ac ( $-20 \%+15 \%$ ), 50 Hz

## Features

Three phase, 5000 / 5 A

## ENERGY MEASUREMENT AND MANAGEMENT

## LOCAL READING



LOCAL READING


## CONTAX NET

- S0 pulse collector. Gets kilowatt readings and transmits via RS485 to a modem or central computer.
- Allows to create a network of kilowatt meters to be read by software from a central computer. Allows up to 2 tariffs.

Description

- SO pulse collector emitted by up to 8 power meters on the basis of the consumption at the installation (electricity, water, gas, etc.).
- It receives S0-type pulses according to EN 62053-31 and transmits via RS485 ASCII protocol.
- Connected on a network without amplifier can communicate up to 31 CONTAX NET (248 power meters of the CONTAX or ANRET series with pulse output). Maximum reading range of 1,000 meters.
- Connected on a network with amplifiers can communicate up to 247 CONTAX NET ( 1,976 power meters of the CONTAX or ANRET series with pulse output).
- It has an input for clock connection for dual-rate.
- Power and data transmission LED indicators.
- 4 módulos de anchura.
- Compatible with: RS485-USB adapter (OB707022). / RS485-RADIOFRECUENCIA adapter (OB707018) / ORBITEL RS485 modem (OB707021) / MODBUS-TCP gateway (OB709972).


## Technical specifications

- Nominal voltage: 230 V ac ( $-15 \% \div+10 \%$ ), $50-60 \mathrm{~Hz}$
- Max. own consumption: 2 VA
- Operating Temp: from $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP20 according to EN60529
- Mounted: on DIN rail according to EN 60715
- Width module: 4

| Code | Reference | Compatible with |
| :--- | :--- | :--- |
| OB708300 | CONTAX NET_230 V ac $(-15 \%+10 \%), 50 / 60 \mathrm{~Hz}$ | Frequency adapter and MODBUS-TCP |



## MODBUS-TCP GATEWAY

- Gateway to read meter networks with RS485 connection through an internet connection.


## Description

- It enables access to Modbus RTU/ASCII power meters networks through TCP/IP networks.
- Cascade connection of several Modbus gateways to simplify the topology of their network.
- Compatible with: CONTAX NET (OB708300) / CONTAX BUS series and ANRET BUS.
- From the configuration tool it is possible to: Determine LAN and WAN configuration of the system / Change system networks configuration / Determine the HTTP or FTP type of connection / Actualizar fecha y hora tipo NTP / Date and time update via NTP / Associate to DDNS dynamic IP manager / Two-way communication configuration.


## Technical specifications

- Power supply: 9-24 V dc (comes with a feeder)
- Connections Ethernet: RJ45 connector / Speed 10/100 Mbps
- Connections TCP: TCP server/TCP client/UDP
- Connections Serial port: $1 \times$ RS232 (DB9) / $1 \times$ RS422/485 with integral terminating resistor
- Connections Modbus: RTU slave, RTU master, ASCII slave, ASCII master
- Operating Temp: from $0^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$

| Code | Reference |
| :--- | :--- |
| OB709972 | MODBUS-TCP GATEWAY |

## RS232 TO RS485 ADAPTER

- Converts a serial port RS232 to RS485 for reading multiple counters simultaneously. RS232 connection cable for PC or modem, RS232-RS485 converter and feeder.


## Description

- Converts a serial port RS232 to RS485 for reading multiple counters simultaneously. RS232 connection cable for PC or modem, RS232-RS485 converter and feeder.


## Technical specifications

- Power supply: $9-24 \mathrm{~V} \mathrm{dc}$ (comes with a feeder).
- Connections Ethernet: RJ45 connector / Speed 10/100 Mbps
- Connections TCP: TCP server/TCP client/UDP
- Connections Serial port: $1 \times$ RS232 (DB9) / $1 \times$ RS422/485 with integral terminating resistor
- Connections Modbus: RTU slave, RTU master, ASCII slave, ASCII master
- Operating Temp: from $0^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$


## USB-RS485 ADAPTER

- Connects devices with RS485 serial interface through a PC USB port.


## Description

- Allows to connect a computer network with RS485 serial interface to any USB port on your computer.
- Only needs to be connected to a USB port and follow instructions from the installation wizard.
- Power and data transmission LED lights.
- Compatible with: CONTAX NET (OB708300) /CONTAX BUS series and ANRET BUS.


## Technical specifications

- RS485 terminal: male DB-9
- USB: 1120
- Compatible with: Windows 98/ME/XP/2000/CE, MAC \& Linux 2420 or above
- Operating Temp.: from $0^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$

| Code | Reference |
| :--- | :--- |
| OB707022 | ADAPTER RS485- USB |

## SOFTWARE CONTAX ANRET

- Measuring Network management with billing module and reporting.


## Description

- Easy software for management and configuration of installations for submetering.
- Group-based and sub-group based management.
- Reports generation.
- Consumption graphic representation.
- Reading and configuration of the CONTAX BUS series with tariff's edition, hourly discrimination, load curves, instantaneous measurements and historical data, events, cut-off relay functions, etc.
- Languages: English, Spanish and Italian.
- Compatible with: Windows 7, 8 and 10.


## Technical specifications

- Nominal voltage: 230 V ac ( $-15 \% \div+10 \%$ ), $50-60 \mathrm{~Hz}$
- Max. own consumption: 2 VA
- Operating Temp: from $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection degree: IP20 according to EN60529
- Mounted: on DIN rail according to EN 60715
- Width module: 4


ENERGY MEASUREMENT

## SOFTWARE CONTAX D-BUS

- Consumption export, reading and setting, load curve and electrical parameters for the CONTAX D-BUS series.


## Description

- Consumption management software, electrical parameters or meter reading and remote setting of the CONTAX D-BUS series meters.
- Helps managing electrical installations easily and in a graphic manner, useful for energy resources managers or installation owners who need to control energy usage.
- Types of installations:
- Campsites.
- Office buildings.
- Shopping centres.
- Marinas.
- Communities.
- Costs allocation by areas or departments.


## - Features

- User friendly.
- Languages: Spanish, English, French, German, Portuguese and Italian.
- Accessible from CONTAX ANRET software.
- Real time display and reading of consumptions and electrical parameters (tension, current, active, reactive and apparent power, frequency, power factor).
- Multiport and multi-device settings, allowing to combine different existing device models in the installation.
- Parameters setting for CONTAX-D-BUS series: date and time, meter management, curve cycle (15, 30, 60 minutes), meter display screens.
- Reading, graphic display and export of cumulative data (last 12 months); Active, reactive energy in import or export mode.
- Reading, graphic display and export of load curves: Active, reactive energy in import or export mode.
- Display and deletion of events (peaks) tension, intensity, active and reactive power, voltage failures.
- Data export in CVS.
- Relay control (only CONTAX D-6593-BUS-R): recovery mode: manual or remote time; inrush current, recovery waiting time.
- Meter status display: voltage failure, relay status, etc.
- Compatible with CONTAX D-BUS series:

CONTAX D-6041-BUS.
CONTAX D-10093-BUS.
CONTAX D-6593-BUS-R.
CONTAX D-6593-BUS-R V3x1.
CONTAX D-0643-BUS.



## ENERGEST

- Two relays control the activation and deactivation of single-phase loads based on the maximum power setpoint set by the user and the load connection priorities.
- Allows viewing of the voltage, current, active and reactive power, cos phi, active energy total, partial and frequency.


## Description

- ENERGEST allows the measuring and monitoring of a single-phase electrical system of up to 60 A through the included toroidal transformer. The control of charges is carried out through two relay outputs.
- If the current measured by the transformer exceeds the set maximum value, the device will disconnect the non-priority circuit after a delay time.
- If the current still exceeds the maximum value, ENERGEST will also disconnect the priority circuit and will try to connect the non-priority circuit without exceeding the programmed current.
- In real time and every time it carries out the disconnection of a circuit, ENERGEST calculates and memorises the consumption of the charge it controls.
- This function allows to control the charges in a smart way choosing the optimal combination not to exceed the set current maximum value.
- Adjustable parameters: maximum consumption current, current hysteresis, disconnection delay time, minimum time between switchovers and maximum time for connection attempt.
- Display of status of relays and electrical parameters in real time (V, A, W, Var, VA, Wh and cos Phi).
- Selectable relay operation: NO or NC.
- Temporary or permanent backlit LCD screen.
- Access code to avoid unauthorised handling.


## Technical specifications

- Power supply: 230 V ac $50-60 \mathrm{~Hz}$
- Indirect current connection: of up to 60 A
- Output: 2 relays with simple contact of $2 \mathrm{~A} / 250 \mathrm{~V}$ ac
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$
- Protection type: IP20 according to EN 60529
- Mounting: on DIN rail according to EN 60715
- Modules wide: 4

|  |  |  |
| :--- | :--- | :--- |
| Code | Reference | Contacts |
| OB709000 | ENERGEST_230 V ac $(-15 \%+10 \%), 50 / 60 \mathrm{~Hz}$ | $2 \times \mathrm{N} / 0$ |

## GESTCON 1

- Load control relay based on total power demand, adjustable up to 7 kW .
- Connection/disconnection priority management for one load group.
- Features a programmable acoustic warning.


## Description

- GESTCON 1 includes a switching output to control one load or one load group.
- Only requires setting the maximum allowable demand, up to 7 kW .
- The non-priority circuit is disconnected when the total demand of the installation exceeds the setpoint. It remains disconnected until a reconnection not exceeding the setpoint is possible and a delay time is completed.
- Adjustable parameters: maximum power demand, reconnection delay time and acoustic warning time.
- The disconnection delay time is calculated by the device to anticipate the maximeter or the utility meter trip, so that the higher the power excess, the shorter the delay time.
- Total current measurement by means of a built-in 32 A transformer.
- Back lit LCD screen for real time power demand display.
- Acoustic warning prior to disconnection via a buzzer.
- LED Ioad disconnection indicator.
- Area of application:

Control of washing machines, water heaters, ovens, vitroceramic hobs, air conditioning systems, etc. in homes and restaurants.

## Technical specifications

- Reference voltage: 230 V ac
- Nominal frequency: $50 / 60 \mathrm{~Hz}$
- Power consumption: 4 VA
- Maximum current connection (through external current transformer): 32 A
- Switching capacity: $16 \mathrm{~A} / 250 \mathrm{~V}$ ac
- Settable setpoint range: 0.8 to 7 kW
- Pre-alarm time (Ton): 30 s to 65535 s ( 18 h )
- Disconnection time (Toff): 0 s to 9999 s
- Buzzer time (Tbe): 0 s to 9999 s
- Degree of protection: IP20 according to EN 60529, IP40 on the front panel
- Method of mounting control: on DIN rail
- Module number: 2
- Wire cross section: < $6 \mathrm{~mm}^{2}$
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code | Reference | Contacts |
| :--- | :--- | :--- |
| OB709010 | GESTCON 1_230 V ac $(-15 \%+10 \%), 50 / 60 \mathrm{~Hz}$ | 1 changeover |




## GESTCON 3

- Load control relay based on total power demand, adjustable up to 15 kW.
- Connection/disconnection priority management for up to 3 loads or load groups.
- Only requires setting maximum total demand and load prioritisation.


