ORBIS®

energía inteligente®

GENERAL CATALOGUE

TEMPORIZATION

MOTION / PRESENCE DETECTORS

CLIMATE, HOME AUTOMATION AND INSTALLATION

ENERGY MEASUREMENT AND MANAGEMENT

LIGHTING AND STREET LIGHTS MANAGEMENT

ELECTRIC MOBILITY. ELECTRIC VEHICLE RECHARGE

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English

ORBIS
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The cleanest energy is the one that is not consumed and to sustainable development compels us to make an efficient and responsible use of the resources. Our slogan refers to that efficiently managed and used energy as "smart energy" and contains the message of our strong commitment with to sustainable development and the idea of improving the quality and safety of our environment.

In **ORBIS**, we design and manufacture products with "clean" processes and materials, within to framework of loyal relationships with our clients and collaborators, products that propose an efficient and responsible use of the natural resources to achieve to sustainable development, improve our quality of life and guarantee that of future generations.

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65 YEARS OF ENERGY

In the past 65 years, we have benefited from the energy of our clients and collaborators to design and manufacture the most advanced electrical material focused on energy management and efficiency. After these years, we have consolidated the presence of our brands and products in more than 60 countries, supplied from our 4 production sites.

65 years in which the trust and loyalty of our clients and of to loyal human team, with to very high level of qualification and commitment, make it possible to continuously expand our business and investments, to research and develop new products and systems, to create jobs and ultimately, to meet the needs and expectations of our clients around the world.

PRODUCT

More than 300 references of products designed for an efficient and sustainable energy management summarise our technological vocation and respect for the environment.

A multispecialty offer in the fields of electrical installation, measurement, use of renewable energies, instrumentation, automation, public lighting management and industry.

QUALITY

During these 65 years, we have manufactured more than 25 million products that have been installed in 60 countries. This acquired experience and the implementation of strict control processes both in the design and in the components and manufacture allow us to achieve the higher level of satisfaction of our clients.

The CE label in all our products, as well as the voluntary labels VDE, BEAB, AENOR, etc. certify their compliance with the European and international Guidelines on Quality and Safety.

SERVICE

But in ORBIS we do not only think about Quality and Safety when we design and manufacture electrical material. Our goal is to achieve the highest level of satisfaction of our clients.

That is why we work intensely in aspects such as the functionality of our products, information and training, with to hotline to our engineers and developers, and our websites www.orbis.es and www.orbisenergiainteligente.com, the supply and after-sale service, which guarantee the continuity and 3-year full warranty on our products.

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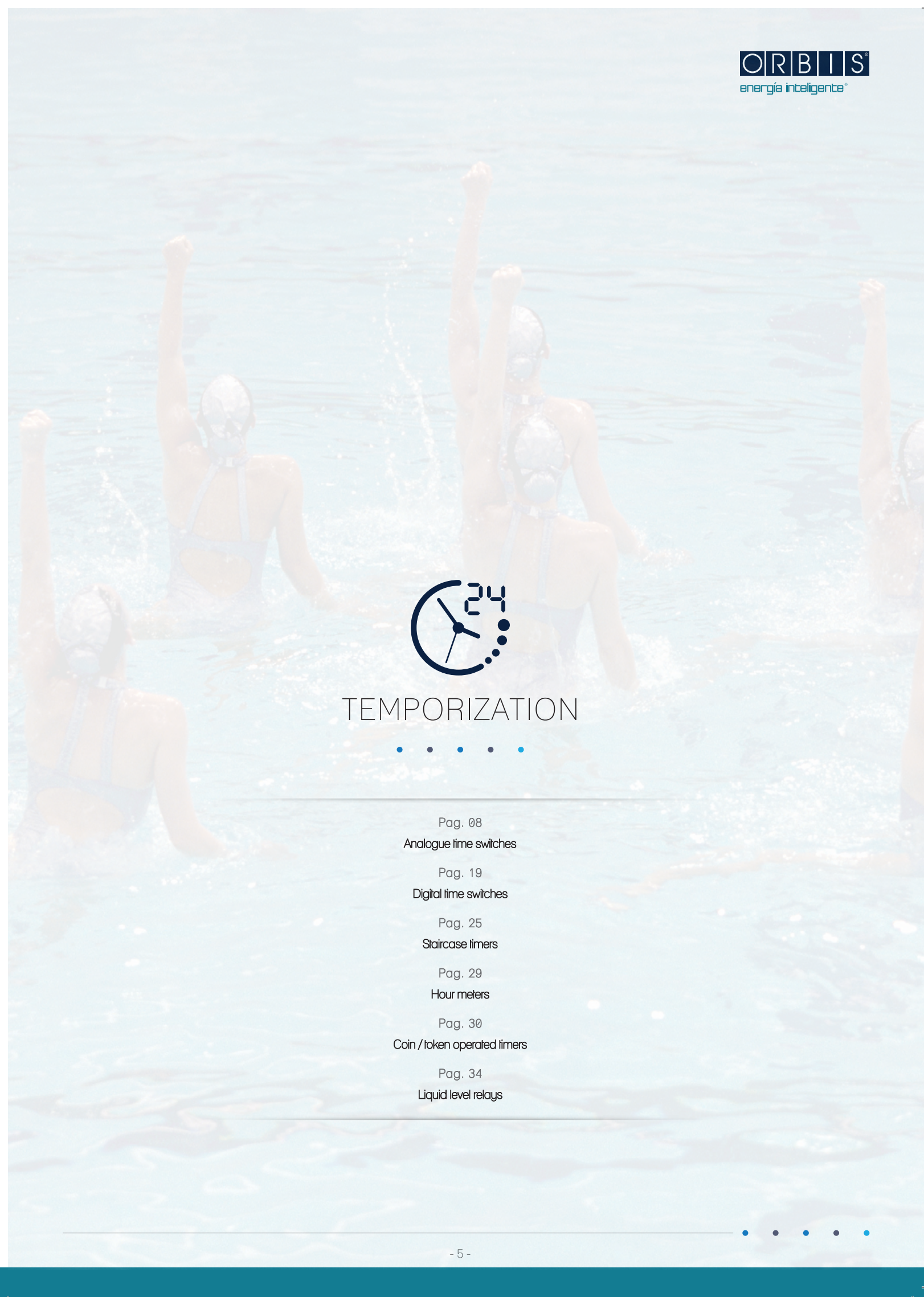

TEMPORIZATION

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TEMPORIZATION

TIME SWITCHES

USES AND APPLICATIONS

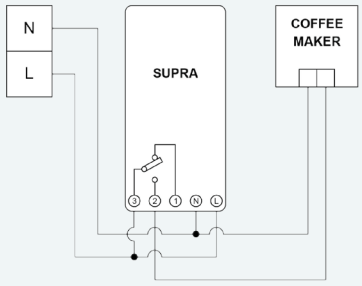
Designed to monitor the operation schedule of machines and systems according to the production or service needs. There are numerous examples of installations where they can provide both convenience and energy efficiency:

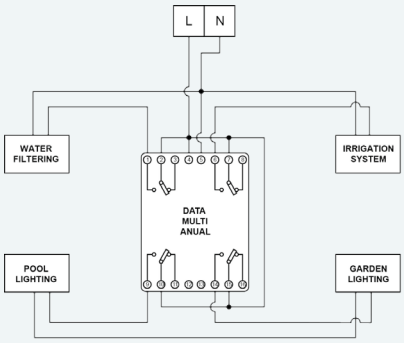
- Irrigation of parks, gardens or sports grounds.
- Preheat of hydraulic accumulators in dwellings, offices or gyms.
- Alternation of water pumps.
- Heating or air conditioning machines in buildings.
- Automatic feeding systems in farms.
- Ventilation in factories and garages.
- Activation/deactivation 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 tariff.

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 the moment the 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.



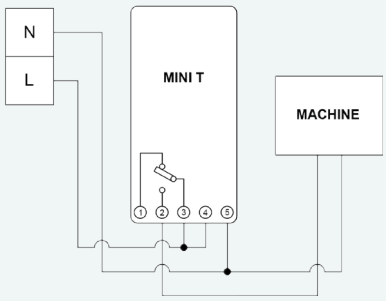


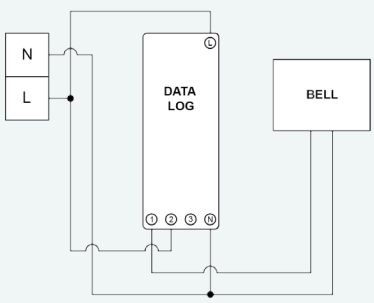
Lighting and purification in swimming pools

DATA MULTI ANUAL allows the control of up to 4 circuits with different schedules. For example, in to house with to garden and to 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.

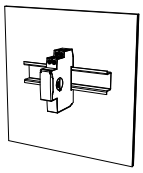
ANALOGUE

- Easy programming through movable safety trippers.
- Daily or weekly programming versions to perform different programs depending on the day of the week.
- Models with interchangeable 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

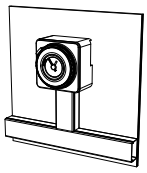
- They allow daily, weekly or monthly programming.
- There are versions of one or two channels for the independent control of circuits (e.g. lightning and irrigation, heating and lighting).
- Pulse programming from 1 second for siren rings in schools or factories, and cycle programming for alternation of water pump equipment or CO2 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 interchangeable 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



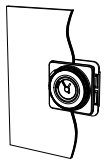
DIN RAIL

Inside electrical cabinets on standardised DIN profile 35 mm x 7.5 mm according to EN 50022.



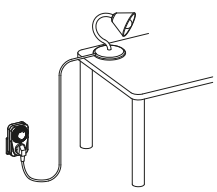
SURFACE

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



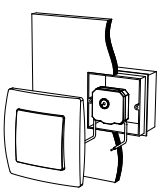
FLUSH MOUNTING

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



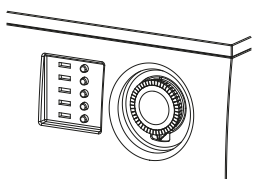
PLUGGABLE

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



INSTALLATION BOX

Integration in houses, hotels or offices replacing the existent manual switch.



INDUSTRIAL

Designed for their integration in any type of machine

TEMPORIZATION

MODULAR TIME SWITCHES

UNO

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 trippers.
- Models with backup battery available (≥ 150 h interchangeable).
- Switch for manual control with three positions: automatic, off and permanent on. Particularly useful to cancel existing programming during holiday periods.
- Sealable clear window to avoid unauthorised handling.
- Minimum operation 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 Features

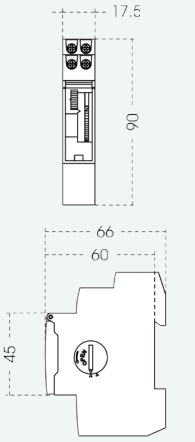
- Power supply: 12, 24, 120 or 230 Va.c., 50-60 Hz
  12, 24, 48 Vd.c.
- Changeover contact N/O
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

Max. Recomm. Load

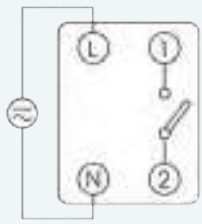
	2500 W
	1200 VA
	2000 VA
	2500 W
	900 VA
LED	100 VA

Reference	Model	Programming	Backup
OB400132	UNO D_230 Va.c., 50-60 Hz	Daily / 15 min.	No backup
OB400232	UNO QRD_230 Va.c., 50-60 Hz	Daily / 15 min.	150 h
OB400432	UNO QRS_230 Va.c., 50-60 Hz	Weekly / 2 hours	150 h

Dimensions



Connections



INCA DUO

Description

- Installation on DIN rail, two modules wide (35 mm.).
- Lateral sphere easy to program by movable trippers.
- Models with backup battery available (≥ 100 h).
- Switch for manual control with two positions: automatic and permanent on.
- 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 Features

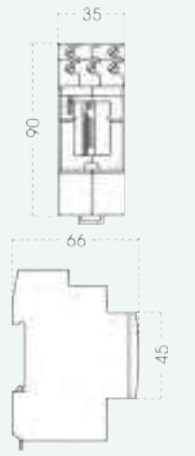
- Power supply: 12, 24, 120 or 230 Va.c., 50-60 Hz
  12, 24, 48 Vd.c.
- Simple contact N/O
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

Max. Recomm. Load

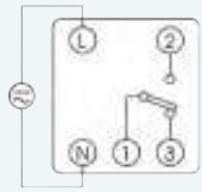
	3000 W
	1200 VA
	2000 VA
	3000 W
	900 VA
LED	100 VA

Reference	Model	Programming	Backup
OB330132	INCA DUO D_230 Va.c., 50-60 Hz	Daily / 15 min.	No backup
OB330232	INCA DUO QRD_230 Va.c., 50-60 Hz	Daily / 15 min.	100 h
OB330432	INCA DUO QRS_230 Va.c., 50-60 Hz	Weekly / 2 h	100 h

Dimensions



Connections



DUO

Description

- Installation on DIN rail, two modules wide (35 mm.).
- Front sphere easy to read and program.
- Models with backup battery available (≥ 150 h interchangeable).
- Switch for manual control with three positions: automatic, on and permanent off.
- Sealable clear window to avoid unauthorised handling.
- Minimum operation for the daily model 30 minutes and 2.5 hours for the weekly model.
- Accessories: Battery NiMH 1.2 V type V80H (ref. 54225), surface box 2 modules (OB140601).

Technical Features

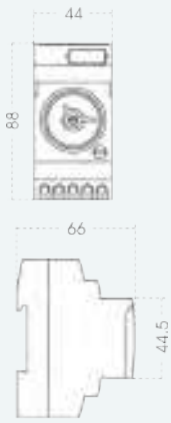
- Power supply: 230 Va.c., 50-60 Hz
  Inquire about other voltages
- Changeover switch
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +50 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

Max. Recomm. Load

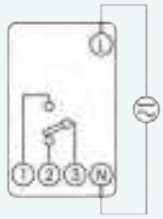
	3000 W
	1200 VA
	2000 VA
	3000 W
	900 VA
LED	100 VA

Reference	Model	Programming	Backup
OB291032	DUO D_230 Va.c., 50 Hz	Daily / 30 min.	No backup
OB292032	DUO QRD_230 Va.c., 50-60 Hz	Daily/ 30 min.	150 h
OB293032	DUO QRS_230 Va.c., 50-60 Hz	Weekly / 2,5 hours	150 h

Dimensions



Connections



SUPRA

Description

- Installation on DIN rail, two modules and to half wide (35 mm.).
- Front sphere easier to read and program.
- Models with backup battery available (≥ 150 h interchangeable).
- Switch for manual control with three positions: automatic, on and permanent off. Particularly useful to cancel existing programming during holiday periods.
- Sealable clear window to avoid unauthorised handling.
- Minimum operation for the daily model 15 minutes and 2 hours for the weekly model.
- Accessory: Battery NiMH 1.2 V type V80H (ref. 54225).

Technical Features

- Power supply: 12, 24, 120 or 230 Va.c., 50-60 Hz
  12, 24, 48 Vd.c.
- Changeover switch
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +50 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

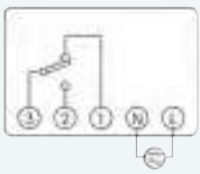
Max. Recomm. Load

	3000 W
	1200 VA
	2000 VA
	3000 W
	900 VA
LED	100 VA

Reference	Model	Programming	Backup
OB290132N	SUPRA D_230 Va.c., 50-60 Hz	Daily / 15 min.	No backup
OB290232N	SUPRA QRD_230 Va.c., 50-60 Hz	Daily / 15 min.	150 h
OB290332N	SUPRA QRS_230 Va.c., 50-60 Hz	Weekly / 2 h	150 h

Dimensions

Connections



TEMPORIZATION

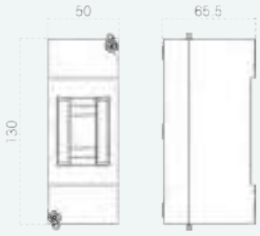
MODULAR TIME SWITCHES

SURFACE BOX 2 MODULES

Description

- Surface box with DIN rail manufactured with high-durability halogen-free plastic materials.
- Able to accommodate any modular device up to 2 modules wide (35 mm.).
- With upper, lower, back and side pre-cuts easy to break for electrical conduit entry.

Dimensions



Technical Features

- Protection degree: IP 40
- Impact resistance: IK08
- Self-extinguishing degree: HB (UL94)
- Glow wire resistance: 650 °C
- Ball pressure: 70 °C
- Ambient temperature: from -25 °C to +40 °C

Reference	Model
OB140601	SURFACE BOX 2DIN MODULES

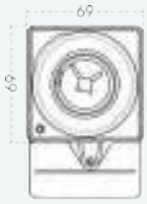
ANALOGUE TIME SWITCHES SURFACE / FLUSH MOUNTING

MINI

Description

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

Dimensions



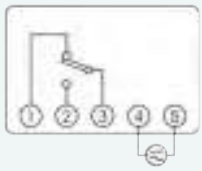
Technical Features

- Power supply: 230 Va.c., 50-60 Hz
- Changeover switch
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: DE 0 °C to +53 °C QRD QRS according to EN 60730-2-7
- Protection degree: IP 51 mounted on surface according to EN 60529
- IP 20 mounted on symmetrical profile
- Max. cross section: 4 mm²

Max. Recomm. Load

	3000 W
	1200 VA
	2000 VA
	3000 W
	900 VA
LED	100 VA

Connections



Reference	Model	Programming	Backup
OB250132	MINI D_230 Va.c., 50-60 Hz	Daily / 15 min.	No backup
OB250232	MINI QRD_230 Va.c., 50-60 Hz	Daily / 15 min.	100 h
OB251332	MINI QRS_230 Va.c., 50-60 Hz	Weekly / 2 h	100 h

MINI T

Description

- Installation on DIN rail, surface or built in (66x66 mm.).
- Compact design and installation base with precuts for power supply through cable track or tube when installed on surface.
- Front sphere easy to program by movable trippers.
- Switch for manual control with three positions: automatic, on and permanent off.
- Models with backup battery available (≥ 100 h).
- Faston Connections 6.3x8 mm. for built-in mounting in the electrical cabinet door.

Technical Features

- Power supply: 12, 24, 48, 120 or 230 Va.c., 50-60 Hz
  12, 24, 48 Vd.c.
- Changeover switch
- Switching capacity: 16,1 (4) to 250 Va.c.
- Operating temp.: -10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

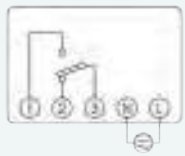
Max. Recomm. Load

	3000 W
	1200 VA
	2000 VA
	3000 W
	900 VA
LED	100 VA

Reference	Model	Programming	Backup
OB251032	MINI T D_230 Va.c., 50-60 Hz	Daily / 15 min.	No backup
OB251232	MINI T QRD_230 Va.c., 50-60 Hz	Daily/ 15 min.	100 h
OB252332	MINI T QRS_230 Va.c., 50-60 Hz	Weekly / 2 hours	100 h

Dimensions

Connections



ALPHA

Description

- Installation on DIN rail, surface or built in.
- Front sphere easy to program by movable trippers.
- Switch for manual control with three positions: automatic, off and permanent on. Particularly useful to check the operation of the machine or installation.
- Models with backup battery available (≥ 100 h).
- Minimum operation for the daily model 15 minutes and 2 hours for the weekly model.
- Faston Connections 6.3x8 mm. for built-in mounting in the electrical cabinet door.

Technical Features

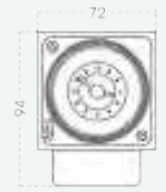
- Power supply: 12, 24, 48, 120 or 230 Va.c., 50-60 Hz
  12, 24, 48 Vd.c.
- Changeover switch
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +50 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

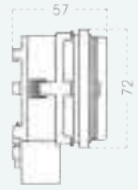
Max. Recomm. Load

	2000 W
	1200 VA
	2000 VA
	2000 W
	900 VA
LED	100 VA

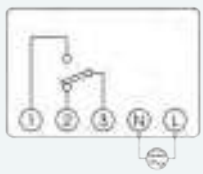
Reference	Model	Programming	Backup
OB270023	ALPHA D_230 Va.c., 50-60 Hz	Daily / 15 min.	No backup
OB270123	ALPHA QRD_230 Va.c., 50-60 Hz	Daily / 15 min.	100 h
OB270223	ALPHA S_230 Va.c., 50-60 Hz	Weekly / 2 h	No backup
OB270323	ALPHA QRS_230 Va.c., 50-60 Hz	Weekly / 2 h	100 h

Dimensions





Connections



TEMPORIZATION

ANALOGUE TIME SWITCHES SURFACE / FLUSH MOUNTING

CRONO

Description

- Installation on DIN rail, surface or built in (66x66 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 trippers.
- Sealable clear window to avoid unauthorised handling.
- Models with backup battery available (≥ 100 h.).
- Faston Connections 4.8x0.4 mm. for built-in mounting in the electrical cabinet door.

Technical Features

- Power supply: 12, 24, 120 or 230 Va.c., 50-60 Hz / 12, 24, 48 Vd.c.
- Changeover switch
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +50 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

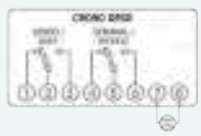
Max. Recomm. Load

	3000 W
	500 VA
	2250 VA
	3000 W
	500 VA

Reference	Model	Programming	Backup
OB050523	CRONO D_230 Va.c., 50-60 Hz	Daily / 15 min.	No backup
OB050623	CRONO QRD_230 V a.c, 50-60 Hz	Daily / 15 min.	100 h
OB050823	CRONO QRDD_230 Va.c., 50-60 Hz	Daily-Daily/15-30 min.	100 h
OB051023	CRONO QRS_230 Va.c., 50-60 Hz	Weekly / 2 hours	100 h
OB051223	CRONO QRSD_230 Va.c., 50-60 Hz	Weekly-Daily / 2 h-30 min.	100 h

Dimensions

Connections



PLUG-IN ANALOGUE TIME SWITCHES

ISI

Description

- Installation pluggable in schuko outlet with ground connection (4.8 mm²).
- Front sphere easier to read and program.
- With child protection.
- LED pilot operation indicator.
- Switch for manual control with two positions: automatic and on.
- Minimum operation for the daily model 15 minutes.

Technical Features

- Power supply: 220-240 Va.c., 50 Hz
- Switching capacity: 16 (2) to 220-240 Va.c.
- Operating temp.: -10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Plug-in: Type F, CEE 714, schuko

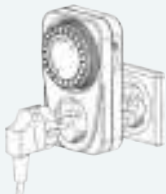
Max. Recomm. Load

	3500 W

Reference	Model	Programming
OB163032I	ISI D_230 Va.c., 50 Hz, schuko	Daily / 15 min.

Dimensions

Connections



CONTROL

Description

- Installation pluggable in schuko outlet with ground connection (4.8 mm²).
- Lateral sphere easy to program by movable trippers.
- With child protection.
- Switch for manual control with three positions: automatic, on and permanent off. Particularly useful to cancel existing programming during holiday periods.
- Minimum operation for the daily model 15 or 30 minutes and 1.45 hours for the weekly model.

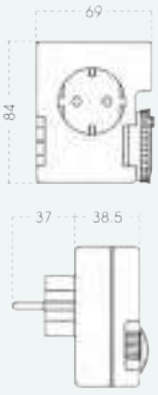
Technical Features

- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 16 (4) to 230 Va.c.
- Operating temp.: 0 ºC to +60 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Plug-in: Type F, CEE 7/4, schuko

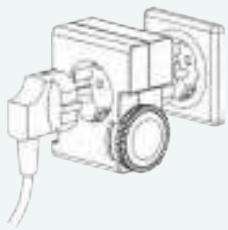
Max. Recomm. Load

3500 W
2250 VA
3500 W

Dimensions



Connections



Reference	Model	Programming
OB161533	CONTROL D-15_230 Va.c., 50 Hz	Daily / 15 min.
OB161532	CONTROL D-30_230 Va.c., 50 Hz	Daily / 30 min.
OB161632	CONTROL S-1.45h_230 Va.c., 50 Hz	Weekly / 1,45 h

DOMO

Description

- Installation pluggable in schuko outlet with ground connection (4.8 mm²).
- Front sphere easy to program by movable trippers.
- Daily, weekly or countdown versions.
- With child protection.
- Minimum operation for the daily model 15 or 30 minutes and 1.45 hours for the weekly model.
- Switch for manual control with three positions: automatic, on and permanent off. Particularly useful to cancel existing programming during holiday periods.

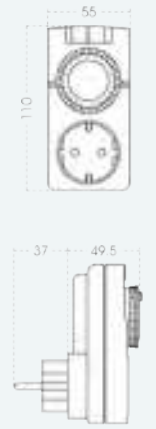
Technical Features

- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 16 (4) to 230 Va.c.
- Operating temp.: 0 ºC to +60 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Plug-in: Type F, CEE 7/4, schuko

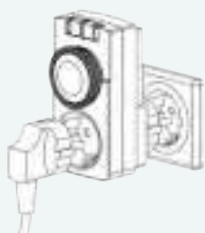
Max. Recomm. Load

3500 W
2250 VA
3500 W

Dimensions



Connections



Reference	Model	Programming
OB284015	DOMO M-60_230 Va.c., 50 Hz	Countdown 60 min.
OB162332	DOMO M-150_230 Va.c., 50 Hz	Countdown 150 min.
OB284007	DOMO M-900_230 Va.c., 50 Hz	Countdown 900 min.
OB16223232	DOMO D T-15_230 Va.c., 50 Hz	Daily / 15 min.
OB162232	DOMO D T-30_230 Va.c., 50 Hz	Daily / 30 min.
OB162432	DOMO S T-1.45 h_230 Va.c., 50 Hz	Weekly / 1.45 hours

TEMPORIZATION

PLUG-IN ANALOGUE TIME SWITCHES

DOMO INTEMPERIE

Description

- Installation pluggable in schuko outlet with ground connection (4.8 mm²).
- Front sphere easy to program by movable trippers.
- Weekly or daily versions.
- With child protection.
- Switch for manual control with three positions: automatic, on and permanent off. Particularly useful to cancel existing programming during holiday periods.
- Minimum operation for the daily model 15 minutes and 1,45 hours for the weekly model.

Technical Features

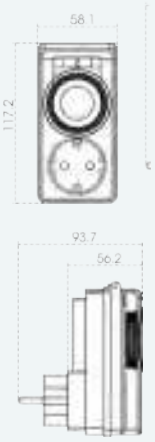
- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 16 (4) to 230 Va.c.
- Operating temp.: 0 ºC to +60 ºC according to EN 60730-2-7
- Protection degree: IP 24 according to EN 60529
- Plug-in: Type F, CEE 7/4, schuko

Max. Recomm. Load

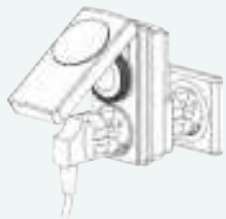
3500 W
2250 VA
3500 W

Reference	Model
OB162232I	DOMO D T-15 OUTDOORS_230 Va.c., 50 Hz, schuko
OB162432I	DOMO S T-1.45h OUTDOORS_230Va.c., 50Hz, schuko

Dimensions



Connections



CONTROL DEVICES FOR INSTALLATION BOX

ILUMATIC 248 / 348

Description

- Programmer for mounting in installation box of 65x65 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 to cancel existing programming during holiday 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 65x65 mm. (OB280450).

Technical Features

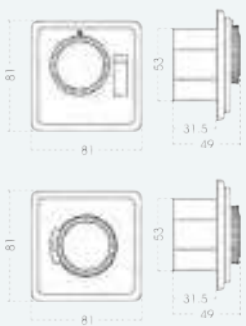
- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 10 (4) to 248Va.c. (358) 16 (4) to 250Vc.a.
- Operating temp.: 0 ºC to +55 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

2200 W

Reference	Model	Programming	Manual Control
OB1618248	ILUMATIC 248 D-30_230 Va.c., 50 Hz	Daily / 30 min.	Independent
OB1618348	ILUMATIC 348 D-30_230 Va.c., 50 Hz	Daily / 30 min.	In the sphere
OB285803	ILUMATIC 358 S-1,45h_230 Va.c., 50 Hz	Weekly / 1,45 hours	In the sphere

Dimensions



Connections

ROLLMATIC 248

Description

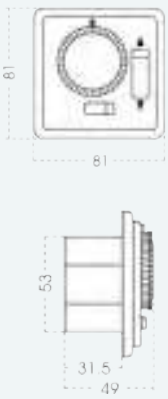
- Awnings and blinds programmer for mounting in installation box of 65x65 mm.
- In just a few minutes we can replace the existing switch with this easy-to-use programmer. Ideal for programming raising and lowering according to the house, office, business or school schedule.
- Switch for manual control 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 65x65 mm. (OB280450).

Technical Features

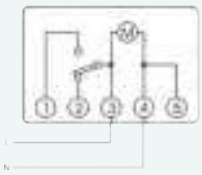
- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 10 (4) to 250 Va.c.
- Operating temp.: 0 ºC to +55 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Reference	Model	Programming
OB280493	ROLLMATIC 248 D-30, 230 Va.c., 50 Hz	Daily/ 30 min.

Dimensions



Connections



METRO

Description

- Programmer for mounting in installation box of 86x86 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 Features

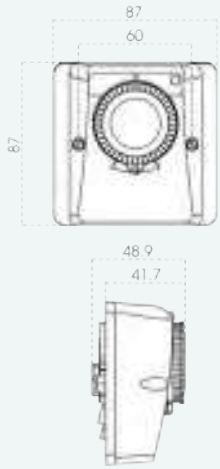
- Power supply: 230 Va.c., 50 Hz
- Changeover contact N/O
- Switching capacity: 16,1 (4) to 230 Va.c.
- Operating temp.: 0 ºC to +35 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

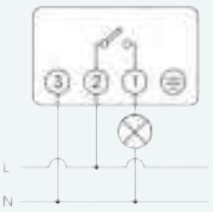
	3500 W
	1200 VA
	2000 VA
	3000 W
	900 VA
LED	100 VA

Reference	Model	Programming
OB284318	METRO D_230 Va.c., 50 Hz	Daily/ 30 min.

Dimensions



Connections



TEMPORIZATION

CONTROL DEVICES FOR INSTALLATION BOX

SURFACE INSTALLATION BOX

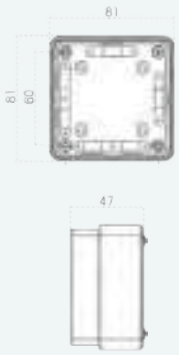
Description

- Surface box manufactured with high-durability halogen-free plastic materials.
- Able to accommodate any built-in device with the diagram's fitting measurements.
- With side precuts easy to break for electrical conduit entry.
- Includes a set for fixing the cables to the base.

Technical Features

- Protection degree: IP 20
- Impact resistance: IK04
- Self-extinguishing degree: UL 94 V-0 (1,5 mm)
- Glow wire resistance: 850 ºC
- Ball pressure: 125 ºC

Dimensions



Reference	Model
OB280450	SURFACE BOX 66x66 mm

INDUSTRIAL ANALOGUE TIME SWITCHES

SINCRO

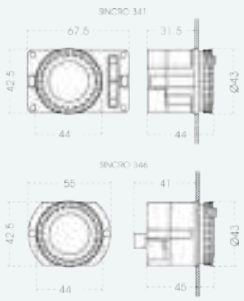
Description

- 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 6.3x8 mm.
- Embedded or surface mounting.

Technical Features

- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: 0 ºC to +85 ºC
- Protection degree: IP 20

Dimensions



Reference	Model	Programming	Manual Control	Contact	Colour	Fixing
OB284101	SINCRO 341.124.8.000_230 Va.c., 50 Hz	Daily / 30 min.	With	N/O	○	Front / Base
OB284103	SINCRO 341.498.8.000_230 Va.c., 50 Hz	Daily / 15 min.	With	Changeover	●	Front / Base
OB280424	SINCRO 351.001_230 Va.c., 50 Hz	Weekly / 2 h	With	Changeover	●	Front / Base
OB280408	SINCRO 346.001.8.000_230 Va.c., 50 Hz	Daily / 30 min.	Without	N/O	●	Front
OB280471	SINCRO 346.034.8.000_230 Va.c., 50 Hz	Daily / 30 min.	With	N/O	○	Base
OB284659	SINCRO 346.046.8.000_230 Va.c., 50 Hz	Daily / 30 min.	With	N/O	●	Base
OB280421	SINCRO 346.066.8.000_230 Va.c., 50 Hz	Daily / 30 min.	Without	N/O	○	Base
OB2834615	SINCRO 346.253.8000_230 Va.c., 50 Hz	Daily / 15 min.	Without	Changeover	○	Front
OB284614	SINCRO 346.602.8.000_230 Va.c., 50 Hz	Start 60 min. stop 5 min.	Without	Changeover	○	Front
OB284643	SINCRO 346.606.8.000_230 Va.c., 50 Hz	Start 5,45 h stop 15 min.	Without	Changeover	○	Base
OB284602	SINCRO 346.815.8.000_230 Va.c., 50 Hz	Countdown / 150 min.	With	N/O	○	Front
OB284628	SINCRO 346.818.8.000_230 Va.c., 50 Hz	Countdown / 60 min.	Without	N/O	○	Front
OB284632	SINCRO 346.830.8.000_230 Va.c., 50 Hz	Countdown / 60 min.	With	N/O	○	Front
OB284660	SINCRO 346.840_230 Va.c., 50 Hz	Countdown / 150 min.	Without	N/O	○	Front
OB284635	SINCRO 346.842.8.000_230 Va.c., 50 Hz	Countdown / 15 h	Without	N/O	○	Front / Base
OB280473	SINCRO 356.038.8.000_230 Va.c., 50 Hz	Weekly / 1,45 h	With	N/O	●	Front

MODUL

Description

- Surface mounting with fixing screws.
- Front sphere easy to program by movable trippers.
- Manual control switch with three positions: automatic, on and permanent off.
- Daily programming of 15 minutes and 2 hours for weekly modules.
- Configurable with or without manual switch, with or without hour indices.
- Models with backup battery available (≥ 100 h.).
- Faston Connections 6.3x8 mm.

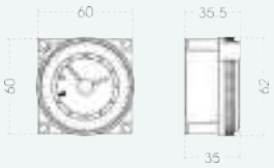
Technical Features

- Power supply: 230 Va.c., 50-60 Hz
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: MODUL D y 12 h: From 0 °C to +55 °C
- MODUL QRD y QRS: From -10 °C to +45 °C
- Protection degree: IP 20 according to EN 60529

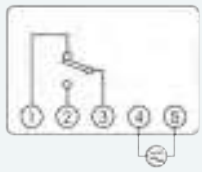
Max. Recomm. Load

3500 W
1200 VA
2000 VA
3000 W
900 VA
100 VA

Dimensions



Connections



Reference	Model	Programming	Clock Hands	Manual Control	Backup
OB361100	MODUL D (11)_230 Va.c., 50-60 Hz	Daily/ 15 min.	With	With	Without
OB36QD0000	MODUL QRD (00)_230 Va.c., 50-60 Hz	Daily/ 15 min.	Without	Without	> 100h
OB36QD0100	MODUL QRD (01)_230 Va.c., 50-60 Hz	Daily/ 15 min.	Without	With	> 100h
OB361012	MODUL QRD (10)_230 Va.c., 50-60 Hz	Daily/ 15 min.	With	Without	> 100h
OB361011	MODUL QRD (11)_230 Va.c., 50-60 Hz	Daily/ 15 min.	With	With	> 100h
OB36S0000	MODUL S (00)_230 Va.c., 50-60 Hz	Weekly / 2 h	Without	Without	Without
OB36QS0100	MODUL QRS (00)_230 Va.c., 50-60 Hz	Weekly / 2 h	Without	Without	> 100h
OB36QS1100	MODUL QRS (11)_230 Va.c., 50-60 Hz	Weekly / 2 h	With	With	> 100h

SUE

Description

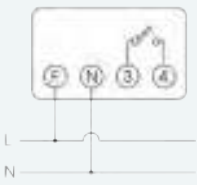
- Mechanical time switch for surface installation.
- Programming by movable trippers fixed with screw.
- High charge capacity, up to 30 A.
- Backup battery (≥ 100 h.).
- Daily programming with minimum operations of 1 hour.
- Clear window and sealable terminal board to avoid unauthorised handling.

Technical Features

- Power supply: 120/230 Va.c., 50-60 Hz
- Changeover contact N/O
- Switching capacity: 30 to 250 Va.c.

Dimensions

Connections



Reference	Model
OB010315	SUE 1X30 120/230 Va.c., 50-60 Hz

TEMPORIZATION

INDUSTRIAL ANALOGUE TIME SWITCHES

FRI

Description

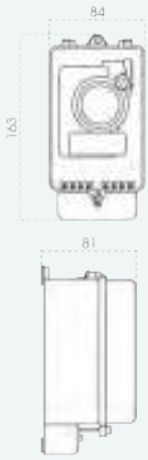
- Time switch to program defrost operations in refrigerating rooms.
- The defrost cycle starts by switching off the compressor and the fan, and switching on the heating resistor at the same time. After the set defrost period, the heating resistor is switched off and the compressor is switched on, after a delay time, the fan will be switched on.
- Programming by movable trippers fixed with screw.
- Programming of operations of variable duration (5 to 50 minutes).

Technical Features

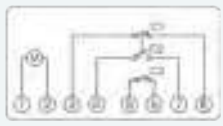
- Power supply: 120. 230 Va.c., 50-60 Hz
- Switching capacity: 10 to 250 Va.c.

Reference	Model
OB150533	FRI 60_230 Va.c., 50-60 Hz

Dimensions



Connections



DHD

Description

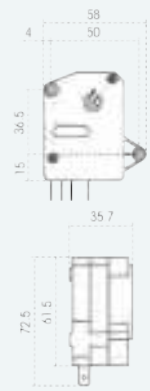
- Time switch to program defrost operations in refrigerating rooms.
- The defrost cycle starts by switching off the compressor and the fan, and switching on the heating resistor at the same time. After the set defrost period, the compressor and the fan are switched on and the heating resistor is switched off.
- Its small size makes it adjustable to any refrigerating machine.
- Synchronous engine, so timings depend on the mains frequency.
- Time between defrost cycles 12 hours, defrost time 21 min. Please inquire about other timings.
- Faston Connections 6.3x8 mm.

Technical Features

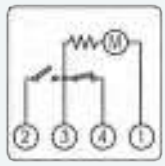
- Power supply: 120, 208 o 240 Va.c. 50-60 Hz
- Switching capacity: 5 to 250 Va.c.

Reference	Model
OB151233	DHD_1

Dimensions



Connections



DATA MICRO + / DATA MICRO 2+

Description

- Digital time switch for daily or weekly programmings or programmings by seconds.
- 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 Features

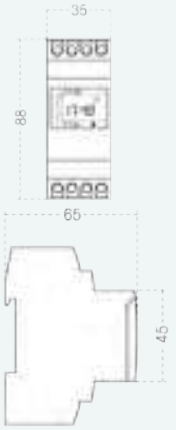
- Power supply: 120 or 230 Va.c., 50-60 Hz
  12, 24 or 48 Va.c. / d.c., 50-60 Hz.
- Switching capacity: 16 (10) to 250 Va.c.
- Operating temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

Max. Recomm. Load

	3000 W
	1200 VA
	2000 VA
	3000 W
	400 VA
LED	90 VA

Reference	Model	Contact
OB171912N	DATA MICRO-2 + _230 Va.c., 50-60 Hz	1 changeover
OB172012N	DATA MICRO +_230 Va.c., 50-60 Hz	2 changeover

Dimensions



Connections

DATA LOG / DATA LOG 2

Description

- Daily, weekly or second programmings.
- Installation on DIN rail, two modules wide.
- Easy programming guided by text menus in different languages.
- Up to 40 daily or weekly programs.
- Large backlit display with contrast setting and operation schedule on screen.
- 4 annual periods for special programming. Able to program cycles and pulses from 1 second.
- Manual activation or deactivation, temporary or permanent.
- Change standard time/daylight saving automatic depending on country, deactivated or programmable.
- Contacts' operation hours meter and keypad lock by password.
- Available versions with one or two changeover contacts.
- Interchangeable backup battery of up to 10 years operation.
- Sealable clear window to avoid unauthorised handling.
- Accessories: **BLUETOOTH DONGLE** (OB709971), surface box 2 modules (OB140601).