## Description

- GESTCON 3 includes three switching output contacts to which loads are wired based on priority.
- Loads are reconnected when it becomes possible without exceeding the maximum power setting.
- Besides load priority, the device calculates which loads can be connected and which should not be connected in order to take advantage of the maximum power limit.
- The device manages the simultaneous operation of the higher demand systems or appliances (heating, washing machines, water heaters, ovens, air conditioning, etc.) so that all may operate, but not at the same time.
- Prevents line overloading, system or appliance failures and utility penalties.
- Adjustable parameters: maximum power demand, hysteresis (in kW) and load connection delay time.
- The disconnection delay time is calculated by the device to anticipate the maximeter or the utility meter trip, so that the higher the power excess, the shorter the delay time.
- Total current measurement by means of a built-in 60 A transformer.
- Back lit LCD screen for real power demand display in real time.
- LED excess power demand indicator.
- Area of application:

Mechanical workshops, industrial facilities, restaurants, hotels, homes, etc.

## Technical specifications

- Reference voltage: 230 V ac
- Nominal frequency: $50 / 60 \mathrm{~Hz}$
- Power consumption: 8 VA
- Maximum current connection (through external current transformer): 60 A
- Measurement precision: 2 \% full scale
- Settable setpoint: 1 to 15 kW
- Settable hysteresis: 0 to 1 kW
- Switching capacity: $16 \mathrm{~A} / 250 \mathrm{~V}$ ac
- Number of circuits: 3
- Degree of protection: IP20 according to EN 60529, IP51 on the front panel
- Method of mounting control: on DIN rail
- Module number: 4
- Wire cross section: 6 mm²
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code | Reference | Contacts |
| :--- | :--- | :--- |
| OB709020 | GESTCON 3_230 V ac $(-15 \%+10 \%), 50 / 60 \mathrm{~Hz}$ | 3 changeover |


澮:

## STREET LIGHTING MANAGEMENT

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TWILIGHT SWITCHES ..... 133
REMOTE LIGHTING MANAGEMENT SYSTEM ..... 136


## USES AND APPLICATIONS

Designed to automatically calculate the sunrise and sunset time as a function of geographical location.
The adjustment of times of sunrise (dawn) and sunset(dusk) is carried out daily and takes into account the annual variations between winter and summer for the selected zone.

We only have to select the city of installation and the system will make internal adjustments to the programmed timetable, both for switching-on and switching-off of the lighting system.

It allows operations to be carried out at a fixed time which is not dependent on astronomical times. That is, we can program it to switch-on at dusk which will vary according to the solar timetable, but to switch-off at a fixed time which can be maintained throughout the whole year.

Compared with the photocells or photo-electric switches, they offer numerous advantages and savings both at the time of installation and in terms of maintenance:

- Simple to mount on DIN rail.
- Saves time and materials, no need for a drill or ladder.
- It generates significant savings in maintenance since it does not require adjustments or cleaning.
- The models with two outputs allow two circuits to be controlled with two independent programs, such as lighting and irrigation for gardens.
- Switch-on/off of installation together with activation/deactivation of saving system for roadway lighting.
- Easy programming through a free App for mobile phones and tablets.
- Because it is installed inside the electricity cabinet, its precision is not affected by external elements such as pollution, dust, UV rays, or condensation as is the case with photo-electric switches.
- Double switch-on of fluorescent signage and window lighting.

The application are numerous, it is possible to incorporate these into installations or projects related to:

- Exterior lighting in residential communities, public buildings, parks, gardens etc.
- Advertising panels and bus stops.
- Illumination of facades and monuments.
- Route signaling, for holidays or Christmas.
- Service stations or parking lots.

STREET LIGHTING MANAGEMENT

## ASTRONOMIC TIME SWITCHES



## ASTRO UNO

- With communications Bluetooth Dongle slot.
- Free Apps available on Google Play and App Store.
- Daily astronomical adjustment.
- Large back-lit display with contrast adjustment.
- 1 independent circuit.


## Description

- Astronomical timed switch with daily updating and simple guided programming using text menus.
- One switched contact.
- Up to 40 daily or weekly programs.
- Fixed or astronomical operations (dawn and dusk).
- Adjustable correction of astronomical timetable of up to $\pm 9$ hours, 59 minutes.
- REDUC function to avoid overlap between fixed and astronomical operations.
- Large back-lit display with contrast adjustment.
- On-screen chronogram of functioning.
- It has 4 periods between two dates with special programs, which practically makes it a yearly timer switch.
- Manual activation or deactivation, temporary or permanent.
- Automatic daylight savings changes according to country or deactivate.
- Simple guided programming using text menus in different languages.
- Contact operating hours counter.
- Keyboard blocking using password.
- Replaceable reserve battery of up to 4 years.
- Transparent seal-able window to avoid unauthorised changes.
- Accessories: BLUETOOTH DONGLE (OB709971), 2 Module surface box (OB140601).


## Technical specifications

- Power supply: $230 \pm 10 \%$ V a.c.
- Nominal frequency: 50 / 60 Hz
- Switching capacity: 16 (10) A / 250 V a.c.
- Degree of protection: IP20 according to EN 60529
- Method of mounting control: on DIN rail
- Module number: 2
- Wire cross section: $4 \mathrm{~mm}^{2}$
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$
- Quality marks: VDE / ENEC10

Max. Recomm. Load


## ASTRONOMIC TIME SWITCHES

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## ASTRO NOVA CITY

－With communications Bluetooth Dongle slot．
－Free Apps available on Google Play and App Store．
－Daily astronomical adjustment．
－Large back－lit display with contrast adjustment．
－ 2 independents circuits．

## Description

－Up to 40 daily or weekly programs．Fixed or astronomical operations（dawn and dusk）．
－Adjustable correction of astronomical timetable of up to $\pm 9$ hours， 59 minutes．
－Large back－lit display with contrast adjustment．On－screen chronogram of functioning．
－It has 4 periods between two dates with special programs，which practically makes it a yearly timer switch．
－Manual activation or deactivation，temporary or permanent．
－Automatic daylight savings changes according to country or deactivate．
－Simple guided programming using text menus in different languages．
－Contact operating hours counter．
－Keyboard blocking using password．
－Replaceable reserve battery of up to 4 years．
－Transparent seal－able window to avoid unauthorised changes．
－Accessories：BLUETOOTH DONGLE（OB709971）， 2 Module surface box（OB140601）．

## Technical specifications

－Power supply： $230 \pm 10 \%$ V a．c．Nominal frequency： $50 / 60 \mathrm{~Hz}$
－Switching capacity：16（10）A／ 250 V a．c．
－Degree of protection：IP20 according to EN 60529
－Method of mounting control：on DIN rail
－Wire cross section： $4 \mathrm{~mm}^{2}$
－Operating temperature：$-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$


Max．Recomm．Load


3000 W
1200 VA
2000 VA
3000 W
甽 600 VA
$\because 400 \mathrm{VA}$

## BLUETOOTH DONGLE

－Communications Bluetooth Dongle for ASTRO NOVA CITY，ASTRO UNO y DATA LOG／LOG 2，which allows for programming and controlling the device from an Android or iPhone App．

## App Store

Google Play

## Description

－Incorporates bidirectional Bluetooth communication with the following models：DATA LOG，DATA LOG 2， ASTRO NOVA CITY y ASTRO UNO．
－Allows programming and controlling of the system using the ASTRO NOVA CITY app and DATA LOG．
－Compatible with：Apple（iPhone 4S or higher，IPad 3 or higher），Android（version 4.3 or higher and compatible with Bluetooth 4．0 LE）y Free available at：Google Play and App Store．

## Technical specifications

－Wireless comunications type：Bluetooth 4.0
－Antenna：Integrated
－Receiver sensitivity：－ 93 dBm
－Range： 30 m
－Operating temperature：$-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB709971 | BLUETOOTH DONGLE | Allows bidirectional Bluetooth communication with |
|  |  | hard－to－access devices． |

## ASTRONOMIC TIME SWITCHES

## ASTRO UNO BLUETOOTH

- Integrated bidirectional Bluetooth communication for programming and reading on a smart phone.
- One switched contact.
- Fixed or astronomical operations (dawn and dusk).
- Backlit screen for best display, even in the dark.


## Description

- Astronomical timed switch with daily updating and simple guided programming using text menus.
- Bluetooth communication for programming on a smart phone.
- Up to 40 daily or weekly programs
- Fixed or astronomical operations (dawn and dusk)
- Adjustable correction of astronomical timetable of up to $\pm 9$ hours, 59 minutes.
- REDUC function to avoid overlap between fixed and astronomical operations.
- Large back-lit display with contrast adjustment.
- On-screen chronogram of functioning.
- It has 4 periods between two dates with special programs, which practically makes it a yearly timer switch.
- Manual activation or deactivation, temporary or permanent.
- Automatic daylight savings changes according to country or deactivate.
- Simple guided programming using text menus in different languages.
- Contact operating hours counter.
- Keyboard blocking using password.
- Replaceable reserve battery of up to 4 years.
- If the battery is depleted, it is equipped with a high-capacity condenser to keep the programme in the memory when there is no supply voltage.
- Transparent seal-able window to avoid unauthorised changes.


## Technical specifications

Max. Recomm. Load

- Power supply: $230 \pm 10 \%$ V a.c.
- Nominal frequency: 50 / 60 Hz
- Switching capacity: 16(10) A/ 250 V a.c.
- Degree of protection: IP20 according to EN 60529
- Wireless comunications type: Bluetooth 4.0
- Antenna:Integrated
- Receiver sensitivity: - 93 dBm
- Syncing range (outdoor): 30 m
- Method of mounting control: on DIN rail
- Module number: 2
- Wire cross section: $4 \mathrm{~mm}^{2}$
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code | Reference |
| :--- | :--- |
| OB178312 | ASTRO UNO BLUETOOTH 230 V a.c. |

## Applications

OB178312 ASTRO UNO BLUETOOTH 230 V a.c. Street and ornamental lighting. Illuminated signs, shop windows, monuments, fountains, gardens..

## ASTRONOMIC TIME SWITCHES

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## ASTRO NOVA CITY BLUETOOTH

- Integrated bidirectional Bluetooth communication for programming and reading on a smart phone.
- Fixed or astronomical operations (dawn and dusk).
- Removable front battery.
- Backlit screen for best display, even in the dark.


## Description

- Astronomical timed switch with daily updating and simple guided programming using text menus.
- Bluetooth communication for programming on a smart phone.
- Two switched contacts.
- Up to 40 daily or weekly programs.
- Fixed or astronomical operations (dawn and dusk).
- Adjustable correction of astronomical timetable of up to $\pm 9$ hours, 59 minutes.
- REDUC function to avoid overlap between fixed and astronomical operations.
- Large back-lit display with contrast adjustment.
- On-screen chronogram of functioning.
- It has4 periods between two dates with special programs, which practically makes it a yearly timer switch.
- Manual activation or deactivation, temporary or permanent.
- Automatic daylight savings changes according to country or deactivate.
- Simple guided programming using text menus in different languages.
- Contact operating hours counter.
- Keyboard blocking using password.
- Replaceable reserve battery of up to 4 years.
- Transparent seal-able window to avoid unauthorised changes.