Technical Features

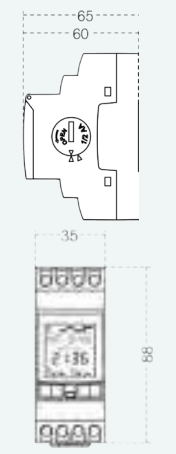
- Power supply: 120 or 230 Va.c., 50-60 Hz
  12, 24 or 48 Va.c. / d.c., 50-60 Hz
- Switching capacity: 16 (10) to 250 Va.c.
- Operating temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

Max. Recomm. Load

	3000 W
	1200 VA
	2000 VA
	3000 W
	400 VA
LED	90 VA

Reference	Model	Contact
OB174012	DATA LOG_230 Va.c., 50-60 Hz	1 Chargeover
OB175012	DATA LOG 2 _230 Va.c., 50-60 Hz	2 Chargeover

Dimensions



Connections

TEMPORIZATION

MODULAR DIGITAL TIME SWITCHES

BLUETOOTH DONGLE

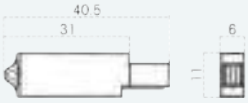
Description

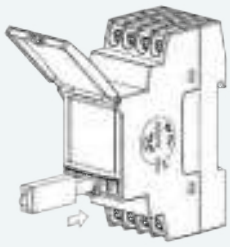
- Two-way communication with: **DATA LOG**, **DATA LOG 2**, **ASTRO NOVA CITY** and **ASTRO UNO**.
- Programming and configuration from mobile application for mobile phones or tablets.
- Compatible with:
  - Apple (iPhone 4S or higher, IPad 3 or higher)
  - Android (version 4.3 or higher and compatible with Bluetooth 4.0 LE)
  - Free available at: Google Play and App Store

· Read any compatible time switch.
· Name them and save them in your mobile phone.
· Easy and intuitive program creation.
· Etc.

Reference	Model
OB709971	BLUETOOTH DONGLE

Dimensions



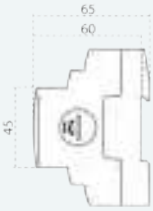


DATA LOG +/ DATA LOG 2+

Description

- Digital time switch for daily or weekly programmings or programmings by seconds.
- Installation on DIN rail, two module wide.
- Easy programming guided by text menus in: SPA, ENG, ITA, POR, DEU, NOR y SWE.
- With infrared port for program reading with the **MANDO DATA** accessory.
- High memory capacity, up to 70 programs.
- Large backlit display with contrast setting.
- Able to program cycles and pulses from 1 second.
- Random program for presence simulation.
- Contacts' operation hours meter.
- With a period between two dates with special programming.
- Manual activation or deactivation, temporary or permanent.
- Change standard time/daylight saving automatic for Europe, deactivated or programmable.
- Interchangeable backup battery of up to 5 years operation.
- Accessories: **MANDO DATA** (OB611705), surface box 2 modules (OB140601).

Dimensions



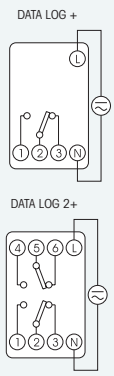
Technical Features

- Power supply: 120 or 230 Va.c., 50-60 Hz
  12, 24 or 48 Va.c. / d.c., 50-60 Hz
- Switching capacity: 16 (10) to 250 Va.c.
- Operating temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

Max. Recomm. Load

	3000 W
	1200 VA
	2000 VA
	3000 W
	400 VA
LED	90 VA

Connections



Reference	Model	Contact
OB174012N	DATA LOG +_230 Va.c., 50-60 Hz	1 Chargeover
OB175012N	DATA LOG 2+_230 Va.c., 50-60 Hz	2 Chargeover

MANDO DATA

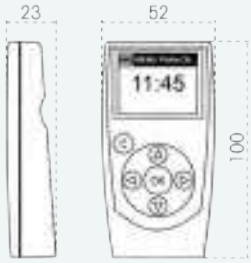
Description

- With infrared communication with the devices **DATA LOG +** and **DATA LOG 2+**.
- Able to copy and store up to 70 programs.
- Fast program transfer to devices.
- Backlit LCD display

Technical Features

- Power supply: 2 alkaline batteries LR03/AAA - 1,5 V
- Batteries ON Duration: 24 h approx.
  OFF: 1 year approx.
- Backlit LCD display
- Infrared range: maximum 1 meter. Angle: 20°
- Operating temperature -10 °C to +45 °C

Dimensions



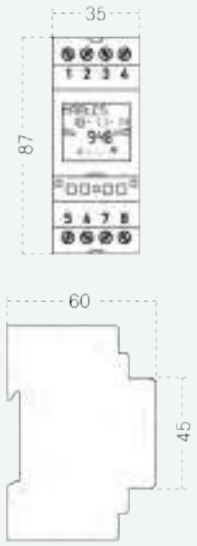
Reference	Model
OB611705	MANDO DATA

DATA ANUAL

Description

- Daily, weekly, monthly or annual programmings or programmings by seconds.
- Installation on DIN rail, two modules 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 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.
- 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).

Dimensions



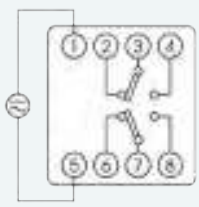
Technical Features

- Power supply: 230 Va.c., 50-60 Hz
- Switching capacity: 16 (10) to 250 Va.c.
- Operating temp.: -20 °C to +40 °C
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm²

Max. Recomm. Load

	1500 W
	600 VA
	1000 VA
	1500 W
	200 VA
LED	100 VA

Connections



Reference	Model	Contact
OB176100	DATA ANUAL_230 Va.c., 50-60 Hz	2 Chargeover

TEMPORIZATION

MODULAR DIGITAL TIME SWITCHES

DATA MULTI ANUAL

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 Features

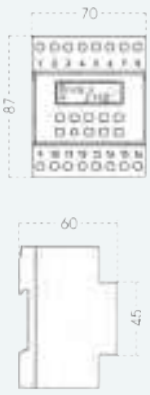
- Power supply: 230 Va.c. (-15% ÷ -10%), 50-60 Hz
  24 Va.c./d.c. (-15% ÷ -10%).
- Switching capacity: 4 x 16 (10) to 250 Va.c.
- Operating temp.: 0 °C to +50 °C
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

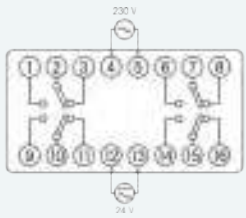
1500 W
600 W

Reference	Model	Contact
OB177200	DATA MULTI ANUAL_230 Va.c., 50-60 Hz	4 Contacts

Dimensions



Connections



DIGITAL TIME SWITCHES SURFACE/FLUSH MOUNTING

MINI LOG

Description

- Daily or weekly programmings or programmings by seconds.
- Installation on DIN rail or surface.
- Easy programming guided by text menus in different languages.
- Up to 40 daily or weekly programs.
- Large backlit display with contrast setting.
- Operation schedule on screen.
- With 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 or programmable.
- Contacts' operation hours meter.
- Keypad lock by password.
- Sealable window and terminals cover to avoid unauthorised handling.

Technical Features

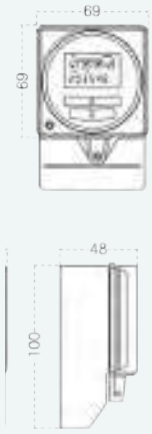
- Power supply: 120 or 230 Va.c., 50-60 Hz
  12 or 24 Va.c. / d.c., 50-60 Hz
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 51 according to EN 60529
  IP 20 mounted on symmetrical profile
- Max. cross section: 4 mm²

Max. Recomm. Load

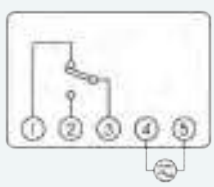
3000 W
1200 VA
2000 VA
3000 W
400 VA
90 VA

Reference	Model
OB250512	MINI LOG_230 Va.c., 50-60 Hz

Dimensions



Connections



DIGITAL TIME SWITCHES SURFACE/FLUSH MOUNTING

MINI T LOG

Description

- Digital time switch for daily or weekly programmings or programmings by seconds.
- Installation on DIN rail, surface or built-in.
- Easy programming guided by text menus in different languages.
- Up to 40 daily or weekly programs.
- Large backlit display with contrast setting.
- Operation schedule on screen.
- With 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 or programmable.
- Contacts' operation hours meter and keypad lock by password.
- Faston Connections 6.3x8 mm. for built-in mounting in the electrical cabinet door.

Technical Features

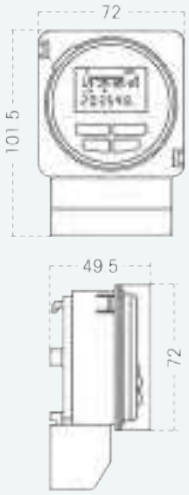
- Power supply: 120 or 230 Va.c., 50-60 Hz
  12 or 24 Va.c. / d.c., 50-60 Hz
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 51 mounted on surface according to EN 60529
  IP 20 mounted on symmetrical profile
- Max. cross section: 4 mm²

Max. Recomm. Load

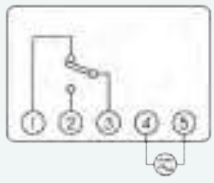
	3000 W
	1200 VA
	2000 VA
	3000 W
	400 VA
LED	90 VA

Reference	Model
OB251512	MINI T LOG_230 Va.c., 50-60 Hz

Dimensions



Connections



PLUG-IN DIGITAL TIME SWITCHES

TEMPO +

Description

- Digital time switch for daily or weekly programmings or programmings by seconds.
- Installation pluggable in schuko outlet with ground connection (4.8 mm²).
- 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.
- Interchangeable backup battery of up to 4 years operation.
- Please inquire about other socket types.

Technical Features

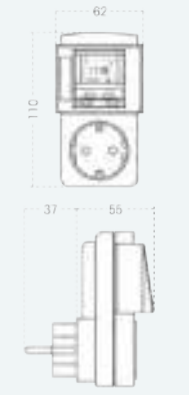
- Power supply: 230 Va.c., 50-60 Hz
- Switching capacity: 16 (4) to 230 Va.c.
- Operating temp.: -10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Plug-in: Type F, CEE 7/4, schuko

Max. Recomm. Load

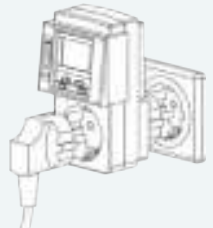
	2000 W
	100 VA
	1000 VA
	2000 W
	100 VA
LED	100 VA

Reference	Model
OB162532	TEMPO +_230 Va.c., 50-60 Hz

Dimensions



Connections



INDUSTRIAL DIGITAL TIME SWITCHES

MODUL LOG

Description

- Daily or weekly programmings or programmings by seconds.
- Mounting on surface with fixing screws.
- Easy programming guided by text menus in different languages.
- Up to 40 daily or weekly programs.
- Large backlit display with contrast setting.
- Operation schedule on screen.
- With 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 depending on country, deactivated or programmable.
- Contact operation hours meter and keypad lock by password.
- Faston Connections 6.3x8 mm. for built-in mounting in the cabinet door.

Technical Features

- Power supply: 120 or 230 Va.c., 50-60 Hz
  12 or 24 Va.c. / d.c., 50-60 Hz
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

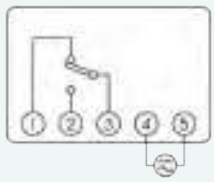
Max. Recomm. Load

	3000 W
	1200 VA
	2000 VA
	3000 W
	400 VA
	90 VA

Reference	Model
OB176012	MODUL LOG _230 Va.c., 50-60 Hz

Dimensions

Connections



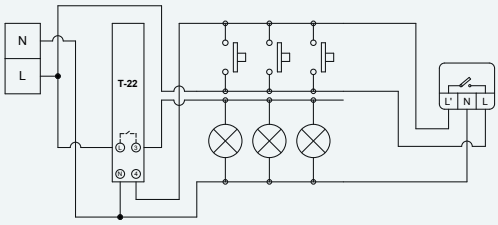
USES AND APPLICATIONS

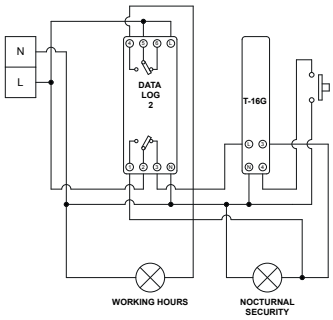
Associated to a switch, they allow for timing any electrical circuit. Normally used to control the switching on of the lights of stairways and common areas in residential and office buildings, so that energy consumption is generated only when it is necessary.

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.

4-Wire connection

En this case, we have a 4-wire installation already in place and we want to add a motion sensor at the main entrance of the building. The connection is very simple, since all we have to do is add the sensor, in this example **ISIMAT**, as one more button in the installation.



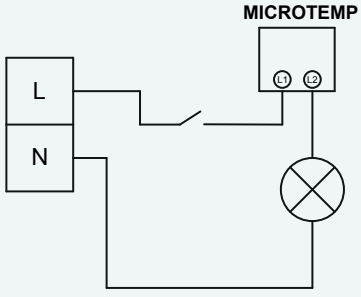


Night safety lighting in buildings

To optimise energy consumption and ensure an optimal level of lighting during night surveillance patrols, we can divide the installation in two circuits: work and night security. **DATA LOG 2** will switch on both circuits during working hours, and will only allow the switching on of the security circuit during night hours and timed by T-16G.

Light timer in storage rooms and cleaning rooms

Forgetting the light on in storage or cleaning rooms is very usual and generates an unnecessary energy consumption until we realize after a few days. In any installation, it is very easy to associate a **MICROTEMP** timer to the existing switch, so that we can turn the light on and off at our will and in case of forgetting, **MICROTEMP** will be in charge of switching off after the set time has passed.



FEATURES

Electromechanical models

- Electromechanical contact that allows up to 3,000W in incandescence for DIN rail format and 4,000W 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.
- Timing restart when 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.

MODULAR STAIRCASE TIMERS

T - 22

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 Features

- Power supply: 120 or 230 Va.c., 50-60 Hz
- Switching capacity: 16 to 230 Va.c.
- Operating temp.: -10 °C to +50 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm².

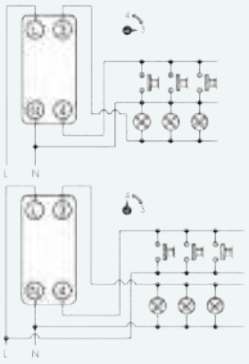
Max. Recomm. Load

	3000 W
	1200 VA
	2000 VA
	3000 W
	900 VA
LED	100 VA

Reference	Model	Timming
OB063031	T-22_230 Va.c., 50-60 Hz	From 45 seg. to 7 min.

Dimensions

Connections



T - 16G

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 Features

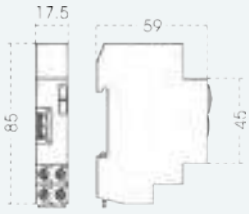
- Power supply: 120 or 230 Va.c., 50-60 Hz
- Switching capacity: 10 to 230 Va.c.
- Operating temp.: -10 °C to +50 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 4 mm².+

Max. Recomm. Load

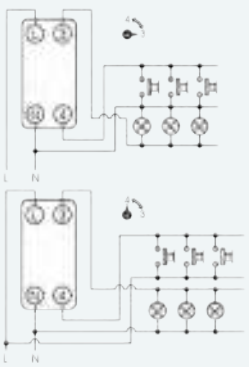
	2000 W
	800 VA
	1200 VA
	2000 W
	700 VA
LED	100 VA

Reference	Model	Timming
OB060100	T-16 G_230 Va.c.50-60 Hz	From 3 min. to 30 min.

Dimensions



Connections



SURFACE STAIRCASE TIMERS

T - 11 20A

Description

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

Technical Features

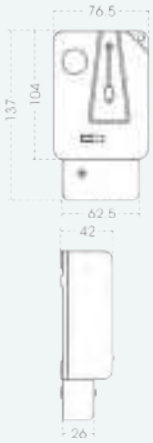
- Power supply: 120 or 230 Va.c., 50-60 Hz
- Switching capacity: 20 to 230 Va.c.
- Operating temp.: -10 ºC to +50 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Max. cross section: 6 mm^2

Max. Recomm. Load

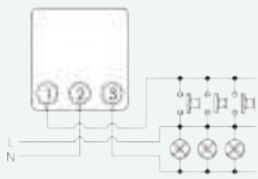
	4000 W
	2000 VA
	3000 VA
	4000 W
	1000 VA
LED	200 VA

Reference	Model	Timming
OB080232	T-11_230 Va.c.	From 1 min. to 3 min.

Dimensions



Connections



STAIRCASE TIMERS FOR INSTALLATION BOX

PULSALUZ

Description

- Installation in device box of 65x65 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.
- Protection by fast-acting fuse of 3.15 A

Technical Features

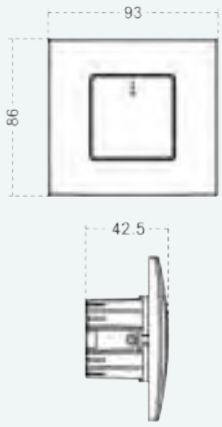
- Power supply: 230 Va.c., 50 Hz
- Operating temp.: -10 ºC to +50 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

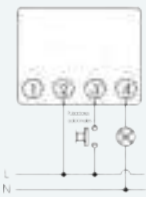
	25 W-500 W
	No Suitable
	50 VA -300 VA
	18 W - 500 W
	No Suitable
LED	No Suitable

Reference	Model	Timming
OB200000	PULSALUZ_230 Va.c., 50 Hz	From 30 seg. to 10 min.

Dimensions



Connections



TEMPORIZATION

STAIRCASE TIMERS FOR INSTALLATION BOX

PULSAMAT

Description

- Installation in device box of 65x65 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
- Protection by fast-acting fuse of 3.15 A.
- Version compatible with Italian-type device box of 3 modules (503) or of 4 x 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.

Technical Features

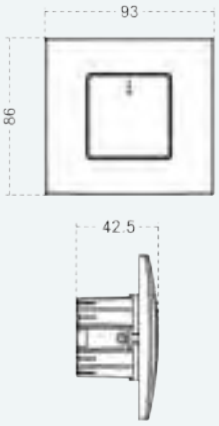
- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 6 to 230 Va.c.
- Operating temp.: -10 °C to +50 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

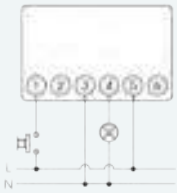
	1300 W
	1200 VA
	1000 VA
	1300 W
	600 VA
LED	600 VA

Reference	Model	Installation
OB200001	PULSAMAT_230 Va.c., 50 Hz	Installation box 65x65 mm
OB200005	PULSAMAT Italian standard_230 Va.c., 50 Hz	Italian-type installation box

Dimensions



Connections



HIDDEN STAIRCASE TIMERS

MICROTEMP

Description

- Its 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 Features

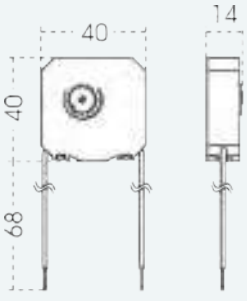
- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 1.5 to 23 0 Va.c.
- Operating temp.: -10 °C to +50 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

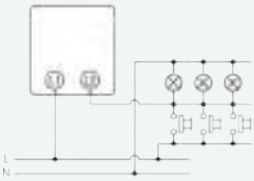
	25 W-400 W
	50 VA-250 VA
	18 W-400 W

Reference	Model	Timming
OB200004	MICROTEMP_230 Va.c., 50 Hz	From 30 s to 10 min.

Dimensions



Connections



RUNNING HOUR METERS

USES AND APPLICATIONS

Used for the control of working and service times in installations or machinery in order to plan cleaning tasks, disinfection, maintenance (change of filters, belts, oil, etc.), study of production times, guarantee hours, etc.

The main application field is industrial, whether it is textile, food processing, timber, printing, etc., although we can also find it in communal heating boilers, cooling towers, electric furnaces, water pump facilities, pressure groups, generators and others.

MODULAR HOUR METERS

CONTA MODULAR

Description

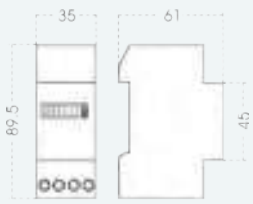
- Installation on DIN rail, two modules wide.
- Electromechanical meter.
- Integrator of 5 digits plus 2 decimals.
- Recording capacity of up to 99999.99 hours.
- Reading accuracy 0.01 hours.
- No reset to zero.
- Available for 230 V a.c. Please inquire about other voltages.
- Accessories: Surface box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

Technical Features

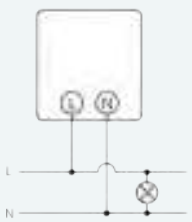
- Power supply: 230 Va.c., 50 Hz
- Operating temp.: -10 ºC to +70 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Reference	Model
OB180802	CONTA MODULAR_230 Va.c., 50 Hz

Dimensions



Connections



FLUSH HOUR METERS

CONTA EMPOTRABLE

Description

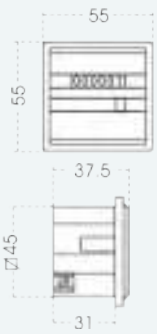
- Built-in panel mounting of 45x45 mm.
- Electromechanical meter.
- Integrator of 5 digits plus 2 decimals.. Recording capacity of up to 99999.99 hours.
- Reading accuracy 0.01 hours.
- No reset to zero.
- Available for different power supply voltages, both in alternating and direct current.

Technical Features

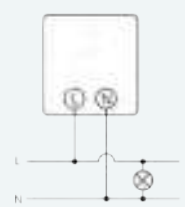
- Power supply: 24, 48, 110 or 230 Va.c., 50 Hz / 12-80 Vd.c.
  Please inquire about other voltages and frequencies
- Operating temp.: -10 ºC to +70 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Reference	Model
OB180801	CONTA EMP_12-80 Vd.c.
OB180824	CONTA EMP_24 Va.c., 50 Hz
OB180848	CONTA EMP_48 Va.c., 50 Hz
OB1808110	CONTA EMP_110 Va.c., 50 Hz
OB180800	CONTA EMP_230 Va.c., 50 Hz
OB1808400	CONTA EMP_400 Va.c., 50 Hz

Dimensions



Connections



TEMPORIZATION

TOKEN OR COIN-OPERATED TIMERS

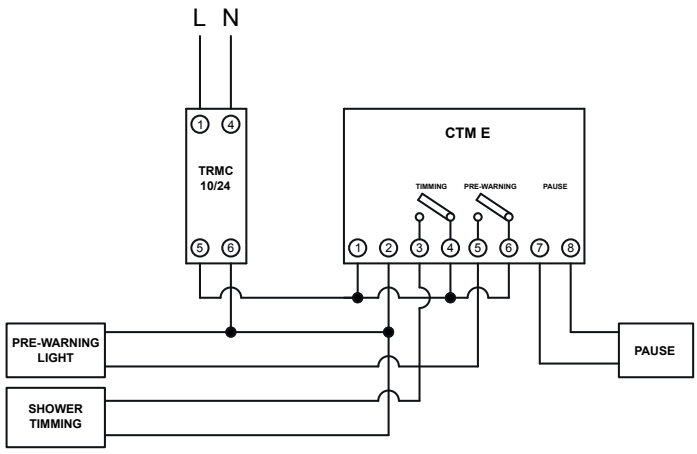
USES AND APPLICATIONS

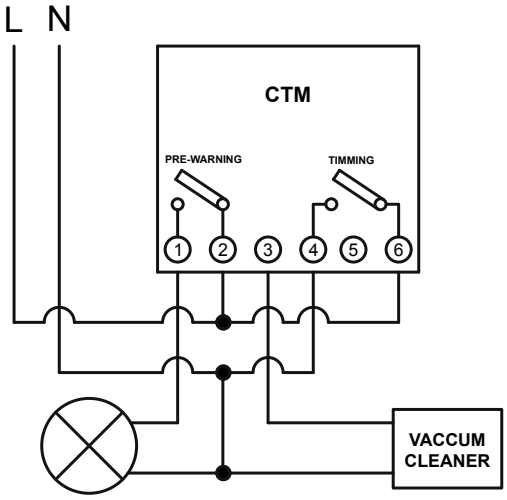
These devices are perfect to control machines or installations that provide some type of service, since the client decides the temporization by introducing coins or tokens. Some application examples are:

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

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.



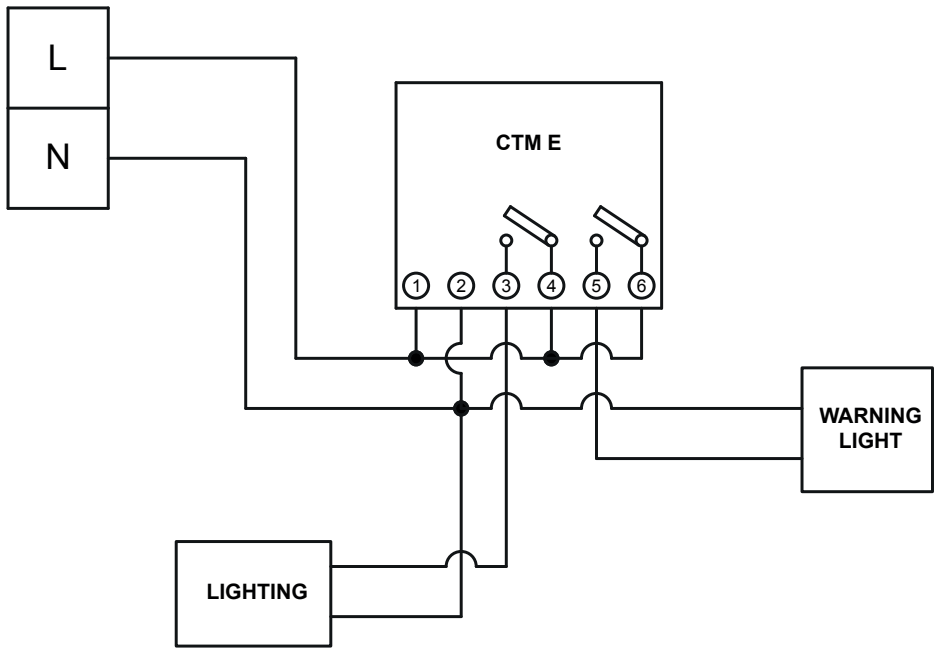


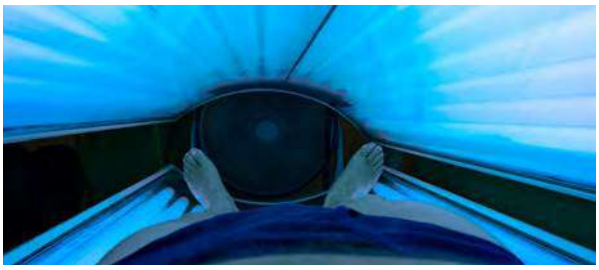
Car vacuumig

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

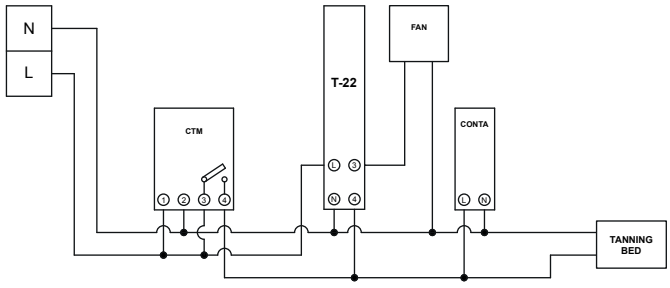
Thanks to **ELECTRONIC CTM** the user will be able to turn on the lights of the field for a minimum of 1 hour, each extra token inserted will add 30 minutes. In addition, we will connect a warning light that will be turned on 4 minutes before the end of the temporization.





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 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.



TEMPORIZATION

MECHANICAL COIN-OPERATED TIMERS

CTM

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 Vd.c. (OB86C1024).

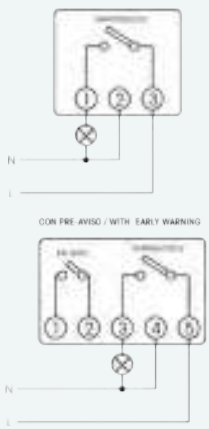
Technical Features

- Power supply: 230 Va.c., 50 Hz / 24 Va.c.
- Switching capacity: 6 (2) to 250 Va.c.
- Operating temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Reference	Model	Features
OB120330	CTM MECÁNICO	Without casing, standardized temporization
OB120530	CTM MECÁNICO	With casing, standardized temporization
OB120590	CTM MECÁNICO	With casing, special temporization

Dimensions

Connections



ELECTRONIC COIN-OPERATED TIMERS

CTM BASIC ELECTRONIC

Description

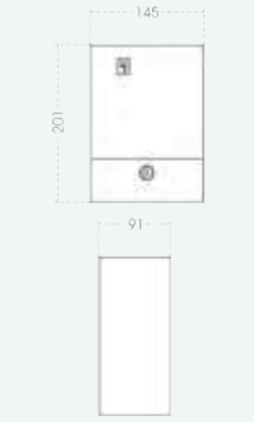
- Timing programmable from 1 min. to 150 h. 1-digit display that counts up to 9 coins or tokens.
- End of temporization through display flushing, 1 minute before the end of the programmed time.
- No additional temporization, no end of temporization warning relay.
- A second token after the temporization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

Technical Features

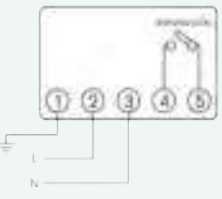
- Power supply: 230 Va.c., 50 Hz
- Switching capacity: 10 (2)A 250 Va.c.
- Operating temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Reference	Model	Features
OB120130	CTM ELECTRÓNICO BÁSICO	Activation by token with two slots
OB120131	CTM ELECTRÓNICO BÁSICO	Activation by € 1 coin
OB120132	CTM ELECTRÓNICO BÁSICO	Activation by coin
OB120133	CTM ELECTRÓNICO BÁSICO	Activation by € 2 coin
OB120134	CTM ELECTRÓNICO BÁSICO	Activation by €0,5 coin
OB120197	CTM ELECTRÓNICO BÁSICO_ 24 Va.c.	Activation by coin
OB120198	CTM ELECTRÓNICO BÁSICO_ 24 Va.c.	Activation by € 2 coin

Dimensions



Connections



CTM ELECTRONIC

Description

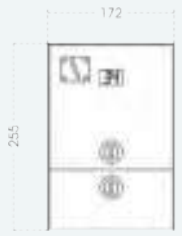
- Timing programmable from 1 min. to 150 h.
- Electronic operation activated by coin or token.
- Special temporization function when introducing more coins. For example, to allow extra time for the drying function in launderettes.
- Warning relay to activate an audio or light signal that warns the user 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.
- Top token slot.
- Accessories: Activation tokens, modular transformer 12 and 24 Vd.c. (OB86C1024).

Technical Features

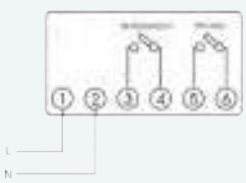
- Power supply: 230 Va.c., 50-60 Hz / 12 o 24 Va.c./d.c.
- Switching capacity: 16 (4) to 250 Va.c.
- Operating temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Reference	Model	Features
OB120030	CTM ELECTRÓNICO_230 Va.c.	Activation by token with two slots
OB120031	CTM ELECTRÓNICO_230 Va.c.	Activation by € 1 coin
OB120032	CTM ELECTRÓNICO_230 Va.c.	
OB120062	CTM ELECTRÓNICO_24 Va.c./d.c.	
OB120072	CTM ELECTRÓNICO_12 Va.c./d.c.	

Dimensions



Connections



CTM TOKENS

Description

- Manufactured in brass, they allow the activation of CTM models with compatible slot.
- The use of tokens instead of coins allows for varying the temporization price without modifying the CTM. In addition, it reduces the possibilities of suffering vandalism in contrast to the use of coins.
- Within one installation with several timers per token, different slot-token configurations can be used to avoid user mistakes.

Reference	Model	
OB120900	CTM_FICHA 1 RANURA	TOKEN 1 Slot
OB120800	CTM_FICHA 2 RANURAS	TOKEN 2 Slots
OB121000	CTM_FICHA 3 RANURAS	TOKEN 3 Slots

Dimensions

LIQUID LEVEL RELAYS

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 Ω.

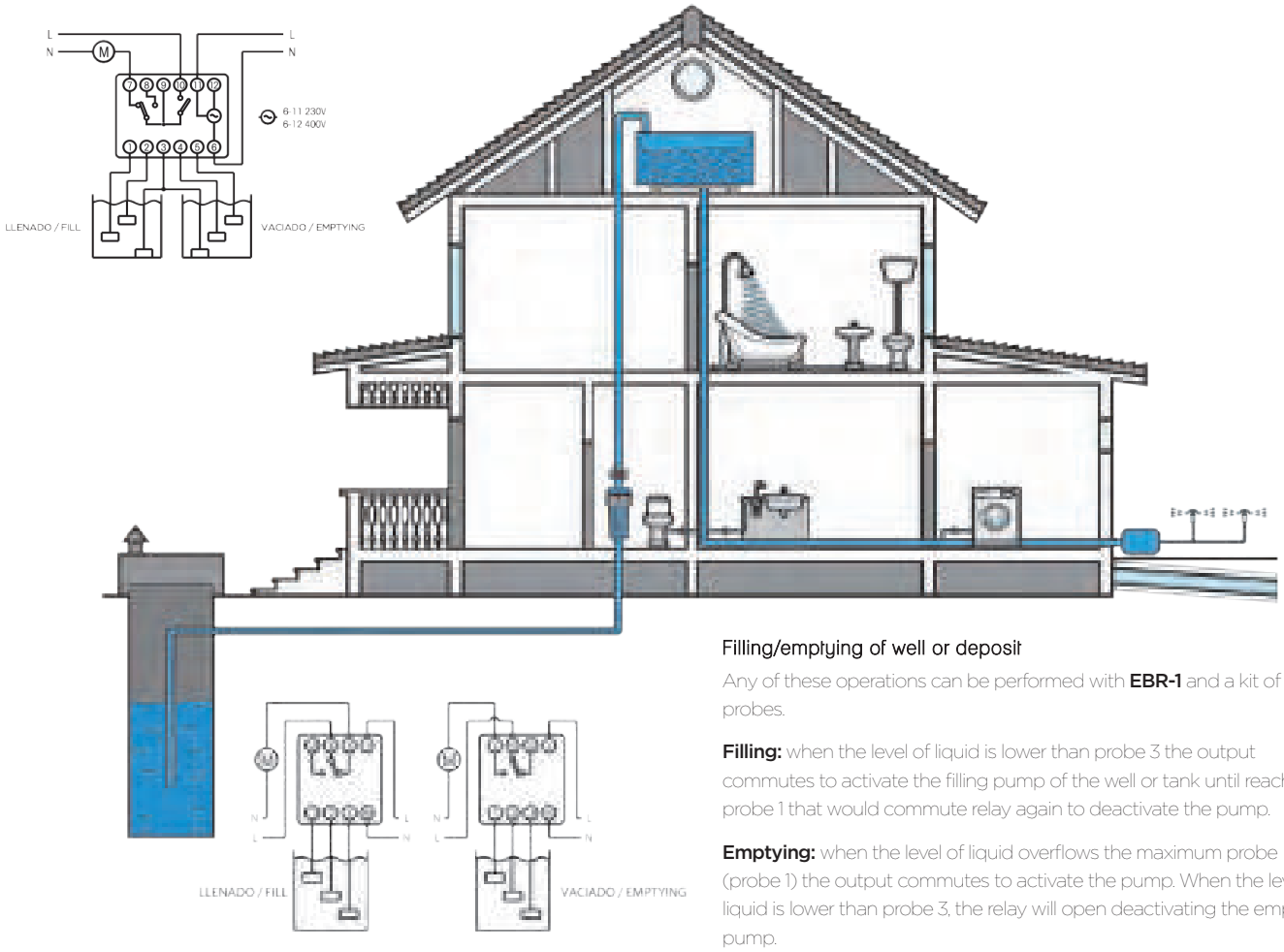
Type of water	Resistivity	Type of water	Resistivity
• Drinking water	5-10 kΩ	• Seawater	~0,03 kΩ
• Well water	2-5 kΩ	• Salt water	~2,2 kΩ
• River water	2-15 kΩ	• Hard water	~5 kΩ
• Rainwater	15-25 kΩ	• Chlorinated water	~5 kΩ
• Waste water	0,5-2 kΩ	• Condensed water	~18 kΩ

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.

EBR-1

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 (17.5 mm.).
- Enhanced protection against storm disruptions through varistors in the power input 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).

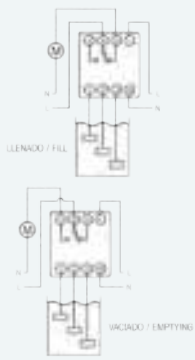
Technical Features

- Power supply: 230 Va.c., 50-60 Hz
- Switching capacity: 6 (2) to 250 Va.c.
- Probe voltage: 10 Va.c.
- Sensivility: 50 kΩ máx.
- Operating temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Reference	Model
OB230130	EBR-1 MODULAR_230 Va.c., 50-60 Hz

Dimensions

Connections



EBR-2

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 x ref. OB230300).

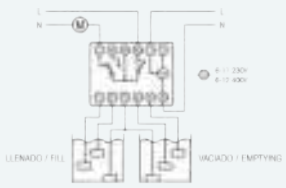
Technical Features

- Power supply: 230 or 400 Va.c., 50-60 Hz
- Switching capacity: 8 (2) to 230 Va.c. 4 (1) to 400Va.c.
- Probe voltage: 13 Va.c.
- Adjustable sensitivity: From 0 kΩ to 50 kΩ
- Operating temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529

Reference	Model
OB230230	EBR-2 MODULAR_230/400 Va.c., 50-60 Hz

Dimensions

Connections



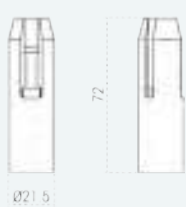
KIT 3 PROBES

Description

- Electrode made of stainless steel, with nylon cover to avoid contacts with metallic deposits.
- 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 mm² 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.

Reference	Model
OB230300	EBR KIT 3 PROBES

Dimensions



MOTION / PRESENCE DETECTORS

Pag. 38
Surface mounting on ceiling

Pag. 41
Flash mounting on ceiling

Pag. 44
Wall mounting

Pag. 48
Installation box

Pag. 49
Hidden mounting

Pag. 50
LED lights with detector

MOTION / PRESENCE DETECTORS

USES AND APLICATIONS

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.
Presence detector mounting in offices deliver a consumption reduction between 13% and 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.

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
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.

SURFACE MOUNTING ON CEILING

CIRCUMAT

P.I.R.

Description

- Designed to be small and discrete, is ideal for hotels and offices
- Surface-mounting on the ceiling through a plug-in base for faster installation.
- Status LED: detects movement or changes in lighting conditions outside of the selected level.
- Equipped with temperature compensator.
- Stepless dimming timing.
- Pulse function : 1 s ON / 9 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.

Technical Features

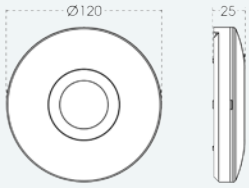
- Power supply: 230 Va.c., 50-60 Hz, 120 Va.c., 60 Hz
- Swicht capacity: 5 to 230 Va.c.
- Timing: from 3 s to 30 min.
- Light sensivility: from 5 to 1.000 lux
- Operating Temp.: -20 ºC to +40 ºC
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

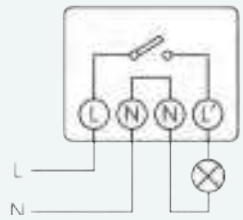
	1000 W
	250 VA
	500 VA
	1000 W
	200 VA
LED	200 VA

Reference	Model	Aplications
OB132512	CIRCUMAT_230 Va.c., 50-60 Hz	Halls, Box rooms, Landings, Corridors, Offices, Restrooms.

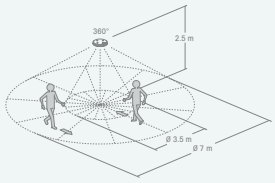
Dimensions



Connections



Detection area



CIRCUMAT PRO CR

P.I.R.

Description

- Great detection capacity : 7m high 10m diameter to 3.5m high 30m 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 CR CONTROL 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.
- Stepless dimming timing.
- Pulse function : 1 s. ON / 4 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 **CR CONTROL** (OB134712).

Technical Features

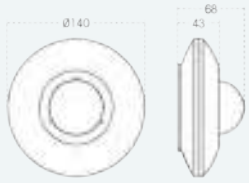
- Power supply: 230 Va.c., 50 Hz
- Swicht capacity: 10 to 230 Va.c.
- Timing: from 10 s to 30 min.
- Light sensivility: adjustable from 10 to 1.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 44 according to EN 60529

Max. Recomm. Load

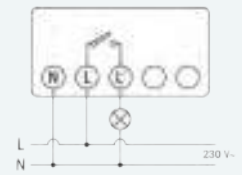
	2200 W
	1200 VA
	2000 VA
	2200 W
	900 VA
LED	500 VA

Reference	Model	Aplications
OB134912	CIRCUMAT PRO CR_230 Va.c., 50 Hz	Classrooms, Changing rooms, Meeting rooms, Industrial premises.

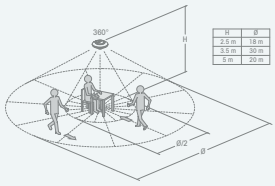
Dimensions



Connections



Detection area



CIRCUMAT PRO CR 12M

P.I.R.

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 CR CONTROL.
- Status LED: detects movement or changes in lighting conditions outside of the selected level.
- Stepless dimming timing. 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 CR CONTROL (OB134712).

Technical Features

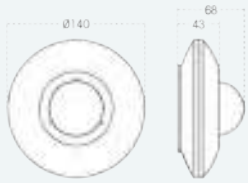
- Power supply: 230 Va.c., 50-60 Hz
- Swicht capacity: 10 to 230 Va.c.
- Timing: from 10 s to 10 min.
- Light sensivility: adjustable from 10 to 1.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 44 according to EN 60529

Max. Recomm. Load

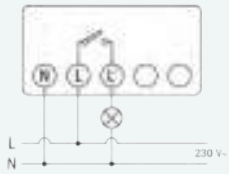
	2200 W
	1200 VA
	2000 VA
	2200 W
	900 VA
LED	500 VA

Reference	Model	Aplications
OB134920	CIRCUMAT PRO CR 12M_230 Va.c., 50-60 Hz	Industrial premises, Warehouses, Landing docks, Halls.

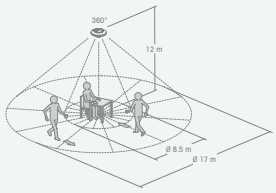
Dimensions



Connections



Detection area



CIRCUMAT PRO CR 1 - 10V

P.I.R.
1-10V

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.
- Stepless dimming timing and light sensitivity
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.

Technical Features

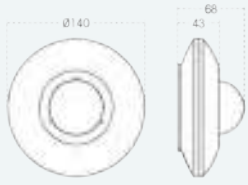
- Power supply: 230 Va.c., 50-60 Hz
- Timing: from 10 s to 30 min.
- Light sensivility: adjustable from 10 to 1.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 44 according to EN 60529

Max. Recomm. Load

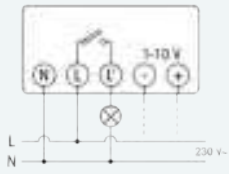
	2200 W
	1200 VA
	2000 VA
	2200 W
	900 VA
LED	500 VA

Reference	Model	Aplications
OB134910	CIRCUMAT PRO 1-10 V_230 Va.c., 50-60 Hz	Meeting rooms, Offices, Hallways, Classrooms, Corridors.

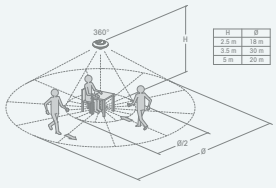
Dimensions



Connections



Detection area



ORBIS
energía inteligente

SURFACE MOUNTING ON CEILING

CIRCUMAT PRO DALI

P.I.R.
DALI

Description

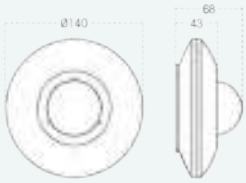
- Presence detector equipped with **DALI** (Digital Addressable Lighting Interface) two-way communication.
- **DALI** is a communication standard, in accordance with IEC 62386, for control of dimmable electronic equipment associated with lamps. Through a single two-wire line it enables the independent 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.
- Stepless dimming timing and light sensitivity
- Detection field limiter included,

Technical Features

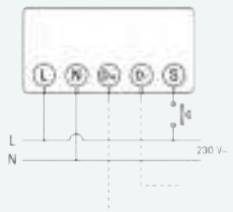
- Power supply: 230 Va.c., 50 Hz
- Timing: from 10 s to 30 min.
- Light sensivility: adjustable from 10 to 1.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 44 according to EN 60529

Reference	Model	Aplications
OB134930	CIRCUMAT PRO DALI_230 Va.c., 50 Hz	Offices, Shopping centres, Garages, Halls.

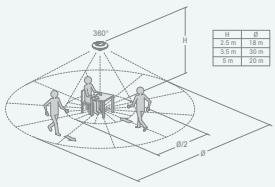
Dimensions



Connections



Detection area



MOVICAM CR

P.I.R.

Description

- Motion detector with security camera appeareance. It is perfect for porches, halls and corridors.
- Optionally it can be programmed using the remote control CR CONTROL.
- 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.
- Stepless dimming timing.
- 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 **CR CONTROL** (OB134712).

Technical Features

- Power supply: 230 Va.c., 50-60 Hz
- Swicht capacity: 5 to 230 Va.c.
- Timing: from 1 s to 30 min.
- Light sensivility: adjustable from 2 to 1.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 20 according to EN 60529

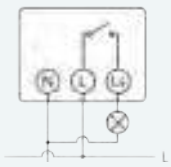
Max. Recomm. Load

	1000 W
	250 VA
	500 VA
	1000 W
	200 VA
LED	200 VA

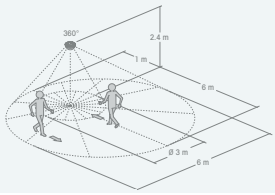
Reference	Model	Aplications
OB135912	MOVICAM CR_230 Va.c., 50-60 Hz	Meeting rooms, Car parks, Corridors, Landings, Lift access, Receptions

Dimensions

Connections



Detection area



DICROMAT MICRO

P.I.R.

Description

- Built-in sunroof 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 networking equipment that is installed on the ceiling and the small built-in 16m detector
- Status LED that activates when the system detects motion
- Adjustable parameters : timing, and light sensitivity.

Technical Features

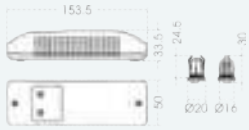
- Power supply: 230 Va.c., 50 Hz
- Swicht capacity: 10 to 230 Va.c.
- Timing: from 6 s to 12 min.
- Light sensivility: adjustable from 5 to 3.000 lux
- Operating Temp.: 0 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

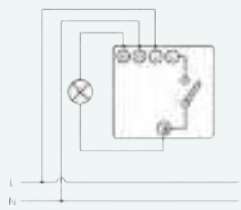
	2000 W
	100 VA
	1000 VA
	2000 W
	100 VA
LED	50 VA

Reference	Model	Aplications
OB133612	DICROMAT MICRO_230 Va.c., 50 Hz	Lifts, Halls, Sanitary cabins.

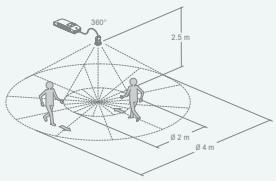
Dimensions



Connections



Detection area



DICROMAT MINI / DICROMAT 2 MINI

P.I.R.

Description

- Built-in sunroof 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 2 MINI** reacts regardless of light setting.
- It is composed of two elements: the networking equipment that is installed on the ceiling and the built-in detector
- Adjustable parameters: timing, and light sensitivity.

Technical Features

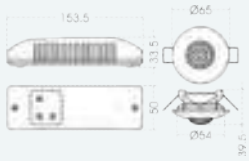
- Power supply: 230 Va.c., 50 Hz
- Swicht capacity: Circuit 1: 10 to 230 Va.c.
  Circuit 2: 5 to 230 Va.c.
- Timing: Circuit 1 from 6 s to 12 min.
  Circuit 2 from 10 s to 30 min.
- Light sensivility: adjustable from 5 to 3.000 lux
- Circuit 2 of DICROMAT 2 MINI always reacts regardless of light setting
- Operating Temp.: 0 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

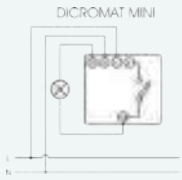
	2000 W
	100 VA
	1000 VA
	2000 W
	100 VA
LED	50 VA

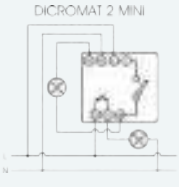
Reference	Model	Contacts	Aplications
OB133512	DICROMAT MINI_230 Va.c., 50 Hz	1	Lifts, Halls, Sanitary cabins.
OB133912	DICROMAT MINI 2_230 Va.c., 50 Hz	2	

Dimensions

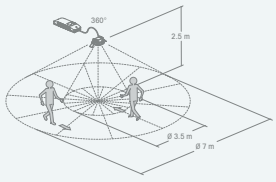


Connections





Detection area



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FLASH MOUNTING ON CEILING

DICROMAT

P.I.R.

Description

- Built-in sunroof installation using a 65 mm drill
- Discreet design and basic functionality to most installations.
- Adjustable parameters: timing, and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.

Technical Features

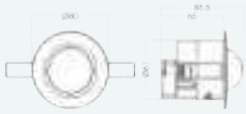
- Power supply: 230 Va.c., 50-60 Hz / 120 Va.c., 60 Hz
- Swicht capacity: 6 to 230 Va.c.
- Timing: from 35 s to 20 min.
- Light sensivility: adjustable from 5 to 1.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

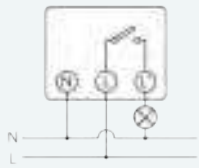
	1200 W
	400 VA
	800 VA
	1200 W
	400 VA
LED	40 VA

Reference	Model	Aplications
OB136012	DICROMAT_230 Va.c., 50-60 Hz	Bathroom facilities, Landings, Halls.

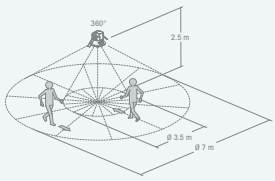
Dimensions



Connections



Detection area



DICROMAT +CR / DICROMAT 2 +CR

P.I.R.

Description

- It is the ideal model for installations with long corridors given that it allows installation additional sensors **DICROMAT SENSOR +**.
- 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. The operation of this input is independent of lighting conditions.
- Optionally it can be programmed using the remote control **CR CONTROL**.
- Status LED that activates when the system detects motion
- Stepless dimming timing. Adjustable parameters : detection area, timing, and light sensitivity.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Once installed it is not necessary to dismantle the unit for the adjustment of the parameters.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- Accessory: additional sensor **DICROMAT SENSOR +** (OB133412), remote control **CR CONTROL** (OB134712).
- **DICROMAT +CR** allows up to 4 **DICROMAT SENSOR +**.
- **DICROMAT 2 +CR** allows up to **DICROMAT SENSOR +**.

Technical Features

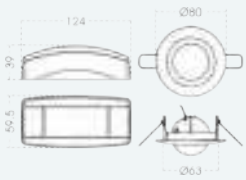
- Power supply: 230 Va.c., 50 Hz, 120 Va.c., 60 Hz
- Swicht capacity: 10 to 230 Va.c.
- Timing: Circuit 1 from 10 s to 10 min. / Circuit 2: from 10 s to 15 min.
- Light sensivility: adjustable from 2 to 2000 lux
- Circuit 2 of DICROMAT 2+ CR always reacts regardless of light setting.
- Operating Temp.: -10 ºC to +45 ºC

Max. Recomm. Load

	2200 W
	1200 VA
	2000 VA
	2200 W
	900 VA
LED	500 VA

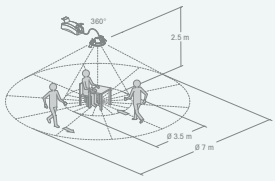
Reference	Model	Contacts	Aplications
OB134512	DICROMAT + CR_230 Va.c., 50 Hz	1	Halls, Landings, Corridors,
OB134612	DICROMAT 2+ CR_230 Va.c., 50 Hz	2	Offices, Restrooms.

Dimensions



Connections

Detection area



FLASH MOUNTING ON CEILING

DICROMAT SENSOR +

P.I.R.

Description

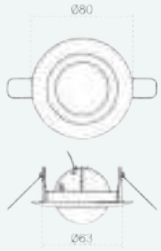
- Additional detector compatible with **DICROMAT +CR** and **DICROMAT 2 +CR**.
- It is the ideal model for installations with long corridors given that it can be connected to master unit **DICROMAT +CR/2 +CR**.
- It streamlines, simplifies and economizes the installation given that it is not necessary 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 7m extender cable.

Technical Features

- Operating Temp.: -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Maximum detection area:
  - Angle: 360º
  - Height: 2,5 m
- Diameter: 7 m to 20 ºC

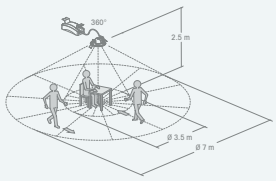
Reference	Model
OB133412	DICROMAT SENSOR +

Dimensions



Connections

Detection area



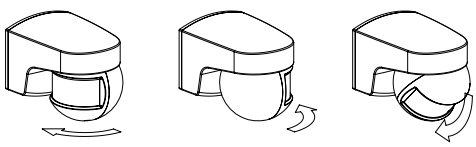
WALL MOUNTING

ISIMAT

P.I.R.

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 Features

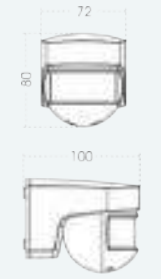
- Power supply: 230 Va.c., 50 Hz
- The ISIMAT model is available for 120 Va.c. 60 Hz
- Swicht capacity: 5 to 230 Va.c.
- Timing: from 3 s to 30 min.
- Light sensivility: adjustable 5-2.000 lux
- Operating Temp.: -20 ºC to +40 ºC
- Protection degree: IP 55 according to EN 60529
- Detection area: 140º

Max. Recomm. Load

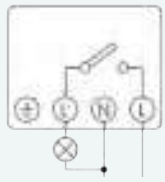
	1000 W
	600 VA
	600 VA
	1000 W
	600 VA
LED	60 VA

Reference	Model	Aplications
OB134312	ISIMAT_140º, 230 Va.c., 50 Hz	Halls, Box rooms, Landings.

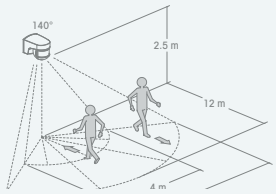
Dimensions



Connections



Detection area



WALL MOUNTING

ISIMAT +

P.I.R.

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.
- Available upon request **ISIMAT +** in black colour
- Detector head rotation to direct towards detection area.

Technical Features

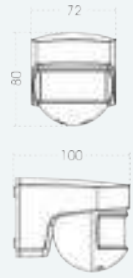
- Power supply: 230 Va.c., 50 Hz
- Swicht capacity: 5 to 230 Va.c.
- Timing: from 3 s to 30 min.
- Light sensivility: adjustable 5-2.000 lux
- Operating Temp.: -20 ºC to +40 ºC
- Protection degree: IP 55 according to EN 60529
- Detection area: 200º

Max. Recomm. Load

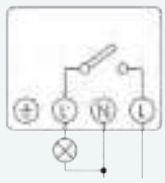
	1000 W
	600 VA
	600 VA
	1000 W
	600 VA
LED	60 VA

Reference	Model	Aplications
OB134112	ISIMAT +_200º, 230 Va.c., 50 Hz	Halls, Box rooms, Landings.

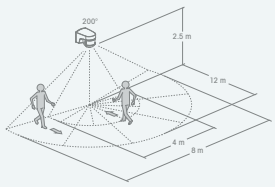
Dimensions



Connections



Detection area



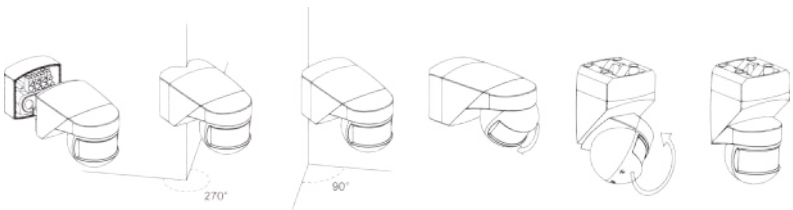
WALL / CEILING MOUNTING

MULTIMAT

P.I.R.

Description

- Wall or ceiling surface-mounting motion detector, it can also be installed in inner or outer corners.
- 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.
- LED indicator light that turns on when the unit detects motion.



Technical Features

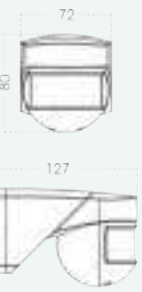
- Power supply: 230 Va.c., 50 Hz / 120 Va.c., 60 Hz
- Swicht capacity: 10 to 230 Va.c.
- Timing: from 3 s to 30 min.
- Light sensivility: adjustable 5-2.000 lux
- Operating Temp.: -20 ºC to +40 ºC
- Protection degree: IP 55 according to EN 60529

Max. Recomm. Load

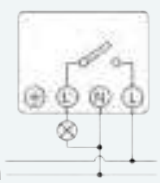
	2000 W
	600 VA
	600 VA
	2000 W
	600 VA
LED	60 VA

Reference	Model	Aplications
OB134212	MULTIMAT_230 Va.c., 50 Hz	Halls, Landings.

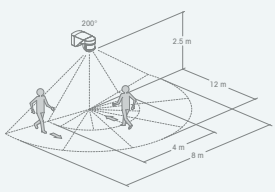
Dimensions



Connections



Detection area

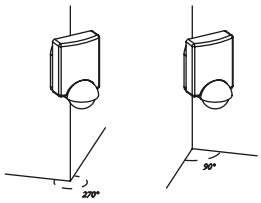


PROXIMAT

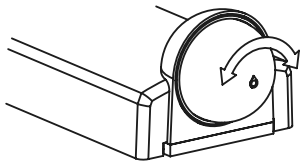
P.I.R.

Description

- Flat wall, inner or outer corner surface-mounting motion detector
- Broad detection capacity, 240º detection angle with 180º 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 55 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 Features

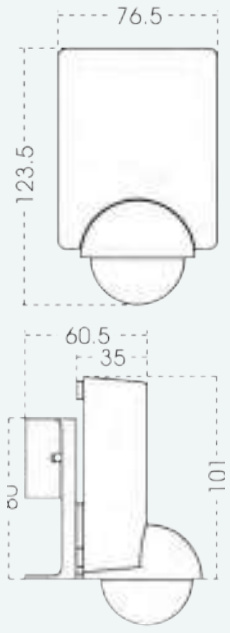
- Power supply: 230 Va.c., 50 Hz
- Swicht capacity: 10 to 230 Va.c.
- Timing: from 10 s to 10 min.
- Light sensivility: adjustable 5-2.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 45 according to EN 60529
- Maximum detection area: Angle: 240º. Height: 2,5 m
- Frontal distance: 12 m to 20 ºC. Lateral distance: 15 m to 20 ºC

Max. Recomm. Load

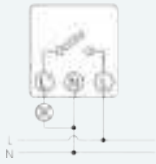
	2.000 W
	1.300 VA
	1.300 VA
	2.000 W
	1.300 VA
LED	500 VA

Reference	Model	Aplications
OB132312	PROXIMAT_230 Va.c., 50 Hz	Halls, Landings, Landing with stairs, Corridors, Box room corridors.

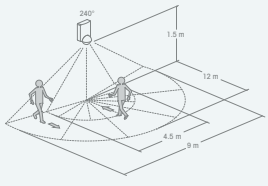
Dimensions



Connections



Detection area



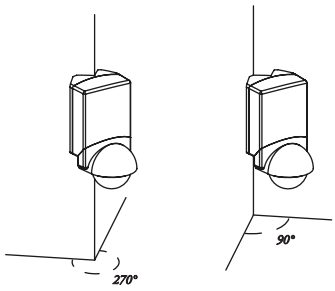
WALL / CEILING MOUNTING

PROXIMAT PRO CR

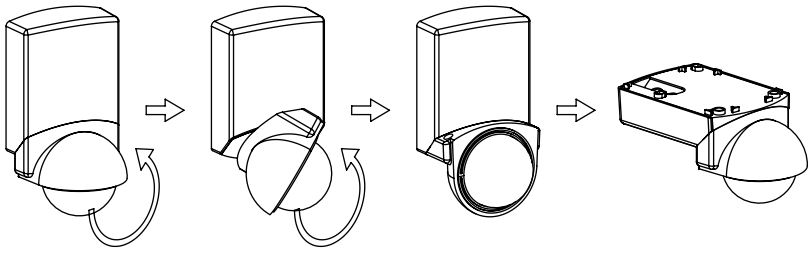
P.I.R.

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: 7m high, 10 m in diameter; 3,5m high 30m in diameter
- Equipped with a temperature compensator.
- Optionally it can be programmed using the remote control CR CONTROL 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.
- Stepless dimming timing.
- 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 **CR CONTROL** (OB134712).
- Flat wall, inner or outer corner, or ceiling installation.



- Detector head rotation to direct towards detection area.



Technical Features

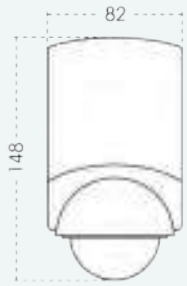
- Power supply: 230 Va.c., 50 Hz
- Swicht capacity: 10 to 230 Va.c.
- Timing: from 10 s to 10 min.
- Light sensivility: adjustable 10-1.000 lux
- Operating Temp.: -10 ºC to +45 ºC
- Protection degree: IP 55 according to EN 60529
- Maximum detection area: Angle: 360º. Height: 3,5 m
- Frontal distance: 13 m to 20 ºC
- Lateral distance: 13 m to 20 ºC

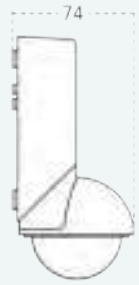
Max. Recomm. Load

	2000 W
	1300 VA
	1300 VA
	2000 W
	1300 VA
LED	500 VA

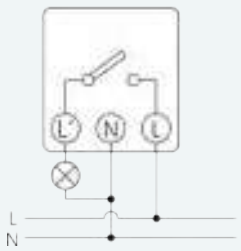
Reference	Model	Aplications
OB134812	PROXIMAT PRO CR_230 Va.c., 50 Hz	Car parks, Changing rooms, Meeting rooms, Industrial premises.

Dimensions

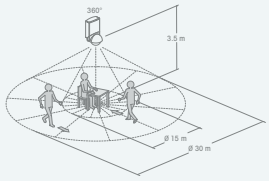




Connections



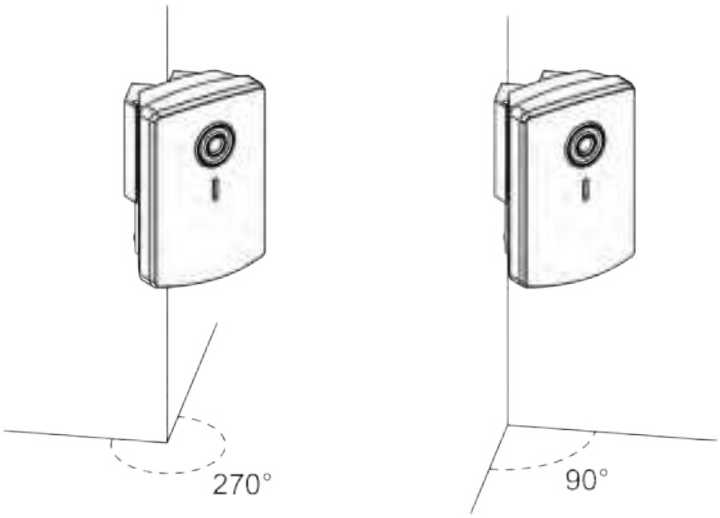
Detection area



ECOMAT

Description

- Ultrasound detection, high performance detects even slight movements and can be inconspicuously installed
- Can detect through non-metallic surfaces and can be inconspicuously installed in either plaster or cork sunroofs. It can also detect through plastic, wood, or brick
- This feature allows the device to detect while remaining out of sight, 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 kitchens or showers.
- **ECOMAT** detects emitted wave bounce off, so detection improves in closed areas such as corridors, entrance halls, bathroom facilities and offices. It decreases in open or large spaces such as garages, porches, etc.
- In case of surface installation, it can be over flat wall, ceiling or also over inner or outer corners by means of the accessory included.
- Zero-crossing relay for a better switching of LED-type loads, fluorescence or low energy lighting.
- Adjustable parameters : detection area, timing, and light sensitivity.
- Flat wall, inner or outer corner, or ceiling installation.



Technical Features

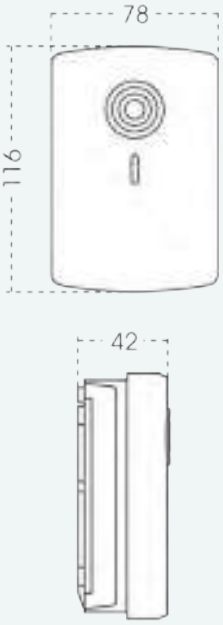
- Power supply: 230 Va.c., 50 Hz
- Swicht capacity: 6 to 230 Va.c.
- Timing: from 3 s to 30 min.
- Light sensivility: adjustable 5-2.000 lux
- Operating Temp.: 0 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

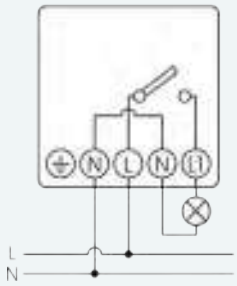
	1300 W
	1300 VA
	1300 VA
	1300 W
	1300 VA
LED	500 VA

Reference	Model	Aplications
OB133312	ECOMAT_230 Va.c., 50 Hz	Halls, Box room corridors, Meeting rooms.

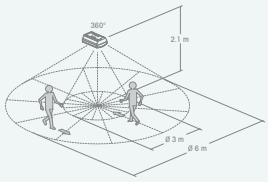
Dimensions

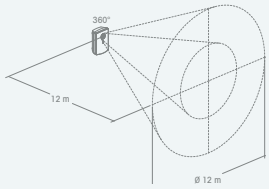


Connections



Detection areas





ORBIS
energía inteligente

INSTALLATION BOX

ORBIMAT

P.I.R.

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.
- Stepless dimming timing.
- Pulse function: 1 s. ON / 4 s. OFF.
- Accessory: 65 x 65mm surface box (OB280450).

Technical Features

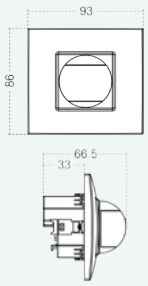
- Power supply: 230 Va.c., 50-60 Hz
- Swicht capacity: 6 to 230 Va.c.
- Timing: from 1 s to 20 min.
- Light sensivility: adjustable 5-2.000 lux
- Operating Temp.: 0 ºC to +40 ºC
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

	1300 W
	1300 VA
	1300 VA
	1300 W
	1300 VA
LED	500 VA

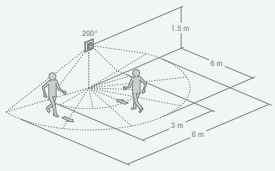
Reference	Model	Aplications
OB132612	ORBIMAT_230 Va.c., 50-60 Hz	Halls, Home corridors, Sanitary cabinets.

Dimensions



Connections

Detection area



MINIMAT

P.I.R.

Description

- Motion detector mounted in Italian style installation box with 3 modules (503) or 4 x 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, Matix).
IVIMAR* (Plana, Eikon, Arké).
GEWISS* (Chorus).
AVE* (Sistema 44).
*Brands independent of ORBIS.

Technical Features

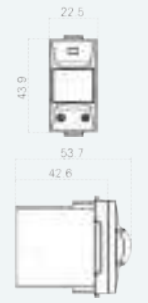
- Power supply: 230 Va.c., 50 Hz
- Swicht capacity: 4 to 230 Va.c.
- Timing: from 10 s to 3 min.
- Light sensivility: adjustable 10-2.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

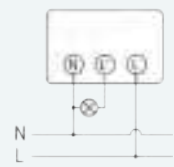
	800 W
	200 VA
	500 VA
	800 W
	200 VA
LED	200 VA

Reference	Model	Aplications
OB135312	MINIMAT_230 Va.c., 50 Hz	Halls, Home corridors, Sanitary cabinets.

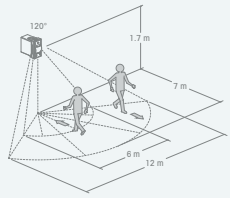
Dimensions



Connections



Detection area



HIDDEN MOUNTING

ECOMAT MINI

Description

- Ultrasound detection, high performance detects even slight movements and can be installed hidden.
- 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 Features

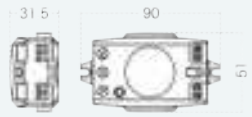
- Power supply: 230 Va.c., 50-60 Hz
- Swicht capacity: 6 to 230 Va.c.
- Timing: from 5 s to 30 min.
- Light sensivility: adjustable 5-2.000 lux
- Operating Temp.: 0 ºC to +70 ºC
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

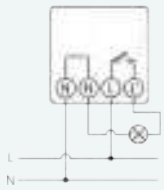
	1000 W
	160 VA
	200 VA
	500 W
	150 VA
LED	200 VA

Reference	Model	Aplications
OB135012	ECOMAT MINI_230 Va.c., 50-60 Hz	Halls, Home corridors, Box room corridors, Offices, Meeting rooms.

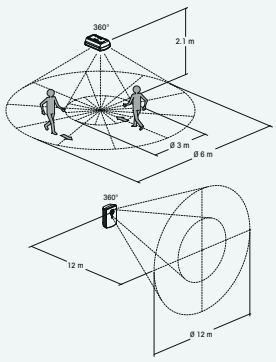
Dimensions



Connections



Detection areas



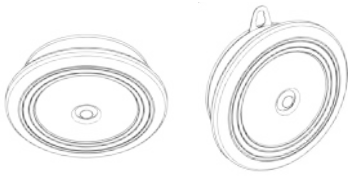
LED LIGHTS WITH DETECTOR

SPOTMAT LED

P.I.R.

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



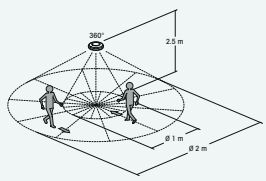
Technical Features

- Power supply: 3 x 1,5 V AAA
- Timing: fix from 15 s.
- IP 20 EN 60529
- Light sensivility: 90 lux
- Operating temp.: -10 ºC to 40 ºC
- Area: Ø 2 m

Reference	Model	Aplications
OB135512	SPOTMAT LED	Inside wardrobes, Courtesy light in house corridors, Kitchen worktops, Nursery night lighting.

Dimensions

Detection area



LED LIGHTS WITH DETECTOR

PLADILED 96

P.I.R.

Description

- Integrated LED lights with motion detector solution for internal and external use.
- Direct replacement of the existing overhead console. It has a plug-in base for more comfort and quick installation.
- Recommended for indoor or covered outdoor areas such as terraces or porche entrances
- Includes a potential contact to control an external load up to 800 W, as it is in the case of a number of luminaires in several floors or corridors, or to trigger an acoustic signal or otherwise
- Stepless dimming timing.
- Adjustable parameters : detection area, timing, and light sensitivity.
- No. of LEDs: 96.
- Luminous flux : 665 lm real value with diffuser
- Colour: white
- Colour temperature: 5700-6300 K

Technical Features

- Power supply: 230 Va.c., 50 Hz
- On-mode power consumption: 10 W
- Swicht capacity: 5 to 230 Va.c.
- Timing: from 3 s to 15 min.
- Light sensivility: adjustable from 5 to 1.000 lux
- Operating Temp.: -10 °C to +40 °C
- Protection degree: IP 44 according to EN 60529

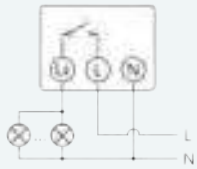
Max. Recomm. Load

	800 W
	240 VA
	240 VA
	800 W
	240 VA

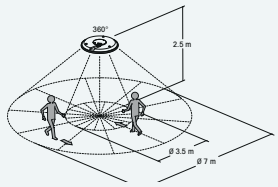
Reference	Model	Aplications
OB135612	PLADILED 96_230 Va.c., 50 Hz	Halls, Landings, Corridors, Restrooms, Fitting rooms.

Dimensions

Connections



Detection area



PLADI E27

Description

- Movement detector plus E27 bulb.
- Ultrasound detection, high performance detects even slight movements and can be inconspicuously installed
- Direct substitution of the already existed lamp.
- Adjustable parameters : detection area, timing, and light sensitivity.

Technical Features

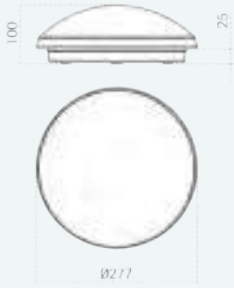
- Power supply: 230 Va.c., 50 Hz
- Timing: from 8 s to 12 min.
- Light sensivility: adjustable from 2 to 2.000 lux
- Operating Temp.: -10 °C to +50 °C
- Protection degree: IP 20 according to EN 60529

Max. Recomm. Load

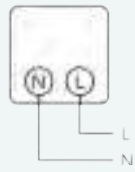
	60 W
	60 VA
	23 W
LED	15 VA

Reference	Model	Aplications
OB136527	PLADI-E27	Halls, Landings, Corridors, Restrooms, Fitting rooms.

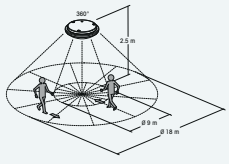
Dimensions



Connections



Detection area



DECOLED 72

P.I.R.

Description

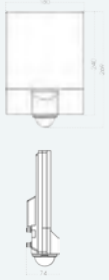
- Integrated LED lights with motion detector solution for internal and external use.
- Wall surface installation.
- Recommended for indoor or covered outdoor areas such as terraces or porch entrances
- Three modes of operation: motion detector only, back-illuminated detector only, or back-illuminated with timed off after 2,4,6, or 8 hours.
- Equipped with a temperature compensator.
- Stepless dimming timing.
- Adjustable parameters : detection area, timing, and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- Luminous flux: 477 lm real value with diffuser.
- Colour: white. Colour temperature: 5700-6300 K

Technical Features

- Power supply: 230 Va.c., 50 Hz
- On-mode power consumption: 8,5 W
- Timing: from 3 s to 15 min.
- Light sensivility: adjustable from 5 to 1.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 44 according to EN 60529

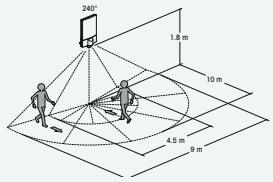
Reference	Model	Aplications
OB135712	DECOLED 72_230 Va.c., 50 Hz	Halls, Landings, Landings with staircase, Corridors, Box room corridors.

Dimensions



Connections

Detection area



PROXILED 8 / PROXILED 15

P.I.R.

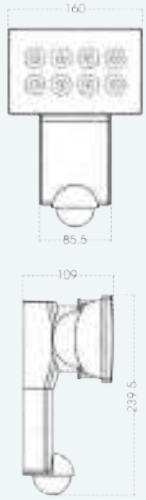
Description

- High-efficiency LED projector with an integrated motion sensor to illuminate outdoor
- Surface-mounting on the wall with IP 55 protection from dust ingress and water jets in accordance with EN 60529
- Recommended for large external surfaces such as entrance doors, garages entrances or outdoor safety lighting.
- Projector made of die-cast aluminium for added robustness and to dissipate the heat generated by the LEDs.
- Equipped with a temperature compensator
- Stepless dimming timing.
- Adjustable parameters : detection area, timing, and light sensitivity.
- Detection field limiter included, which allows detection cancelation in specific points within the detection area.
- **PROXILED 8** luminous flux: 1,234 lm real value with diffuser.
- **PROXILED 15** luminous flux: 2,128 lm real value with diffuser.
- Colour: white
- Colour temperature: 5000-6300 K
- Projector and detector rotation.

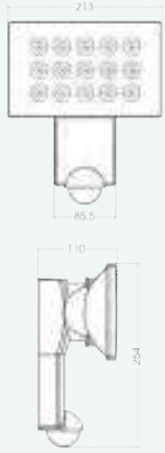
Technical Features

- Power supply: 230 Va.c., 50 Hz
- PROXILED 8 on-mode power consumption : 20 W
- PROXILED 15 on-mode power consumption : 34 W
- Timing: from 3 s to 15 min.
- Light sensivility: adjustable from 5 to 1.000 lux
- Operating Temp.: -10 ºC to +40 ºC
- Protection degree: IP 55 according to EN 60529

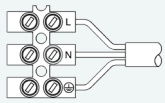
Dimensions Proxiled 8



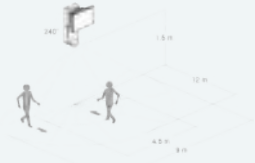
Dimensions Proxiled 15



Connections



Detection area



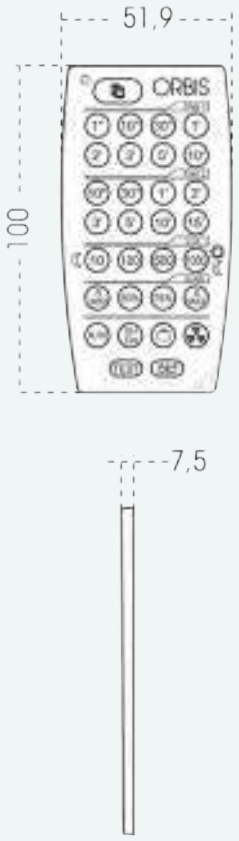
Reference	Model	Luminous flux
OB135450	PROXILED 8_230 Va.c., 50 Hz, 20 W	1.234 lm real
OB135475	PROXILED 15_230 Va.c., 50 Hz, 34 W	2.128 lm real

MANDO CR

Description

- Remote control for parameter adjustment in 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.

Dimensions



Technical Features

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

Reference	Model
OB134712	MANDO CR

CLIMATE, HOME AUTOMATION AND INSTALLATION

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Chronothermostats - Touchscreen

Pag. 58
Chronothermostats - Digital

Pag. 64
Chronothermostats - Analogue

Pag. 65
Thermostats - Touchscreen

Pag. 66
Thermostats - Digital

Pag. 67
Thermostats - Analogue

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Accessories

Pag. 70
Telephone controllers

Pag. 74
Gas leak detectors

Pag. 75
Door bells

Pag. 75
Emergency lights

USES Y APPLICATIONS

During the winter months, heating costs rise 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 switch 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.