## Technical specifications

- Power supply: $230 \pm 10 \%$ V a.c.
- Nominal frequency: 50 / 60 Hz
- Switching capacity: $16(10) \mathrm{A} / 250 \mathrm{~V}$ a.c.
- Degree of protection: IP20 according to EN 60529
- Wireless comunications type: Bluetooth 4.0
- Antenna: Integrated
- Receiver sensitivity: - 93 dBm
- Syncing range (outdoor): 30 m
- Method of mounting control: on DIN rail

Max. Recomm. Load

| [) | 3000 W |
| :---: | :---: |
|  | 1200 VA |
| $\stackrel{B}{\circ}$ | 2000 VA |
| 唯1+1) | 3000 W |
|  | 600 VA |
| $\because \square$ | 400 VA |
| (1) | 90 VA |

- Module number: 2
- Wire cross section: 4 mm²
- Operating temperature: $-10^{\circ} \mathrm{C}$ to $45^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB178412 | ASTRO NOVA CITY BLUETOOTH 230 V a.c. | Street and ornamental lighting. Illuminated |
|  |  | signs, hop windows, monuments, etc. |



## APP ASTRO NOVA CITY / ASTRO UNO

- Application for the management of ASTRO NOVA CITY / ASTRO UNO from a smartphone.


## Description

- ASTRO NOVA CITY / ASTRO UNO can be programmed with the keyboard or using a Smartphone, iPhone or Android. Inserting the Bluetooth dongle in the ASTRO NOVA CITY / ASTRO UNO, the App allows for:
- Capturing GPS coordinates and the exact satellite time in order to transfer it to the devices afterwards.
- Reading, editing, saving and transferring the programs to the devices.
- Setting special periods with manoeuvres different from the usual.
- Viewing the consumption data and charts of each of the circuits of the device.
- Area programming by city is still the hallmark of these new versions of ASTRO NOVA CITY and ASTRO UNO.
- These Apps are free and available on Google Play and App Store (search: ORBIS ASTRO NOVA)
- Screenshots of the app:


City programming or geolocation with sunset and sunrise times consultation.


Editing of special or holiday programmes.


Save, send or share programmes.


Viewing of daily, weekly or annual installation consumption.

## TWILIGHT SWITCHES



## VEGADIN

- Photocell for installation on DIN rail.
- Easy adjustment of lighting level on DIN rail without the need for stairs.
- Simple NO contact.


## Description

- Photocell for installation on DIN rail with astronomic exterior sensor.
- Easy adjustment of lighting level on DIN rail without the need for stairs.
- Simple NO contact and LED operation light.
- Activation delay to avoid unwanted switch-on or switch-off due to vehicle headlights, clouds or other factors.
- Accessories: 2 Module surface box (0B140601).


## Technical specifications

- Power supply: 230 V a.c. $\pm 10 \%$
- Nominal frequency: 50 / 60 Hz
- Power consumption ( 50 Hz ): 6 VA (1 W)

- Switching capacity: $16 \mathrm{~A} / 250 \mathrm{~V} \sim \cos \varphi=1$
- Brightness range: 10 ... 100 lux
- Maximum distance between sensor and equipment: 100 m
- Delay ON and off time: 20 s aprox
- Degree of protection (EXTERIOR PROBE): IP65 according to EN 60529
- Wire cross section: $4 \mathrm{~mm}^{2}$
- Operating temperature: $-20^{\circ} \mathrm{C}$ to $50^{\circ} \mathrm{C}$

| Code | Reference | Applications |
| :--- | :--- | :--- |
| OB131612 | VEGADIN | Lighting for porches and common areas in residential and office buildings <br>  |
| illuminated night time signaling, advertising with lighting, etc. |  |  |



## VEGA

- Installation: surface, both wall and on the lamp-post.
- Single contact, from 5 to 300 lux.


## Description

- Surface photocell with exterior regulation.
- Higher degree IP54 protection which allows it to work in extreme conditions.
- Activation delay to avoid unwanted switch-on or switch-off due to vehicle headlights, clouds or other factors.
- LED operation light.
- Mounting: Wall surface.


## Technical specifications

Max. Recomm. Load

- Power supply voltage: 230 V a.c. $( \pm 10 \%), 50 / 60 \mathrm{~Hz}$
- Switching capacity: 10 A 250 V a.c.
- Sensivility: from 5 to 300 lux
- Activation delay: 60 second
- Operating temp: $-30^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Limit temperature of operation: $-30^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP54 according to EN 60529
2000 W
100 VA
2



## ORBILUX

- Ideal for shop windows lighting, entrance gates, illuminated signs, etc.
- Installation: Surface on wall or by cable tie on the lamp post.
- Single contact five potential of 5-200 lux.


## Description

- Easily managed photocell with different installation options.
- Compact design and external adjustments.
- Test button to check connections and correct lamp functioning.
- Activation delay to avoid unwanted switch-on or switch-off due to vehicle headlights, clouds or other factors.
- Simple N/O contact and LED operation light.
- Mounting: Wall surface or on post using a metallic tie.


## Technical specifications

Max. Recomm. Load

- Power supply voltage: 120 or 230 V a.c. $( \pm 10), 50-60 \mathrm{~Hz}$
- Switching capacity: 16 A 250 V a.c.
- Sensivility: from 5 to 200 lux
- Activation delay: 30 second
- Operating temp: $-25^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
- Protection degree: IP 55 according to EN 60529

| Code | Reference |
| :--- | :--- |
| OB132012 | ORBILUX_230 V a.c.,50-60 Hz |

## ORBIFOT

- Attractive design and simple assembly on wall or pillar using brackets.
- Equipped with a zero-crossing relay to control LED-type loads.
- High protection index (IP65) for outdoor installation.


## Description

- Extremely robust photocell thanks to its special protection against electrical storms.
- Higher grade of protection IP 65 which allows it to work in extreme conditions. Changeover contact.
- Activation delay to avoid unwanted switch-on or switch-off due to vehicle headlights, clouds or other factors.
- Mounting: Threaded on luminaire or Surface with brackets.


## Technical specifications

- Power supply voltage: 230 V a.c. $\pm 10 \%, 50-60 \mathrm{~Hz}$
- Switching capacity: $\mu 10 \mathrm{~A} / 250 \mathrm{~V} \sim \cos \varphi=1$

Max. Recomm. Load

- Sensivility: from 5 a 1000 lux
- Activation delay: 25 second
- Operating temp: $-10^{\circ} \mathrm{C}$ to $+50^{\circ} \mathrm{C}$
- Protection degree: IP65 according to EN 60529

| Code | Reference |
| :--- | :--- |
| OB132200 | ORBIFOT_230 V a.c., $50-60 \mathrm{~Hz}$ |

$=400 \mathrm{VA}$

## TWILIGHT SWITCHES

## CITYLUX

- Installation: surface by framing square or threaded over the lamp.
- Firm due to its special protection against thunderstorms. IP65.
- Changeover contact by free voltage relay, from 5-1000 lux.


## Description

- Especially designed for outdoor installation, ensuring high protection level against water and dust ingress (IP65).
- Includes a PG9-type cable gland with IP68 protection to mechanically hold electrical hoses and to ensure watertight sealing of the connection terminals.
- To activate the load, it is equipped with a high-capacity zero-crossing relay to switch up to 500 VA for LED-type loads.
- Simple N/O contact with potential.
- Quick-connection terminals with dual connector for phase, neutral and lamp return.
- Easy external adjustment of the lighting activation threshold and selected threshold indicator light.
- 50 -second activation/deactivation delay to prevent unintended switching on/off due to sudden lighting level variations.
- Connection cover pre-cut for supply cable entry.


## Technical specifications

- Power supply: $230 \mathrm{Vac} \pm 10 \%$
- Nominal frequency:50/60 Hz
- Power consumption: 0,6 W ( $5,4 \mathrm{VA}$ ) $50 \mathrm{~Hz} / 0,8$ W ( $6,4 \mathrm{VA}) 60 \mathrm{~Hz}$
- Switching capacity: $\mu 16 \mathrm{~A} 230 \mathrm{~V} \sim \cos \varphi=1$
- Brightness range:3 to 200 lux
- Degree of protection:IP65 according to EN 60529
- Operating temperature: $-20^{\circ} \mathrm{C}$ to $40^{\circ} \mathrm{C}$

|  |  |
| :--- | :--- |
| Code | Reference |
| OB131412 | CITYLUX 230 Vac $50-60 \mathrm{~Hz}$ |

Max. Recomm. Load


## REMOTE LIGHTING MANAGEMENT SYSTEM



The current model of roadway or public lighting systems use is focused on the optimisation of energy consumption and maintenance, on the rapid return on investments and on the improvement of service for drivers and pedestrians.
To achieve these objectives it is essential to have systems which allow the management of the installations in a fast and simple manner to be able to apply corrective and preventative measures.

The XEO LUM system offers the most advanced tele- management through a Web interface to be able to monitor and control small installations up to large infrastructure in municipalities, highways, ports, factories etc.

## MODULE CONTROL

Functioning time adjustments by cabinet and by group. Scheduling and saving systems adjustments (double level, stabilisers etc). Activation/ deactivation of additional circuits for other purposes (holiday or Christmas lighting, irrigation, fountains etc). Programmable auxiliary inputs and outputs. Voluntary commands separate from the program. Cancellation of programs. Creation of special programs for festivals or holidays. Integration with other client systems.

## MONITORING

Instantaneous electric parameters. Inventory of lighting cabinets and their components Geographic localisation of each installation.
Electric or photographic frameworks. Management of users and access permissions. Status of inputs and outputs.

## REPORTING

Electric parameter history by cabinet and by group. Summary graph
Register of electrical consumption.
Analysis of parameters by day, month and year. Follows savings measures.
Tariff visualisation.
Savings percentage by panel and by group.
Supply quality.
Alarms with date and time.
Export to Excel and PDF.


## XEO LUM

- Remote management system for large lighting installations such as those in municipalities, highways and large factories.
- Allows you to manage, by web site, the lighting cabinets individually or in groups, georeferenced representation with real-time information, remote configuration and actions, historical data, reports, alerts by SMS or e-mail, 3 levels of users, etc.


## Description

- Remote management of large lighting systems such as for councils, motorways and large factories.
- Allows Web management of systems with real-time information, remote operation, historical data, reports, SMS or email alarms, 3 user levels, etc.
- It is possible to adapt any existing control center due to its 9 module size and installation on DIN rail, therefore it can be integrated into conventional control centers or into those which incorporate a savings system.
- For operation, it is necessary that the user includes an M2M GSM data card.
- 2 network analysers register the corresponding values both at the power supply input as well as at the output to the lamps.
- Includes a quad band GSM and GPRS communications module.
- Digital inputs for detection of alarms for tripped breakers, an open door or any other requirement.
- Analogue inputs for temperature sensor or any other monitored element.
- These inputs are very useful for the connection of photocells in the regulation of tunnel lighting of internal lighting for factories, sports complexes etc.
- Potential-free outputs for the astronomic switch-on/switch-off of the system, activation/deactivation of savings systems or any other requirement.
- Easy to ready back-lit display, even at night.
- LED indicator: operating, GSM coverage, server connection and error.
- From the system keyboard it is possible to: set the date, time and geographical location, consult the status of the system; view the voltage, current, power, potency and energy factors; consult and configure inputs/outputs and events such as surges, maximum input voltage, output voltage error, consumption shut-off and communication errors.
- Linked with ESDONI, we can: set voltages and start-up times, nominal and 4 periods or phase-reduction for each day of the week.
- Languages: Spanish, English and French.
- Compatible with Web application XEO LUM Tele-Management.