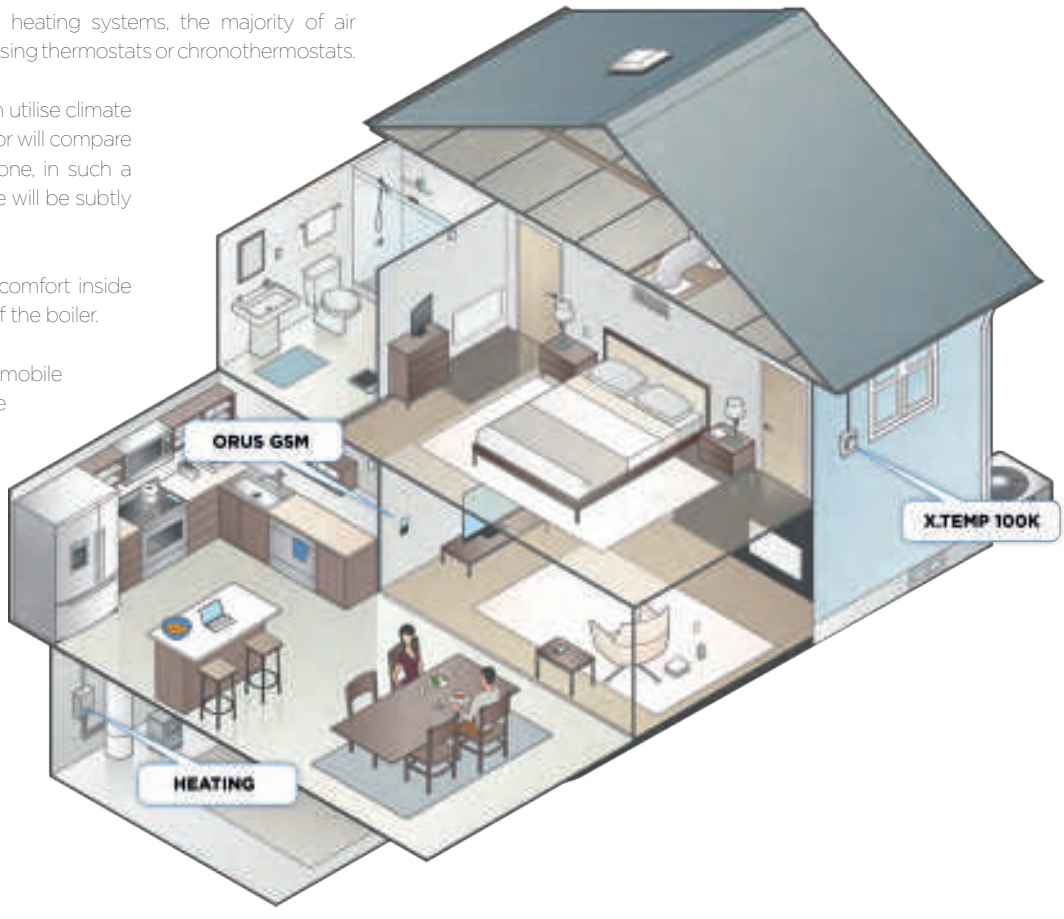
The recommended temperature during the day is between 19 ºC and 21 ºC, during the night or during short absences from the home, the system should not be switched off to avoid a large temperature drop, rather, it should be set between 15 ºC and 17 ºC.

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.

Models which are programmable from a mobile phone are simpler to navigate than those which are programmed using the thermostat itself, for example **ORUS GSM**, which, also has GSM communication to allow the heating to be controlled remotely in second homes or isolated systems.

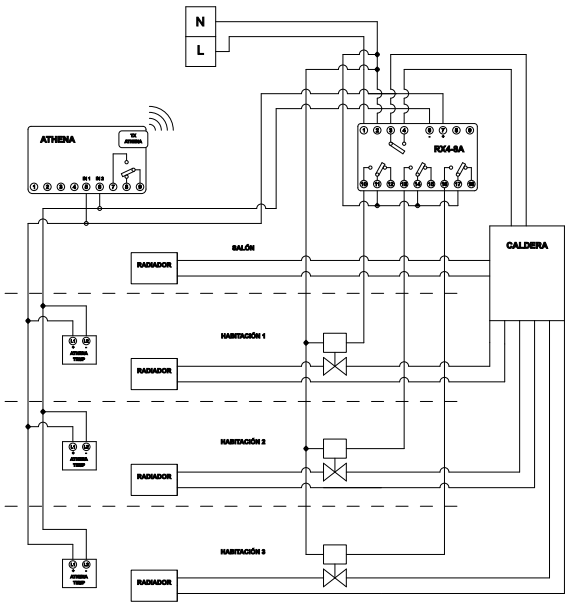


CLIMA AND HOME AUTOMATION

TEMPERATURE CONTROL IN RURAL PROPERTY

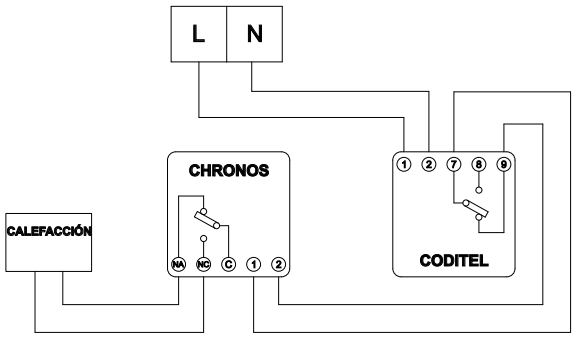
In systems with several heating circuits, we can control the temperature of each installation independently, in the case of rural housing, homes with different elevations or offices. In these systems we use **ATHENA** as the main chronothermostat in the lounge room and **ATHENA TEMP** to regulate the temperature in up to 3 bedrooms.

Additional ATHENA TEMP sensors installed in each room allow the inhabitant to vary the fixed temperature of the **ATHENA** in the main room by ±3 ºC.



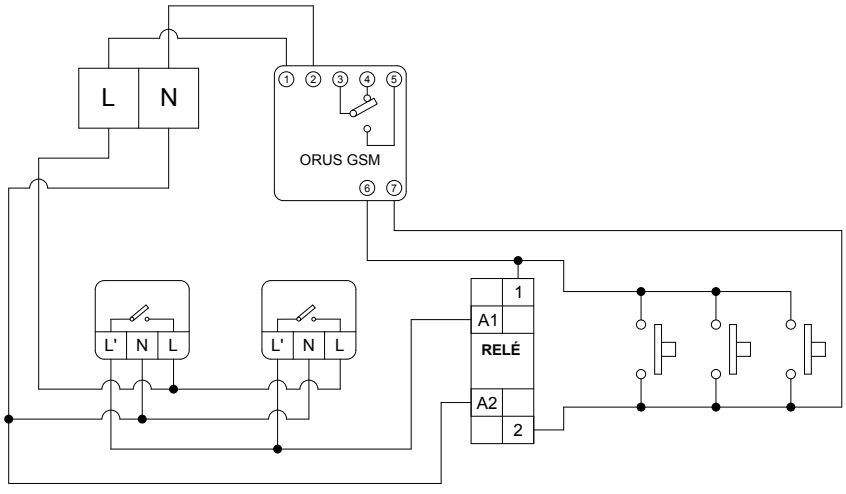
CHRONOTHERMOSTAT WITH TELEPHONE CONTROL IN A SECOND HOME

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 mobile phone. 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.



CHRONOS

Description

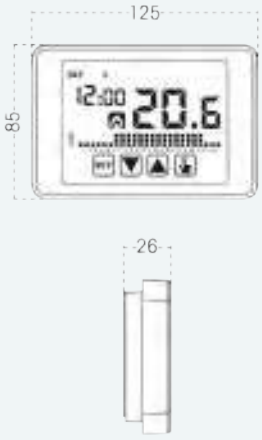
- Large blue touch screen.
- Back-lit for better and clearer display even in darkness.
- 7 Easy to configure programs
- 3 temperature settings plus anti-icing to avoid frozen pipes.
- Timed switch-on or switch-off function.
- Registers hours of use to determine maintenance tasks such as filter or injector cleaning, level checks and others.
- Configurable automatic winter/summer change.
- Password blocked keypad to avoid unauthorised changes.
- Can function as a thermostat temporarily cancelling the program.
- Battery level indicator and 1 minute replacement time without memory loss.
- Input for optional control using telephone controller.
- Accessories: **CODITEL** (OB322800) or **CODITEL 2** (OB322820) telephone controllers.

Technical Features

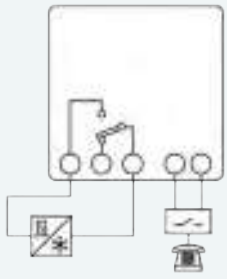
- Power supply: 2 alkaline batteries LR6/AAA - 1,5 V
- Switching capacity 5 A 250 Va.c.
- Minimum programmable time: 1 hour
- Temperature updating: every 60 seconds
- Temp. regulation: from +2 ºC to +35 º
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Surface mounted or on installation box using a plug-in base

Reference	Model
OB325600	CHRONOS

Dimensions



Connections



MIRUS TOUCH

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.

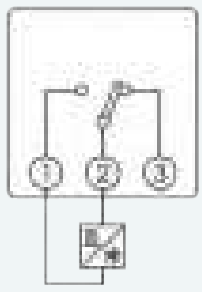
Technical Features

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

Reference	Model
OB325300	MIRUS TOUCH WHITE
OB325310	MIRUS TOUCH ANTRACITE

Dimensions

Connections



DIGITAL CHRONOTHERMOSTATS

BIKO APP

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 alumin.ium.
- 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.)

- Free app available at Google Play and App Store.
- Compatible with: Android 4.4 or above, iOS for iphone 4S or above and iPad 3 or above.

Technical Features

- Power supply: 2 alkaline batteries LR03/AAA de 1,5 V
- Switching capacity 5 A 250 Va.c.
- Bluetooth 4.0
- Temp. regulation: from +5 ºC to +35 ºC
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Mounted in Italian style installation box with 3 modules (503) or 4 x 2 inches

With the app it is possible to...

Create and edit several biko app

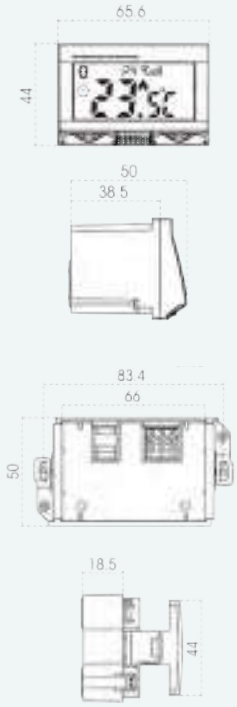
Configuration: holidays, anti-ice, etc.

Program timetable and temperature for each scenario

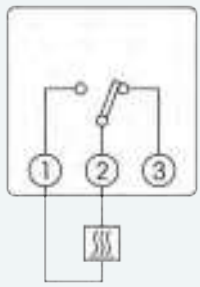
Choose scenario

Reference	Model
OB325800	BIKO APP WHITE
OB325810	BIKO APP ANTRACITE
OB325820	BIKO APP ALUMINIUM

Dimensions



Connections



ORUS GSM

230V

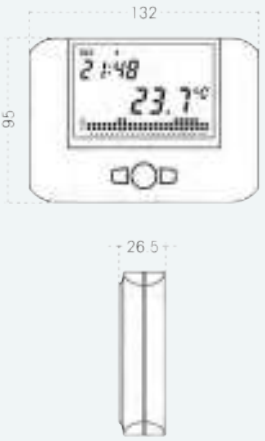
Description

- Chronothermostat with Bluetooth communication and programming through the smartphone app.
- GSM functions carried out through a phone call or SMS (Spanish and Italian)
- Large LCD screen for a clearer display.
- 7 programs with 3 temperatures plus anti-icing to avoid frozen pipes.
- Has an auxiliary input for connection of **X TEMP 100K** external temperature sensor.
- Instead of the temperature sensor it is possible to connect a potential-free contact and receive
- SMS alerts about presence detection, water level, open doors, etc.
- Internal and external temperature display with **X TEMP 100K**.
- Maximum and minimum daily temperature recording.
- Configurable automatic daylight savings time change.
- Keypad password block to avoid unauthorised changes.
- Can function as a thermostat temporarily cancelling the program.
- Timed switch-on or switch-off function.
- SMS Alert for mains power outage.
- Records hours of use to determine maintenance tasks such as filter or injector cleaning, level checks and others.
- Accessories: External temperature sensor **X TEMP 100K** (OB329907).
- The app is available in all languages. Free app available at Google Play and App Store.

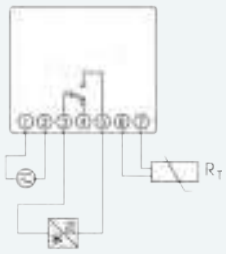
Technical Features

- Power supply: 230 Va.c., 50-60 Hz
- Switching capacity 8 A 250 Va.c.
- Minimum programmable time: 1 hour / Temperature updating: every 20 seconds
- Measurement scale: internal sensor from 0 ºC to +50 ºC / With external sensor from -40 ºC to +60
- Temp. regulation: from +2 ºC to +35 ºC / Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Surface mounted or on installation box using a plug-in base
- GSM Quadband Module (900 - 950 - 1800 - 1900 MHz)
- Check the application country for compatibility with the local GSM communication network

Dimensions



Connections



With this app it is possible to...

Add and edit ORUS GSM.

Check the internal and external temperature with X TEMP sensor.

Select the functioning mode and regulate temperature manually.

Receive and check temperature alerts (max and min.), power outages and auxiliary input status.

Configure the auxiliary input for alarms.

Add up to 5 numbers for receiving alerts.

Reference	Model
OB324800	ORUS GSM

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DIGITAL CHRONOTHERMOSTATS

ORUS RF

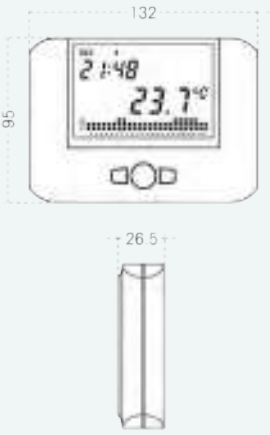
Description

- Based on the **ORUS** model, incorporates radiofrequency wireless communication with **RX1 8 A** receiver connected to the heating or air-conditioning system.
- RF communication is ideal for existing systems without temperature regulation, as it allows the connection of **ORUS RF** to the boiler or air-conditioner without the need for cables or construction work.
- Large LCD screen for a clearer display.
- 7 programs with 3 temperatures plus anti-icing to avoid frozen pipes.
- Maximum and minimum daily temperature recording.
- Configurable automatic daylight savings time change.
- Keypad password block to avoid unauthorised changes.
- Can function as a thermostat temporarily cancelling the program.
- Timed switch-on or switch-off function.
- Battery level indicator and 1 minute replacement time without memory loss.
- Records hours of use to determine maintenance tasks such as filter or injector cleaning, level checks and others.
- Accessories: Radiofrequency receiver with **RX1 8 A** output (OB329904)

Technical Features

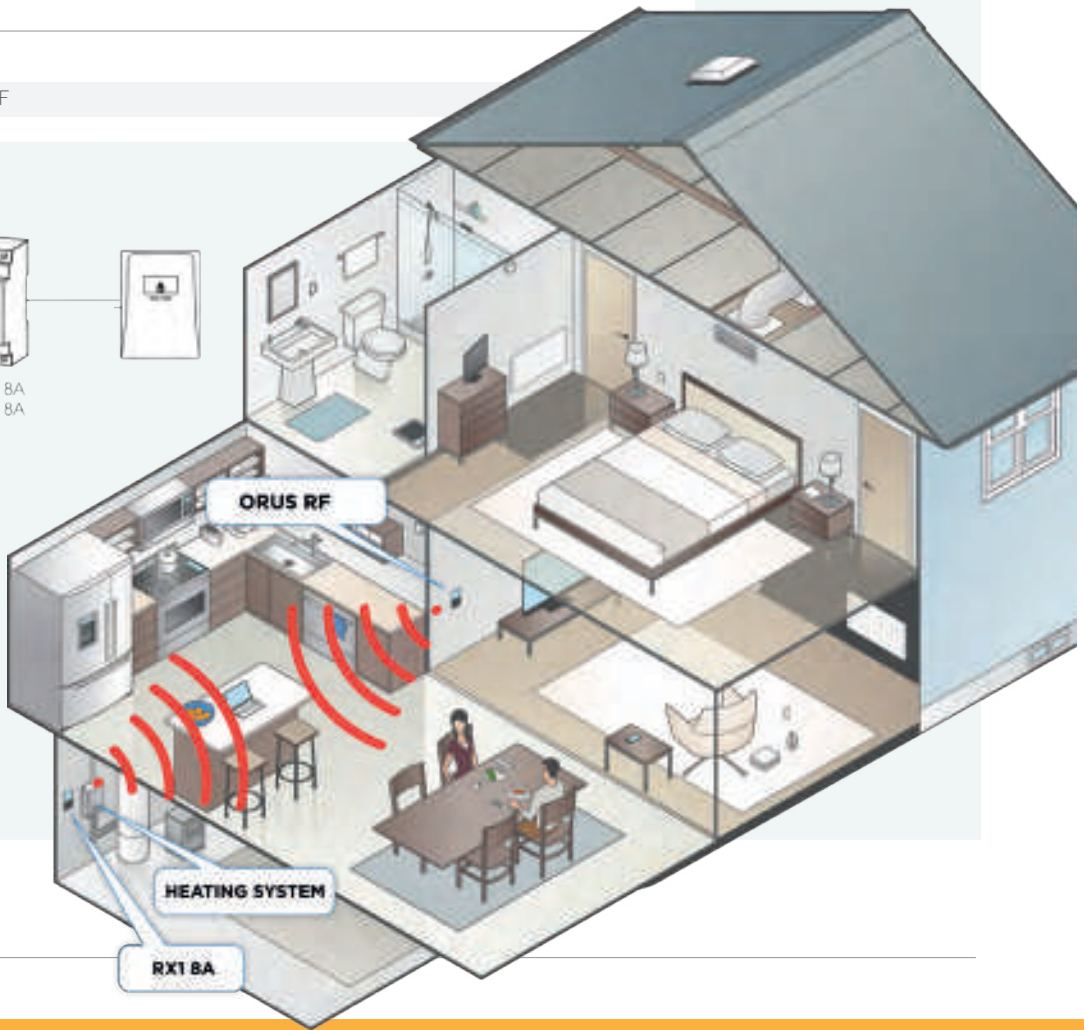
- Power supply: 1 alkaline battery 1,5 V AA (LR06)
- Switching capacity 8 A 250 Va.c.
- Minimum programmable time: 1 hour
- Temperature updating: every 20 seconds
- Measurement scale: from 0 °C to +50 °C
- Temp. regulation: from +2 °C to +35 °C
- Operating temp.: 0 °C to +50 °C
- Protection degree: IP 40 according to EN 60529
- Surface mounted or on installation box using a plug-in base

Dimensions



Reference	Model
OB324900	ORUS RF

Connections



ORUS

Description

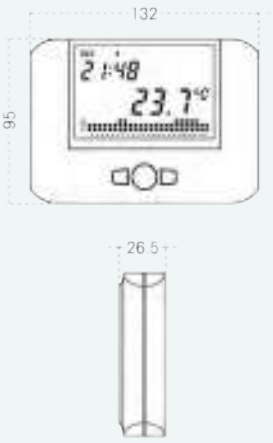
- Large LCD screen for a clearer display.
- 7 programs with 3 temperatures plus anti-icing to avoid frozen pipes.
- Allows control with external temperature sensor **X TEMP 100K**.
- Internal and external temperature display with **X TEMP 100K**.
- Maximum and minimum daily temperature recording.
- Configurable automatic daylight savings time change. Keypad password block.
- Thermostat function. Timed switch-on or switch-off function.
- Battery level indicator and 1 minute replacement time. Running hours meter.
- Two available colours, white and anthracite.
- Input for **GSM CODITEL** or **CODITEL 2** telephone controller which allows remote program activation or desactivation.
- Accessories: **CODITEL** (OB322800) or **CODITEL 2** (OB322820) telephone controllers, external temperature sensor **X TEMP 100K** (OB329907)

Technical Features

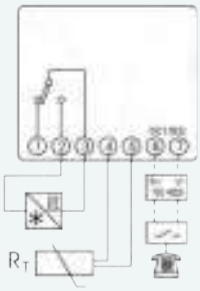
- Power supply: 1 alkaline battery 1,5 V AA (LR06)
- Switching capacity 8 A 250 Va.c.
- Minimum programmable time: 1 hour
- Temperature updating: every 20 seconds
- Measurement scale: internal sensor from 0 ºC to +50 ºC With external sensor from -40 ºC to +60 ºC
- Temp. regulation: from +2 ºC to +35 ºC
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Surface mounted or on installation box using a plug-in base

Reference	Model
OB324500	ORUS WHITE
OB324510	ORUS ANTRACITE

Dimensions



Connections



MIRUS

Description

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

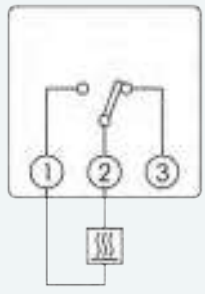
Technical Features

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

Reference	Model
OB324700	MIRUS WHITE
OB324710	MIRUS ANTRACITE

Dimensions

Connections



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DIGITAL CHRONOTHERMOSTATS

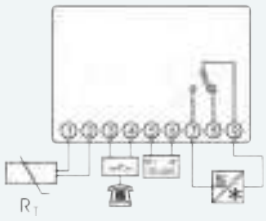
ATHENA

Description

- Allows independent temperature control of up to 4 rooms using **ATHENA TEMP** sensors.
- Large LCD screen for a clearer display.
- 7 programs with 3 temperatures plus anti-icing to avoid frozen pipes.
- Allows control with external temperature sensor **X TEMP 100K**.
- With **X TEMP 100K** it is possible to display the internal as well as the external temperature.
- Displays daily recorded maximum and minimum temperatures.
- Automatic daylight saving changes for Europe, or can be deactivated.
- Can function as a thermostat temporarily cancelling the program.
- Timed switch-on or switch-off function.
- Battery level indicator and 2 minute replacement time without memory loss.
- Records hours of use to determine maintenance tasks such as filter or injector cleaning, level checks and others.
- Two available colours, white and aluminium.
- Input for **GSM CODITEL** or **CODITEL 2** telephone controller which allows remote program activation or deactivation.
- Accessories: Additional sensors **ATHENA TEMP** (OB329903), RF emitter **TX ATHENA** (OB329902), RF receiver with 4 outputs **RX4 8 A** (OB329905), RF receiver with 1 output **RX1 8 A** (OB329904), **CODITEL** (OB322800) or **CODITEL 2** (OB322820) telephone controllers, external temperature sensor **X TEMP 100K** (OB329907).

Dimensions

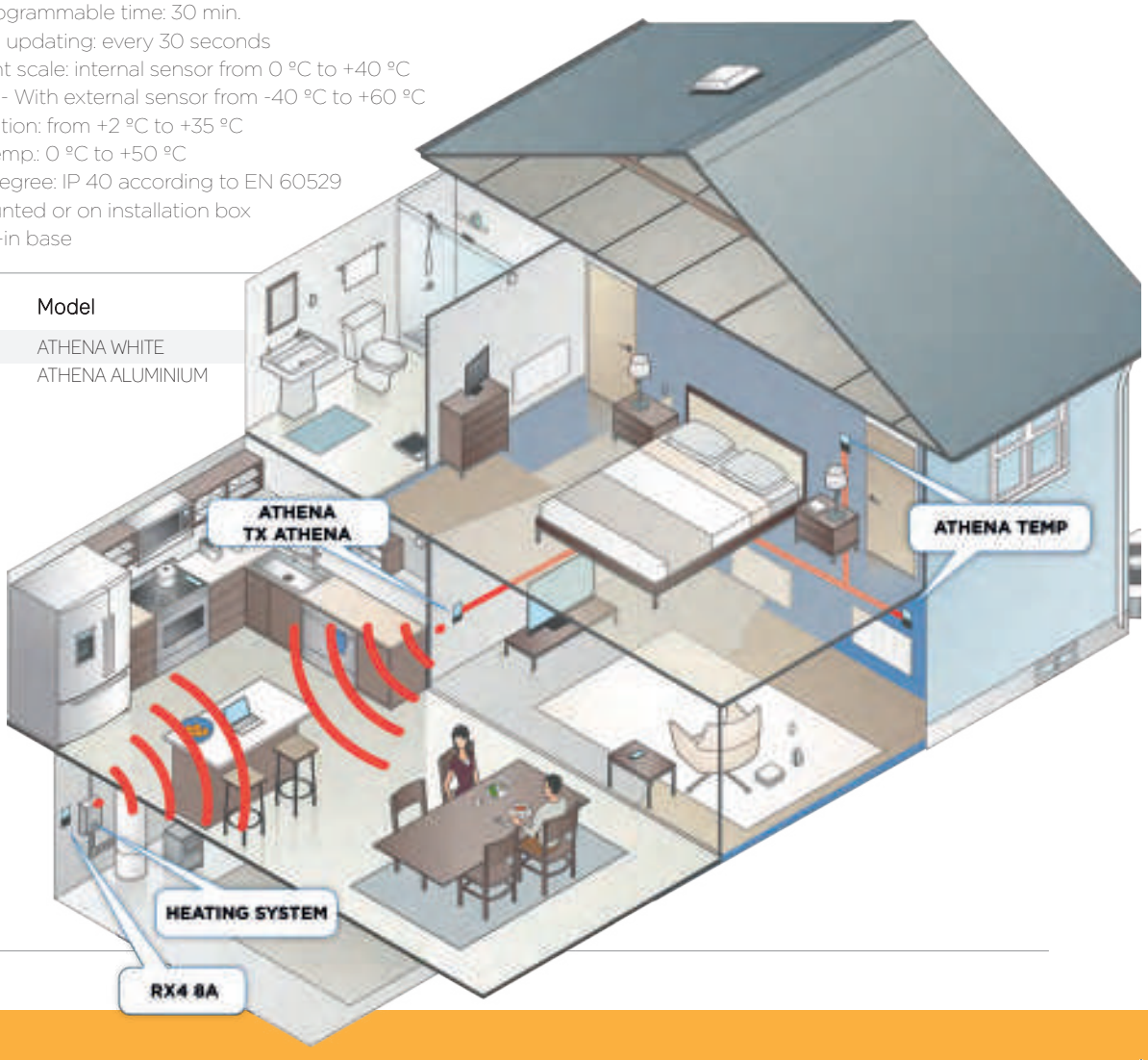
Connections



Technical Features

- Power supply: 2 alkaline batteries 1,5 V AAA
- Switching capacity 8 A 250 Va.c.
- Minimum programmable time: 30 min.
- Temperature updating: every 30 seconds
- Measurement scale: internal sensor from 0 ºC to +40 ºC
  - With external sensor from -40 ºC to +60 ºC
- Temp. regulation: from +2 ºC to +35 ºC
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Surface mounted or on installation box using a plug-in base

Reference	Model
OB324200	ATHENA WHITE
OB324220	ATHENA ALUMINIUM



KRON PLUS

Description

- Chronothermostat for mounting on Italian style installation box with 3 modules (503) or of 4 x 2 inches
- Easy to view LCD screen.
- 8 programs with 2 temperatures plus anti-icing to avoid frozen pipes.
- Can function as a thermostat temporarily cancelling the program.
- Automatic daylight saving changes for Europe.
- Keypad password block to avoid unauthorised changes.
- Battery level indicator.
- 10 minute memory for battery substitution.
- 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 y Eikon).
- LEGRAND* (Vela y Cross) / GEWISS* (Chorus Lux y Art) / MASTER*. (*Brands independent of ORBIS).

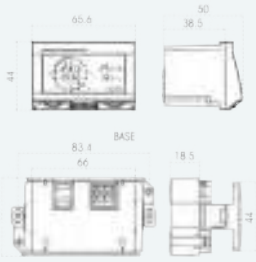
- Input for **GSM CODITEL** or **CODITEL 2** telephone controller which allows remote program activation or deactivation.
- Accessories: **CODITEL** (OB322800) or **CODITEL 2** (OB322820) telephone controllers.

Technical Features

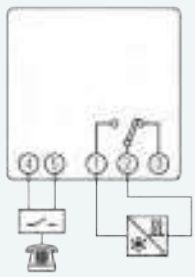
- Power supply: 2 alkaline batteries 1,5 V AAA (LR03)
- Switching capacity 5 A 250 Vac.
- Minimum programmable time: 1 hour. Temperature updating 60 s.
- Temp. regulation: from +5 ºC to +35 ºC / Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Mounted in Italian style installation box with 3 modules (503) or 4 x 2 inches

Reference	Model
OB322500N	KRON PLUS WHITE
OB322510N	KRON PLUS ANTRACITE
OB322520N	KRON PLUS ALUMINIUM

Dimensions



Connections



DIGITAL CHRONOTHERMOSTATS

DECO CRONO

230V

Description

- Chronothermostat for mounting in device box.
- Attractive design and easy programming via text menus.
- Blue backlit LCD screen of clear display.
- 8 programs with 2 temperatures plus anti-icing to avoid pipe freezing.
- It can function as a thermostat, temporarily cancelling the programming.
- Automatic daylight saving/standard time change for Europe, deactivated or programmable.
- Operating modes: permanent ON/OFF or holidays of up to 31 days.
- Internal sensor accuracy of ± 5 ºC.
- Programming in Spanish, English or Portuguese.
- In case of power cut, **DECO CRONO** memorises the programming.
- The model **DECO CRONO_Italian standard** (503) includes adapter frames compatible with the following mechanism series:

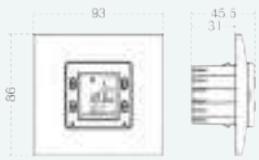
BTICINO* (Living international, Livinglight, Livinglight Air, Livinglight Tech, Axolute, Axolute Air y Matix) / VIMAR* (Idea, Rondo, Plana, Eikon y Arké) / LEGRAND* (Vela y Cross)- - GEWISS* (Chorus Lux, Art y One) / (*Own brands unrelated to ORBIS).

- **DECO CRONO_Italian standard** includes front frames in white and anthracite colour.
- Accessory: Surface box 65x65 mm. (OB280450) for **DECO CRONO**.

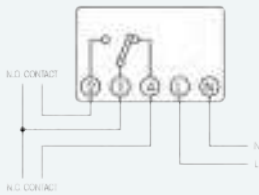
Technical Features

- Power supply: 230 Va.c., 50 Hz
- Switching capacity 8 (2) A 250 Va.c.
- Minimum programmable time: 30 min.
- Temperature updating: every 60 seconds
- Temp. regulation: from +2 ºC to +55 ºC
- Operating temp.: 0 ºC to +40 ºC
- Protection degree: IP 20 according to EN 60529

Dimensions



Connections



Reference	Model
OB350210	DECO CRONO Installation box 65x65 mm.
OB350220	DECO CRONO_Italian standard (503)

CANALOGUE CHRONOTHERMOSTATS

LYRA

Description

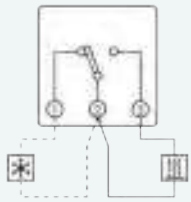
- Analogue thermostat with simple programming using moveable tappets.
- One daily program with two temperatures, day and night.
- Manual control of 3 positions: off, day-time temperature or night-time temperature.
- Battery indicator light.

Technical Features

- Power supply: 2 alkaline batteries 1,5 V AA (LR06)
- Switching capacity 5 A 250 Va.c.
- Minimum programmable time: 15 min.
- Temp. regulation: from +0 ºC to +40 ºC
- Operating temp.: de -10 ºC to +45 ºC
- Protection degree: IP 40 according to EN 60529
- Surface mounted or on installation box using a plug-in base

Dimensions

Connections



Reference	Model
OB325000	LYRA WHITE

TOUCH SCREEN THERMOSTATS

THALOS

Description

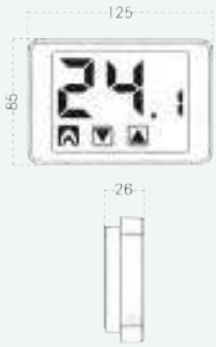
- Large blue back-lit touchscreen with large numbers and programming icons.
- Easy to read even in darkness.
- Does not require programming, it is simply necessary to select the desired temperature.
- Terminals for night-time temperature reduction, normally activated using a time switch.
- Reduces the temperature by 3 ºC.
- Has 3 temperature settings plus anti-icing to avoid frozen pipes.
- Keypad password block to avoid unauthorised changes.
- Battery level indicator.

Technical Features

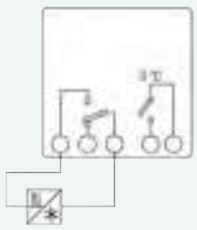
- Power supply: 2 alkaline batteries 1,5 V AAA (LR03)
- Switching capacity 5 A 250 Vac.
- Temperature updating: every 60 seconds
- Protection degree: IP 40 according to EN 60529
- Temp. regulation: from +5 ºC to +35 ºC
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Surface mounted or on installation box using a plug-in base

Reference	Model
OB325400	THALOS WHITE

Dimensions



Connections



DIGITAL THERMOSTATS

NEO ML+

Description

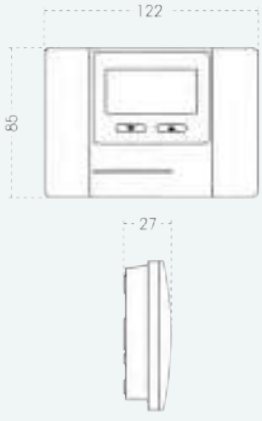
- Compatible with under-floor heating systems (water or electric) with the **X TEMP 10K** sensor.
- Allows control with external temperature sensor **X TEMP 10K**
- Large LCD screen and simple programming.
- Anti-icing, comfort and savings temperature,
- Three available colours, white, aluminium and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

Technical Features

- Power supply: 2 alkaline batteries 1,5 V AAA (LR03)
- Switching capacity 5 A 250 Vac.
- Temperature updating: every 70 seconds
- Temp. regulation: with internal sensor from +5 ºC to +35 ºC
  With external sensor from +5 ºC to +45 ºC
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Surface mounted or on installation box using a plug-in base.

Reference	Model
OB324400	NEO ML + WHITE
OB324410	NEO ML + ANTRACITE
OB324420	NEO ML + ALUMINIUM

Dimensions



Connections

DIGITAL THERMOSTATS

TEK / TEK SW

Description

- Electronic thermostat for mounting on Italian style installation box with 3 modules (503) or of 4 x 2 inches
- Allows adjustment of desired temperature through a rotating selector.
- Has a night-time mode which reduces the selected temperature by 5 ºC.
- Battery level LED indicator light.
- **TEK** incorporates a manual switch: ON, OFF and night-time mode.
- **TEK SW** incorporates a manual switch: heating, air conditioning and night-time mode.
- Three available colours, white, anthracite and aluminium.
- Includes adaptable settings compatible with the following installations:

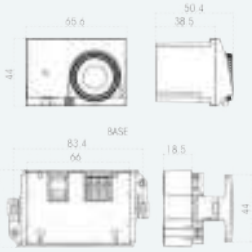
BTICINO* (Living international, Axolute, Light y Matix) / VIMAR* (Idea, Rondo, Plana y Eikon) / LEGRAND* (Vela y Cross) / GEWISS* (Chorus Lux y Art) (*Brands independent of ORBIS).

Technical Features

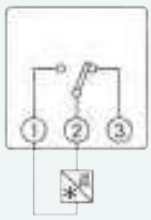
- Power supply: 2 alkaline batteries 1,5 V AAA (LR03)
- Switching capacity 5 A 250 Va.c.
- Temp. regulation: from +5 ºC to +30 ºC
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Mounted in Italian style installation box with 3 modules (503) or 4 x 2 inches

Reference	Model	Manual control
OB322600	TEK WHITE	ON/OFF/NIGHT-TIME
OB322610	TEK ANTRACITE	ON/OFF/NIGHT-TIME
OB322620	TEK ALUMINIUM	ON/OFF/NIGHT-TIME
OB322700	TEK SW WHITE	HEATING/AIR CON/NIGHT-TIME
OB322710	TEK SW ANTRACITE	HEATING/AIR CON/NIGHT-TIME
OB322720	TEK SW ALUMINIUM	HEATING/AIR CON/NIGHT-TIME

Dimensions



Connections



DECO TERMO

Description

- Thermostat for installation box. Attractive design and easy programming via text menus.
- Blue backlit LCD screen with brightness adjustment (low or high)
- Manual selection of comfort, saving or anti-icing temperature.
- Automatic daylight saving/standard time change for Europe, deactivated or programmable.
- Operating modes: permanent ON/OFF or holidays of up to 31 days.
- Programming in Spanish, English or Portuguese.
- The model **DECO TERMO_Italian standard** (503) includes adapter frames compatible with:

BTICINO* (Living international, Livinglight, Livinglight Air, Livinglight Tech, Axolute, Axolute Air y Matix)., VIMAR* (Idea, Rondo, Plana, Eikon y Arké), LEGRAND* (Vela y Cross), GEWISS* (Chorus Lux, Art y One). (*Brands independent of ORBIS).

230V

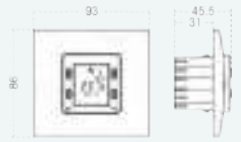
- **DECO TERMO_Italian standard** includes front frames in white and anthracite colour.
- Accessory: Surface box 65x65 mm. (OB280450) for **DECO TERMO**.

Technical Features

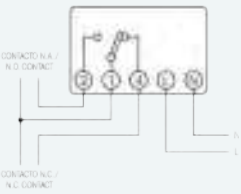
- Power supply: 230 Va.c., 50 Hz
- Switching capacity 8 (2) A 250 Va.c.
- Temperature updating: every 60 seconds
- Temp. regulation: from +2 ºC to +55 ºC
- Operating temp.: 0 ºC to +40 ºC
- Protection degree: IP 20 according to EN 60529

Reference	Model
OB350410	DECO TERMO Installation box 65x65 mm.
OB350420	DECO TERMO_Italian standard (503)

Dimensions



Connections



CLIMA

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.
- **CLIMA MLI** includes a functioning indicator light.
- Different available solutions:

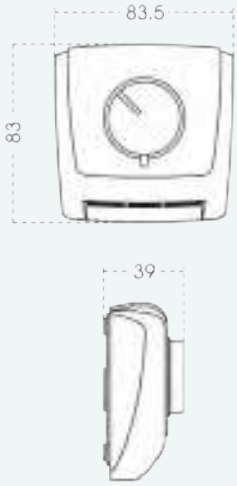
Connections:

Technical Features

- Switching capacity: **CLIMA ML** 16 A 250 Va.c. - The rest of the **CLIMA** models 10 A 250 Va.c.
- Temp. regulation: from +5 ºC to +30 ºC
- Protection degree: IP 20 according to EN 60529
- Surface mounted or on installation box
- Operating temp.: 0 ºC to + 50 ºC

Reference	Model	Manual control
OB320422	CLIMA ML	None
OB320522	CLIMA MLI	ON/OFF
OB320622	CLIMA MLW	ON/OFF + HEAT/air
OB321232	CLIMA FANCOIL	HEAT/air + 2 speeds

Dimensions



ATHENA TEMP

Description

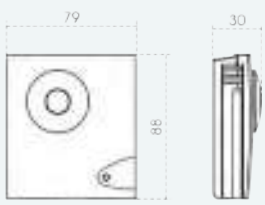
- Sensor for zoned temperature control with **ATHENA**.
- Allows the establishing of ± 3 ºC compared with the fixed **ATHENA** temperature.
- Two cable RS485 serial communication bus for connection to **ATHENA**.
- Battery level indicator.

Technical Features

- Power supply: 2 alkaline batteries 1,5 V AAA
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Surface mounted on the wall using a plug-in base

Reference	Model
OB329903	ATHENA.TEMP

Dimensions



Connections

ACCESSORIES

TX ATHENA

Description

- Radiofrequency emitter which when connected to the **ATHENA** model, allows wireless communication with the boiler of air-conditioning unit.
- Compatible with **RX1 8 A** and **RX4 8 A** receptors.

Technical Features

- Power Supply through **ATHENA**
- Frequency: ASK 433,92 MHz
- 300m open air range
- Operating temp.: 0 ºC to +50 ºC

Reference	Model
OB329902	TX ATHENA

RX1 8A

Description

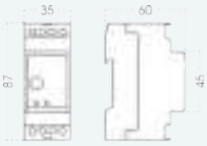
- **TX ATHENA** radiofrequency receiver for control of heating or air-conditioning.
- Equipped with an 8 amp switched relay.
- LED functioning indicator light.
- Accessories: 2 module polyester surface box (OB140601)

Technical Features

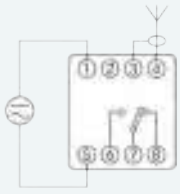
- Power supply: 230 Va.c., 50-60 Hz. 1 Switching capacity 8 A
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Mounted on DIN rail, 2 modules.

Reference	Model
OB329904	RX1 8A

Dimensions



Connections



RX4 8A

Description

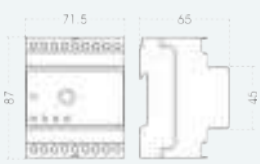
- **TX ATHENA** radiofrequency receiver for control of up to 4 heating or air-conditioning circuits.
- Wireless connection to **ATHENA**.
- Cabled option using RS485 port.
- Equipped with 1 simple relay and 8 Amp 3 switched relays.
- LED indicator light for functioning status of the system, another 4 lights indicating the status of the outputs.
- Antenna included.

Technical Features

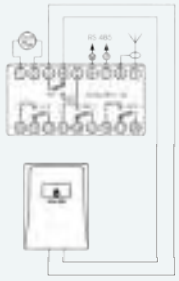
- Power supply: 230 Va.c., 50-60 Hz
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 40 according to EN 60529
- Mounted on DIN rail, 4 modules

Reference	Model
OB329905	RX4 8A

Dimensions



Connections



RX ANT

Description

- Antenna accessory to increase range - **RX1 8 A** or **RX4 8 A**.
- Fixing by screws.

Technical Features

- Frequency 433.92 +-10 MHz
- Impedance 50 Ω.
- Cable length 4,5 m

Reference	Model
OB329906	RX ANT

XTEMP 10K

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 Features

- Type of sensor: NTC (10kΩ at 25 ºC)
- Operating temp. from -40 ºC to +60 ºC
- Length 4 m, section 1 mm^2.
- Protection degree: IP 66 according to EN 60529

Reference	Model
OB320055	X TEMP 10K

XTEMP 100K

Description

- External temperature sensor compatible with **CHRONOS**, **ORUS**, **ORUS RF**, **ORUS GSM** and **ATHENA**.
- 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 Features

- Tipo de sonda: NTC (100kΩ a 25 ºC)
- Operating temp. from -40 ºC to +60 ºC
- Length 2 m, section 1 mm^2.
- Protection degree: IP66 according to EN 60529

Reference	Model
OB329907	X TEMP 100K

TELEPHONE CONTROLLERS

USES Y APPLICATIONS

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

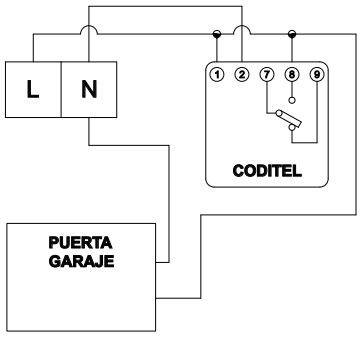
When an authorised user makes a call, **CODITEL** activates the electrical circuit connected to the output, without disconnecting the call, so that the mobile phone becomes a remote controller, at no cost to the user. **CODITEL 2** has 2 digital outputs, 1 analogue input and 2 digital inputs. It incorporates 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.

ACCESS TO COMMUNAL GARAGE

A simple and useful application of **CODITEL** is the control of access to parking lots through a missed call, so that the mobile phone becomes a remote control to open the door to the garage at no cost to the user. **CODITEL** will only react when it recognises the call from an authorised number.

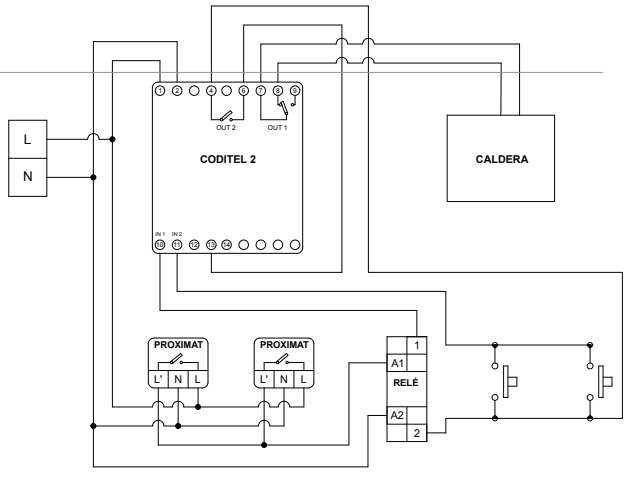
In this way we eliminate the operations, problems and costs associated with remote controllers of offices, residential estates etc.



HEATING CONTROL WITH INTRUDER ALARM

In this example we can use an SMS to activate or deactivate the heating system using **CODITEL 2**. If we also connect, in parallel, movement detectors situated in passages and the principal entrance, plus limit switches on windows and doors, we can receive SMS intruder alerts. This alarm can be activated or deactivated through a missed call.

We configure the alarm system using **PROXIMAT** as a movement detector in the principal access and passages connected to input 10. To differentiate between the alarms we can connect the limit switches for the doors and windows to input 11.

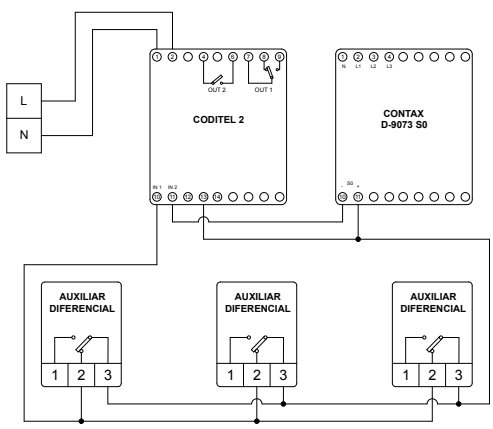


FAULT DETECTION AND ENERGY METER

In the service sector there are many applications such as service 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 S0**, we can obtain consumption data from the system through a daily 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).
In INPUT 2 we connect the pulse output of **CONTAX D-9073 S0** (terminal 11).



CODITEL

Description

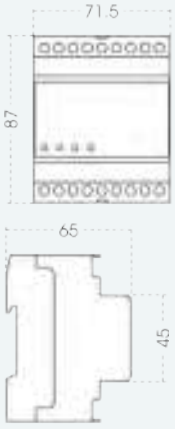
- Telephone controller.
- From the administrator's profile we can: authorise / remove users, configure a reply SMS with status information, edit the access password, the power failure SMS and more.
- Relay functions: bistable On/OFF or timed from 1 second.
- It is a secure system, since it only responds to the 100 previously authorised numbers.
- 1 hour reserve battery.
- LED indicator light for: GSM signal and exit status.
- External antenna included.
- The relay works by pressing the front button, with a missed call or SMS.
- To function, a SIM card enabled for telephone traffic is required.
- Accessories: **CODITEL** Antenna (OB329913).

Technical Features

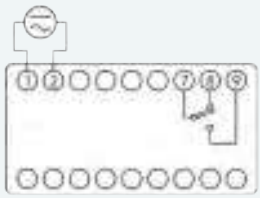
- Power supply: 230 Va.c., 50-60 Hz
- Switching capacity 8 (5) A 250 Va.c.
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail, 4 modules
- GSM Quadband Module (900-950-1.800-1.900 MHz)
- Check the application country for compatibility with the local GSM communication network

Reference	Model
OB322800	CODITEL

Dimensions



Connections



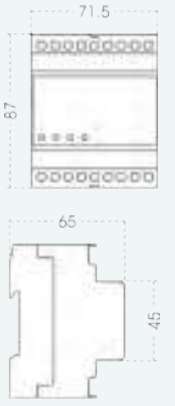
CODITEL 2

Description

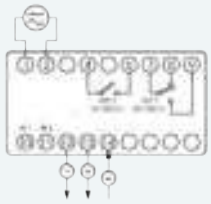
- The same specifications as **CODITEL** plus 2 digital switched relay outputs, one analogue input and 2 digital inputs.
- Instantaneous awareness of alarms, and remote management of isolated systems or without physical vigilance. Alerts are by text message or telephone call.
- It is possible to program 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 60 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 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.

CONTINUED >

Dimensions



Connections



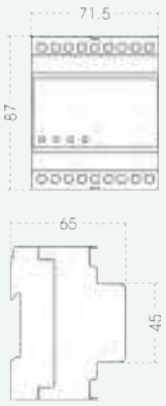
TELEPHONE CONTROLLERS

CODITEL 2

Description

- Analogue input 0-10 V or 0-20 mA.
- LED indicator light for: GSM signal, status of outputs and status of digital inputs.
- External 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.

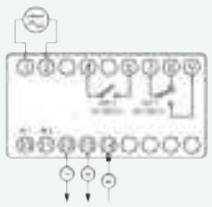
Dimensions



Technical Features

- Power supply: 230 Va.c., 50-60 Hz
- Digital inputs:
  - Maximum voltage 40 Vd.c.
  - Low voltage logic threshold: 4Vd.c.
  - High voltage logic threshold: 5 Vc.c.
- Analogue input:
  - Maximum applicable voltage 11 Vd.c.
  - Impedance with voltage 100 kΩ
  - Max. current 25 mA
- Output 1 switch 8 A 250 Va.c.
- Output 2 N/O 5 A 250 VAC
- Operating temp.: 0 °C to +50 °C
- Protection degree: IP 40 according to EN 60529
- Mounted on DIN rail, 4 modules
- GSM Quadband Module (900-950-1800-1900 MHz)
- Check the application country for compatibility with the local GSM communication network

Connections



Reference	Model
OB322820	CODITEL 2

ANTENA CODITEL

Description

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

Technical Features

- Cable length 3m.

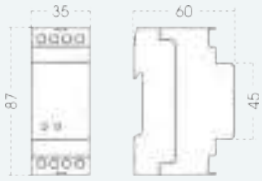
Reference	Model
OB329913	CODITEL ANTENA

MA 16

Description

- Linking to **CODITEL** or **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).

Dimensions



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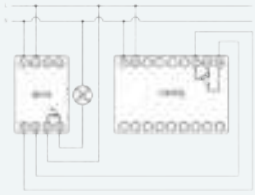


Technical Features

- Power supply: 230 Va.c., 50-60 Hz
- Operating temp.: 0 ºC to +50 ºC
- Protection degree: IP 41 according to EN 60529
- Mounted on DIN rail, 2 modules

Reference	Model
OB329912	MA 16

GAS LEAK DETECTORS

USES Y APPLICATIONS

Gas is a fuel which is often present in our daily activities. We find it in water heaters, heating systems, ovens and cookers, boats caravans, etc. in restaurants as well as in homes and industry.

The problem is that the gases are colourless, sometimes odourless and nearly always dangerous. A gas leak carries a very high risk of asphyxia or explosion which can result in tragedy if it is not detected in time.

A gas leak detector is a constant guard which gives extra security when we are dealing with butane, propane, natural gas or carbon monoxide. In the case of a leak, **TWIST** emits an audible signal and a light, alerting nearby people. When connected to an electrovalve it can also cut off the gas supply.

The installation of the detector will depend on the density of the gas, so that, to detect heavy gases such as butane or propane we must install the detector 30cm from the floor. Whereas for lighter gases such as natural gas or city gas we need to install the detector about 30cm from the ceiling.

TWIST METANO/TOWN GAS/LPG

Description

- Methane or natural gas leak detector with audible and light warning, and a contact for cutting off the gas supply.

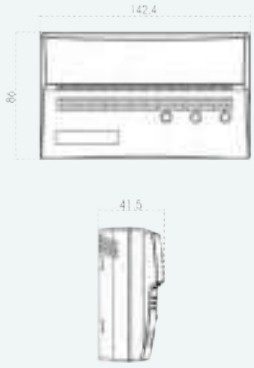
In the case of a leak the **TWIST** installation switches on the alarm as well as the LED light, if the leak persists after 30 seconds, it will switch the relay, causing the closing of the gas supply electrovalve. TWIST will remain in this state until the leak is gone, at which time the alarms will be switched off and the relay switched. The rearming of the electrovalve must be done manually for safety reasons.
Calibrated to detect up to 10% of the lower explosive limit (L.E.L.) over 4 years
Switched contact for NO and NC electrovalves.
LED indicator lights: power supply, error and alarm.
Functioning test button.
TWIST KIT includes the gas supply electrovalve for 1/2"or 3/4" tubing.

Technical Features

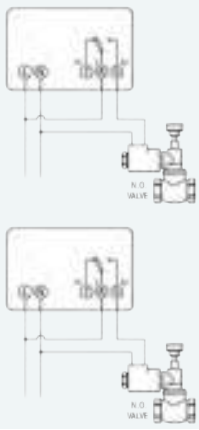
- Power supply: 230 Va.c., 50 Hz
- Switching capacity 3 (1) A 250 Va.c.
- Operating temp.: -10 °C to +40 °C
- Relative humidity: from 30% to 90% RH
- Detection threshold: 10% L.E.L.
- Audible signaling: 85 dB(a) at 1 meter
- Protection degree: IP 42 according to EN 60529
- Mounted on wall surface

Reference	Model
OB514410	TWIST GAS METHANE/TOWN GAS
OB515212	TWIST KIT 1/2" GAS METHANE/TOWN GAS
OB515234	TWIST KIT 3/4"
OB514510	TWIST GAS LPG
OB515312	TWIST KIT GAS LPG 1/2"
OB515334	TWIST KIT GAS LPG 3/4"

Dimensions



Connections



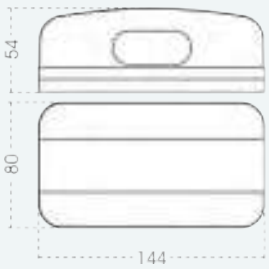
ORBISON / ORBISON DUO

Description

- Electro-mechanic bell with high resonance and robustness.
- **ORBISON DUO** is designed for homes with a double door as it has a ding-dong bell and a buzzer.
- Ding-dong bell: 90 dB, Resonance frequency 700-900 Hz.
- Buzzer: 100 dB, Resonance frequency 1,300 0 1,400 Hz.

Reference	Model
OB110316CH	ORBISON_120+230 Va.c., 50-60 Hz
OB110330CH	ORBISON_230 Va.c., 50-60 Hz
OB110366CH	ORBISON _24 Va.c.+d.c.
OB110376CH	ORBISON_12 Va.c.+d.c., 50-60 Hz
OB110386CH	ORBISON _6-8 Va.c.+d.c., 50-60 Hz
OB110416CH	ORBISON DUO_230 Va.c., 50-60 Hz

Dimensions



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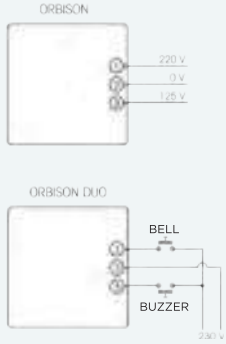


MINISELF

Description

- Emergency lighting for mounting on Italian style installation box with 3 modules (503) or of 4 x 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 0.125W which provide up to 20 lumen.
- A small green frontal LED light indicated the presence of a power supply.
- Interchangeable front panels in white, black and charcoal.
- Includes adaptable settings compatible with the following installations:

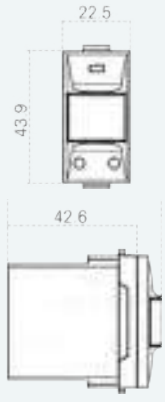
BTICINO* (Living, LivingLight, LivingLight Tech, LivingLight Air, Axolute, Matix) / VIMAR* (Plana, Eikon, Arké) / GEWISS* (Chorus) / AVE* (Sistema 44). (*Brands independent of ORBIS).

Technical Features

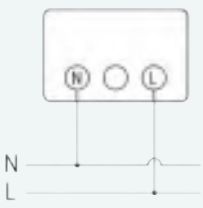
- Power supply: 230 Va.c., 50 Hz
- Type of battery: Lithium 3,7 V 250 mAh
- Operating temp.: -10 ºC to +40 ºC
- Protection degree: IP 20 according to EN 60529

Reference	Model	Aplicaciones
OB136312	MINISELF	Stairways, Passageways, Offices, Bedrooms.

Dimensions



Connections



ENERGY MEASUREMENT AND MANAGEMENT

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PRIME remote management meters

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Tarification meters

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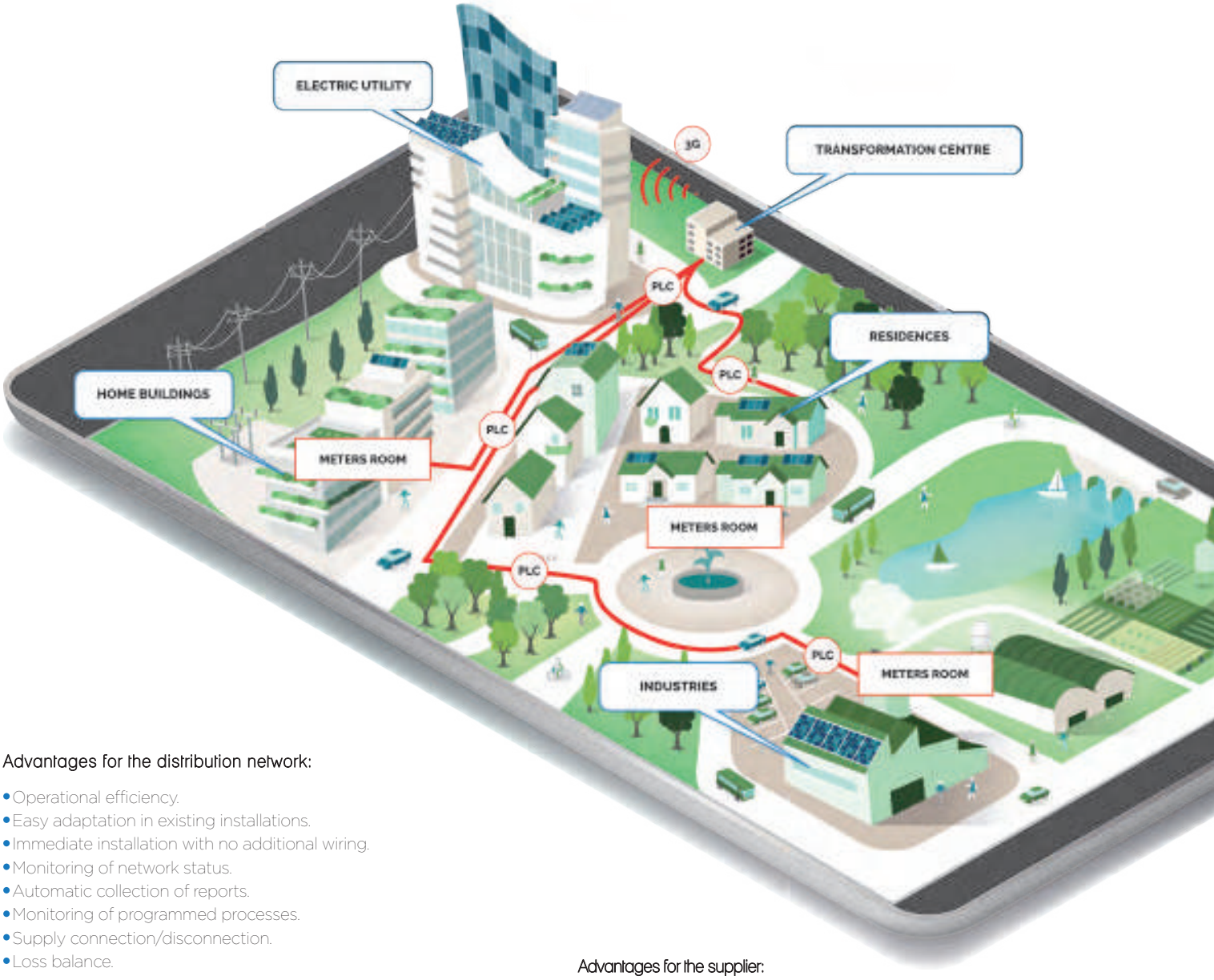
USES AND APPLICATIONS

DOMOTAX TeLeGeST PRIME is introduced as a new range of energy smart-meters with PLC communication capacity and features that allow its remote management with DLMS protocol over PRIME. It communicates remotely with **TeLeGeST COLLECTOR** for its management through the power line and there can also exist local communication through optical interface. This concentrator can also incorporate low-voltage (LV) supervision and 3G communications.

It allows the detection and registration of: electrical parameters, power outages and restorations, quality of supply, remote parameterisation of the meter, opening of the terminals cover, remote connection/disconnection of the supply and many more.



Advantages for the distribution network:

- Operational efficiency.
- Easy adaptation in existing installations.
- Immediate installation with no additional wiring.
- Monitoring of network status.
- Automatic collection of reports.
- Monitoring of programmed processes.
- Supply connection/disconnection.
- Loss balance.

Advantages for the final user:

- Obtainment of hourly, daily and monthly consumption profile.
- Real-time check of consumption and demanded power.
- Identification of unnecessary expenses.
- Real billing, not estimated.
- Modification of the contracted power.

Advantages for the supplier:

- Automatic and immediate management of measurement data acquisition.
- Remote reading and billing.
- Highs, lows and power modification in real time.
- Real billing, not estimated.
- Remote fraud detection.
- Improved customer service.

PRIME REMOTE MANAGEMENT METERS

DOMOTAX TeLeGeST PRIME

Description

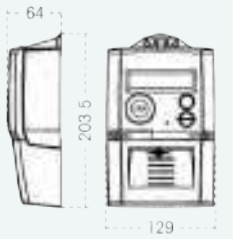
- Single-phase static meter with PLC communication and remote management with DLMS protocol based on the PRIME specifications. (www.prime-alliance.org).
- Records of the inductive and capacitive active and reactive energy in all 4 quadrants.
- Pricing system of up to 12 seasons and 6 daily periods.
- Up to 30 special days.
- Registration of historical data, maximum values per period and load curve with the possibility of immediate shut off through sealable button (manual shut off), pre-programmed on a specific date or remotely through communications protocol.
- It communicates remotely with **DOMOTAX TeLeGeST PRIME COLLECTOR** for its management through the power line (P.L.C. communication). It can also communicate locally through optical interface.
- **DOMOTAX TeLeGeST software** available for reading of remote-management DLMS meters.
- It allows the detection and registration of: opening and closing of the terminals cover, outages and restorations of power and supply quality parameters.
- It incorporates omnipolar cut-off relay of 100 A.

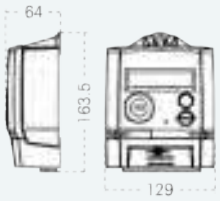
Technical features

- Power supply: 230 Va.c., 50 Hz
- Active accuracy class: Class B according to EN 50470-3
- Reactive accuracy class: Class 2 according to EN 62053-23
- Minimum current: 0,1 A
- Reference current: 10 A
- Maximum current: 60 A
- LED constant: 4000 imp/kWh
- PLC communication:
- Physical layer and MAC: PRIME
- Link layer: IEC-61334-4-32
- Application layer: DLMS
- Backup battery: 3 years with lithium battery
- Operating temperature: -25 ºC a +70 ºC
- Protection type: IP 51 according to EN 60529
- Mounting in fixing triangle

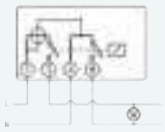
Reference	Model
OB728030	DOMOTAX TELEGEST PRIME

Dimensions





Connections



DOMOTAX TeLeGeST PRIME d3P

Description

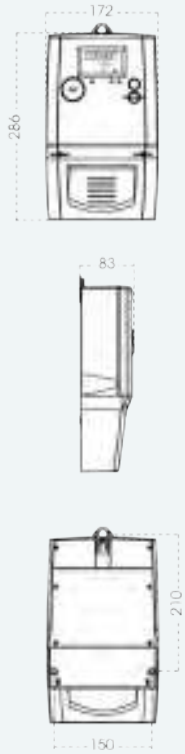
- Three-phase static meter with PLC communication and remote management with DLMS protocol based on the PRIME specifications. (www.prime-alliance.org)
- Records of the inductive and capacitive active and reactive energy in all 4 quadrants.
- Pricing system of up to 24 seasons and a minimum of 6 pricing periods.
- Up to 30 special days.
- Registration of historical data, maximum values per period and load curve with the poss bility of immediate shut off through sealable button (manual shut off), pre-programmed on a specific date or remotely through communications protocol.
- It communicates remotely with **DOMOTAX TeLeGeST PRIME COLLECTOR** for its m nagement through the power line (P.L.C. communication). It can also communicate locally through optical interface.
- **DOMOTAX TeLeGeST software** available for reading of remote-management DLMS meters.
- It allows the detection and registration of: opening and closing of the terminals cover, outages and restorations of power and supply quality parameters.
- **DOMOTAX TeLeGeST** incorporates three-phase omnipolar cut-off relay of 100 A.

Technical features

- Power supply: 3x127/220..3x230/400 Va.c. 50 Hz
- Active accuracy class: Class B according to EN 50470-3
- Reactive accuracy class: Class 2 according to EN 62053-23
- Minimum current: 0,5 A
- Reference current: 10 A
- Maximum current: 80 A
- PLC communication:
- Physical layer and MAC: PRIME
- Link layer: IEC-61334-4-32
- Application layer: DLMS
- Backup battery: 3 years with lithium battery
- Operating temperature: -25 ºC a +70 ºC
- Protection type: IP 51 according to EN 60529
- Mounting in fixing triangle

Reference	Model	Measurement
OB708010D	DOMOTAX TELEGEST PRIME d3P	Direct
OB708010R	DOMOTAX TELEGEST PRIME r3P	Through transformers

Dimensions



Connections

PRIME REMOTE MANAGEMENT METERSME

DOMOTAX PRIME 9710 CONCENTRATOR

Description

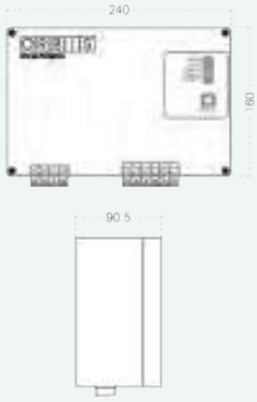
- Collector of PRIME remote-management meters that incorporates under the same casing the smart data collector and a BT supervision.
- DLMS communication protocol over PRIME, allowing the remote reading and management of the smart meters that make up a smart grid.
- Together with the **TeLeGeST PRIME 9711 REPEATER**, it allows the total management of the transformer centers with several transformers.
- It can incorporate 3G communications on request.
- Thanks to the collectors we will be able to:
- Monitor the status of the supply network.
- Obtain reports automatically.
- Monitor the programmed processes.
- Supply connection/disconnection.
- Study a loss balance.
- Automatic acquisition of changes.
- Remote reading and billing.
- Manage highs, lows and power modification in real time.
- Real billing, not estimated.
- Remote fraud detection.
- Improved customer service.
- Know the monthly, daily and hourly consumption profile.
- Check the consumption and demanded power in real time.

Technical features

- Power supply: 120... 264 Va.c. 50/60 Hz
- Protocol: PRIME PHY & MAC
- Frequency band: CENELEC-A (3 kHz-95 kHz)
- Modulation: OFDM according to PRIME
- Ethernet: TCP/IP, HTPP, FTP, SCP y SNMP
- Remote management: SNMPv3, Webservices, WebServer and SSH
- Local administration: Console port, Ethernet 10/100 Base T
- Reading, monitoring and modification: DLMS/COSEM (IEC 62056)
- Protection type: IP 20 according to EN 60529
- Mounting on DIN rail according to IEC 60715

Reference	Model
OB727240	CONCENTRATOR PRIME 9710
OB727310	REPETER TELEGEST PRIME 9711

Dimensions



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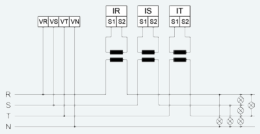


DOMOTAX TELEGEST READING SOFTWARE

Description

- Desktop software for meter and collector reading within a PRIME remote-management network.
- Thanks to this simple software we will be able to:
  - Check the configuration parameters of a collector network.
  - Carry out the reading of records from meters and smart meters.
  - Obtain updated information of consumptions and shutdown power.
  - Graphically represent the registered information.

OPTICAL-USB ADAPTER

Description

- Offers the possibility of easily and directly connecting a reading laptop USB port to the energy meter.

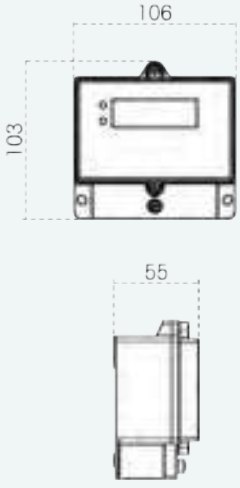
Reference	Model
OB709974	ADAPTER OPTICAL-USB

MER b / MER b LCD

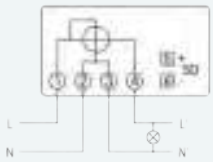
Description

- The **MER b** range are electronic measurement devices for single-phase supply networks of direct measurement of 10 (100) amperes and Class 1 active energy reading accuracy.
- The visual display can be electromechanical based on stepper motor, or Digital like the **MER b LCD** model that incorporates large LCD display.
- Both have a compact polycarbonate casing reinforced with fiberglass that gives them double insulation and great mechanical resistance.
- Great accuracy along the load curve.
- LED pilot 1600 pulses kWh.
- It never does negative reading due to connection error.
- 6 large size digits.
- Certified to comply with IEC 62053.
- Options available on request:
- Different voltage or amperage.
- Communications: pulses S0, RS485 or optical port.
- Different layout of connection terminals.
- 7 digits.
- Long terminals cover available.

Dimensions



Connections



Technical features

- Power supply: 120 Va.c. 60 Hz 230 Va.c. 50-60 Hz
- Active accuracy class: Class 1 according to IEC 62053
- Dielectric stiffness: 4 kV 50 Hz
- Operating temperature: -25 ºC a +65 ºC
- Reference current: 10 A.
- Maximum current: 100 A.
- Protection type: IP 54 according to EN 60529
- Mounting on surface through fixing triangle

Reference	Model
OB725001	MER b_LCD, 230 Va.c., 50-60 Hz, 10(100) A
OB725002	MER b_LCD,120 Va.c.,60 Hz,10(100) A
OB725003	MER b_230 Va.c.,50-60 Hz,10(100) A
OB725004	MER b_120 Va.c., 60 Hz, 10(100) A

TARIFICATION METERS

TER b LCD

Description

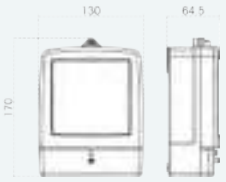
- The different **TER b** models satisfy the basic measurement needs in three-phase installations such as residential, commercial, agricultural, etc.
- The visual display is a large LCD display, 5 digits + 1 decimal.
- Compact polycarbonate casing reinforced with fiberglass for higher insulation and great mechanical resistance.
- Great accuracy along the load curve.
- LED pilot of 800 pulses kWh.
- Reference standards IEC 62053-21, EN 62052-11.
- Options available on request:
  - Different voltage or amperage.
  - Communications: pulses S0, RS485 or optical port.
  - Different layout of connection terminals.

Technical features

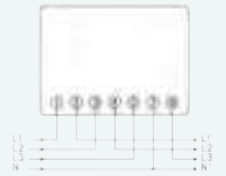
- Power supply: 3x230 V c.a. 50-60 Hz
- Active accuracy class: Class 1 according to IEC 62053
- Operating temperature: -25 °C a +65 °C
- Reference current: 10 A
- Maximum current: 60 A
- Protection type: IP54 according to EN 60529
- Mounting on surface through fixing triangle

Reference	Model
OB726001	TER B_LCD 3x230/400 Va.c., 50-60 HZ, 10 (100) A

Dimensions



Connections



USES AND APPLICATIONS

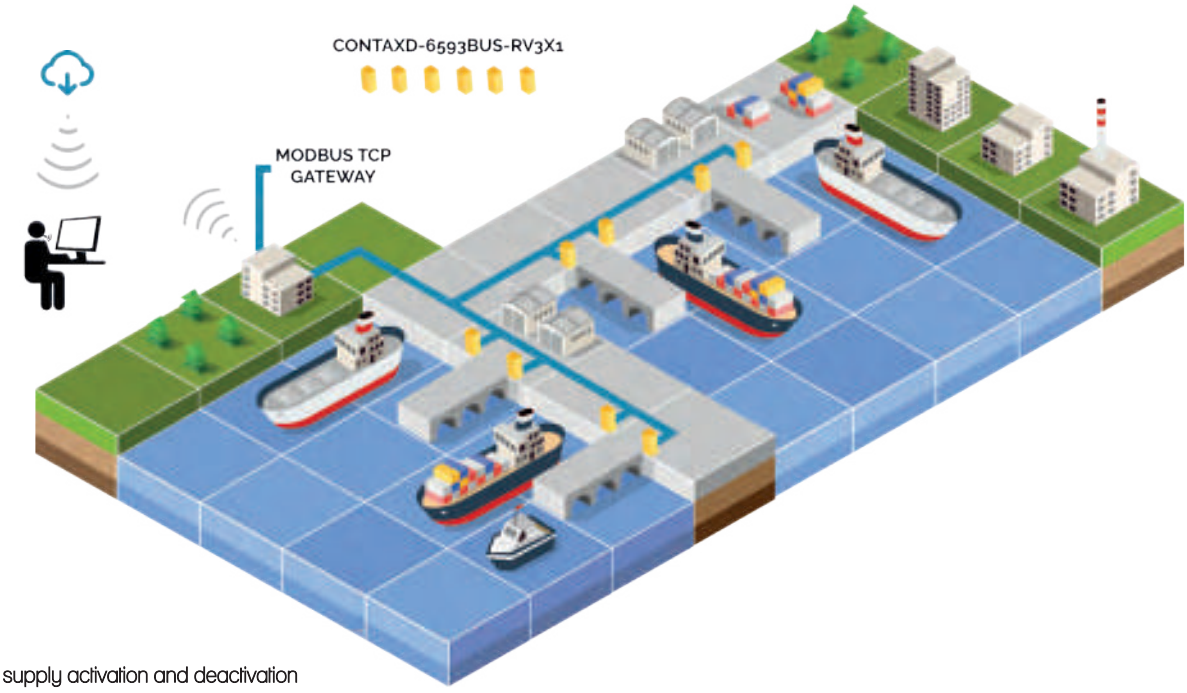
The partial reading of consumptions or submetering allows for studying how much, when and where energy is used in order to draw up strategies of consumption improvement according to the installation needs.

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.
- DWe 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 3x1** model equipped with a cut-off relay.

MODULAR METERS SUBMETERING-SINGLE PHASE

CONTAX 2511 SO

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:

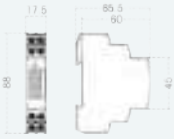
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).
- 2-module surface box (OB140601).

Technical features

- Nominal voltage: 230 Va.c. 50-60 Hz
- Base and maximum current: 5 (25) A
- Operating voltage: from 0,25 to 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: S0 pulses according to EN 62053-31
- Constant: 1600 imp/kWh
- Operating Temp.: from -20 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 1-width module

Reference	Model
OB701000	CONTAX 2511 SO

Dimensions



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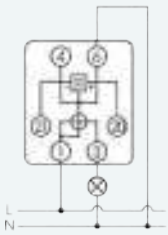


CONTAX 2521 SO MID

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:

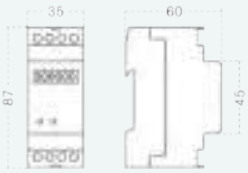
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).
- 2-module surface box (OB140601).

Technical features

- Nominal voltage: 230 Va.c. 50-60 Hz
- Base and maximum current: 5 (25) A
- Operating voltage from 195 to 253 Va.c.
- Operating current: from 0,25 to 25 A
- Approximate own consumption: 4 VA
- Accuracy Class 1 according to EN 50470-3
- Communications: S0 pulses according to EN 62053-31
- Constant: 0,1 imp/kWh
- Operating Temp.: from -10 ºC to +55 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 2-width module

Reference	Model
OB702000	CONTAX 2521 SO MID

Dimensions



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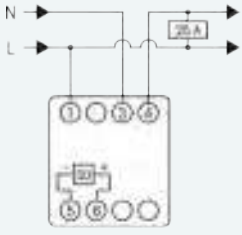


CONTAX 3221 SO

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:

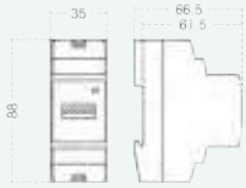
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).
- 2-module surface box (OB140601).

Technical features

- Nominal voltage: 230 Va.c. 50-60 Hz
- Base and maximum current: 5 (32) A
- Operating voltage: from 115 to 265 Va.c.
- Operating current: from 0,25 to 32 A
- Approximate own consumption: 7,5 VA
- Accuracy Class 1 according to UNE-EN 62053-21
- Communications: S0 pulses according to EN 62053-31
- Constant: 2000 imp/kWh
- Operating Temp.: from -20 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 2-width module

Reference	Model
OB703099	CONTAX 3221 SO

Dimensions



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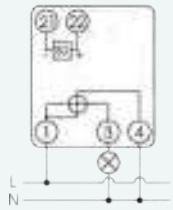


CONTAX 6521 S0

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:

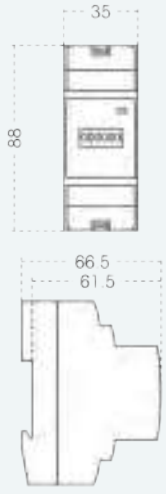
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).
- 2-module surface box (OB140601).

Technical features

- Nominal voltage: 230 Va.c. 50-60 Hz
- Base and maximum current: 10 (65) A
- Operating voltage: from 115 to 265 Va.c.
- Operating current: from 0,5 to 65 A
- Approximate own consumption: 7,5 VA
- Accuracy Class 1 according to UNE-EN 62053-21
- Communications: S0 pulses according to EN 62053-31
- Constant: 1000 imp/kWh
- Operating Temp.: from -20 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 2-width module

Reference	Model
OB707000	CONTAX 6521 S0

Dimensions



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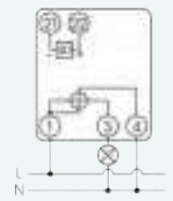


MODULAR METERS SUBMETERING-SINGLE PHASE

CONTAX 0641 S0

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:

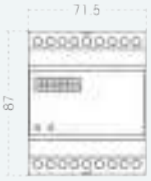
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).

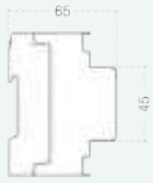
Technical features

- Nominal voltage: 230 Va.c. 50-60 Hz
- Base and maximum current: 5 (6) A.
- Operating voltage: from 207 to 265 Va.c.
- Start current of 15 mA
- Approximate own consumption: <2,5 VA.
- Accuracy Class 2 according to UNE-EN 62053-21
- Communications: S0 pulses according to EN 62053-31
- Constant: 16 imp/kWh
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 4-width module

Reference	Model
OB708500	CONTAX 2511 SO

Dimensions





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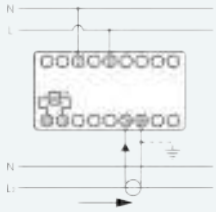


CONTAX D-2221

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 (OB140601).

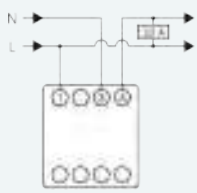
Technical features

- Nominal voltage: 230 Va.c. 50-60 Hz
- Base and maximum current: 10 (22,5) A
- Operating voltage: from 195 to 253 Va.c.
- Operating current: from 0,25 to 22,5 A
- Approximate own consumption: 4 VA
- Accuracy Class 2 according to UNE-EN 62053-21
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 2-width module

Reference	Model
OB708700	CONTAX D-2221

Dimensions

Connections



CONTAX D-3221 S0

Description

- 2 module Digital single-phase power meter.
- Direct measurement 5 (32) A.
- LCD display, 5 digits + 1 decimal non-resettable.
- LED consumption indicator.
- Accessories:

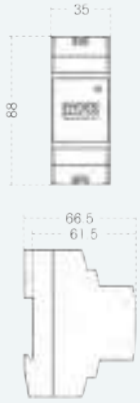
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).
- 2-module surface box (OB140601).

Technical features

- Nominal voltagel: 230 Va.c. 50-60 Hz
- Base and maximum current: 5 (32) A
- Operating voltage: from 115 to 265 Va.c.
- Operating current: from 0,25 to 32 A
- Approximate own consumption: 7,5 VA
- Accuracy class 1 according to UNE-EN 62053-21
- Communications: S0 pulses according to EN 62053-31
- Constant: 2000 imp/kWh
- Operating Temp.: from -20 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 2-width module

Reference	Model
OB703100	CONTAX D-3221 SO

Dimensions



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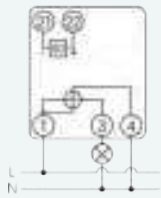


CONTAX D-3221 RF

Description

- Digital single-phase power with radio frequency communication.
- It avoids installation civil work without communication wiring, which means signify savings of both time and money.
- Radio frequency communication with AMNET RF receiver.
- Direct measurement 5 (32) A.
- Analogical display, 5 digits + 1 decimal non-resettable.
- LED consumption indicator.
- Accessories:

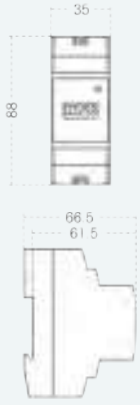
- **AMNET RF** (OB709975) radio frequency (RF) receiver.
- 2-module surface box (OB140601).