## Technical specifications

- Power supply voltage: 230 V a.c., $50-60 \mathrm{~Hz}$
- Check for other voltages
- Optocoupled inputs $10 \times 230 \mathrm{~V}$ a.c.
- Analogue inputs: 1 input 0-10 V / 1 input 0-20 mA / 1 NTC temperature external sensor input
- Potential-free relay outputs $4 \times 5 \mathrm{~A} / 230 \mathrm{Va} . \mathrm{c}$.
- Communication ports: 1 port series RS 232 / 1 expansion port series RS 485 Modbus / 1 serial communication port with ESDONI
- Operating temp: $-10^{\circ} \mathrm{C}$ to $+45^{\circ} \mathrm{C}$ according to EN 60730-2-7
- Protection Type without cabinet: IP 20 according to EN 60529
- Mounted: on DIN rail according to EN 60715
- Width module: 9

| Code | Reference |
| :--- | :--- |
| OB509920 | XEO LUM |



## ELECTRIC MOBILITY

## ELECTRIC VEHICLE CHARGING SYSTEMS

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## ELECTRIC MOBILITY

At ORBIS, we are proud to present our VIARIS chargers, an innovative and sustainable solution to meet the charging needs of electric vehicles. With over a decade of experience in developing and manufacturing chargers, we have established a strong track record in the field of electric charging. Designed with the highest quality and cutting-edge technology, our VIARIS chargers offer numerous benefits for both customers and the environment. Let us introduce you to some of the reasons why our chargers are a smart and sustainable choice.

## Environmental sustainability

ORBIS VIARIS chargers are designed with the environment in mind. Electric vehicles significantly reduce greenhouse gas emissions and contribute to the fight against climate change. By choosing our chargers, you will be contributing to a cleaner and more sustainable future for generations to come.

## Energy efficiency

ORBIS VIARIS chargers are designed with the environment in mind. Electric vehicles significantly Our VIARIS chargers are equipped with smart charging technology that optimises the use of electrical energy. Their power modulation technology makes it possible to control the flow of energy and adapt to the specific charging needs of each vehicle, thus maximising energy efficiency and reducing unnecessary consumption. This not only benefits the environment, but also customers, who will experience lower energy costs and longer battery life for their electric vehicles.

## Flexibility and compatibility

ORBIS VIARIS chargers are designed to be compatible with a wide range of electric vehicles, making them a versatile option for any electric vehicle owner. In addition, we offer different connectivity options, such as standard plugs and different connectors to suit the individual needs of all our customers.

## Advanced functionalities

Our VIARIS chargers are equipped with a variety of advanced functionalities to make the charging experience convenient and efficient. This includes mobile apps to remotely schedule charging and receive real-time notifications, as well as integrated safety systems to protect both the user and the charger


## VIARIS UNI

- Attractive design, simple to use and easy to install in both the residential and tertiary sectors.
- Charging power modulator to achieve the highest recharge in the shortest possible time without exceeding the contracted power and depending on the instantaneous consumption of the other electrical appliances in the installation.
- Exclusive functionality: single-phase recharging for three-phase vehicles depending on the instantaneous consumption of the rest of the electrical appliances in the home or building.
- Multi-device function for power modulation of several chargers.
- Integration in ORBIS-SPL (Smart Power Line) for power modulation of up to 248 EV chargers.


## Description

- Compatible with VIARIS SOLAR for installations with photovoltaic power generation.
- DC leakage detector for the protection of persons against electrical hazards.
- Electrical isolation safety system according to IEC 61851-1 standard.
- Wi-Fi communication for configuration and operation from the e-VIARIS App. Optionally it can be manufactured with Ethernet and/or 4G communication.
- Schedule control and power consumption limitation to take advantage of electricity rates.
- Real-time and historical information on household, vehicle, grid and solar generation consumption.
- Touch or RFID card activation for Excel reporting on user consumption.
- PC housing with high impact resistance IK10 according to EN 62262 and high temperature deformation.
- IP54 protection level according to EN 60529.
- Charging mode 3 (high degree of communication) with Type 1 or Type 2 connector according to EN 62196.
- Charging mode 1 and 2 with Schuko socket (CEE7/4 type F) according to EN 62196

OCPP communication protocol for integration with management platforms.


EV CHARGING SYSTEMS / SMART CHARGERS FOR PRIVATE ENVIROMENTS

VIARIS UNI 230 V / VIARIS UNI 3X230/400V


## VIARIS UNI SINGLE-PHASE 7,4 KW WITH TYPE 2 CONNECTOR

| Code | Model | Power | Output with 5 m cable and type2 | Output with 10 m cable and Type2 | MID kWh mete | Ethernet communication |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0B94U220HA1 | VIARIS UNI SP_7,4KW 5M CABLE T2 | 7,4 kW 32 A | - |  |  |  |
| 0B94U220HA2 | VIARIS UNI SP_7,4KW 5M CABLE T2, ETHERNET | 7,4 kW 32 A | - |  |  | - |
| OB94U220HB1 | VIARIS UNI SP_7,4KW 5M CABLE T2, MID | 7,4 kW 32 A | - |  | - |  |
| OB94U220HB2 | VIARIS UNI SP_7,4KW 5M CABLE T2, MID, ETHERNET | 7,4 kW 32 A | - |  | - | - |
| OB94U2A0HA1 | VIARIS UNI SP_7,4KW 10M CABLE T2 | 7,4 kW 32 A |  | - |  |  |
| OB94U2A0HA2 | VIARIS UNI SP_7,4KW 10M CABLE T2, ETHERNET | 7,4 kW 32 A |  | - |  | - |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


VIARIS UNI SINGLE-PHASE 7,4 KW WITH SOCKET TYPE 2 WITH SHUTTER

| Code | Model | Power | Output with Type2 <br> socket | Ethernet communication |
| :--- | :--- | :--- | :---: | :---: |
| OB94U2COHA1 | VIARIS UNI SP_7,4KW OUTLET T2 SH | $7,4 \mathrm{~kW} 32 \mathrm{~A}$ | $\bullet$ |  |
| OB94U2COHA2 | VIARIS UNI SP_7,4KW OUTLET T2 SH, ETHERNET | $7,4 \mathrm{~kW} 32 \mathrm{~A}$ | $\bullet$ | $\bullet$ |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


## VIARIS UNI THREE-PHASE 22 KW WITH TYPE 2 CONNECTOR

| Code | Model | Power | Output with 5 m cable and Type2 | Output with 10 m cable and Type2 | MID kWh mete | Ethernet communication |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB94U720HA1 | VIARIS UNI TP_22KW 5M CABLE T2 | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | - |  |  |  |
| OB94U720HA2 | VIARIS UNI TP_22KW 5M CABLE T2, ETHERNET | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | - |  |  | - |
| OB94U720HB1 | VIARIS UNI TP_22KW 5M CABLE T2, MID | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | - |  | - |  |
| OB94U720HB2 | VIARIS UNI TP_22KW 5M CABLE T2, MID, ETHERNET | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | - |  | - | - |
| OB94U7A0HA1 | VIARIS UNI TP_22KW 10 M CABLE T2 | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ |  | - |  |  |
| OB94U7A0HA2 | VIARIS UNI TP_22KW 10 M CABLE T2, ETHERNET | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ |  | - |  | - |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


VIARIS UNI THREE-PHASE 22 KW WITH SOCKET TYPE 2 WITH SHUTTER

| Code | Model | Power | Output with Type2 <br> socket | Ethernet <br> communication |
| :--- | :--- | :--- | :--- | :---: | :---: |
| OB94U7COHA1 | VIARIS UNI TP_22KW OUTLET T2 SH | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | $\bullet$ |  |
| OB94U7COHA2 | VIARIS UNI TP_22KW OUTLET T2 SH, ETHERNET | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | $\bullet$ | $\bullet$ |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.

## VIARIS UNI +

- Attractive design, simple to use and easy to install in both the residential and tertiary sectors.
- Power modulator to achieve the highest recharge in the shortest possible time without exceeding the contracted power and depending on the instantaneous consumption of the rest of the electrical appliances in the installation.
- Multi-device function for power modulation of several chargers connected to the same power line.
- Integration into ORBIS-SPL (Line Protection System) for power modulation of up to 249 chargers.


## Description

- Compatible with VIARIS SOLAR for photovoltaic power generation installations.
- Includes 8-module DIN rail to house electrical protections and energy meter accessible through door with key lock (Protections not included).
- Optionally, it can be manufactured with magneto-thermal and differential protection for alternating current, as well as energy meter with MID certification according to European legislation. Models with Schuko socket include magneto-thermal and differential protection.
- Includes DC leakage detector as standard to protect people against electrical hazards.
- Electrical insulation safety system according to IEC 61851-1 standard.
- Wi-Fi communication for configuration and operation from the e-VIARIS App. Optionally it can be manufactured with Ethernet and/or 4G communication.
- Schedule control and power consumption limitation to take advantage of electricity rates.
- Real-time and historical information on household, vehicle, grid and solar generation consumption.
- Touch or RFID card activation for Excel reporting on user consumption.
- PC housing with high impact resistance IK10 according to EN 62262 and high temperature deformation.
- IP54 protection level according to EN 60529.
- Charging mode 3 (high degree of communication) with connection cable Type 1, Type 2, Type 2 with Tesla button or optional Schuko socket.
- Charging mode 1 and 2 with Schuko socket (CEE7/4 type F) to EN 62196.

OCPP communication protocol for integration with charger management platforms.


EV CHARGING SYSTEMS / SMART CHARGERS FOR PRIVATE ENVIROMENTS

VIARIS UNI + 230 V / VIARIS UNI +3X230/400V


| VIARIS UNI + SINGLE-PHASE 7,4 KW WITH TYPE 2 CONNECTOR |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Model | Power | Output with 5 m cable and <br> Type2 | Output with 10 m cable and Type2 | $\begin{aligned} & \text { MID } \\ & \text { kWh } \\ & \text { mete } \end{aligned}$ | Ethernet communication |
| OB94U120HA1 | VIARIS UNI + SP_7,4KW 5M CABLE T2 | 7,4 kW 32 A | - |  |  |  |
| OB94U120HA2 | VIARIS UNI + SP_7,4KW 5M CABLE T2, ETHERNET | 7,4 kW 32 A | - |  |  | - |
| 0B94U120HB1 | VIARIS UNI + SP_7,4KW 5M CABLE T2, MID | 7,4 kW 32 A | - |  | - |  |
| 0B94U120HB2 | VIARIS UNI + SP_7,4KW 5M CABLE T2, MID, ETHERNET | 7,4 kW 32 A | - |  | - | - |
| 0B94U1A0HA1 | VIARIS UNI + SP_7,4KW 10M CABLE T2 | 7,4 kW 32 A |  | - |  |  |
| 0B94U1AOHA2 | VIARIS UNI + SP_7,4KW 10M CABLE T2, ETHERNET | 7,4 kW 32 A |  | - |  | - |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


## VIARIS UNI + SINGLE-PHASE 7,4 KW WITH SOCKET TYPE 2 WITH SHUTTER

| Code | Model | Power | Output with Type2 <br> socket | Ethernet communication |
| :--- | :--- | :--- | :---: | :--- |
| OB94U1COHA1 | VIARIS UNI + SP_7,4KW OUTLET T2 SH | $7,4 \mathrm{~kW} 32 \mathrm{~A}$ | $\bullet$ |  |
| OB94U1COHA2 | VIARIS UNI + SP_7,4KW OUTLET T2 SH, ETHERNET 7,4 kW 32 A | $\bullet$ |  |  |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


VIARIS UNI + THREE-PHASE 22 KW WITH TYPE 2 CONNECTOR

| Code | Model | Power | Output with 5 m cable and Type2 | Output with 10 m cable and Type2 | $\begin{aligned} & \text { MID } \\ & \text { kWh } \\ & \text { mete } \end{aligned}$ | Ethernet communication |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB94U420HA1 | VIARIS UNI + TP_22KW 5M CABLE T2 | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | - |  |  |  |
| OB94U420HA2 | VIARIS UNI + TP_22KW 5M CABLE T2, ETHERNET | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | - |  |  | - |
| OB94U420HB1 | VIARIS UNI + TP_22KW 5M CABLE T2, MID | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | - |  | - |  |
| 0B94U420HB2 | VIARIS UNI + TP_22KW 5M CABLE T2, MID, ETHERNET | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | - |  | - | - |
| OB94U4A0HA1 | VIARIS UNI + TP_22KW 10 M CABLE T2 | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ |  | - |  |  |
| OB94U4AOHA2 | VIARIS UNI + TP_22KW 10 M CABLE T2, ETHERNET | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ |  | - |  | - |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


VIARIS UNI + THREE-PHASE 22 KW WITH SOCKET TYPE 2 WITH SHUTTER

| Code | Model | Power | Output with Type2 <br> socket | Ethernet <br> communication |
| :--- | :--- | :--- | :---: | :---: |
| OB94U4COHA1 | VIARIS UNI + TP_22KW OUTLET T2 SH | $22 \mathrm{~kW} 3 \times 32 \mathrm{~A}$ | $\bullet$ |  |
| OB94U4COHA2 | VIARIS UNI + TP_22KW OUTLET T2 SH, ETHERNET $22 \mathrm{~kW} \mathrm{3x32} \mathrm{~A}$ | $\bullet$ | $\bullet$ |  |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.

## VIARIS COMBI +

- Attractive design, simple use and easy installation in both the residential and tertiary sectors.
- Models with one or two outputs configurable with cable or connection base. Allows up to two parking spaces to be electrified with a single charger.
- Optionally it can be manufactured incorporating electrical protections and/or independent MID energy meter for each output.
- It has a 10-module DIN rail for housing electrical protections with a key lock for electrical protections with key lock to prevent unauthorised manipulation.
- Connector Type 1, Type 2 or Type 2 IP55D (with electrical contact protection shutter) according to EN 62196.
- Power modulation to achieve the highest recharge in the shortest possible time without exceeding the maximum capacity of the installation and depending on the instantaneous consumption of other electrical appliances.
- Exclusive functionality: single-phase recharging for three-phase vehicles depending on the instantaneous consumption of other electrical appliances in the home or building.
- Multi-device function for power modulation of several chargers.
- ORBIS-SPL (Smart Power Line) integration for power modulation of up to 248 EV chargers.
- Models with two outlets include power modulator between outlets depending on the charging capacity of the connected vehicles.
- Compatible with VIARIS SOLAR for installations with photovoltaic energy generation.


## Description

- DC leakage detector for the protection of people against electrical hazards.
- Electrical isolation safety system according to IEC 61851-1 standard.
- Wi-Fi and Ethernet communication as standard for configuration and operation from the e-VIARIS App. Optionally it can be manufactured with 4G communication.
- Schedule control and power consumption limitation to take advantage of electricity rates.
- Real time and historical information on household, vehicle, grid and solar generation consumption.
- Touch or RFID card activation for Excel reporting of users' consumption.
- PC housing with high impact resistance IK10 according to EN 62262 and high temperature deformation.
- IP54 protection level according to EN 60529.
- Charging mode 3 (high degree of communication) with Type 1 or Type 2 connector according to EN 62196.
- Charging mode 1 and 2 with Schuko socket (CEE7/4 type F) according to EN 62196.
- OCPP communication protocol for integration with management platforms.


EV CHARGING SYSTEMS / SMART CHARGERS FOR PRIVATE ENVIROMENTS

VIARIS COMBI + $230 \mathrm{~V} /$ VIARIS COMBI + 3X230/400V


| Code | Model | Power | Outputs | $\begin{aligned} & \text { Elec. } \\ & \text { Protection } \\ & \text { (MCB+ RCD } \\ & \text { Type A) } \end{aligned}$ | $\begin{aligned} & \text { MID } \\ & \text { kWh } \\ & \text { mete } \end{aligned}$ | Communication WiFi+Ethernet |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0B94P2C09A2 | VIARIS COMBI+ SP_7,4KW OUTLET T2 SH, EP | 7,4 kW 32 A | 1 | - |  | - |
| 0B94P2COHB2 | VIARIS COMBI+ SP_7,4KW OUTLET T2 SH, MID | 7,4 kW 32 A | 1 |  | - | - |
| 0B94P2C09B2 | VIARIS COMBI+ SP_7,4KW OUTLET T2 SH, EP, MID | 7,4 kW 32 A | 1 | - | - | - |
| 0B94P2CCHA2 | VIARIS COMBI+ SP_2x7,4KW OUTLET T2 SH | 7,4 kW+7,4 kW | 2 |  |  | - |
| 0B94P2CCFA2 | VIARIS COMBI+ SP_2x 7,4KW OUTLET T2 SH, 2xEP | 7,4 kW+7,4 kW | 2 | x2 |  | - |
| 0B94P2CCHC2 | VIARIS COMBI+ SP_2x7,4KW OUTLET T2 SH, 2xMIDT | 7,4 kW+7,4 kW | 2 |  | x2 | - |
| 0B94P2CCFC2 | VIARIS COMBI+ SP_2x7,4KW OUTLET T2 SH, 2xEP, 2xMID | 7,4 kW+7,4 kW | 2 | x2 | x2 | - |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


VIARIS COMBI+ SINGLE-PHASE 7,4 KW WITH CABLE TYPE 2

| Code | Model | Power | No. Cables with Type2 connector | Cable length | Elec. Protection (MCB + RCD Type A) | MID kWh meter | Communication WiFi+Ethernet |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0B94P2209A2 | VIARIS COMBI+ SP_7,4KW 5M CABLE T2, EP | 7,4 kW 32 A | 1 | 5 m | - |  | - |
| 0B94P220HB2 | VIARIS COMBI+ SP_7,4KW 5M CABLE T2, MID | 7,4 kW 32 A | 1 | 5 m |  | - | - |
| 0B94P2209B2 | VIARIS COMBI+ SP_7,4KW 5M CABLE T2, EP, MID | 7,4 kW 32 A | 1 | 5 m | - | - | - |
| 0B94P2A09A2 | VIARIS COMBI+ SP_7,4KW 10M CABLE T2, EP | 7,4 kW 32 A | 1 | 10 m | - |  | - |
| 0B94P2A0HB2 | VIARIS COMBI+ SP_7,4KW 10M CABLE T2, 2xMID | 7,4 kW 32 A | 1 | 10 m |  | - | - |
| 0B94P2A09B2 | VIARIS COMBI+ SP_7,4KW 10M CABLE T2, 2xEP, 2xMID | 7,4 kW 32 A | 1 | 10 m | - | - | - |
| 0B94P222HA2 | VIARIS COMBI+SP_2x7,4KW 5M CABLE T2 | 7,4 kW+7,4 kW | 2 | 5 m |  |  | $\bullet$ |
| 0B94P222FA2 | VIARIS COMBI+ SP_2x7,4KW 5M CABLE T2, 2xEP | 7,4 kW+7,4 kW | 2 | 5 m | x2 |  | - |
| 0B94P222HC2 | VIARIS COMBI+SP_2x7,4KW 5M CABLE T2, 2xMID | 7,4 kW+7,4 kW | 2 | 5 m |  | x2 | - |
| 0B94P222FC2 | VIARIS COMBI + SP_2x7,4KW 5M CABLE T2, 2xEP, 2xMID | 7,4 kW+7,4 kW | 2 | 5 m | x2 | x2 | - |
| 0B94P2AAHA2 | VIARIS COMBI+ SP_2x7,4KW 10M CABLE T2 | 7,4 kW+7,4 kW | 2 | 10 m |  |  | - |
| 0B94P2AAFA2 | VIARIS COMBI+ SP_2x7,4KW 10M CABLE T2, 2xEP | 7,4 kW+7,4 kW | 2 | 10 m |  |  | - |
| 0B94P2AAHC2 | VIARIS COMBI+ SP_2x7,4KW 10M CABLE T2, 2xMID | 7,4 kW+7,4 kW | 2 | 10 m | x2 | x2 | - |
| 0B94P2AAFC2 | VIARIS COMBI+ SP_2x7,4KW 10M CABLE T2, 2xEP, 2xMID | 7,4 kW+7,4 kW | 2 | 10 m | x2 | x2 | - |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


VIARIS COMBI + 230 V / VIARIS COMBI + 3X230/400V

VIARIS COMBI+ THREE-PHASE 22 KW WITH SOCKET TYPE 2 WITH SHUTTER

| Code | Model | Power | Outputs | Elec. Protection (MCB + RCD Type A) | MID kWh mete | Communication WiFi+Ethernet |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0B94P7COHA2 | VIARIS COMBI+ TP_22KW OUTLET T2 SH, EP | 22 kW 32 A | 1 | - |  | $\bullet$ |
| 0B94P7C0KB2 | VIARIS COMBI+ TP_22KW OUTLET T2 SH, MID | 22 kW 32 A | 1 |  | - | - |
| 0B94P7C0HB2 | VIARIS COMBI+ TP_22KW OUTLET T2 SH, EP, MID | 22 kW 32 A | 1 | - | - | - |
| 0B94P7CCKA2 | VIARIS COMBI+ TP_2x22KW OUTLET T2 SH | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 |  |  | - |
| 0B94P7CCJA2 | VIARIS COMBI+ TP_2x22KW OUTLET T2 SH, 2xEP | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 | x2 |  | $\bullet$ |
| OB94P7CCKC2 | VIARIS COMBI+ TP_2x22KW OUTLET T2 SH, 2xMID | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 |  | x2 | - |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.


| VIARIS | HREE-PHASE 22 KW WITH TY | ONNECTOR |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Code | Model | Power | No. Cables with Type2 connector | Cable length | $\begin{aligned} & \text { Elec. } \\ & \text { Protection } \\ & \text { (MCB + RCD } \\ & \text { Type A) } \end{aligned}$ | $\begin{aligned} & \text { MID } \\ & \text { kWh } \\ & \text { meter } \end{aligned}$ | Communication WiFi+Ethernet |
| OB94P720HA2 | VIARIS COMBI+TP_22KW 5M CABLE T2, EP | 22 kW 32 A | 1 | 5 m | - |  | - |
| 0B94P720KB2 | VIARIS COMBI+ TP_22KW 5M CABLE T2, MID | 22 kW 32 A | 1 | 5 m |  | - | - |
| 0B94P720HB2 | VIARIS COMBI+ TP 22KW 5M CABLE T2, EP, MID | 22 kW 32 A | 1 | 5 m | - | - | - |
| 0B94P7A0HA2 | VIARIS COMBI+ TP_22KW 10M CABLE T2, EP | 22 kW 32 A | 1 | 10m | - |  | - |
| 0B94P7A0KB2 | VIARIS COMBI+ TP_22KW 10M CABLE T2, MID | 22 kW 32 A | 1 | 10 m |  | - | - |
| OB94P7A0HB2 | VIARIS COMBI+ TP 22KW 10M CABLE T2, EP, MID | 22 kW 32 A | 1 | 10 m | - | - | - |
| 0B94P722KA2 | VIARIS COMBI+ TP_2x22KW 5M CABLE T2 | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 | 5 m |  |  | - |
| 0B94P722JA2 | VIARIS COMBI + TP_2x22KW 5M CABLE T2, 2xEP | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 | 5 m | x2 |  | - |
| 0B94P722KC2 | VIARIS COMBI+ TP_2x22KW 5M CABLE T2, 2xMID | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 | 5 m |  | x2 | - |
| 0B94P7AAKA2 | VIARIS COMBI+ TP_2x22KW 10M CABLE T2 | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 | 10 m | x2 |  | - |
| 0B94P7AAJA2 | VIARIS COMBI+ TP_2x22KW 10M CABLE T2, 2xEP | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 | 10 m |  |  | - |
| 0B94P7AAKC2 | VIARIS COMBI+ TP_2x22KW 10M CABLE T2, 2xMID | $22 \mathrm{~kW}+22 \mathrm{~kW}$ | 2 | 10 m |  | x2 | - |

All models include as standard 6 mA DC current leak detector, WiFi communication, kWh measurement and power modulation. The charger includes energy measurement via smartphone App as standard. In European countries, the use of MID-certified kWh meter for energy billing is mandatory. According to the European Measurement Instruments Directive (MID) 2014/32/EU.