Technical features

- Nominal voltage: 230 Va.c. 50-60 Hz
- Base and maximum current: 5 (32) A
- Operating voltage: from 115 to 265 Va.c.
- Operating current: from 0,25 to 32 A
- Approximate own consumption: 7,5 VA
- Accuracy Class 1 according to UNE-EN 62053-21
- Radio frequency communications 868 MHz
- Constant LED: 2000 imp/kWh
- Operating Temp.: from -20 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 2-width module

Reference	Model
OB703120	CONTAX D-3221 RF

Dimensions



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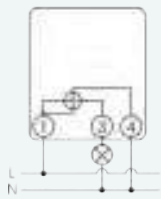


MODULAR METERS SUBMETERING-SINGLE PHASE

CONTAX D-6331 S0

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 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:

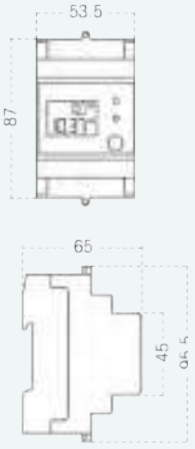
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).

Technical features

- Nominal voltage: 230 Va.c. 50-60 Hz
- Base and maximum current: 10 (63) A
- Operating voltage: from 195 to 253 Va.c.
- Approximate own consumption: <2,5 VA
- Accuracy Class 1 according to UNE-EN 62053-21
- Communications: S0 pulses according to EN 62053-31
- Constant: 100 imp/kWh
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 3-width module

Reference	Model
OB708100	CONTAX D-6331 SO

Dimensions



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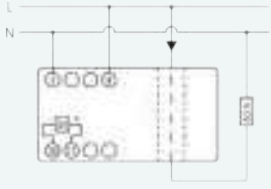


CONTAX D-6521 S0

Description

- 2 module digital 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:

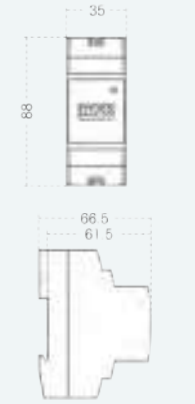
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).
- 2-module surface box (OB140601).

Technical features

- Nominal voltage: 230 Va.c. 50 Hz
- Base and maximum current: 10 (65) A
- Operating voltage: from 115 to 265 Va.c.
- Operating current: from 0,5 to 65 A
- Approximate own consumption: 7,5 VA
- Accuracy class 1 according to UNE-EN 62053-21
- Communications: S0 pulses according to EN 62053-31
- Constant: 1000 imp/kWh
- Operating Temp.: from -20 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 2-width module

Reference	Model
OB707100	CONTAX D-6521 S0

Dimensions



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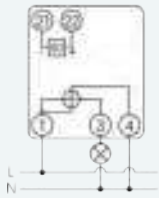


CONTAX 0643 S0 / CONTAX 0643i S0

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, 6 digits + 1 decimal non-resettable.
- Opto-isolated pulse output communications.
- LED indicators: power, consumption, and incorrect connection.
- **CONTAX 0643i S0** allows earth bonding (grounding) of current transformers. See connection diagram below.
- Accessories:

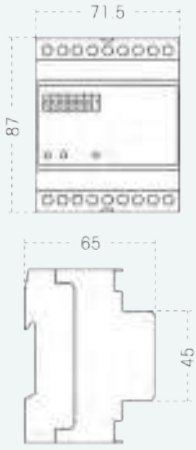
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).

Technical features

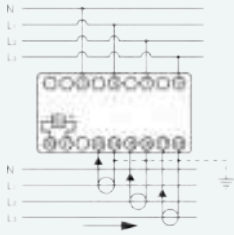
- Supply voltage: 3x230 (400) Va.c. , 50-60 Hz
- Variation permitted: -15% ÷ +10%
- Base and maximum current: 5 (6) A
- Start current of 15 mA
- Max. own consumption: 2,5 VA.
- Accuracy Class A according to EN 50470-3
- Communications: S0 pulses according to EN 62053-31
- Constant: 4 imp/kWh
- Operating Temp.: from -10 °C to +45 °C
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 4-width module

Reference	Model
OB708900	CONTAX 0643 SO
OB708800	CONTAX 0643i SO

Dimensions



Connections



CONTAX 0643 AR S0

Description

- Analogue power meter for fast reading of active and reactive 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.
- Dual analogue display, for active and reactive energy.
- Analogical display, 6 digits + 1 decimal non-resettable.
- Two S0 opto-isolated pulse output according to EN 62053-31
- LED indicators: power, active consumption, reactive consumption and incorrect connection.
- Accessories:

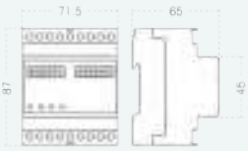
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).

Technical features

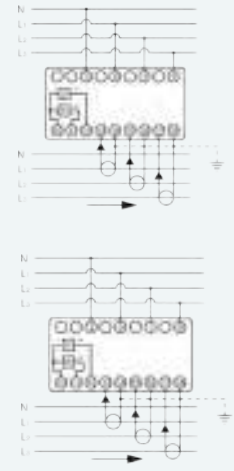
- Supply voltage: 3x230 (400) Va.c. , 50-60 Hz
- Variation permitted: -15% ÷ +10%
- Base and maximum current: 5 (6) A.
- Max. own consumption: 2,5 VA.
- Accuracy Class A according to EN 50470-3
- Communications: S0 pulses according to EN 62053-31
- Active constant: 4 imp/kWh
- Reactive constant: 4 imp/kvarh
- Operating Temp.: from 0 °C to +50 °C
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 4-width module

Reference	Model
OB708600	CONTAX 0643 AR SO

Dimensions



Connections



MODULAR METERS-SUBMETERING–THREE PHASE

CONTAX D-9073 S0

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 25mm².
- 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:

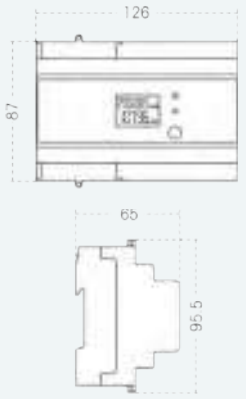
- Pulse collector with **RS485 ASCII CONTAX NET** output (OB708300).
- Pulse collector with **RS485 RF CONTAX NET RF** output (OB708310).

Technical features

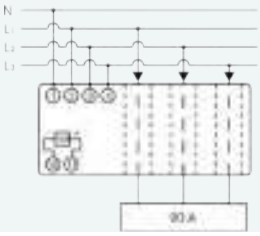
- Line voltage: 3x230 (400) Va.c. , 50-60 Hz
- Base and maximum current: 10 (90) A.
- Operating voltage: from 195 to 253 Va.c.
- Approximate own consumption <2,5 VA
- Accuracy class 1 according to UNE-EN 62053-21
- Communications: S0 pulses according to EN 62053-31
- Constant: 100 imp/kWh
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 7-width module

Reference	Model
OB708400	CONTAX D-9073 SO

Dimensions



Connections



MULTIFUNCTION RECORDER METERS-SINGLE-PHASE

CONTAX D-6041 BUS

Description

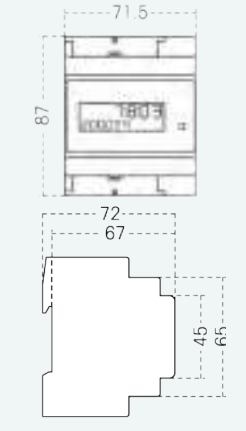
- Digital single-phase power meter with internal memory and MODBU (RTU) communications.
- Direct measurement 10 (60) A. Up to 6 daily periods with 4 possible tariffs.
- Recording of import and export data for energy-generating installations, solar installations...
- Upper limit register: V, A, Wh y VArh. 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). **MODBUS/TCP gateway** (OB709972).

Technical features

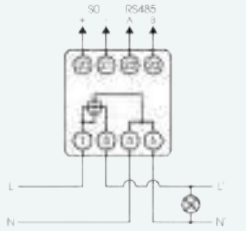
- Supply voltage: 230 Va.c. (-20% a +15%), 50 Hz
- Base and maximum current: 10 (60) A.
- Start current of 25 mA
- Max. own consumption: 1 VA
- Accuracy active Class 1 according to UNE-EN 62053-21 Reactive Class 2 according to UNE-EN 62053-23
- RS485 serial port
- MODBUS communication protocol.
- Type of codification: RTU (Remote Terminal Unit)
- Communications: S0 pulses according to EN 62053-31
- Constant: 1000 imp/kvar
- Operating Temp.: from -25 ºC to +65 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 4-width module

Reference	Model
OB709300	CONTAX D-6041 BUS

Dimensions



Connections



CONTAX D-6593 BUS-R V 3x1

Description

- Digital single-phase power meter with built-in cut-off relay for independent telemanagement of up to 2 single-phase lines.
- Internal memory for Modbus (RTU) registers and communications.
- Direct measurement 10 (65) A.
- The cut-off relay is an independent-per-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 campsites, rents or others.
- 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 season.
- Upper limit register: V, A, Wh y VArh
- Registro de cortes de alimentación. Power cut register.
- 12 monthly closures: Wh import/export. and VArh import/export.
- Load curve of V, A, Wh y 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 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:

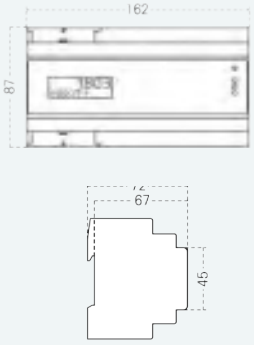
- **USB-RS485 adapter** (OB707022).
- **MODBUS/TCP gateway** (OB709972).

Technical features

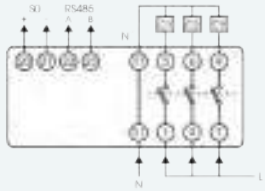
- Supply voltage: 230 Va.c. (-20% a +15%), 50-60 Hz
- Base and maximum current: 10 (65) A
- Start current of 40 mA
- Max. own consumption: 1 VA
- Accuracy active class 1 according to UNE-EN 62053-21
- Accuracy reactive class 2 according to UNE-EN 62053-23
- RS485 serial port
- MODBUS communication protocol
- Type of codification: RTU (Remote Terminal Unit)
- Communications: S0 pulses according to EN 62053-31
- Active constant: 800 imp/kWh
- Reactive constant: 800 imp/kWh
- Operating Temp.: from -25 °C to +55 °C
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 9-width module

Reference	Model
OB709400V3	CONTAX D-6593 BUS-R V 3x1

Dimensions



Connections



CONTAX D-6593 BUS-R

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 V, A, Wh y 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 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:

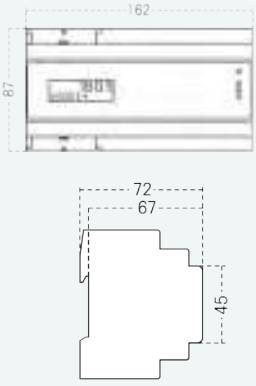
- **USB-RS485 adapter** (OB707022).
- **MODBUS/TCP gateway** (OB709972).

Technical features

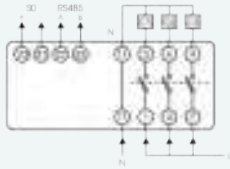
- Supply voltage: 3x230 (400) Va.c. with neutral, 50 Hz
- Base and maximum current: 10 (65) A
- Start current of 40 mA
- Max. own consumption: 1 VA
- Accuracy active Class 1 according to UNE-EN 62053-21
- Accuracy reactive Class 2 according to UNE-EN 62053-23
- RS485 serial port
- MODBUS communication protocol
- Type of codification: RTU (Remote Terminal Unit)
- Communications: S0 pulses according to EN 62053-31
- Active constant: 800 imp/kWh
- Reactive constant: 800 imp/kVArh
- Operating Temp.: from -25 °C to +55 °C
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 9-width module

Reference	Model
OB709400	CONTAX D-6593 BUS - R

Dimensions



Connections



CONTAX D-10093 BUS

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 25mm^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 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:

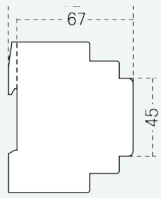
- **USB-RS485 adapter** (OB707022).
- **MODBUS/TCP gateway** (OB709972).

Technical features

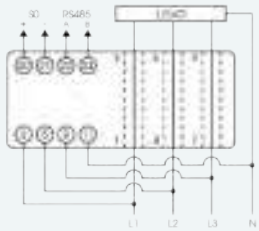
- Supply voltage: 3x230 (400) Va.c. con neutro, 50 Hz
- Base and maximum current: 10 (100) A
- Start current of 40 mA
- Max. own consumption: 1 VA
- Accuracy active Class 1 according to UNE-EN 62053-21
- Accuracy reactive class 2 according to UNE-EN 62053-23
- RS485 serial port
- MODBUS communication protocol
- Type of codification: RTU (Remote Terminal Unit)
- Communications: S0 pulses according to EN 62053-31
- Active constant: 800 imp/kWh
- Reactive constant: 800 imp/kVArh
- Operating Temp.: from -25 ºC to +55 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 9-width module

Reference	Model
OB709200	CONTAX D-10093 BUS

Dimensions



Connections



MULTIFUNCTION RECORDER METERS-THREE-PHASE

CONTAX D-0643 BUS

Description

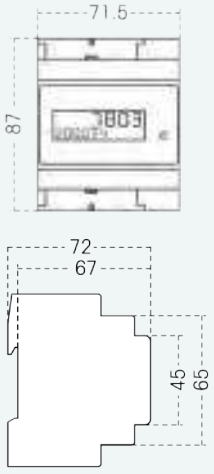
- Digital three-phase power meter for indirect measurement with Modbus (RTU) registers and communications.
- Indirect measurement through current transformers.
- It allows current transformers up to 1000/5 A Easy ratio adjustment in the unit.
- Load curve of 9,000 depth information. It corresponds to 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 15, 30 and 60 minutes..
- Reading on the LCD display of the following instantaneous parameters. V, A, W, VAr, VA, cos and Hz angle and phase-to-phase voltage.
- 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 features

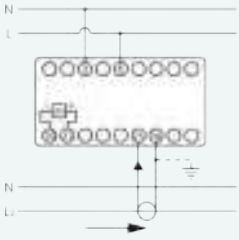
- Supply voltage: 3x230 (400) Va.c. con neutro, 50 Hz
- Base and maximum current: 15 (6) A
- Start current of 3 mA
- Max. own consumption: 1,5V
- Accuracy active class 1 according to UNE-EN 62053-21
- Accuracy reactive class 2 according to UNE-EN 62053-23
- RS485 serial port
- MODBUS communication protocol
- Type of codification: RTU (Remote Terminal Unit)
- Communications: S0 pulses according to EN 62053-31
- Active constant: 10.000 imp/kWh
- Reactive constant: 10.000 imp/kVArh
- Operating Temp.: from -25 ºC to +55 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 4-width module

Reference	Model
OB709600	CONTAX D-0643 BUS

Dimensions



Connections



CONTAX NET

Description

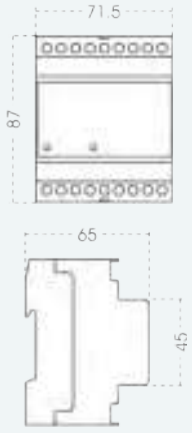
- S0 pulse collector emitted by up to 3 power meters on the basis of the consumption at the installation (electricity, water, gas, etc.).
- It receives S0-type pulses according to EN 62053-31 and transmits via **RS485 ASCII** protocol.
- Connected on a network without amplifier can communicate up to 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.
- Compatible with: **RS485-USB adapter** (OB707022). / **RS485-RADIOFRECUENCIA adapter** (OB707018) / **ORBITEL RS485 modem** (OB707021) / **MODBUS-TCP gateway** (OB709972).

Technical features

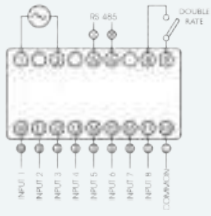
- Nominal voltage: 230 Va.c. (-15% ÷ +10%), 50-60 Hz
- Max. own consumption: 2 VA.
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 4-width module

Reference	Model
OB708300	CONTAX NET

Dimensions



Connections



CONTAX NET RF

Description

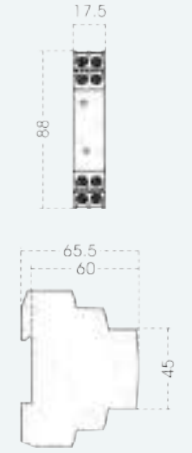
- S0-type pulse collector emitted by up to 5 power meters on the basis of the consumption at the installation (electricity, water, gas, etc.).
- It receives S0-type pulses according to EN 62053-31 and transmits via 868 MHz radiofrequency
- The data reading is taken through **AMRNET RF** (OB709975) radio frequency (RF) receiver.
- Its small size allows it to be added to existing installations and electrical panels with limited space availability.
- Its dual function as a repeater allows the creation of a wireless communication network for a wide-range of power meters.
- One-to-one indoor range up to 50 meters.
- One-to-one outdoor range up to 300 meters.
- LED pulse receipt indicator.
- Compatible with: Serie **CONTAX with S0 output** / **CONTAX D-3221 RF** (OB703120) / **AMRNET RF** (OB709975).

Technical features

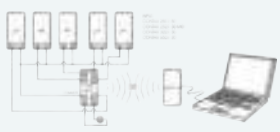
- Nominal voltage: 230 Va.c., 50-60 Hz
- Max. own consumption: 2 W
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 1-width module

Reference	Model
OB708310	CONTAX NET RF

Dimensions



Connections



COMMUNICATIONS

AMRNET RF

Description

- 868 MHz Radio frequency (RF) receiver with USB output for PC connection
- Allows remote reading, without the need of wiring, energy consumption transmitted by the **CONTAXNET RF** pulse collector and **CONTAX D-3221 RF** energy meter.
- LED pilot lights: power supply, ON, transmitting and receiving.
- Compatible with: **CONTAX D-3221 RF** (OB703120) / **AMRNET RF** (OB709975) / **CONTAX NET RF** (OB708310).

Technical features

- Transmit power: +10 dBm
- Receive sensitivity: -112 dBm
- Supported operating systems Win Xp, Win 7.
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Optional mounting on DIN rail according to EN 60715

Reference	Model
OB709975	AMRNET RF

Dimensions

Connections

MODBUS-TCP GATEWAY

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**.

Technical features

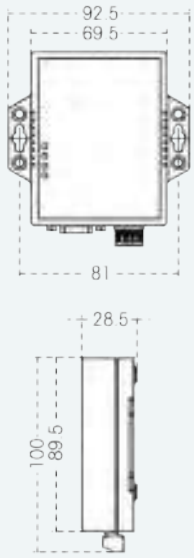
- Power supply: 9-24 Vd.c. (comes with a feeder).
- Connections:
  - Ethernet: RJ45 connector / Speed 10/100 Mbps
  - TCP: TCP server/TCP client/UDP
  - Serial port: 1 x RS232 (DB9) / 1 x RS422/485 with integral terminating resistor.
  - Modbus: RTU slave, RTU master, ASCII slave, ASCII master.
- Operating Temp.: from 0 ºC to +70 ºC

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

Reference	Model
OB709972	MODBUS-TCP GATEWAY

Dimensions



Connections

RS232/485-ETHERNET ADAPTER

Description

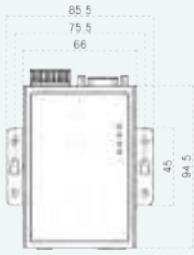
- Reading of a single power meter network with RS485 output through a Ethernet 10/100 Base TX network.
- 3-in-1 RS-232/422/485 interface Max.230Kbps serial interface and 10/100 Mbps Ethernet.
- RS-485 4 and 2-wire connection with AUTO-SEND™ and integral terminating resistor.
- IP support by IP address
- LED pilot lights: power supply, network connection and data traffic.
- Compatible with: **CONTAX NET** (OB708300) / Serie **CONTAX BUS** and **ANRET BUS**.

Technical features

- Power supply 8-24 Vd.c.. (comes with a feeder).
- Connections
  - Ethernet: RJ45 connector / Speed 10/100 Mbps
  - TCP: TCP server/TCP client/UDP
  - Serial port: 1 x RS232 (DB9) / 1 x RS422/485 with integral terminating resistor.
- Operating Temp.: from -25 ºC to +70 ºC
- Surface mounting

Reference	Model
OB707016	ADAPTRR RS232/485-ETHERNET

Dimensions



RS232/485-RADIOFREQUENCY ADAPTER

Description

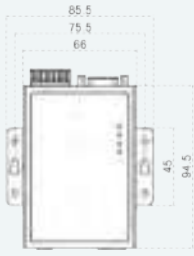
- Reading of a single RS485 power meter network by 433 MHz radiofrequency
- Approximate transmission distance of 300 m
- Transmission speed: 1200 / 2400 / 4800 / 9600 / 19200 / 38400 bps.
- LED pilot lights: power supply, transmitting and receiving.
- Compatible with: **CONTAX NET** (OB708300) / **CONTAX BUS** series and **ANRET BUS**.
- Accessories: **RS485 radiofrequency adapter antenna** (OB707019).

Technical features

- Power supply: 9-12 Vd.c. (comes with a feeder).
- Radio receiver: 433 MHz
- Connections:
  - Serial port: 1 x RS232 (DB9) / 1 x RS422/485
- Transmit power: <500 mW.
- Receive sensitivity: -123 dBm
- Operating Temp.: from -20 ºC to +70 ºC
- Surface mounting

Reference	Model
OB707018	ADAPTER RS485-RADIOFREQUENCY

Dimensions



COMMUNICATIONS

ORBITEL RS232 / ORBITEL RS485

Description

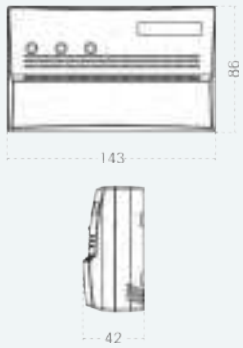
- Quad-band GSM modem connected to the power supply and slot for the telemetry SIM card.
- **ORBITEL RS232** allows one single power meter with RS232 port reading
- **ORBITEL RS485** allows a RS485 network reading of up to 31 devices.
- 3V SIM card holder, 1.8V with release button.
- Power, data transmission and GSM coverage LED indicators.
- It includes a receiving antenna with magnetic base and RS232 or RS485 connection cable according to model.
- Compatible with: **CONTAX NET** (OB708300) / **CONTAX BUS** series and **ANRET BUS**.

Technical features

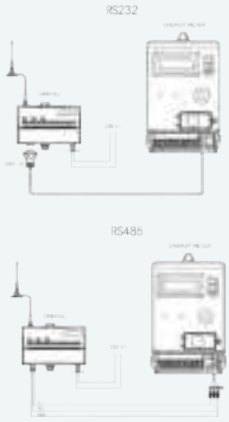
- Own consumption with data traffic of 4,8 VA
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 30 according to EN 60529
- Surface mounting on DIN rail contained in the packaging
- GSM MODULE:
  - Quad-band EGSM 850/900/1800/1900 MHz
  - Power supply:
    - Class 4 (2 W) @ 850 / 900 MHz
    - Class 1 (1 W) @ 1800 / 1900 MHz
  - Control through AT commands according to GSM 07.05, 07.07 and specifications of Telit
  - Sensitivity:
    - 107 dBm (typ.) @ 850/900 MHz
    - 106 dBm (typ.) @ 1800/1900 MHz

Reference	Model
OB707017	ORBITEL RS232
OB707021	ORBITEL RS485

Dimensions



Connections



RS485-USB ADAPTER

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 features

- RS485 terminal: male DB-9
- USB 11 20
- Compatible with: Windows 98/ME/XP/2000/CE, MAC & Linux 2420 or above
- Operating Temp.: from 0 ºC to +70 ºC

Reference	Model
OB707022	ADAPTER RS485 - USB

SOFTWARE CONTAX-ANRET

Description

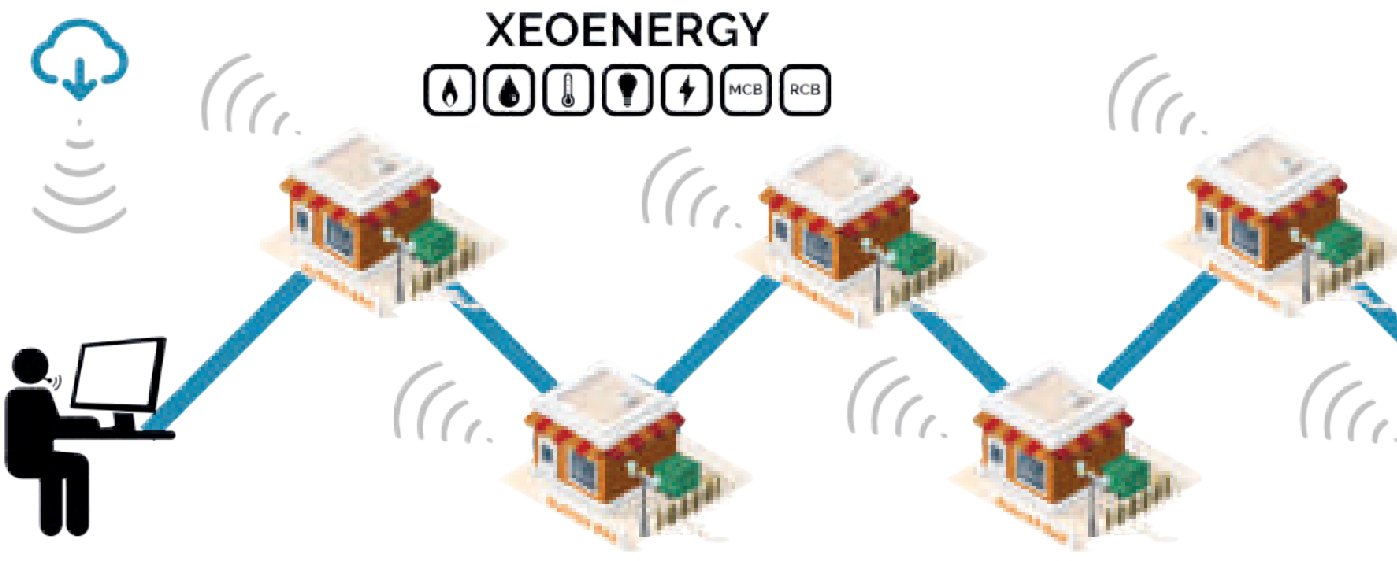
- Easy software for management and configuration of installations for submetering.
- Group-based and sub-group based management.
- Reports generation.
- Consumption graphic representation.
- Reading and configuration of the **CONTAX BUS** series with tariff's edition, hourly discrimination, load curves,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

ENERGY MEASUREMENT AND MANAGEMENT

ENERGY MANAGERS

USES AND APPLICATIONS

- **XEO ENERGY** is presented as a telemetry and comprehensive energy telemanagement platform for small installations to major industries and buildings with specific needs.
- The following diagram shows an example of consumption and supply management in several locations where **XEOENERGY** sends the consumption reading of the most critical circuits, reports events and tripping of protections, allows remote operation in the installation and identifies undesirable consumption.
- **XEO ENERGY** can be modified to be adapted to other energy or control projects such as electric vehicle charging, car wash facility management, weather stations, mining operations, photovoltaic systems or street lighting, etc.



XEO ENERGY

Description

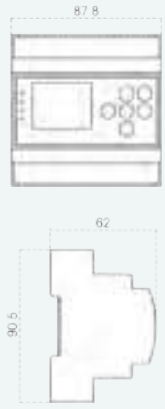
- It has typical interfaces for devices for energy measurement:
- 2 RS485 Modbus RTU ports for integration of devices.
- 8 S0-type pulse inputs for measurement reading. These inputs can also be configured as inputs for alarm signaling, protection tripping or others.
- Input for NTC temperature sensor
- 6 potential-free outputs.
- High capacity smart logger.
- 1 GB of storage for recording of load curves, events, reading of parameters, etc.
- Embedded web with added security.
- Secure RESTful interface (HMAC signatures) for management of requests.
- Communications: modem 3G and Ethernet.
- Compatible with: **CONTAX BUS** series and **ANRET BUS** with RS485 RTU output / **RS485 radiofrequency adapter** (OB707018).

Technical features

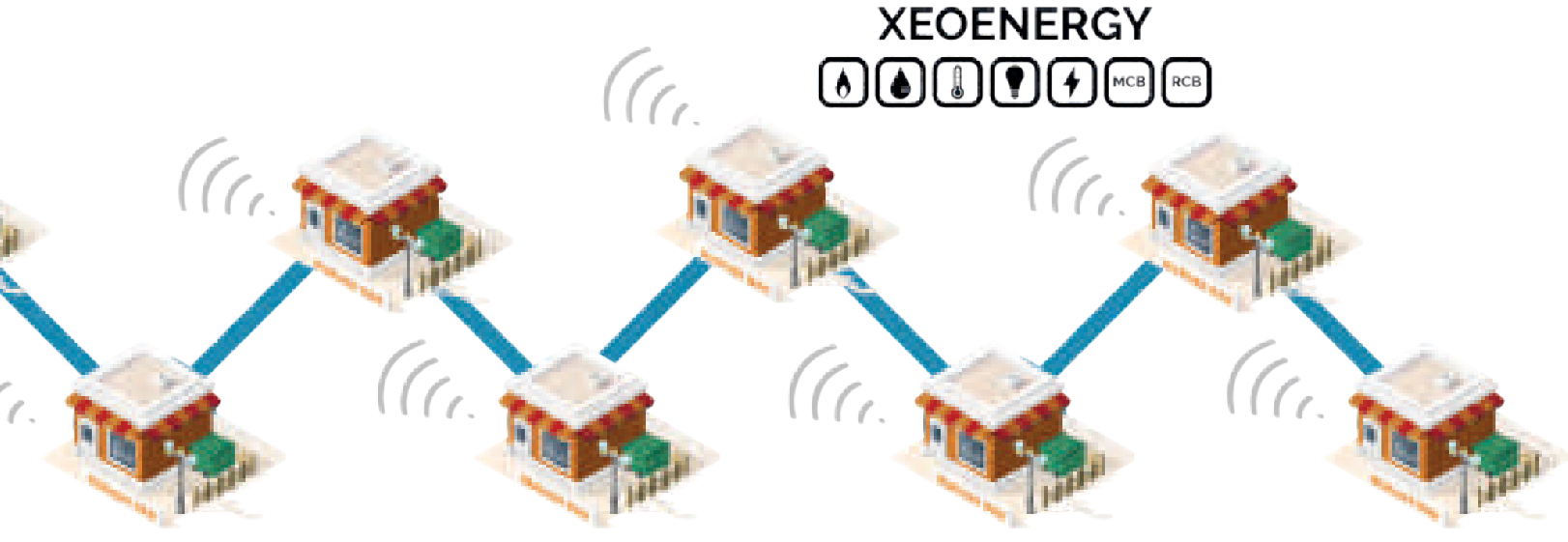
- Power supply: 230 Va.c. 50-60 Hz
- Power supply protected against surges in the case of the absence of the neutral
- Battery for power outage alerts
- Operating Temp.: -10 ºC to +45 ºC according to EN 60730-2-7
- Protection type without cabinet: 1 x IP 20 according to EN 60529
- Mountable on DIN rail according to EN 60715
- 5-width module

Reference	Model
OB709984	XEO ENERGY
OB7099843G	XEO ENERGY 3G

Dimensions



Connections



INSTRUMENTATION - SINGLE/THREE-PHASE NETWORK ANALIZERS

USES AND APPLICATIONS

- Allow instant reading of the different electrical parameters of the power lines for facilities, machinery, and equipment.
- Measuring equipment or digital instrumentation has several advantages in respect to traditional analog devices: greater measurement accuracy, better visualization and data breakdown using units and decimals, lower power consumption, and greater robustness.

ANRET M / ANRET Q

Description

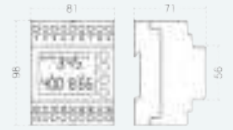
- Electrical parameter reading of single and three-phase lines with or without neutral.
- Indirect measurement through current transformers.
- It allows current transformers up to 1000/5 A Easy in unit ratio adjustment.
- Optional voltage measurement through a transformer up to 10,000/230 Va.c.
- Backlit LCD display for good visibility even in darkness.
- Parameters: V, A, W, Var, VA, Wh, VArh, cos phase angle, Hzz
- Phase, between phases and total values.
- Manual reset of active and reactive energy power meters.
- Accessories: **METRA/ANRET** adapter frame from 72x72 mm. to 96x96 mm (VJ44580000).

Technical features

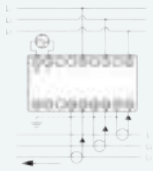
- Supply voltage: 230 Va.c. (-15% ÷ +10%), 50-60 Hz
- Line voltage: 3 x 230 (400) Va.c., 50-60 Hz
- Base and maximum current: 5 (6) A
- Max. own consumption 4 VA
- Accuracy: Voltage: 0,5 VA, Current power: 0,5 VA, Active Class 2 according to EN 61036 / Reactive Class 3 according to EN 61268
- Operating Temp.: from 0 °C to +50 °C
- Protection degree: IP 20 according to EN 60529

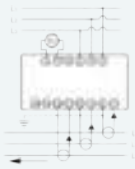
Reference	Model	Mounting
OB540004	ANRET M_1 PH/3PH	DIN rail. 4 modules
OB540005	ANRET Q_1 PH/3PH	72 x7 2 mm Flush mounting

Dimensions



Connections





ANRET M-R / ANRET Q-R

Description

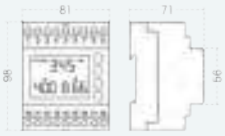
- Reading of single and three phase lines with or without neutral and two output relays.
- Configurable functionality of relays:
- Total or per phase magnitude (V, A, Wh, etc.).
- Maximum or minimum alarm value.
- Differential value.
- N/A or N/C relay operation.
- Automatic or manual alarm deactivation.
- Delay in seconds.
- It logs maximum phase and total values of any parameter with the date and time they were taken.
- It allows current transformers up to 1000/5 A Easy ratio adjustment in the unit
- Optional voltage measurement through a transformer up to 10.000/230 Va.c.
- Backlit LCD display for good visibility even in darkness.
- Parameters: V, A, W, Var, VA, Wh, VArh, cos phase angle and Hz
- Phase, between phases and total values.
- Manual reset of active and reactive energy power meters and peak values.
- Programming protection using access codes to prevent unauthorised access.
- Accessorie: **METRA/ANRET** adapter frame from 72x72 mm to 96x96 mm (VJ44580000).

Technical features

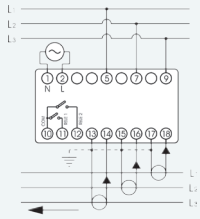
- Supply voltage: 230 Va.c. (-15% ÷ +10%), 50-60 Hz
- Line voltage: 3 x 230 (400) Va.c., 50-60 Hz
- Base and maximum current: 5 (6) A
- Max. own consumption of 5 VA
- Accuracy: Voltage: 0,5 VA Current power: 0,5 VA Active Class 2 according to EN 61036 / Reactive Class 3 according to EN 61268
- 2 output relays of max. 2 A
- Operating Temp.: from 0 °C to +50 °C
- Protection degree: IP 20 according to EN 60529

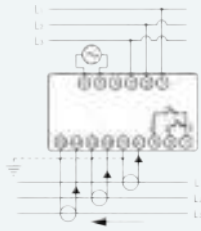
Reference	Model	Mounting
OB540008	ANRET M-R_1 PH/3PH	DIN rail. 4 modules
OB540009	ANRET Q-R_1 PH/3PH	Flush mounting 72 x7 2 mm

Dimensions



Connections





ANRET M-BUS / ANRET Q-BUS

Description

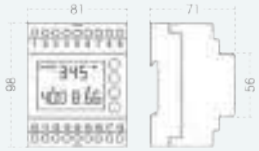
- Reading of single and three phase lines with or without neutral and Modbus RTU output
- Allows instant and accumulated values display through **CONTAX-ANRET Software.**
- Connected on a network without amplifier can communicate up to 32 units. Maximum reading range of 1.000 meters.
- Connected on a network with amplifiers can communicate up to 247 units in groups of 32.
- It memorizes maximum phase and total values of any parameter with the date and time they were taken.
- It allows current transformers up to 1000/5 A Easy ratio adjustment in the unit.
- Optional voltage measurement through a transformer up to 10,000/230 Va.c.
- Backlit LCD display for good visibility even in darkness.
- Parameters: V, A, W, Var, VA, Wh, VArh, cos Phi, phase angle and Hz
- Phase, between phases and total values.
- Manual reset of active and reactive energy power meters and peak values.
- Programming protection using access codes to prevent unauthorised access.
- Accessories: **METRA/ANRET** adapter frame from 72x72 mm. to 96x96 mm (VJ44580000).

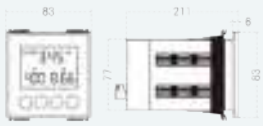
Technical features

- Supply voltage: 230 Va.c. (-15% ÷ +10%), 50-60 Hz
- Line voltage: 3 x 230 (400) Va.c., 50-60 Hz
- Base and maximum current: 5 (6) A
- Max. own consumption of 4 VA
- Accuracy: Current power: 0,5 VA Active class 2 according to EN 61036 / Reactive Class 3 according to EN 61268
- Serial port RS485
- MODBUS communication protocol
- Type of codification: RTU (Remote Terminal Unit)
- Operating Temp.: from 0 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529

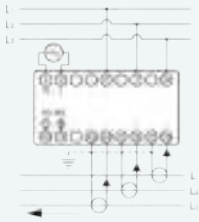
Reference	Model	Mounting
OB540006	ANRET M-BUS_1 PH/3PH	DIN rail. 4 modules
OB540007	ANRET Q-BUS_1 PH/3PH	Flush mounting 72 x7 2 mm

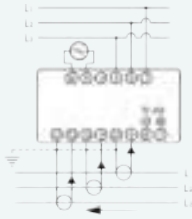
Dimensions





Connections





ANRET M-22

Description

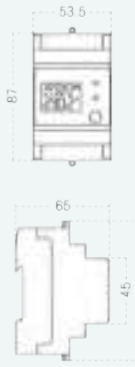
- Single-phase lines reading by direct measurement up to 22 amps.
- Backlit LCD display for good visibility even at dark.
- Parámeters: V, A, W, Wh, cos Phi and Hz
- Partial active energy power meter with reset to zero.
- Connection error detection.
- LED power indicator.

Technical features

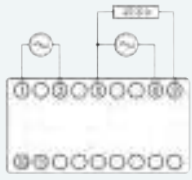
- Supply voltage: 230 Va.c. (-15% ÷ +10%), 50-60 Hz
- Line voltage: 230 Va.c., 50-60 Hz
- Max. own consumption of 4 VA
- Base and maximum current: 5 (22) A.
- Accuracy: Voltage: 0,5 VA Current power: 0,5 VA Active power: 1% Active class 1 according to EN 62053-21
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715 / 3-width module

Reference	Model
OB540001	ANRET M-22_1 PH

Dimensions



Connections



ANRET M-22 BUS

Description

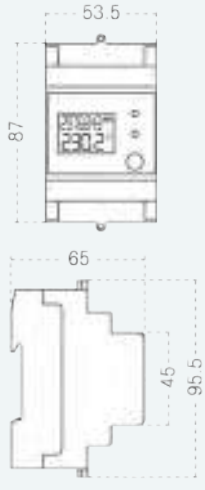
- Transmission and reading of electrical parameters for single-phase lines through RS485 port
- Direct measurement up to 22 A or via transformers up to 1000/5 A.
- Allows instant and accumulated values display through **CONTAX-ANRET Software.**
- Connected on a network without amplifier can communicate up to 31 units. Maximum reading range of 1000 meters.
- Connected on a network with amplifiers can communicate up to 247 units in groups of 30.
- Backlit LCD display for good visibility even in darkness.
- Parameters: V, A, W, Wh, cos Phi and Hz
- Partial active energy power meter with reset to zero.
- Connection error detection.
- LED power indicator.