EV CHARGING SYSTEMS / SMART CHARGERS FOR PUBLIC ENVIROMENTS

## VIARIS CITY +

- Robust and attractive design for public environments.
- IP55D Type 2 connector (with electrical contact protection shutter) according to EN 62196.
- Available as a single or dual charging point with two charging points:
- Single-phase 7.4 kW or $7.4 \mathrm{~kW}+7.4 \mathrm{~kW}$.
- Three-phase 22 kW or $22 \mathrm{~kW}+22 \mathrm{~kW}$.
- Maximum robustness: enclosure with IK10 impact protection and protection against ingress of external agents: dust and/or water IP65.
- Optionally it can be manufactured incorporating electrical protections and/or independent MID energy meter for each output.
- It has a 10-module DIN rail for housing electrical protections with key lock to prevent unauthorised tampering.
- Integration in ORBIS-SPL (Smart Power Line) with the capacity to modulate the power of up to 248 chargers which, being 2 outlets, can manage the charging power of up to 496 vehicles.
- Exclusive functionality: single-phase recharging for three-phase vehicles depending on the instantaneous consumption of the rest of the installation.
- Models with two outlets include a power modulator between outlets depending on the charging capacity of the connected vehicles.
- Advanced charge management functions with power limitation by group, charger, socket or outlet and phase.
- Hourly schedules with maximum power consumption ranges.


## Description

- Compatible with VIARIS SOLAR for installations with photovoltaic power generation.
- DC leakage detector for the protection of people against electrical hazards.
- Electrical isolation safety system according to IEC 61851-1 standard.
- Wi-Fi and Ethernet communication as standard and optionally available with 4G communication.
- Standardised interfaces (OCPP 1.6 json with Smart Charging, modbus TCP and RTU, MQTTs) for integration with external management systems.
- Backend/OCPP connection via LAN, WLAN or LTE.
- OTA upgradeable firmware.
- Input for external activation/deactivation from home automation system, prepaid manual or others.
- Independent RFID card reader per socket.



## EV CHARGING SYSTEMS / SMART EV CHARGERS DC

## VIARIS GRAVITY

- DC Charger 200 km of range for each hour of connection.
- Ideal for charging times between 30 minutes and 3h.
- The small-sized, wall-mounted DC fast charging station, such as VIARIS GRAVITY, are a new concept in the field of e-mobility, as they provide similar charging speeds than large charging stations, but in a reduced size.
- VIARIS GRAVITY reduces the charging time of current electric vehicles by offering 200 km of range for each hour of connection compared to the 47 km of range offered by current AC charging stations (AC - 7.4 kW ).


## Description

Ideal for facilities where users stay between 30 minutes and 3 hours, such as shopping centres, events, cinemas, theatres, car parks, restaurants, car sharing, business parking, etc. Drivers usually keep a minimum of $10 \%$ in their batteries and charge the vehicle up to $80 \%$, as beyond this limit the electric vehicle demands less energy and the process becomes slower. The device provides 200 km of range for every hour of charging.

## Technical Specifications



- Charging mode 4 (DC) with CCS connector and 5-meter cable
- Maximum charging power 30 kW (@ V ? 375 Vdc )
- Material: stainless steel and polyurethane
- Output voltage: $150 \mathrm{Vdc} \sim 500 \mathrm{Vdc}$ ( 1000 Vdc opcional)
- Includes an antivandal TFT 10,1" display with touch screen
- Access code, QR code or RFID card activation
- Protection level IP55 according to EN 60529
- Wi-Fi, Ethernet and 4G communication
- Communication Protocol OCPP


## VIARIS LANDER

- DC CHARGER Up to 100 km of range for each 15 minutes of connection.
- VIARIS LANDER fast charging station has been designed for users who need to recharge their vehicle in a relatively short period of time, ranging between 15 and 120 minutes.
- Thanks to its continuous output power, it can offer a range of 100 km for every 15 minutes of connection.


## Description

VIARIS LANDER offers charging from 30 kW up to 60 KW and is suitable for service stations, electric mobility hubs, etc. Furthermore, thanks to its modular technology, VIARIS LANDER can offer simultaneous charging to two vehicles at the same time.

## Technical Specifications

- Charging mode 4 (DC) with CCS connector and charging mode 3 (AC) with Type 2 Connector and 5 meter cable
- Output voltage: DC: $150 \mathrm{Vdc} \sim 1000 \mathrm{Vdc}$; AC: 400 V
- Material: stainless steel and polyurethane
- Maximum charging power DC: 60 kW (@ V ? 375 Vdc ) AC: 22 kW
- Includes an antivandal TFT 15" display with touch screen
- Access code, QR code or RFID card activation
- Protection level IP55 according to EN 60529
- Wi-Fi, Ethernet, Bluetooth and 4G communication
- Communication Protocol OCPP
- Payment system with Credit card reader

EV CHARGING SYSTEMS / SPL- ORBIS LINE PROTECTION SYSTEM

## ORBIS-SPL (SMART POWER LINE)

To avoid the costs and complications associated with the increase in power demand due to the EV charging, it is crucial to consider the installation of a smart modulation system capable of regulating the power used for recharging

The ORBIS-SPL system consists of a network of connected EV chargers that are capable of regulating the power the power demanded by up to 248 VIARIS chargers (C), taking into account the limit of the power line (A) and the instantaneous consumption of the rest of the circuits and electrical machinery (B).

## Benefits:

- No need to contract additional power.
- No need to add additional circuits or electrical protection.
- Prevents circuit breakers from being tripped due to over-consumption.
- Can be installed in both existing buildings and new constructions.
- Makes it possible to install a larger number of chargers.
- Considerably reduces the charging time
- No annual fee or communications cost.


EACH SPL NETWORK MUST BE COMPOSED OF:

| Ref. | Model | QTY. |
| :--- | :--- | :--- |
| OB100010 | VIARIS SPL CONFIGURATION | As many units as VIARIS chargers |
| OB709600 | CONTAX VIARIS SPL | 1 unit per power line - SPL network |
| RP149498 | SPL WIRING ACCESSORIES | 1 unit per power line - SPL network |
| Current transformers: | Current transformers: |  |
| OB860200 | SPL TRANSFORMER 200A/5A 36 MM Ø |  |
| OB860600 | SPL TRANSFORMER 600A/5A 36 MM Ø |  |
| OB861000 | SPL TRANSFORMER 1000A/5A 50 MM Ø |  |
| OB862000C | SPL TRANSFORMER 2000A/5A 100X60 MM |  |

## ORBIS VIARIS SOLAR

- Allows the integration of the VIARIS UNI and VIARIS COMBI + chargers in photovoltaic generation systems.
- Compatible with any photovoltaic installation with or without grid injection.


## It allows selecting the energy mix for EV charging:

- SOLAR: It only charges with $100 \%$ solar energy, without consumption from the mains supply.
- HYBRID: It prioritizes the charge with solar energy, and if it is insufficient, it complements it with the minimum current of the grid to ensure full chrging and avoid unnecessary disconnections.
- SOLAR / GRID: Charges the EV with the sum of the maximum set grid power and the available solar power in order to get the shorter charging times.
- VIARIS SOLAR allows time programming of up to 6 schedules from Monday to Friday and another 6 for weekends.

In each time section we can select the desired operating mode (SOLAR, HYBRID or SOLAR / GRID).

- Bidirectional measurement of the energy generated and consumed.
- Single phase up to 100 Amps and three phase up to 80 Amps.
- For higher capacities, the SPL-ORBIS Solution is available.
- Through the e-Viaris App we can view the energy consumed from the grid, the energy consumed or generated by solar energy and the energy demanded by the house and EV charger.

LCD screen displaying direct active energy, reverse active energy, total active energy, voltage, current, active power, apparent power, power factor and frequency.

RS485 port Modbus protocol.
DIN rail mounting.
Accuracy Class 1.0.


| Ref. | Model |
| :--- | :--- |
| OB709800 | VIARIS SOLAR 230 V 100 A |
| OB709900 | VIARIS SOLAR 3x230/400 V 3x80 A |

EV CHARGING SYSTEMS / APP


## APP e-VIARIS

- Application for managing VIARIS UNI and VIARIS COMBI + smart chargers from smartphones or tablets. Manage and configure the charger, as well as monitor and view the consumption history of your Electric Vehicle, including the installation/home locally or remotely.
- The new e-VIARIS app allows you to choose how to use the energy generated by your solar panel or stored in your battery, as well as limiting consumption from the grid.
- Use 100\% renewable energy to recharge your electric vehicle and conveniently control your generated and consumed energy from your mobile phone.


## Description

- Switching the charger on/off.
- Electrical parameters reading.
- Downloading of the recharge file.
- Programming of time slots and maximum consumption.
- Power modulator configuration.
- Adjustment for installations with solar generation.
- Communications Wifi, Ethernet, 4G, access point, OCPP, etc.
- RFID/touch operation.


Google Play
App Store

## EV CHARGING SYSTEMS / SOFTWARE

## PC SOFTWARE VIARIS COST SHARING

Cost Sharing Tool is the software solution that allows you to calculate the price of the consumption of a charge and then transfer it to the end customer.

- Shows the information of groups of chargers at one location.
- It is possible to distinguish between different facilities.
- Allows the consumption to be passed on to each individual user.
- Ideal for locations with charger networks, such as parking areas, etc.


EV CHARGING SYSTEMS / TESTER FOR EV CHARGERS - EXTRAS

TESTER FOR EV CHARGERS

VIARIS TESTER
This is a high-precision, installer's essential tool for testing specific Electric Vehicle Power Supply Systems. It guarantees the correct operation of any charger with Type 2 connector, both cable and base, and is valid for chargers up to 64 A .