Technical features

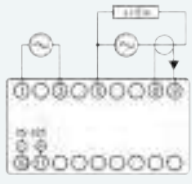
- Supply voltage: 230 Va.c. (-15% ÷ +10%), 50-60 Hz
- Line voltage: 230 Va.c., 50-60 Hz
- Base and maximum current with direct connection: 5 (22) A
- Base and maximum current with direct connection: 5 (6) A
- Max. own consumption of 4 VA
- Accuracy: TVoltage: 0,5 VA Current power: 0,5 VA Active power: 1% Active class 1 according to EN 62053-21
- RS485 serial port / MODBUS communication protocol.
- Type of codification: RTU (Remote Terminal Unit)
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715 / 3-width module

Reference	Model
OB540003	ANRET M-22-BUS_1 PH

Dimensions



Connections



INSTRUMENTATION - SINGLE-PHASE NETWORK ANALIZERS

ANRET M-63

Description

- Single-phase lines reading by direct measurement up to 63 A with integrated transformer.
- It streamlines the installation given that it is not necessary to handle the phase wire, up to 22mm².
- Backlit LCD display for good visibility even in darkness.
- Parameters: V, A, W, Wh, cos Phi and Hz
- Partial active energy power meter with reset to zero.
- Connection error detection.
- LED power indicator.

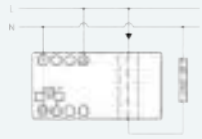
Technical features

- Supply voltage: 230 Va.c. (-15% ÷ +10%), 50-60 Hz
- Line voltage: 230 Va.c., 50-60 Hz
- Base and maximum current: 5 (63) A
- Max. own consumption of 4 VA
- Accuracy: Voltage: 0,5 VA Current power: 0,5 VA Active power: 1% Active class 1 according to EN 62053-21
- Operating Temp.: from -10 °C to +45 °C
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715 / 3-width module

Reference	Model
OB540002	ANRET M-63_1 PH

Dimensions

Connections



INSTRUMENTATION - THREE-PHASE NETWORK ANALIZERS

ANRET M-90A BUS

Description

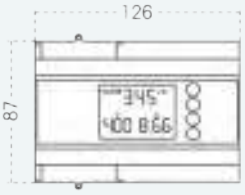
- Up to 90 A with direct reading via integrated transformers and RS485 output
- It streamlines the installation given that it is not necessary to handle the phase wire, up to 22mm²
- Allows instant and accumulated values display through **CONTAX-ANRET Software.**
- Connected on a network without amplifier can communicate up to 31 units. Maximum reading range of 1.000 meters.
- Connected on a network with amplifiers can communicate up to 247 units in groups of 30.
- Backlit LCD display for good visibility even in darkness.
- Parameters: V, A, W, Var, VA, Wh, VArh, cos Phi, Hz, angle and phase sequence.
- Phase, between phases and total values.
- Partial active and reactive energy power meter with reset to zero.
- Connection and surge error detection

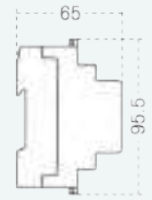
Technical features

- Supply voltage: 3x230 (400) Va.c. (-15% ÷ -10%), 50-60 Hz
- Base and maximum current: 10 (90) A
- Max. own consumption of 4 VA
- Accuracy: Voltage: 0,5 % Current power: 0,5 % Active power: 1% Reactive power: 1% Active Class 1 according to EN 62053-21 / Reactive Class 3 according to EN 62053-23
- Serial port RS485 / MODBUS communication protocol.
- Type of codification: RTU (Remote Terminal Unit)
- Operating Temp.: from -10 °C to +45 °C
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715 / 7-width module

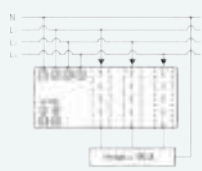
Reference	Model
OB540012	ANRET M-90A-BUS_3 PH

Dimensions





Connections



ANRET M-MULTI / ANRET Q-MULTI

Description

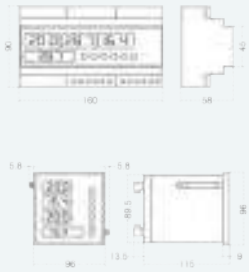
- Electrical parameters reading of single and three phase lines with or without neutral.
- Great LED display in dusty environments such as food industry, mining, etc.
- Indirect measurement through current transformers.
- It allows current transformers up to 1000/5 A Easy ratio adjustment in the unit.
- Optional voltage measurement through a transformer up to 10.000/230 Va.c.
- Parameters: V, A, W, Var, VA, Wh, VArh, cos Phi, phase angle and Hz
- Phase, between phases and total values.
- Manual reset of active and reactive energy power meters.
- Programming protection using access codes to prevent unauthorised access.

Technical features

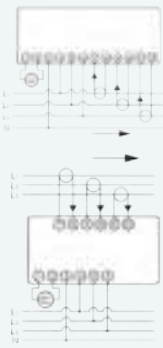
- Supply voltage: 115÷230 Va.c. (-15% ÷ +10%), 50-60 Hz
- Line voltage: 3 x 230 (400) Va.c., 50-60 Hz
- Base and maximum current: 5 (6) A
- Max. own consumption of4 VA
- Accuracy: Voltage: 0,5 VA Current power: 0,5 VA Active Class 2 according to EN 61036 / Reactive Class 3 according to EN 61268
- Operating Temp.: from 0 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529

Reference	Model	Mounting
OB540010	ANRET M-MULTI_3 PH	DIN rail. 9 modules
OB540011	ANRET Q-MULTI_3 PH	Flush mounting 72 x72 mm

Dimensions



Connections



INSTRUMENTATION - AMMETERS, VOLTMETERS AND FREQUENCY METERS

METRA M-V/A-R / METRA Q-V/A-R

Description

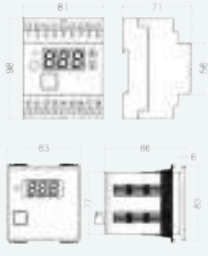
- It can function as a direct measurement or as a ammeter up to 1000/5 .
- It incorporates a 10 A changeover relay for machines and circuits activation and deactivation.
- Configurable functions of the relay: Magnitude (volts or amps) / Maximum or minimum value / Differential value.
- Great LED display in dusty environments such as food industry, mining, etc.
- LED power indicator.
- Accessories: **METRA/ANRET** adapter frame from 72x72 mm. to 96x96 mm (VJ44580000).

Technical features

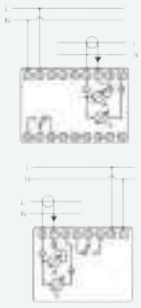
- Supply voltage: 230 Va.c. (-15% ÷ -10%), 50-60 Hz
- Max. own consumption of 4,5 VA
- Accuracy: Voltage: 0,5 % Current power: 0,5 VA
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529

Reference	Model	Reading	Mounting
OB520019	METRA M-V/A-R 600V,XA AC	Volts up to 600 Va.c.	DIN rail. 4 modules
OB529004	METRA Q-V/A-R 600V,XA AC	Amps up to 1.000/5 A	Flush mounting 72 x7 2 mm

Dimensions



Connections



INSTRUMENTATION - AMMETERS, VOLTMETERS AND FREQUENCY METERS

METRA M-V+A / METRA Q-V+A

Description

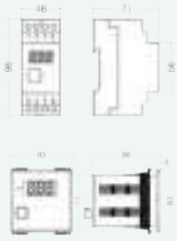
- It can function as a direct measurement voltmeter or as a ammeter up to 1,000/5 A.
- It shows in the upper window the voltage value in volts and in the lower window the current value in amps.
- Great LED display in dusty environments such as food industry, mining, etc
- Accessories: **METRA/ANRET** adapter frame from 72x72 mm. to 96x96 mm. (VJ44580000)

Technical features

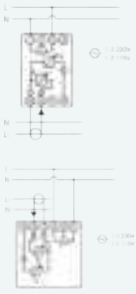
- Supply voltage: 3x230 (230) Va.c. (-15% ÷ -10%), 50-60 H
- Base and maximum intensity: 5 (6) A
- Max. own consumption of 4 VA
- Accuracy: Voltage: 0,5 % Current power: 0,5 VA
- Operating Temp.: from -10 ºC to +45 ºC
- Protection degree: IP 20 according to EN 60529

Reference	Model	Reading	Mounting
OB520020	METRA M-V+A 600V,XA AC	Volts up to 600 Va.c.	DIN rail. 2 modules
OB520021	METRA Q-V+A 600V,XA AC	Amps up to 1,000/5 A	Flush mounting 72 x7 2 mm.

Dimensions



Connections



METRA M-V/A / METRA Q-V/A

Description

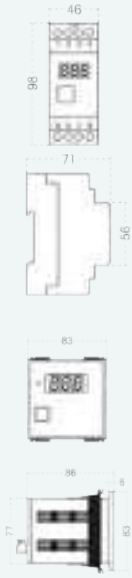
- It can function as a direct measurement or as a ammeter up to 1000/5 A.
- Great LED display in dusty environments such as food industry, mining, etc
- Accessories: **METRA/ANRET** adapter frame from 72x72 mm. to 96x96 mm (VJ44580000).

Technical features

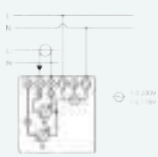
- Supply voltage: 230 Va.c. (-15% ÷ -10%), 50-60 Hz
- Base and maximum intensity: 5 (6) A
- Max. own consumption of 4 VA
- Accuracy: Voltage: 0,5 % Current power: 0,5 VA
- Operating Temp.: from -10 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529

Reference	Model	Reading	Mounting
OB520001	METRA M-V/A 600V,XA AC	Volts up to 600 Va.c.	DIN rail. 2 modules
OB520002	METRA Q-V/A 600V,XA AC	Amps up to 1,000/5 A	Flush mounting 72 x7 2 mm.

Dimensions



Connections



METRA M-V / METRA Q-V

Description

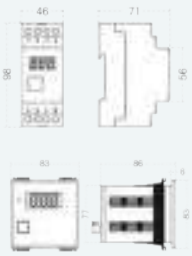
- Voltmeter for direct current installations or machinery.
- Great LED display in dusty environments such as food industry, mining, etc
- Accessories: **METRA/ANRET** adapter frame from 72x72 mm. to 96x96 mm

Technical features

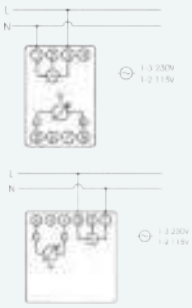
- Supply voltage: 115/230 Va.c. (-15% ÷ -10%), 50-60 Hz
- Max. own consumption of 5 VA.
- 0,5% Accuracy
- Operating Temp.: from -10 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529

Reference	Model	Lectura	Montaje
OB529001	METRA M-V 1V DC	Volts uo to 1 V d.c.	DIN rail. 2 modules
OB520006	METRA M-V 10V DC	Volts uo to 10 V d.c.	DIN rail. 2 modules
OB520007	METRA M-V 100V DC	Volts up to 100 Va.c.	DIN rail. 2 modules
OB520008	METRA M-V 600V DC	Volts up to 600 Va.c.	DIN rail. 2 modules
OB520009	METRA Q-V 1V DC	Volts uo to 1 V d.c.	Flush mounting 72 x7 2 mm.
OB529002	METRA Q-V 10V DC	Volts uo to 10 V d.c.	Flush mounting 72 x7 2 mm.
OB520011	METRA Q-V 100V DC	Volts up to 100 Va.c.	Flush mounting 72 x7 2 mm.
OB520012	METRA Q-V 600V DC	Volts up to 600 Va.c.	Flush mounting 72 x7 2 mm.

Dimensions



Connections



METRA M-A / METRA Q-A

Description

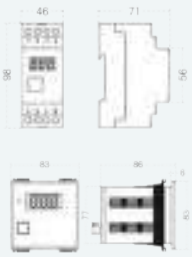
- Ammeter for installations or machinery.
- Amps reading for direct or alternating current.
- Great LED display in dusty environments such as food industry, mining, etc
- Accessories: **METRA/ANRET** adapter frame from 72x72 mm. to 96x96 mm

Technical features

- Supply voltage: 115/230 Va.c. (-15% ÷ -10%), 50-60 Hz
- Max. own consumption of 5 VA
- 0,5% Accuracy
- Operating Temp.: from: -10 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529

Reference	Model	Lectura	Montaje
OB520016	METRA M-A 10A DC	Amps up to 10 A d.c.	DIN rail. 2 modules
OB529003	METRA M-A XA DC	Amps up to 1,000/5 A	DIN rail. 2 modules
OB520013	METRA M-A 10A AC	Amps up to 10 A d.c.	DIN rail. 2 modules
OB520014	METRA Q-A 10A DC	Amps up to 10 A d.c.	Flush mounting 72 x7 2 mm.
OB520017	METRA Q-A XA DC	Amps up to 1,000/5 A	Flush mounting 72 x7 2 mm.
OB520018	METRA Q-A 10A AC	Amps up to 10 A d.c.	Flush mounting 72 x7 2 mm.

Dimensions



Connections

METRA M-H / METRA Q-H

Description

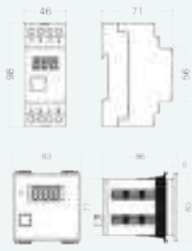
- Frequency meter for circuits, machinery and AC motors.
- Great LED display in dusty environments such as food industry, mining, etc.
- Accessories: **METRA/ANRET** adapter frame from 72x72 mm. to 96x96 mm (VJ44580000).

Technical features

- Supply voltage: 115/230 Va.c. (-15% ÷ -10%), 50-60 Hz
- Max. own consumption of 5 VA
- 0,5% Accuracy
- Operating Temp.: from -10 °C to +50 °C
- Protection degree: IP 20 according to EN 60529

Reference	Model	Reading	Mounting
OB520003	METRA M-H 100 Hz	Hertz up to 100 Hz	DIN rail. 2 modules
OB520004	METRA Q-H 100 Hz	Hertz up to 100 Hz	Flush mounting 72 x7 2 mm.

Dimensions



Connections

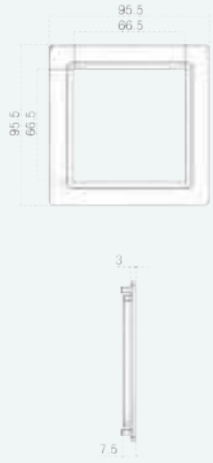
METRA/ANRET adapter frame from 72 x 72 mm to 96 x 96mm.

Description

- It allows to embed devices of 72 x 72 mm in mortising of 96 x 96 mm
- Compatible with all **METRA** and **ANRET Q** models..
- Colour: black.

Reference	Model
VJ44580000	ADAPTER FRAME METRA/ANRET 72x72 mm - 96x96 mm

Dimensions



USES AND APPLICATIONS

- Power streamliners prevent the consumption of the installation from exceeding a certain power value avoiding surges in the lines, machinery breakdowns or fines from the supply company.
- Their programming is very easy, all the user has to do is set the maximum power for the device to avoid the simultaneous operation of higher consumption machinery or appliances (heating, washing machine, boiler, oven, air conditioning, etc.) making them all function, but not at the same time.

ENERGEST

Description

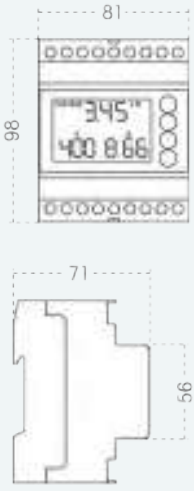
- **ENERGEST** allows the measuring and monitoring of a single-phase electrical system of up to 60 A through the included toroidal transformer. The control of charges is carried out through two relay outputs.
- If the current measured by the transformer exceeds the set maximum value, the device will 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 features

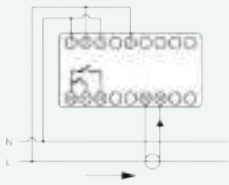
- Power supply: 20 Va.c. 50-60 Hz
- Indirect current connection of up to 60 A
- Output: 2 relays with simple contact of 2 A / 250 Va.c.
- Operating temperature: -10°C ÷ +45°C
- Protection type: IP 20 according to EN 60529
- Mounting on DIN rail according to EN 60715
- 4-modules wide

Reference	Model	Contacts
OB709000	ENERGEST	2 type NO or NC

Dimensions



Connections

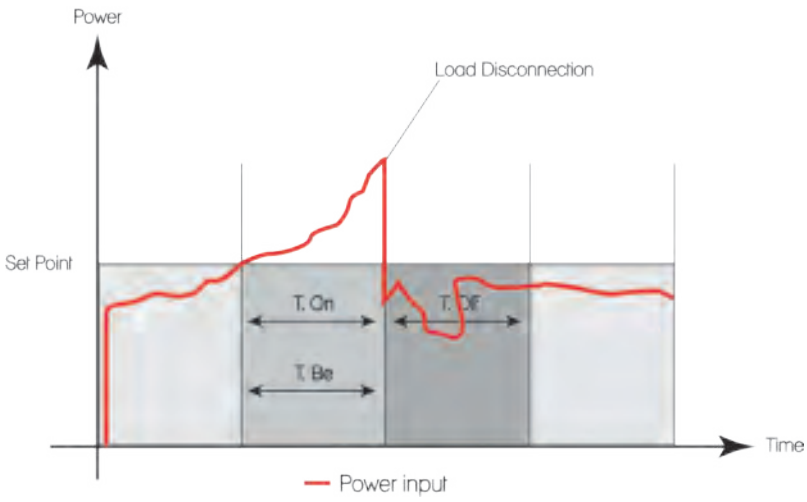


POWER RATIONALIZERS

GESTCON 1

Description

- **GESTCON 1** is equipped with an output changeover contact for the control of a load or load groups, and an audible device. It reconnects secondary circuits past the selected delay time. If total consumption remains high it disconnects them again.
- Adjustable parameters: maximum power consumption, switch-off delay time, audible device time, and delay time before load connection
- Active power display consumed in real time.
- Backlit LCD screen.
- Output disconnected LED.
- Audible indicator via buzzer.



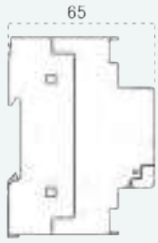
- Set Point (kW): Over this value GESTCON disconnects the load.
- T on (s.): Pre-alarm time before disconnect.
- T off (s.): Disconnection time.
- The load is connected only when the consumption power is lower than the set point..

Technical features

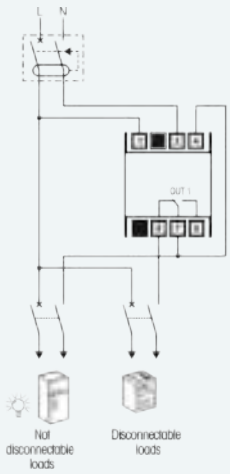
- Power supply: 20 Va.c. 50-60 Hz
- Direct current connection of up to 32 A
- Adjustable set poin: 0,8 ÷ 7 kW
- Pre-alarm Ton time: 0 ÷ 9999 seconds
- The buzzer time: 0 ÷ Ton seconds
- Disconnection Toff time: 0 ÷ 9999 seconds
- Output: 1 relay with changeover contact of 16A / 250 Va.c.
- Section width of 6 mm²
- Operating temperature: -10°C ÷ +45°C
- Protection Type: IP 20 according to EN 60529
- Mountable on DIN rail according to EN 60715
- 2-width module

Reference	Model	Contacts
OB709010	GESTCON 1	1 changeover

Dimensions



Connections



GESTCON 3

Description

- **GESTCON 3** has 3 output changeover contacts so it is possible to control up to 3 loads (or load groups) as they can establish the order in which they are disconnected and connected. It reconnects loads whenever possible without exceeding the maximum power set.
- Adjustable parameters: maximum consumption power, hysteresis, relay for actual consumption measurement per circuit, high consumption time allowed, switch-off delay time and load connection time.
- Active power display consumed in real time.
- Backlit LCD screen.
- Over-consumption LED indicator

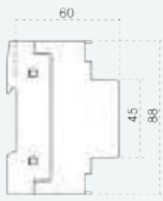
- Set Point (kW): Over this value GESTCON disconnects the load according to the priority
- Hysteresis (kW): Bellow this value it is possible the load reconnection.
- On delay (s.): Minimum time between reconnections.
- Off time (s.): Disconnection time over the set point
- Control T (min.): Over consumption time allowed.

Technical features

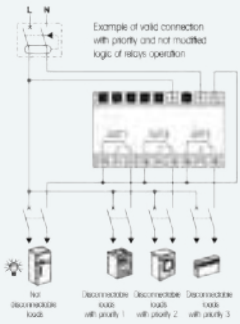
- Power supply: 20 Va.c. 50-60 Hz
- Direct current connection of up to 32A.
- Adjustable set point: 1 ÷ 10 kW
- Adjustable hysteresis: 0 ÷ 1 kW
- Delay ON: 0 ÷ 9999 seconds
- Delay OFF: 0 ÷ 9999 seconds
- Control T: 0 ÷ 999 min.
- Output: 3 relays with changeover contact of 16A / 250 Va.c.
- Section width of 6 mm²
- Operating temperature:-10 °C ÷ +45 °C
- Protection Type: IP 20 according to EN 60529
- Mountable on DIN rail according to EN 60715
- 4-width module

Reference	Model	Contacts
OB709020	GESTCON 3	3 changeover

Dimensions



Connections



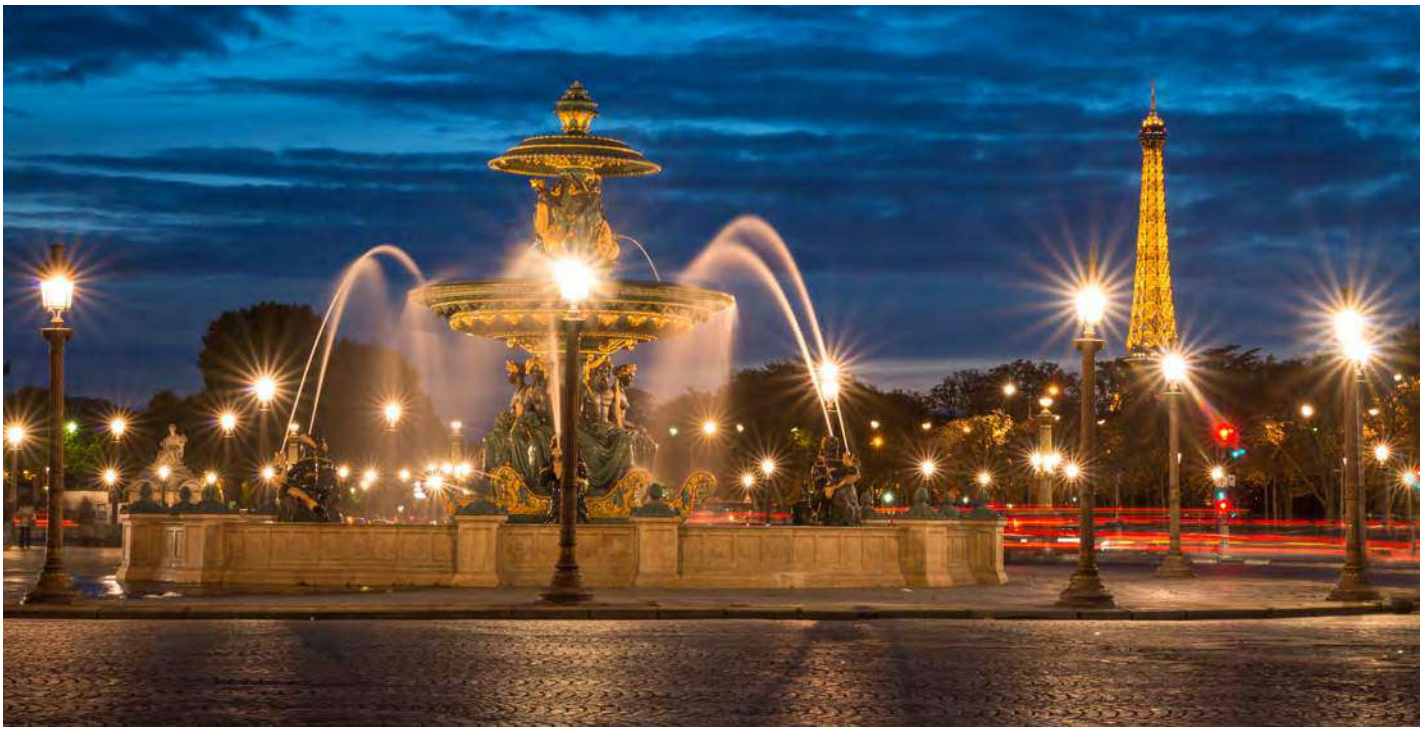
LIGHTING AND STREET LIGHTS MANAGEMENT

Pag. 115
Astronomic time switches

Pag. 118
Photocells

Pag. 121
High performance luminous flux stabilizers-dimmers

Pag. 16
Street lighting managers



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

LIGHTING AND STREET LIGHTS MANAGEMENT

ASTRONOMIC TIME SWITCHES

ASTRO NOVA CITY / ASTRO UNO

Description

- Astronomical timed switch with daily updating and simple guided programming using text menus.
- **ASTRO NOVA CITY:** two switched contacts.
- **ASTRO UNO:** one switched contacts.
- Has a connection port for programming through the **SMART BLUETOOTH KEY** accessory.
- Up to 40 daily or weekly programs.
- Fixed or astronomical operations (dawn and dusk).
- Adjustable correction of astronomical timetable of up to ± 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.
- Has 4 periods between two dates with special programs, which practically makes it a yearly timer switch.
- Allows the programming of cycles and pulses as short as 1 second.
- Manual activation or deactivation, temporary or permanent.
- Automatic daylight savings changes according to country.
- Simple guided programming using text menus in different languages.
- Contact operating hours counter.
- Keyboard blocking using password.
- Replaceable reserve battery of up to ten years.
- Transparent seal-able window to avoid unauthorised changes.
- Accessories: **BLUETOOTH DONGLE** (OB709971), 2 Module surface box (OB140601).

Technical Features

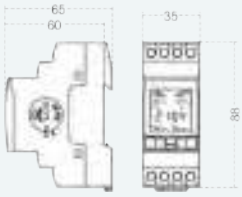
- Power supply: 120 or 230 Va.C, 50-60 Hz
  12, 24 or 48 Va.C / d.C, 50-60 Hz
- Switching capacity: 16 (10) A 250 Va.C
- Operating temp.:-10 ºC to +45 ºC according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Maximum cross-section: 4 mm2
- Mounted on DIN rail according to EN 60715
- 2 width modules

Max. Recomm. Load

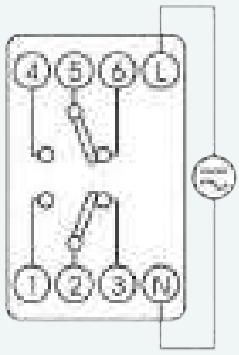
	3000 W
	1200 VA
	2000 VA
	3000 W
	400 VA
LED	90 VA

Reference	Model	Contact
OB178012	ASTRO NOVA CITY_230 Va.C,50-60 Hz	2 Chargeover
OB178112	ASTRO UNO_230 Va.C,50-60 Hz	1 Chargeover

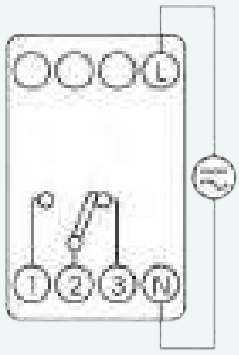
Dimensions



Connections



Connections



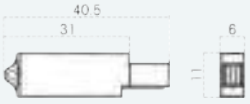
BLUETOOTH DONGLE

Description

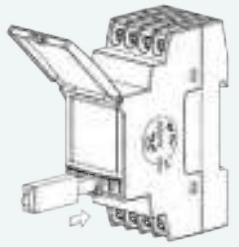
- Incorporates bi-directional Bluetooth communication with the following models: **DATA LOG, DATA LOG 2, ASTRO NOVA CITY** y **ASTRO UNO.**
- Allows programming and controlling of the system using the **ASTRO NOVA CITY** app, developed for mobile phones with iPhone or Android operating system.
- Compatible with:
  - Apple (iPhone 4S or higher, IPad 3 or higher)
  - Android (version 4.3 or higher and compatible with Bluetooth 4.0 LE)
  - Free available at: Google Play and App Store

Reference	Model
OB709971	BLUETOOTH DONGLE

Dimensions



Connections



ASTRO SAT

Description

- Astronomic time switch with a large memory capacity.
- Has a list of 52 capitals of Spanish provinces and 7 Portuguese.
- Simple guided programming using text menus: SPA, ENG, ITA, POR, GER, NOR, SWE.
- Two switched contact outputs.
- Up to 70 fixed or astronomical (dawn and dusk) operations.
- Adjustable correction of astronomical timetable of up to ± 9 hours, 59 minutes.
- Has infra-red port for reading programs with the MANDO GPS SAT accessory.
- Large back-lit display with contrast adjustment.
- Contact operating hours counter.
- Has a period between two dates with special programming
- On-screen chronogram of functioning.
- Manual activation/desactivation, temporary or permanent which cancels the program until its deactivation.
- Automatic daylight saving change for Europe, or deactivated.
- Keyboard block
- Replaceable reserve battery of up to four years.
- Transparent seal-able window to avoid unauthorised changes.
- Accessories: **MANDO GPS SAT** (OB611706), 2 Module surface box (OB140601).

Technical Features

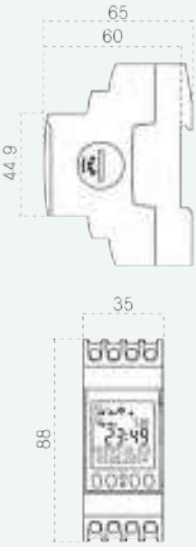
- Power supply: 120 or 230 Va.C, 50-60 Hz
  12, 24 or 48 Va.C / d.C, 50-60 Hz
- Switching capacity: 2 x 16 (10) A 250 Va.C
- Operating temp.:-10 °C to +45 °C according to EN 60730-2-7
- Protection degree: IP 20 according to EN 60529
- Maximum cross-section: 4 mm2
- Mounted on DIN rail according to EN 60715
- 2 width modules

Max. Recomm. Load

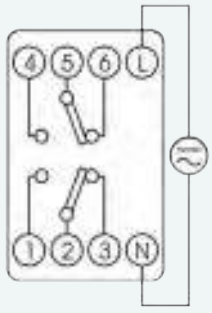
	3000 W
	1200 VA
	2000 VA
	3000 W
	400 VA
LED	90 VA

Reference	Model
OB178200	ASTRO SAT_230 Va.C,50-60 Hz

Dimensions



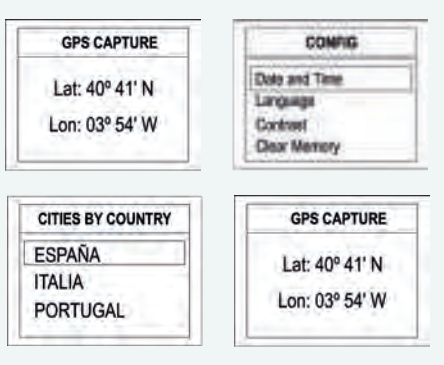
Connections



MANDO GPS SAT

Description

- Has infra-red communication with ASTRO SAT system.
- Equipped with GPS locator for transfer of geographical coordinates in ASTRO SAT.
- Allows copying and storing up to 70 programs.
- Fast transfer of programs to the installations.
- Back-lit LCD display.

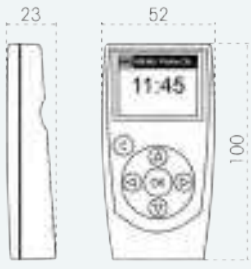


Technical Features

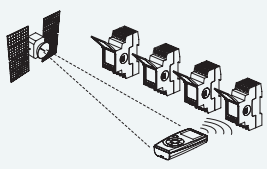
- Power supply: 2 Alkaline batteries LR03/AAA 1,5 V
- Battery life: 24h approx.
- Switched off: 1 year approx.
- Back-lit liquid crystal LCD display
- Infra-red range: 1 meter maximum. Angle: 20º
- Operating temp.: -10 °C to +45 °C

Reference	Model
OB611706	MANDO GPS SAT_remote control

Dimensions



Connections



PHOTOCELLS

USES AND APPLICATIONS

These are equipped with a photosensitive element which acts using a micro-relay that responds to the light conditions. Therefore its function is to control the lighting's switch-on and switch-off as a function of the light threshold set in the system.

Because these elements are installed externally, they are susceptible to pollution, UV rays and condensation which diminishes its sensitivity, which is why it is necessary to plan cleaning tasks and periodic maintenance.

It has many uses in low consumption lighting such as:

- Lighting for porches and common areas in residential and office buildings.
- Illuminated night time signaling.
- Advertising with lighting.
- Shop window lighting.
- Access walkways and garden lighting.

VEGA DIN

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 N/O 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 (OB140601).

Technical Features

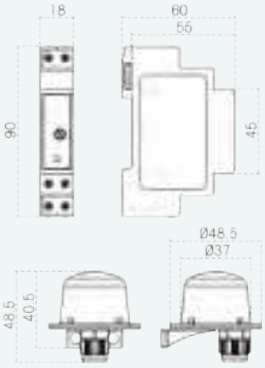
- Power supply voltage: 230 Va.C (-20% a +15%), 50-60 Hz
- Switching capacity: 16 A 250 Va.C.
- Sensivility: from 10 a 100 lux
- 20 second activation delay
- Operating temp. : 0 ºC to +50 ºC
- Protection degree: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- One width module
- Exterior sensor
- Protection degree: IP 65 according to EN 60529
- Operating temp. : -20 ºC to +50 ºC
- Maximum distance between sensor and equipment 100 m
- Wall surface mounting using screws

Max. Recomm. Load

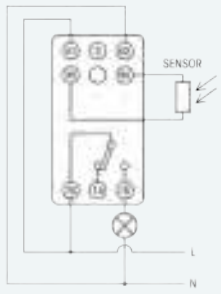
400 W
2000 VA

Reference	Model
OB131612	VEGA DIN

Dimensions



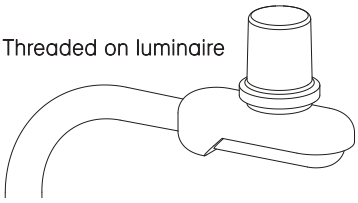
Connections



ORBIFOT

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. Simple N/O contact.
- Activation delay to avoid unwanted switch-on or switch-off due to vehicle headlights, clouds or other factors.
- Mounting:



Technical Features

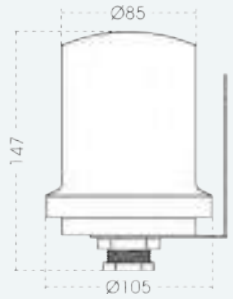
- Power supply voltage: 120 or 230 Va.C (± 10%), 50-60 Hz
- Switching capacity: 10 A 250 Va.C
- Sensivility: from 5 a 1000 lux
- 25 second activation delay
- Operating temp. : -10 °C to +50 °C
- Protection degree: IP 65 according to EN 60529

Max. Recomm. Load

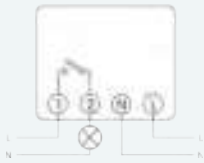
	800 W
	N/A
	600 VA
	800 W
	N/A
LED	N/A

Reference	Model
OB132200	ORBIFOT_230 Va.C,50-60 Hz

Dimensions



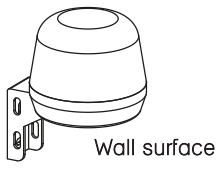
Connections



VEGA

Description

- Surface photocell with exterior regulation.
- Higher degree IP 65 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:



Technical Features

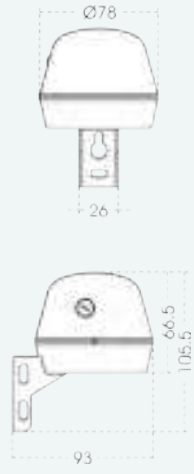
- Power supply voltage: 230 Va.C (±10%), 50 Hz
- Switching capacity: 10 A 250 Va.C
- Sensivility: from 5 a 300 lux
- 60 second activation delay
- Operating temp. : -30 °C to +50 °C
- Protection degree: IP 54 according to EN 60529

Max. Recomm. Load

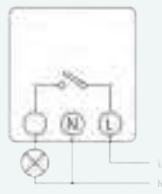
	2000 W
	100 VA
	1000 VA
	1000 W
	100 VA
LED	50 VA

Reference	Model
OB131712	VEGA_230 Va.C, 50 Hz

Dimensions



Connections



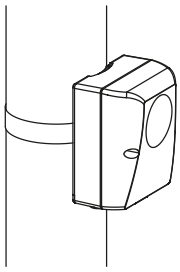
PHOTOCELLS

ORBILUX

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
- On post using a metallic tie



Technical Features

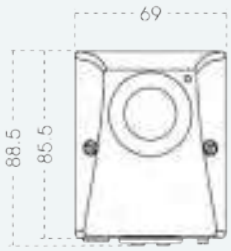
- Power supply voltage: 120 or 230 Va.C (± 10), 50-60 Hz
- Switching capacity: 16 A 230 Va.C
- Sensivility: from 5 a 200 lux
- 30 second activation delay
- Operating temp. : -25 °C to +60 °C
- Protection degree: IP 55 according to EN 60529

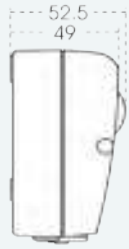
Max. Recomm. Load

	3000 W
	1000 VA
	2000 VA
	3000 W
	400 VA
LED	500 VA

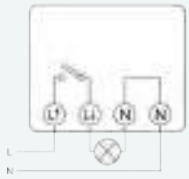
Reference	Model
OB132012	ORBILUX_230 Va.C,50-60 Hz

Dimensions



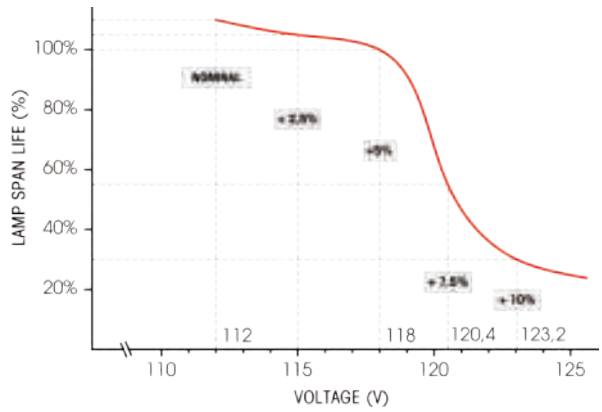


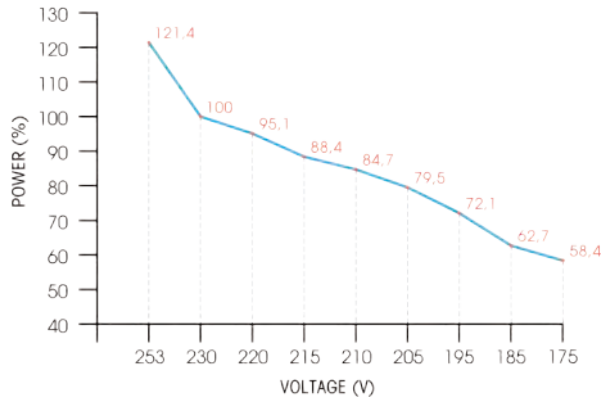
Connections



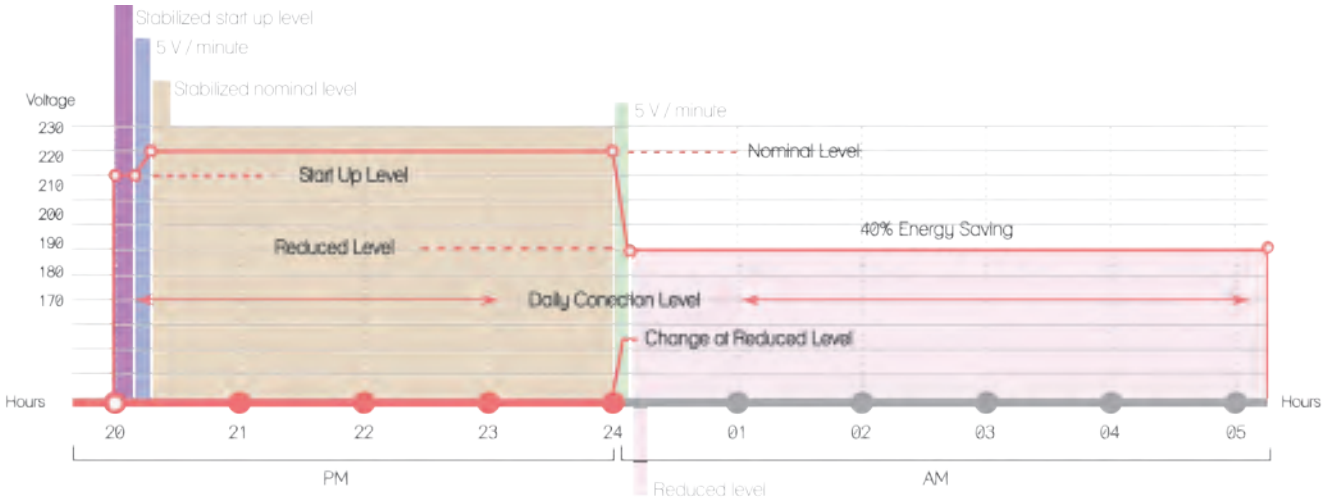
USES AND APPLICATIONS

In industrial and municipal systems the energy cost of lighting represents approximately 50% of the total electricity bill. One of the principal means of saving, is with the installation of regulation systems for the discharge lamps used in lighting (Sodium Vapour, Mercury Vapour and Metal Halide) since these increase consumption considerably and diminish their useful life with the voltage surges which occur during the night, when industrial and commercial activity is finished.