Our device quickly verifies chargers to guarantee their correct operation before delivery to the end customer. By simulating the connection of an electric vehicle to any charger available on the market, VIARIS TESTER accomplishes the following functions:

## Description

- Simulates vehicle status (connected, disconnected, charging, etc.).
- Phase presence and sequence light indicators.
- EV fault simulator.
- Electrical protections and earth connection test.
- Residual current AC 30 mA (RCD) test.
- Residual current DC 6 mA (RDC-DD) test.- Valid for 13, 20, 32 and 64 A charging stations.
- External charging socket to generate actual consumption (max. 8 A ).
- Display providing: vehicle status, active phases, charging station current and power, earth connection verification.
- According to EN 61851-1.

| Ref. | Model |
| :--- | :--- |
| OB940047 | VIARIS TESTER |



ELECTRIC MOBILITY

## EXTRAS



## EV CABLE HANGER

| Ref. | Model | Net |
| :--- | :--- | :--- |
| OB94D067 | EV CABLE HANGER |  |

CONNECTION CABLES FOR EV

| Ref. | Model | Characteristics |
| :--- | :--- | :--- | Net

ANALOGUE TIME PROGRAMMERS

| CODE | MODEL | INSTALLATION | NO. MODULES/ DIMENSIONS | BATTERY | PROGRAMME | MIN. TIME | SPHERE | CONTACT TYPE | $\begin{aligned} & \text { SEALABLE } \\ & \text { COVER } \end{aligned}$ | PG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB400132 | UNO D | MODULAR / DIN RAIL | 1 | -- | Daily | 15 min . | Lateral | 1 Simple | Yes | 9 |
| OB400232 | UNO QRD |  |  | 皿>150 h |  |  |  |  |  | 9 |
| OB400432 | UNO QRS |  |  |  | Weekly | 2h |  |  |  | 9 |
| OB330132 | INCA DUO D |  | 2 | -- | Daily | 15 min . |  | 1 Changeover |  | 9 |
| OB330232 | INCA DUO QRD |  |  | >100 h |  |  |  |  |  | 9 |
| OB330432 | INCA DUO QRS |  |  |  | Weekly | 2h |  |  |  | 9 |
| OB291032 | DUO D |  |  | -- |  | 30 min | Front Dial |  |  | 10 |
| OB292032 | DUO QRD |  |  |  |  |  |  |  |  | 10 |
| OB293032 | DUO QRS |  |  | , | Weekly | 3,5h |  |  |  | 10 |
| OB290132N | SUPRA D |  | 2,5 | -- | Daily | 15 min . |  |  |  | 10 |
| OB290232N | SUPRA QRD |  |  | ( $>150 \mathrm{~h}$ |  |  |  |  |  | 10 |
| OB290332N | SUPRA QRS |  |  | $\Leftrightarrow>150 \mathrm{n}$ | Weekly | 2h |  |  |  | 10 |
| OB250132 | MINI D | DIN RAIL/ SURFACE | $69 \times 100 \mathrm{~mm}$ | -- | Daily | 15min. | Front Dial | 1 Changeover | Yes | 12 |
| OB250232 | MINI QRD |  |  | >100 h |  |  |  |  |  | 12 |
| OB251332 | MINI QRS |  |  |  | Weekly | 2h |  |  |  | 12 |
| OB251032 | MINI T D | DIN RAIL/ SURFACE / FLUSH MOUNTING | $72 \times 72 \mathrm{~mm}$ | -- | Daily | 15 min . | Front Dial | 1 Changeover | Yes | 12 |
| OB251232 | MINI T QRD |  |  | >100 h |  |  |  |  |  | 12 |
| OB251232 | MINI T QRS |  |  |  | Weekly | 2 h |  |  |  | 12 |
| OB270023 | ALPHA D |  | $72 \times 94 \mathrm{~mm}$ | -- | Daily | 15 min . |  |  |  | 11 |
| OB270123 | ALPHA QRD |  |  | $>100 \mathrm{~h}$ |  |  |  |  | -- | 11 |
| OB270323 | ALPHA QRS |  |  | >100 h | Weekly | 2 h |  |  |  | 11 |
| OB050523 | CRONO D |  | $72 \times 104 \mathrm{~mm}$ | -- | Daily | 15 min . |  |  | Yes | 11 |
| OB050623 | CRONO QRD |  |  | >100 h |  |  |  |  |  | 11 |
| OB051023 | CRONO QRS |  |  |  | Weekly | 2h |  |  |  | 11 |
| OB050823 | CRONO QRDD |  |  |  | $2 \times$ Daily | 15 min . | $2 \times$ Front Dial | 2 Changeovers |  | 11 |
| OB051223 | CRONO QRSD |  |  |  | Weekly y Daily | 2h/15min. |  |  |  | 11 |
| OB161533 | CONTROL D-15 | PLUG-IN | $84 \times 69 \mathrm{~mm}$ | -- | Daily | 15 min . | Lateral | -- | -- | 16 |
| OB161532 | CONTROL D-30 |  |  |  |  | 30min. |  |  |  | 16 |
| OB161632 | CONTROL S |  |  |  | Weekly | 1,45 h |  |  |  | 16 |
| OB284015 | DOMO M-60 |  | $55 \times 110 \mathrm{~mm}$ |  | Countdow | 60 min . | Front Dial |  |  | 16 |
| OB162332 | DOMO M-150 |  |  |  | Countdow | 150min. |  |  |  | 16 |
| OB284007 | DOMO M-900 |  |  |  | Countdow | 900min |  |  |  | 16 |
| OB16223232 | DOMO D T-15 |  |  |  | Daily | 15 min . |  |  |  | 16 |
| OB162232 | DOMO D T-30 |  |  |  | Daly | 30min. |  |  |  | 16 |
| OB162432 | DOMO S T-1.45 h |  |  |  | Weekly | 1,45 h |  |  |  | 16 |
| OB162232\| | "DOMO D T-15 INTEMPERIE" |  | $58 \times 117 \mathrm{~mm}$ |  | Daily | 15 min . |  |  |  | 17 |
| OB162432\| | "DOMO S T-1.45h INTEMPERIE" |  |  |  | Weekly | 1,45 h |  |  |  | 17 |
| OB1618248 | ILUMATIC 248 D-30 | $\begin{aligned} & \text { INSTALLATION } \\ & \text { BOX } \end{aligned}$ | $65 \times 65 \mathrm{~mm}$ | -- | Daily | 30min. | Front Dial | 1 Changeover | -- | 14 |
| OB1618348 | ILUMATIC 348 D-30 |  |  |  |  |  |  | 1 Simple |  | 14 |
| OB1628358 | ILUMATIC 358 S |  |  |  | Weekly | 1,45h |  | Simple |  | 14 |
| OB280493 | ROLLMATIC D |  |  |  | Daily | 30 min . |  | 1 Changeover |  | 15 |
| OB284318 | METRO D |  | $86 \times 86 \mathrm{~mm}$ |  | Dally | 30 min . |  | 1 Changeover |  | 15 |
| OB280408 | SINCRO 346 | INDUSTRIAL/ BUILT-IN | $42,5 \times 67,5 \mathrm{~mm}$ |  | See options |  |  |  |  | 13 |
| OB280473 | SINCRO 356 |  | $42,5 \times 55 \mathrm{~mm}$ |  |  |  | See options | 13 |  |
| OB361100 | MODUL D | INDUSTRIAL/ SURFACE | $60 \times 60 \mathrm{~mm}$ |  | Daily | 15 min . |  | 1 Changeover |  | 14 |
| OB36QD0000 | MODUL QRD |  |  | >100 h |  |  |  |  |  | 14 |
| OB36S0000 | MODUL S |  |  | -- | Weekly | 2 h |  |  |  | 14 |
| OB36QS0100 | MODUL QRS |  |  | >100 h |  |  |  |  |  | 14 |

DIGITAL／ASTRONOMIC TIME PROGRAMMERS

| CODE | MODELO | INSTALLATION | NO．MODULES／ DIMENSIONS | PROGRAMME | NO．PROGRAM－ MES／TYPE | EXTRA PROGRAMMES | BATTERY | CONTACT TYPE | SEALABLE COVER | PG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB172012N | DATA MICRO＋ | MODULAR DIN RAIL | 1 | Daily－weekly | 32 ／icons | Pulses，holidays，seasonal time change | 4 years | 1 Changeover | Yes | 18 |
| OB171912N | DATA MICRO $2+$ |  | 2 |  |  |  |  | 2 Changeover |  | 18 |
| OB174012 | DATA LOG |  | 1 |  | 40 doubles／text | App，pulses，cycles， 4 special programs，keyboard lock．．． | 息 10 years | 1 Changeover | Yes | 19 |
| OB175012 | DATA LOG 2 |  | 2 |  |  |  |  | 2 Changeover |  | 19 |
| OB171012 | DATA LOG BT |  | 1 | Daily－weekly | 40 doubles／text | App，pulses，cycles， 4 special programs，keyboard lock．．． | \＄ 10 years | 1 Changeover | Yes | 20 |
| OB171512 | DATA LOG 2 BT |  | 2 |  |  |  |  | 2 Changeover |  | 20 |
| OB176100 | DATA ANUAL |  | 2 | Daily－weekly －monthly－ annual | 30 ／icons | Pulses，cycles，random， holidays，seasonal change | 县 5 years | 2 Changeover | Yes | 21 |
| OB177200 | DATA MULTI ANUAL |  | 4 |  |  |  | 5 years | 5 Changeover |  | 22 |
| OB250512 | MINI LOG | DIN RAIL／SURFACE | $69 \times 100 \mathrm{~mm}$ | Daily－weekly | 40／text | ＂Pulses，cycles， random， 4 special periods， seasonal change，hour counter， keypad locking＂ | 5 years | 1 Changeover | Yes | 23 |
| OB251512 | MINI T LOG | DIN RAIL／SURFACE／ FLUSH MOUNTING | $72 \times 101 \mathrm{~mm}$ |  |  |  |  |  | －－ | 24 |
| OB162532 | TEMPO＋ | PLUG－IN | $62 \times 11 \mathrm{~mm}$ | Daily－weekly | 32 ／icons | ＂Pulses，holidays， seasonal change＂ | 血 4 years | 1 Simple | －－ | 25 |
| OB176012 | MODUL LOG | INDUSTRIAL／ SURFACE | $60 \times 60 \mathrm{~mm}$ |  | 40／text | ＂Pulses，cycles， key lock．．．＂ | 5 years | 1 Changeover | －－ | 25 |
| OB178112 | ASTRO UNO |  | 2 | Astronomic／ Daily－Weekly | 40／text | App，pulses，cycles， 4 special programs，keyboard lock．．． | 息 4 years | 1 Changeover | Yes | 128 |
| OB178012 | ASTRO NOVA CITY |  | 2 | Astronomic／ Daily－Weekly | 40／text | App，pulses，cycles， 4 special programs，keyboard lock．．． | 息＞150 h | 2 Changeover |  | 129 |
| OB178312 | ASTRO UNO BT |  | 1 | Astronomic／ Daily－Weekly | 40／text | App，pulses，cycles， 4 special programs，bluetooth，keyboard lock．．． | 罧＞150 h | 1 Changeover | Yes | 130 |
| OB178412 | ASTRO NOVA CITY BT |  | 2 | Astronomic／ Daily－Weekly | 40／text | App，pulses，cycles， 4 special programs，bluetooth，keyboard lock．．． | 窅＞150 h | 2 Changeover |  | 131 |

MOTION / PRESENCE DETECTORS

| CODE | MODEL | OPERATION | TECHNOLOGY | "TYPE OF CONTROL" | INSTALLATION | DETECTION AREA | REMOTE CONTROL | PG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB134912 | CIRCUMAT PRO CR | PRESENCE | PIR | ON/OFF <br> Zero-crossing relay | Ceiling / Surface | $360^{\circ}-30 \mathrm{~m}$ | Yes | 60 |
| OB134920 | CIRCUMAT PRO CR 12M |  | PIR | ON/OFF <br> Zero-crossing relay |  | $360^{\circ}-17 \mathrm{~m}$ | Yes | 61 |
| OB134910 | CIRCUMAT PRO 1-10V |  | PIR | DYNAMIC LIGHTNG CONTROL |  | $360^{\circ}-30 \mathrm{~m}$ | -- -- | 62 |
| OB136212 | DICROMAT + 1-10V |  | PIR | DYNAMIC LIGHTNG CONTROL | Ceiling / Built-In | $360^{\circ}-10 \mathrm{~m}$ | -- -- | 64 |
| OB134512 | DICROMAT + CR |  | PIR | ON/OFF <br> Zero-crossing relay |  | $360^{\circ}-7 \mathrm{~m}$ | Yes | 65 |
| OB134612 | DICROMAT 2+ CR |  | PIR | ON/OFF <br> Zero-crossing relay |  | $360^{\circ}-7 \mathrm{~m}$ | Yes | 65 |
| OB137812 | COMBIMAT |  | PIR | ON/OFF | "Ceiling / Surface/ Built-In/ Electrical Box" | $360^{\circ}-24 \mathrm{~m}$ | -- -- | 49 |
| OB137820 | COMBIMAT 12 M |  | PIR | ON/OFF |  | $360^{\circ}-20 \mathrm{~m}$ | -- -- | 50 |
| OB137840 | COMBIMAT 40.5 M |  | PIR | ON/OFF |  | $40 \times 5 \mathrm{~m}$ | -- -- | 51 |
| OB137850 | COMBIMAT KNX |  | PIR | KNX |  | $360^{\circ}-24 \mathrm{~m}$ | -- | 52 |
| OB1350122N | ECOMAT MINI 2N |  |  | DYNAMIC LIGHTNG CONTROL | Concealed | $360^{\circ}-10 \mathrm{~m}$ | -- -- | 67 |
| OB134930 | CIRCUMAT PRO DALI |  | PIR | DALI | Ceiling / Surface | $360^{\circ}-30 \mathrm{~m}$ | ---- | 63 |
| OB137112 | CIRCUMAT + | MOVEMENT | PIR | ON/OFF <br> Zero-crossing relay |  | $360^{\circ}-9 \mathrm{~m}$ | -- -- | 45 |
| OB135912 | MOVICAM CR |  | PIR | ON/OFF |  | Front: 6 m <br> Lateral: 3 m <br> Back: 1 m" | Yes | 46 |
| OB133612 | DICROMAT MICRO |  | PIR | ON/OFF | Ceiling / Built-In | $360^{\circ}-4 \mathrm{~m}$ | -- | 48 |
| OB133512 | DICROMAT MINI / 2 MINI |  | PIR | ON/OFF |  | $360^{\circ}-7 \mathrm{~m}$ | -- | 48 |
| OB133912 | DICROMAT MINI / 2 MINI |  | PIR | ON/OFF |  | $360^{\circ}-7 \mathrm{~m}$ | -- | 48 |
| OB134312 | ISIMAT |  | PIR | ON/OFF | Wall / Ceiling / Smooth Wall | $140^{\circ}$ <br> Front: 12 m <br> Lateral: 8 m | -- -- | 53 |
| OB134112 | ISIMAT + |  | PIR | ON/OFF |  | $200^{\circ}$ <br> Front: 12 m <br> Lateral: 8 m | -- -- | 53 |
| OB134212 | MULTIMAT |  | PIR | ON/OFF Zero-crossing relay |  | $200^{\circ}$ <br> Front: 12 m <br> Lateral: 8 m" | -- -- | 55 |
| OB132312 | PROXIMAT |  | PIR | ON/OFF Zero-crossing relay |  | $240^{\circ}$ <br> Front: 12 m <br> Lateral: 15 m | -- -- | 55 |
| OB134812 | PROXIMAT PRO CR |  | PIR | ON/OFF <br> Zero-crossing relay |  | $360^{\circ}-30 \mathrm{~m}$ | Yes | 56 |
| OB131512 | NEOMAT |  | PIR | ON/OFF |  | $180^{\circ}-11 \mathrm{~m}$ |  | 54 |
| OB135312 | MINIMAT |  | PIR | ON/OFF <br> Zero-crossing relay | Wall / Ceiling / Electrical Box | $120^{\circ}-7 \mathrm{~m}$ | -- -- | 59 |
| OB132612 | ORBIMAT |  | PIR | ON/OFF <br> Zero-crossing relay |  | $200^{\circ}-6 \mathrm{~m}$ |  | 58 |
| OB135012 | ECOMAT MINI |  | HF | ON/OFF <br> Zero-crossing relay | Wall / Ceiling / Electrical Box | $360^{\circ}-10 \mathrm{~m}$ | -- -- | 67 |
| OB135512 | SPOTMAT LED |  | PIR | LED | Wall / Ceiling | $360^{\circ}-2 \mathrm{~m}$ | -- -- | 74 |
| OB136512 | PLADI-E27 |  | HF | ON/OFF |  | $360^{\circ}-9 \mathrm{~m}$ | -- -- | 74 |
| OB136612 | PLADILED METAL PIR |  | PIR | ON/OFF | Wall / Ceiling | $360^{\circ}-6 \mathrm{~m}$ | -- -- | 69 |
| OB136712 | PLADILED 80 2N |  | HF | LED |  | $360^{\circ}-6 \mathrm{~m}$ | -- -- | 71 |
| OB137412 | PLADILED 80 2N SWING |  | HF | LED |  | $360^{\circ}-16 \mathrm{~m}$ | -- -- | 70 |
| OB136812 | PLADILED 80 E |  | HF | LED |  | $360^{\circ}-16 \mathrm{~m}$ | -- -- | 72 |

THERMOSTATS

| CODE | MODEL | PROGRAMME | DISPLAY | POWER SUPPLY | PG |  |
| :--- | :--- | :---: | :---: | :---: | :---: | :---: |
| OB320422 | CLIMA ML | Analogue | ---- | No needed | OTHERS |  |
| OB320522 | CLIMA MLI | Analogue | ---- | No needed | 78 |  |
| OB320622 | CLIMA MLW | Analogue | ---- | No needed | ON / OFF or Heating / Air conditioning manual controls. |  |
| OB321232 | CLIMA FANCOIL | Analogue | ---- | No needed | Heating / Air conditioning + 2 fan speeds manual controls. | 79 |
| OB325400 | THALOS | Digital | Backlit and touch screen | S 2 Alkaline batteries | Input for night-time temperature reduction |  |
| OB324400 | NEO ML + | Digital | LCD | s. 2 Alkaline batteries | Compatible with underfloor heating systems or external probe | 80 |

## CHRONOTHERMOSTATS

| CODE | MODEL | PROGRAMME | DISPLAY | NO. OF PROGRAMMES / NO. OF TEMPERATURES | POWER SUPPLY | OTHERS | PG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB324700 | MIRUS | Digital | Backlit screen | $7 / 2$ + anti-frost | , 2 Alkaline batteries | -- -- | 82 |
| OB325800 | BIKO APP | Digital | LCD | $7 / 6+$ anti-frost | 违2 Alkaline batteries | Programming via App, electrical box | 86 |
| OB326800 | TUO | Digital | Backlit and touch screen | $7 / 3$ + anti-frost | 230 V | Compatible with Google Assistant and Amazon Alexa voice assistants. | 83 |
| OB327100 | TUO WIFI + RF | Digital | Backlit and touch screen | $7 / 3$ + anti-frost | 230 V | WIFI + Radiofrequency control of: temperature, humidity and ventilation. Compatible with Google Assistant and Amazon Alexa voice assistants. | 84 |
| OB327200 | TUO WIFI GSM | Digital | Backlit and touch screen | $7 / 3$ + anti-frost | 230 V | GSM communication for isolated installations. <br> Compatible with Google Assistant and Amazon Alexa voice assistants. | 85 |
| OB327000 | TUO WIFI AA | Digital | Backlit and touch screen | $7 / 3$ + anti-frost | ¢ 4 Alkaline batteries | WIFI + Compatible with Google Assistant and Amazon Alexa voice assistants. | 89 |
| OB326200 | NEXU | Digital | LCD | $7 / 6$ + anti-frost | 230 V | Programming via App, Wifi communication | 87 |
| OB326300 | NEXU IN | Digital | LCD | $7 / 6+$ anti-frost | 230 V | Programming via App, Wifi communication, electrical box | 87 |

ENERGY MEASUREMENT AND MANAGEMENT

| CODE | MODEL | POWER SUPPLY | DISPLAY | MEASUREMENT | AMPERAGE | PARAMETERS | COMMUNICATION | PG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB701000 | CONTAX 2511 S0 | Single-phase | Mechanical | Direct | 25 A | KWh TOTAL | SO | 106 |
| OB702000 | CONTAX 2521 S0 MID | Single-phase | Mechanical | Direct | 25 A | KWh TOTAL | SO | 106 |
| OB703099 | CONTAX 3221 S0 | Single-phase | Mechanical | Direct | 32 A | KWh TOTAL | SO | 107 |
| OB707000 | CONTAX 6521 S0 | Single-phase | Mechanical | Direct | 65 A | KWh TOTAL | SO | 107 |
| OB708500 | CONTAX 0641 S0 | Single-phase | Mechanical | Indirect | $1.000 / 5 \mathrm{~A}$ | KWh TOTAL | SO | 108 |
| OB708700 | CONTAX D-2221 | Single-phase | Digital | Direct | 22 A | KWh TOTAL / KWh PARTIAL | -- -- | 108 |
| OB703100 | CONTAX D-3221 S0 | Single-phase | Digital | Direct | 32 A | KWh TOTAL | SO | 111 |
| OB708100 | CONTAX D-6331 S0 | Single-phase | Digital | Direct | 63 A | KWh TOTAL/KWh PARTIAL | SO | 110 |
| OB707100 | CONTAX D-6521 S0 | Single-phase | Digital | Direct | 65 A | KWh TOTAL | S0 | 110 |
| OB708800 | CONTAX 0643i S0 | Three-phase | Mechanical | Indirect | $1.000 / 5 \mathrm{~A}$ | KWh TOTAL | SO | 111 |
| OB708400 | CONTAX D-9073 S0 | Three-phase | Digital | Direct | 90 A | KWh TOTAL/ KWh PARTIAL | SO | 112 |
| OB709700 | CONTAX D-8043 S0 MID | Three-phase | Digital | Direct | 80 A | KWh TOTAL | SO | 112 |

NOMENCLATURE POWER METERS
PRODUCT REFERENCE: CONTAX D-6593 BUS-R V 3X1
MODEL
DIGITAL $\qquad$
AMPS
MODULES
SINGLE-PHASES
THREE-PHASES
COMMUNICATION $\qquad$

RELAY

CONTAX BUS

| CODE | MODEL | POWER SUPPLY / AMPERAGE | MEASUREMENT | PARAMETERS | REGISTRY | COMMUNICATION | RELAY | PG |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OB709300 | CONTAX D-6041 BUS | Single-Phase-60 A | Direct | "KV, A, W, VAr, VA, cos Phi and Hz' | Configurable load curve Import/export Rates <br> Monthly deadlines | MODBUS RTU | No | 113 |
| OB709400 | CONTAX D-6593-BUS-R | Three-phase-65 A | Direct |  |  |  | Yes | 114 |
| 0B709200 | CONTAX D-10093-BUS | Three-phase-100 A | Direct |  |  |  | No | 115 |
| 0B709600 | CONTAX D-0643-BUS | Three-phase - 1.000/5 A | Indirect |  |  |  | No | 116 |



REMOTE READING