None of the existing traditional systems (double circuit, two level reactance, etc.) solve the problems of voltage surges and they also require a large investment in installation and maintenance. As well as establishing the voltage and avoiding excess consumption and premature wearing out of the lamps, we can also reduce the lighting levels in the low-use hours or when demand is lower. In this way we can achieve significant energy savings which can easily reach 40%.



Installation advantages:

- It can be incorporated in new or existing installations with reduced investment.
- Allows phase imbalance from 0% - 100%
- Fast return since it is not necessary to modify lines or control wires, nor to change ballasts or lamps.
- The systems come factory programmed and so it is not necessary to make changes.
- The electrical cabinet does not need forced ventilation.
- Telephone and on-site technical support from the initial consultation through to installation and putting into service.
- Simple installation in line headers, approximately 3 hours.

LIGHTING AND STREET LIGHTS MANAGEMENT

HIGH PERFORMANCE LUMINOUS FLUX STABILIZERS-DIMMERS

USES AND APPLICATIONS

System advantages:

- Increase in useful life and return on lamps and auxiliary equipment.
- We can achieve important savings at 3 stages: start-up, stabilisation and reduction.
- Elimination of energy overrun due to power surges.
- Reduction in maintenance costs due to repositioning of lamps and auxiliary equipment.
- Improvement in service quality by adapting the lighting to the needs of the installation.
- The use of relays, along with semiconductors offers greater flexibility and a high level of isolation between the lighting power supply and the control circuits.
- Low power switching (around 6% of functioning power).
- Efficiency greater than 99% at full load.
- The potency factor of the system does not vary.
- Allows independent regulation, which allows us to achieve different levels of phase reduction.
- Each phase is protected from over-heating, short circuit, temperature extremes, anomalies in the control panel or output voltage.
- High resistance to electrical disturbances.

Maintenance advantages:

- Does not require maintenance. It is only necessary to check the connections and verify the setting values.
- 3 years full warranty against design or manufacturing defects (covers transportation, diagnosis, work and replacements).
- After the warranty period is passed the user may choose to carry out the necessary repairs themselves without relying on the manufacturer.
- Free technical training course.
- Auto check functioning test prior to switching on the installation.
- If anomalies are detected during any phase, this phase enter bypass mode to guarantee continuation of service, without sacrificing savings in the unaffected phases.
- Modular design which simplifies and economises the possible repairs.

Application examples:

- Highways, motorways and tunnels.
- Parks and sporting fields.
- Ports or unloading docks.
- Streets, monuments and squares.
- Parking in hospitals, hotels, commercial centers etc.
- Industrial complexes, factories and service stations.

SELECTION CHART ACCORDING TO THE NUMBER AND TYPE OF LAMPS

		LAMP POWER									
		HPS LAMP						MV LAMP			
		75 W	100 W	150 W	200 W	250 W	400 W	80 W	125 W	250 W	400 W
		AUXILIARY POWER ADDED									
		86,25 W	115 W	172,5 W	230 W	289,5 W	460 W	92 W	143,7 W	287,5 W	460 W
ESDONI	POWER kVA	NUMBER OF LAMPS AT 70% CAPACITY									
EN THREE PHASE	10 kVA	81	61	41	30	24	15	76	79	24	15
	20 kVA	162	122	81	61	49	30	152	97	49	30
	30 kVA	234	183	122	91	73	46	228	146	73	46
	40 kVA	325	243	162	122	97	61	304	195	97	61
	50 kVA	406	304	203	152	122	76	380	243	122	76
	60 kVA	487	365	243	183	146	91	457	292	146	91
M SINGLE PHASE	3,3 kVA	27	30	13	10	8	5	25	16	8	5
	6,6 kVA	54	40	27	20	16	10	50	32	16	10
	10 kVA	81	61	41	30	24	15	76	49	24	15
	16 kVA	130	97	65	49	39	24	122	78	39	24

ESDONI EN

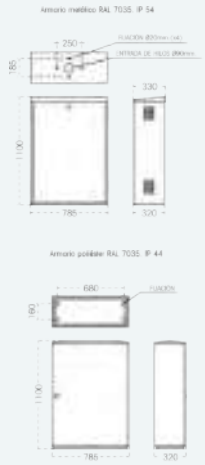
Description

- High performance light flux stabilisers-dimmers.
- Designed for three-phase lines with neutral 3x230 (400)Va.c.
- Power from 10 kVA to 60 kVA.
- Independent phase regulation for: start-up time, nomin.al voltage and reduced voltage
- Autotransformer with 14 outputs for variation of stepped output voltage.
- Slow variation of output voltage 5 V/m
- Magnetothermic protection and automatic bypass through independent contactors in each phase.
- LED indicators of status, error and activated output number.
- Measure of output voltage in True RMS
- Allows local control through **XEO LUM LOCAL** (OB509901).
- Allows tele-management through **XEO LUM** (OB509920).
- Accessories: Manual bypass (see ESDONI accessories), stainless steel cabinet (OB50CIN).

Technical Features

- Power supply voltage: 3x230 (400) Va.C con neutro (±10%), 50-60 Hz
- Maximum reduction: Ve -25%
- ±1% output voltage regulation for load variations from 0 to 100%.
- Fixed start-up voltage 210 Va.C
- Start-up time: 50 s, 3 min., 6 min. y 12 min
- Reduced voltage: 175, 185, 195 y 205 Va.C.
- Protection Type for metallic cabinet: IP 54 according to EN 60529 / IK10 according to EN 62262
- Material: Zinc plated steel and painted epoxy RAL-7035
- Protection Type for polyester cabinet: IP 44 according to EN 60529 / IK10 according to EN 62262
- Material: Coloured polyester RAL-7035

Dimensions



Connections

Reference with Metal Cabinet	Reference with Polyester Cabinet	Reference Without Cabinet	Model	Power	Maximum current by phase
OB50EN10CM	OB50EN10CP	OB50EN10S	ESDONI EN10	10 kVA	15 A
OB50EN20CM	OB50EN20CP	OB50EN20S	ESDONI EN20	20 kVA	30 A
OB50EN30CM	OB50EN30CP	OB50EN30S	ESDONI EN30	30 kVA	45 A
OB50EN40CM	OB50EN40CP	OB50EN40S	ESDONI EN40	40 kVA	60 A
OB50EN50CM	OB50EN50CP	OB50EN50S	ESDONI EN50	50 kVA	75 A
OB50EN60CM	OB50EN 60CP	OB50EN 60S	ESDONI EN 60	60 kVA	90 A

HIGH PERFORMANCE LUMINOUS FLUX STABILIZERS-DIMMERS

ESDONI M

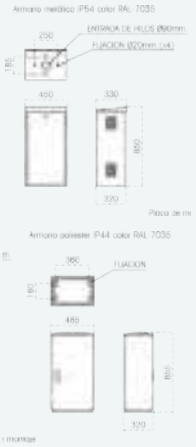
Description

- High performance light flux stabiliser-dimmer.
- Designed for single-phase lines with neutral 230 Va.c.
- Powers from 3.3kVA to 16kVA.
- Regulation: Start-up time, nomin.al voltage and reduced voltage.
- Autotransformer with 14 outputs for variation of stepped output voltage.
- Slow variation of output voltage 5 V/m
- Magnetothermic protection and automatic bypass by contactor.
- LED indicators of status, error and activated output number.
- Measure of output voltage in True RMS
- Allows local control through **XEO LUM LOCAL** (OB509901).
- Allows tele-management through **XEO LUM** (OB509920).

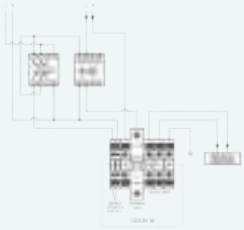
Technical Features

- Power supply voltage: 230 Va.C con neutro (±10%), 50-60 Hz
- Maximum reduction: Ve -25%
- ±1% output voltage regulation for load variations from 0 to 100%
- Fixed start-up voltage 210 Va.C
- Start-up time: 50 s, 3 min., 6 min. y 12 min.
- Reduced voltage: 175, 185, 195 y 205 Va.C
- Protection Type for metal cabinet: IP 54 according to EN 60529 / IK10 according to EN 62262
- Material: Zinc plated steel and painted epoxy RAL-7035
- Protection Type for polyester cabinet: IP 44 according to EN 60529 / IK10 according to EN 62262
- Material: Coloured polyester RAL-7035

Dimensions



Connections



Reference with Metal Cabinet	Reference with Polyester Cabinet	Reference Without Cabinet	Model	Power	Maximum current
OB50M3CM	OB50M3CP	OB50M3S	ESDONI M3	3,3 kVA	15 A
OB50M6CM	OB50M6CP	OB50M6S	ESDONI M6	6,6 kVA	30 A
OB50M10CM	OB50M10CP	OB50M10S	ESDONI M10	10 kVA	45 A
OB50M16CM	OB50M16CP	OB50M16S	ESDONI M16	16,6 kVA	75 A

MANUAL BYPASS

Description

- Manual switch to authorise or cancel regulation of the system through ESDONI module.
- Has three positions:
- Automatic: Allows regulation of the system using ESDONI.
- Switched off: The installation remains inactive.
- Bypass: Cancels the regulation through ESDONI, so that the system functions on mains voltage.

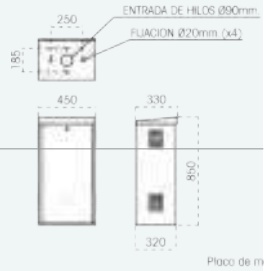
Reference	Model
OB50N993	ESDONI MANUAL BYPASS EN-10
OB50N994	ESDONI MANUAL BYPASS EN-20
OB50N995	ESDONI MANUAL BYPASS EN-30
OB50N996	ESDONI MANUAL BYPASS EN-40
OB50N997	ESDONI MANUAL BYPASS EN-50
OB50N986	ESDONI MANUAL BYPASS EN-60

STAINLESS STEEL CABINET

Description

- Electric stainless steel cabinet with brushed finish.

Dimensions



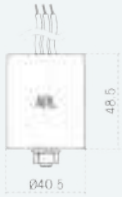
Reference	Model
OB50CIN	ESDONI INOX. CABINET

ARL REGULATON AUXILIARIES

Description

- Public lighting installations are made up of systems with high pressure Sodium Vapour or Mercury Vapour lamps. The High Pressure Sodium Vapour lamps allow the reduction of their voltage to 175V and therefore their consumption by up to 40% of the rated value. Conversely Mercury Vapour lamps can be reduced to 195V and their consumption falls by 25% of the rated value, when reductions below 195V are attempted, shut-offs occur.
- ARL allows the reduction of the supply voltage to Mercury Vapour lamps from 195V to 175V.
- Greater energy saving (35% approx) and stable functioning for Mercury Vapour lamps.
- Small size and simple bracket connection.
- Fixed with M8 threaded stud.

Dimensions



Connections

Reference	Model	Lamp power
OB50N991	ARL-1_80-125 W	80-125 W
OB50N992	ARL-2_250-450 W	250-400 W

LIGHTING AND STREET LIGHTS MANAGEMENT

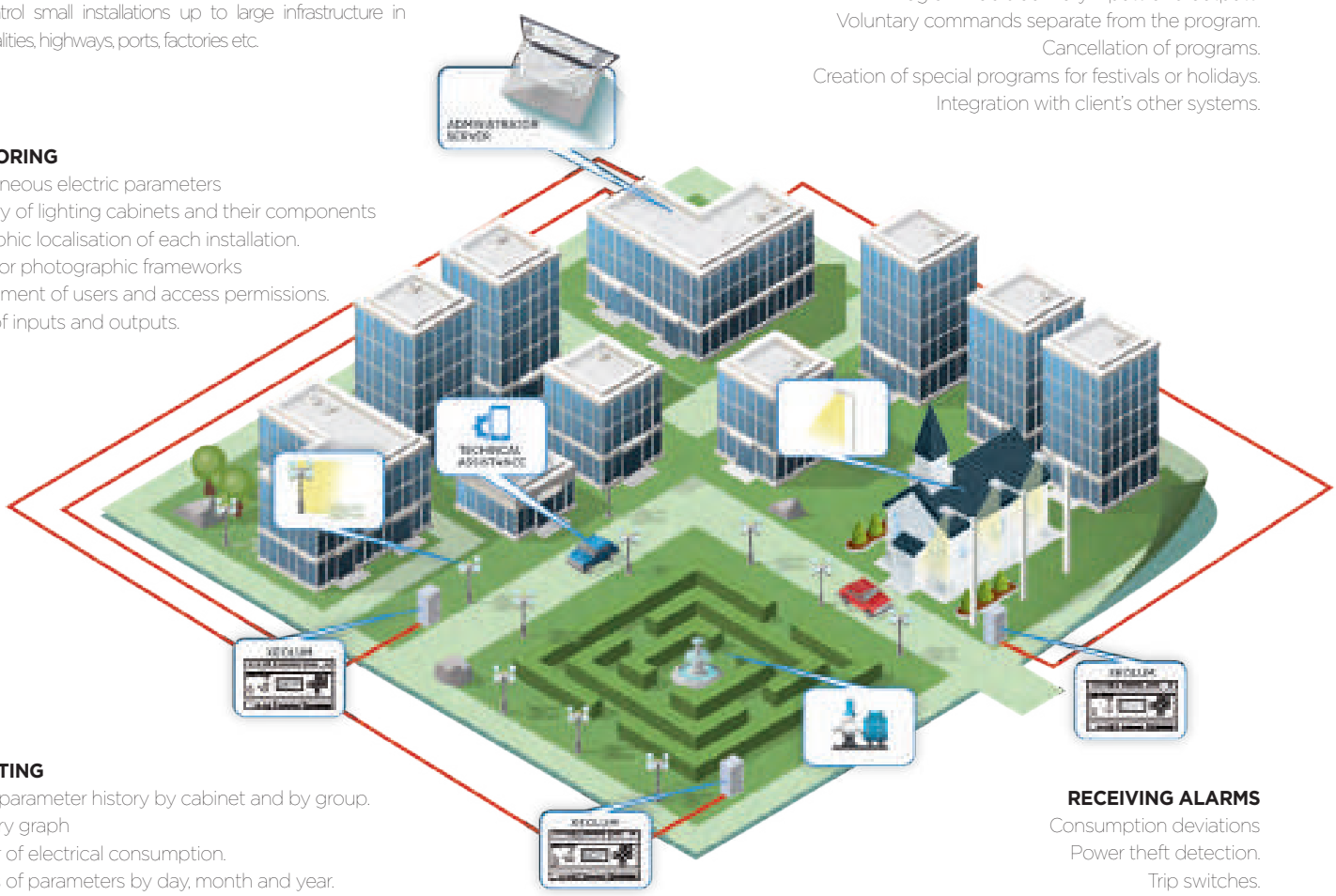
STREET LIGHTING MANAGERS

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 client's other 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.

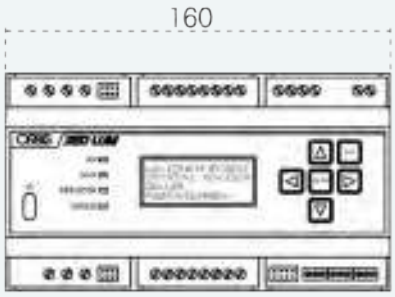
RECEIVING ALARMS
Consumption deviations
Power theft detection.
Trip switches.
Functioning limits.
Receiving alarms by email or SMS.
Opening of electric cabinet.

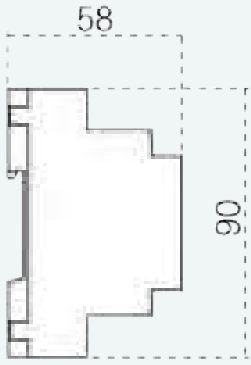
XEO LUM

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 its functioning, 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.

Dimensions

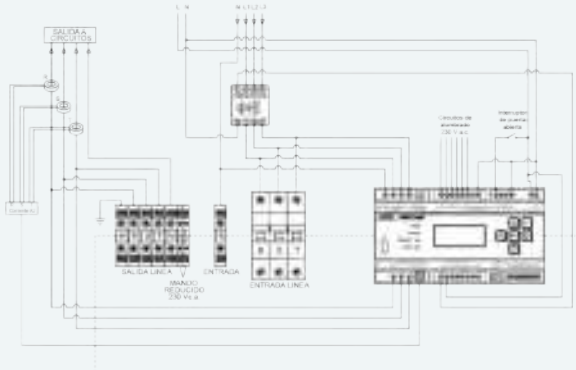




Technical Features

- Power supply voltage: 230 Va.C, 50-60 Hz
- Check for other voltages
- 10 x 230 Va.c. optocoupled inputs
- Analogue inputs: 1 input 0-10 V / 1 input 0-20 mA / 1 NTC temperature external sensor input
- 4 x 5A/230 Va.c. potential-free relay outputs
- Communication ports: 1 port series RS 232 / 1 expansion port series RS 485 Modbus / 1 serial communication port with ESDONI
- Operating temp.:-10 ºC to +45 ºC according to EN 60730-2-7
- Protection Type without cabinet: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 9 width modules

Connections



Reference	Model
OB509920	XEO LUM

STREET LIGHTING MANAGERS

WEB APPLICATION XEO LUM

Description

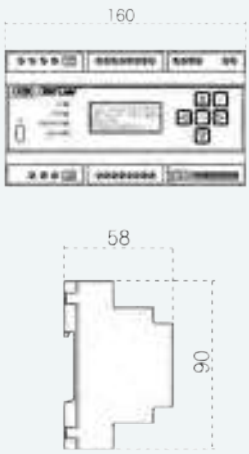
- Powerful web application for tele-management of large lighting installations.
- Monitoring of electric parameters
- Inventory of lighting cabinets and their components
- Geographic localisation of each installation.
- Management of users and access permissions.
- Status of inputs and outputs.
- Receiving of alarms for tripped breakers, opening of the cabinet or diversions from electrical parameters.
- Control and setting of voltage reducers-stabilisers and other savings systems.
- Activation/deactivation of additional circuits for other purposes (holiday or Christmas lighting, irrigation, fountains etc.)
- Programmable auxiliary inputs and outputs.
- Creation of special programs for festivals or holidays.
- Electric parameter history by cabinet and by group.
- Savings percentage by panel and by group.

XEO LUM LOCAL

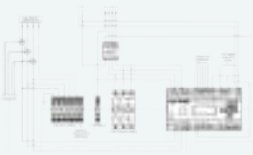
Description

- ESDONI Local management of stabilisers-reducers
- Allows configuration of the following options from XEO LUM LOCAL's own keyboard:
- Edit and consult the systems functioning mode.
- Configure the system alarms.
- Program date, time and geographical coordinates.
- Modify the programming of the astronomical clock.
- Vary start-up times and functioning voltage (start-up, nominal, and 4 reduced).
- 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 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 and error.
- Programming in Spanish, English and French.

Dimensions



Connections



Technical Features

- Power supply voltage: 230 Va.C, 50-60 Hz. Check for other voltages
- 10 x 230 Va.c. optocoupled inputs
- Analogue inputs: 1 input 0-10 V / 1 input 0-20 mA /1 NTC temperature external sensor input
- 4 x 5A/230 Va.c. potential-free relay outputs
- Communication ports: 1 port series RS232 / 1 expansion port series RS485 Modbus / 1 serial communication port with ESDONI
- Operating temp.:-10 ºC to +45 ºC according to EN 60730-2-7
- Protection Type without cabinet: IP 20 according to EN 60529
- Mounted on DIN rail according to EN 60715
- 9 width modules

Reference	Model
OB509901	XEO LUM LOCAL

ELECTRIC MOBILITY

Pag. 130
Electric mobility. Electric vehicle recharge

RECHARGE SYSTEMS FOR ELECTRIC VEHICLES

The electric vehicle is set to become the most cost-effective and environmentally friendly option to move around the city for private individuals, dealers, courier and delivery vehicles, etc.

Sirveac

Sirveac is a charge system for electric cars, motorbikes or bicycles that meets the needs of all kinds of facilities, from simple domestic installations to municipal infrastructures with management platform on the charger.

From our department of product development, we can help you find the solution that best suits your needs.

- Information about the charging status.
- Geolocation of recharge points.
- Prepay systems through mobile app, cards, or others.
- Communication with the manager: RS485, Ethernet, 3G/GPRS, etc.
- Compatibility with systems integrators.
- Communication with the user: SMS, app or others.
- Information collection for statistical purposes.
- Preventive maintenance of fleets.

SIRVEAC

Description

- Charge system for electric cars, motorbikes or bicycles.
- Incorporates magnetothermic or differential protection.
- Basic models from 2.2 kW to 22 kW of power, depending on the charge speed needs.
- Light indicators: occupied or reserved station, vehicle connected, charging, recharge status, charging complete and error.
- Casing lock with key.
- There are different options that can be incorporated to the basic models, such as RFID reader, charge consumption measurement, RS485 communication, Ethernet or 3G/GPRS communication.

Technical Features

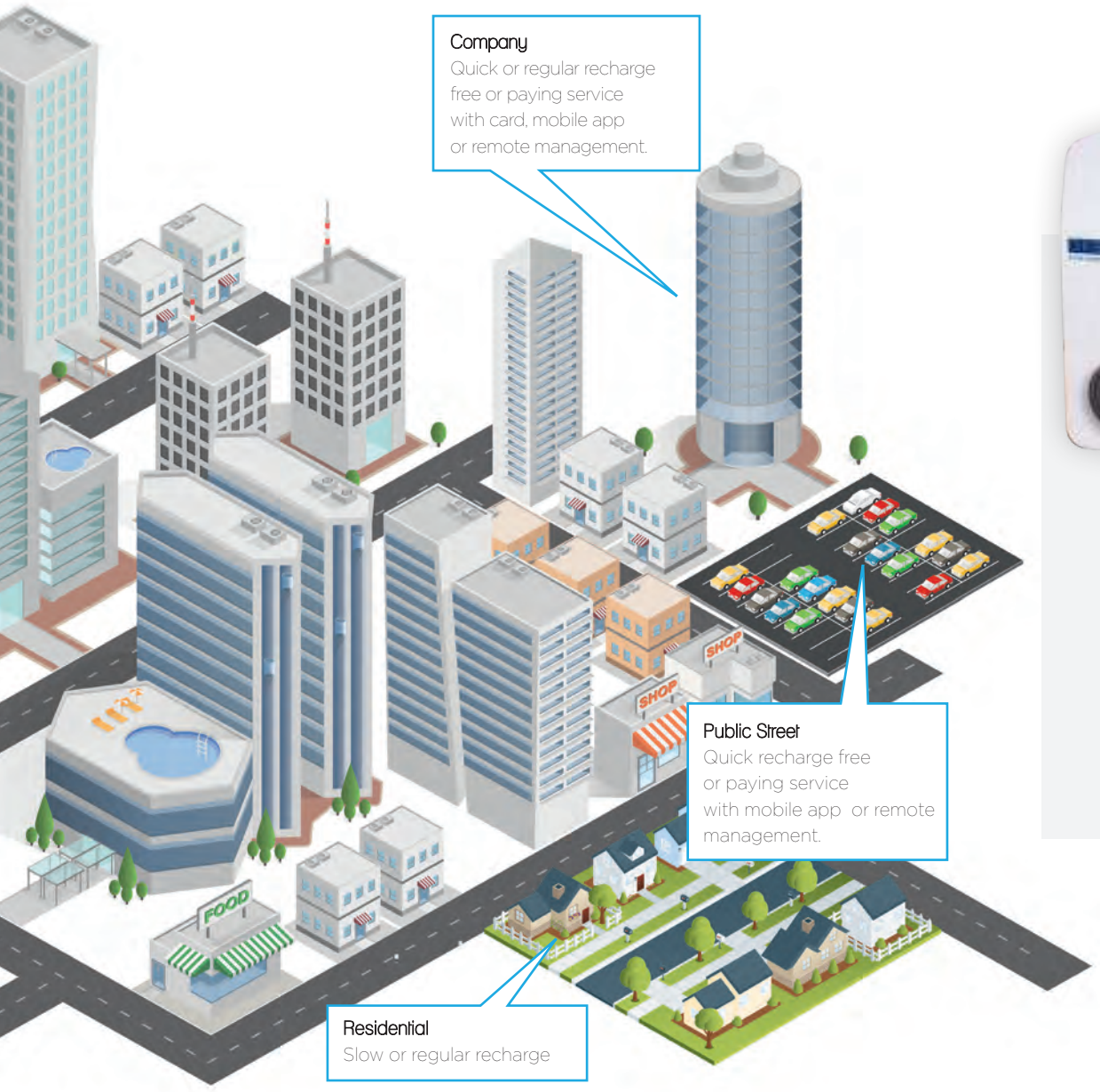
- Power supply voltage: 230 Va.c., 50-60 Hz
  3x230/400 Va.c., 50-60 Hz
- Operating temp.: -10 ºC a +50 ºC
- Metallic casing material
- Metallic casing material
- Protection level: IP54 according to EN 60529
- Mechanical protection level IK10 according to EN 62262
- Mounting on surface or base (OB940007)

Sirveac has three charging modes:

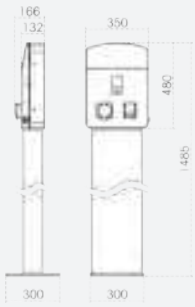
Mode 1 or no communication: applied in domestic installations where we do not need communication between Sirveac and the electric vehicle.

Mode 2 or low level of communication: the cable has an intermediate pilot control device to verify the correct connection of the vehicle to Sirveac.

Mode 3 or hight level of communication: the cable includes an integrated communication pilot wire and control devices and protections integrated in Sirveac.



Dimensiones



Reference						
Features	OB9402316	OB94M3716	OB94M7432	OB94T1116	OB94T2232	OB94TM2232
Power supply	2 x Single phase	Single phase	Single phase	Three-phase	Three-phase	Single phase-Three phase
Current	10 A / 16 A	16 A	32 A	16 A	32 A	
Power	2,2 kW / 3,7 kW	3,7 kW	7,4 kW	11 kW	22 kW	Mono. 2,2 kW - Tri.22 kW
Recharge Type	Slow 12 h Normal 8 h	Regular 8 h	Regular 6 h	Quick 4 h	Quick 2 h	Slow 12 h / Quick 2h
Use	Residential, companies and hotels.	Residential, companies, hotels and vehicle fleets.		Companies, hotels, vehicle fleets, paying garages, public street, car parks in shopping centres, public transport interchanges and others		Mixed use
Connector	Schuko according to UNE 20315-1-2	Type 2 according to EN 62196-2	Type 2 according to EN 62196-2	Type 2 according to EN 62196-2	Type 2 according to EN 62196-2	Schuko according to UNE 20315-1-2 and Type 2 according to EN 62196-2
Charging mode	Mode 1 - 2 according to EN 61851-1	Modo 3 according to EN 61851-1	Mode 3 according to EN 61851-1	Mode 3 according to EN 61851-1	Mode 3 according to EN 61851-1	Modes 1. 2 and 3 according to EN 61851-1
Communications	no communications / with network connection verification	with communication pilot wire	with communication pilot wire	with communication pilot wire	with communication pilot wire	no communications / with network connection verification / with communication pilot wire

TEMPORIZATION

ANALOGUE TIME SWITCHES

MODEL	MOUNTING	Nº MODULES/ MEASUREMENT	BATTERY	INTERCHANG.	PROGRAMMING	MIN. TIME	SPHERE	CONTACT	SEALABLE	
UNO D	MODULAR DIN RAIL	1	-- --	-- --	Daily	15min.	Lateral	1 Simple	●	
UNO QRD			>150 h							
UNO QRS					Weekly	2h				
INCA DUO D		2	-- --	-- --	Daily	15min.		1 Chargeover		
INCA DUO QRD			>100 h							
INCA DUO QRS					Weekly	2h				
DUO D			-- --	-- --	Daily	30min.	Frontal			
DUO QRD			>150 h							
DUO QRS					Weekly	3,5h				
SUPRA D		2,5	-- --	-- --	Daily	15min.				
SUPRA QRD			>150 h							
SUPRA QRS					Weekly	2h				
MINI D	DIN RAIL / SURFACE	69 x 100mm	-- --	-- --	Daily	15min.	Frontal	1 Chargeover	●	
MINI QRD			>100 h							
MINI QRS					Weekly	2h				
MINI T D	DIN RAIL / SURFACE / BUILT IN	72 x 72mm	-- --	-- --	Daily	15min.	Frontal	1 Chargeover	●	
MINI T QRD			>100 h							
MINI T QRS					Weekly	2h				
ALPHA D		72 x 94mm	-- --	-- --	Daily	15min.			-- --	
ALPHA QRD			>100 h							
ALPHA S			-- --		Weekly	2h				
ALPHA QRS			>100 h							
CRONO D		72 x 104mm	-- --	-- --	Daily	15min.			●	
CRONO QRD			>100 h							
CRONO QRS					Weekly	2h				
CRONO QRDD					2 x Daily	15min.	2 x Frontal	2 Chargeover		
CRONO QRSD					Weekly and Daily	2h/15min.				
ISI D	PLUGGABLE	72 x 115mm	-- --	-- --	Daily	15min.	Frontal	1 Simple	-- --	
CONTROL D-15		84 x 69mm			Daily	15min.	Lateral			
CONTROL D-30						30min.				
CONTROL S					Weekly	1,45 h				
DOMO M-60		55 x 110mm			Countdown 60min.		Frontal			
DOMO M-150					Countdown 150min.					
DOMO M-900					Countdown 900min.					
DOMO D T-15					Daily	15min.				
DOMO D T-30						30min.				
DOMO S T-1.45 h					Weekly	1,45 h				
DOMO D T-15 INTEMPERIE		58 x 117mm			Daily	15min.				
DOMO S T-1.45h INTEMPERIE					Weekly	1,45 h				

ANALOGUE TIME SWITCHES

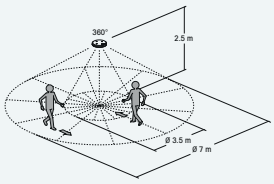
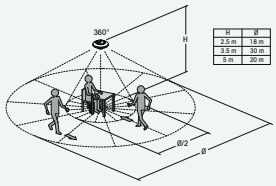
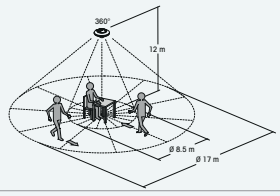
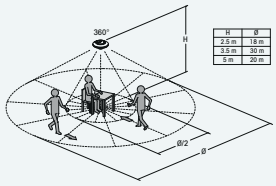
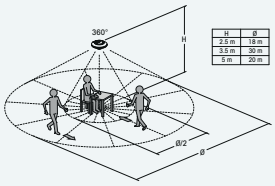
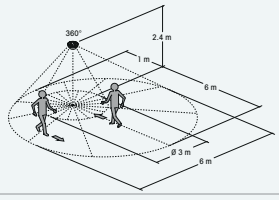
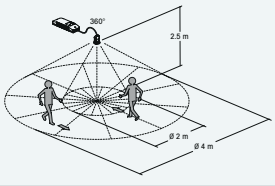
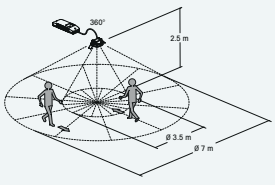
MODEL	MOUNTING	Nº MODULES/ MEASUREMENT	BATTERY	INTERCHANG.	PROGRAMMING	MIN. TIME	SPHERE	CONTACT	SEALABLE	
ILUMATIC 248 D-30	DEVICE BOX	65 x 65mm	-- --	-- --	Daily	30min.	Frontal	1 Chargeover	-- --	
ILUMATIC 348 D-30								1 Simple		
ILUMATIC 358 S					Weekly	1,45h				
ROLLMATIC D					Daily	30min.		1 Chargeover		
METRO D		86 x 86mm						1 Simple		
SINCRO 341	INDUSTRIAL / BUILT IN	42,5 x 67,5mm			See options			See options		
SINCRO 346		42,5 x 55mm								
MODUL D	INDUSTRIAL / SURFACE	60 x 60mm	>100 h		Daily	15min.		1 Chargeover		
MODUL QRD										
MODUL S			-- --		Weekly	2h				
MODUL QRS			>100 h							
SUE		124,5 x 220mm			Daily	1h		1 Simple	●	

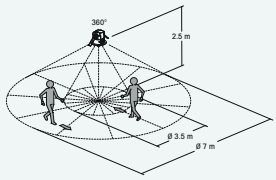
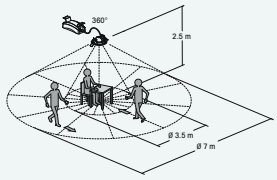
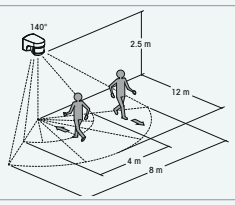
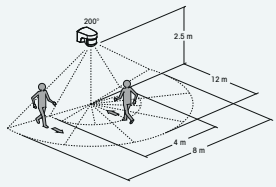
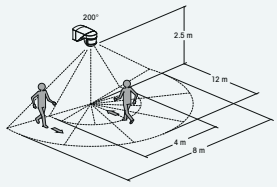
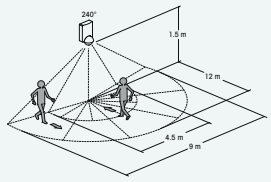
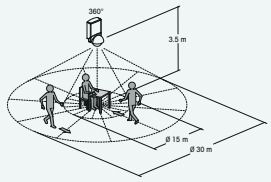
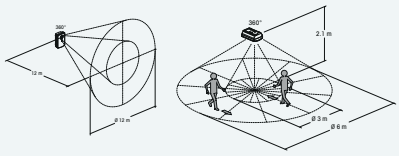
DIGITAL TIME SWITCHES

MODEL	MOUNTING	Nº MODULES/ MEASUREMENT	PROGRAM.	Nº PROGRAMS/ PROGRAM. TYPE	EXTRA PROGRAMS	BATTERY	CONTACT	SEALABLE	
DATA MICRO +	MODULAR / DIN RAIL	2	Daily - Weekly	32 / icons	Pulses, holidays, seasonal time change	4 years	1 Chargeover	●	
DATA MICRO 2 +							2 Chargeover		
DATA LOG		2		40 doubles/text	App, pulses, cycles, 4 special periods, keypad lock...	10 years	1 Chargeover	●	
DATA LOG 2							2 Chargeover		
DATA LOG +		2	Daily - Weekly	70 / text	Progr. via control, holidays, cycles, hour meter...	4 years	1 Chargeover	●	
DATA LOG 2 +							2 Chargeover		
DATA Annual		2	Daily - Weekly - monthly-annual	30 / icons	Pulses, cycles, random, holidays, seasonal change	5 years	2 Chargeover	●	
DATA MULTI Annual		4				5 years	4 Chargeover		
MINI LOG	DIN RAIL/ SURFACE	69 x 100mm	Daily - Weekly	40 / text	Pulses, cycles, random,4 specials periods, seasonal change, hour meter, keypad lock	5 years	1 Chargeover	●	
MINI T LOG	DIN RAIL/ SURFACE/ BUILT IN	72 x 101mm						-- --	
TEMPO +	PLUGGABLE	62 x 11mm	Daily - Weekly	32 / icons	Pulses, holidays, seasonal change	4 years	1 Simple	-- --	
MODUL LOG	INDUSTRIAL/ SURFACE	60 x 60mm		40 / text	Pulses, cycles, keypad lock...	5 years	1 Chargeover	-- --	

PRODUCT SELECTION CHARTS

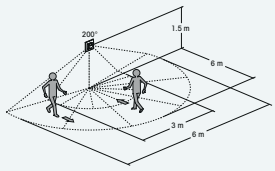
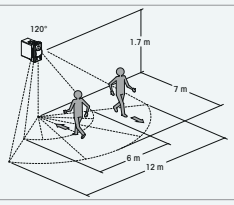
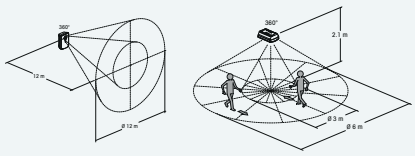
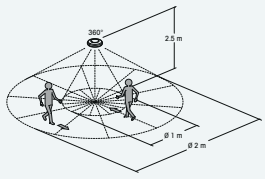
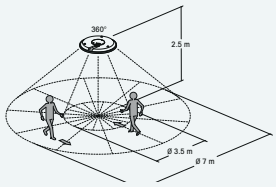
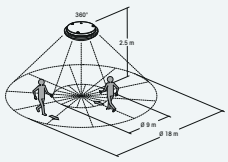
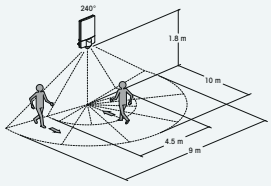
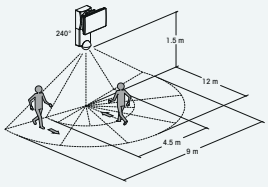
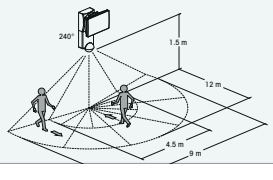
MOTION / PRESENCE DETECTORS

MODEL	OPERATION	TECNOLOGY	CONTROL TYPE	MOUNTING	DETECTION ZONE	REMOTE CONTROL	
CIRCUMAT	MOTION	P.I.R.	ON/OFF	CEILING / SURFACE		-- --	
CIRCUMAT PRO CR	PRESENCE	P.I.R.	ON/OFF	CEILING / SURFACE			
CIRCUMAT PRO CR 12M	PRESENCE	P.I.R.	ON/OFF	CEILING / SURFACE			
CIRCUMAT PRO 1-10V	PRESENCE	P.I.R.	1-10V	CEILING / SURFACE		-- --	
CIRCUMAT PRO DALI	PRESENCE	P.I.R.	DALI	CEILING / SURFACE		-- --	
MOVICAM CR	MOTION	P.I.R.	ON/OFF	CEILING / SURFACE			
DICROMAT MICRO	MOTION	P.I.R.	ON/OFF	CEILING / BUILT IN		-- --	
DICROMAT MINI / 2 MINI	MOTION	P.I.R.	ON/OFF	CEILING / BUILT IN		-- --	

MODEL	OPERATION	TECNOLOGY	CONTROL TYPE	MOUNTING	DETECTION ZONE	REMOTE CONTROL	
DICROMAT	MOTION	P.I.R.	ON/OFF	CEILING / BUILT IN		-- --	
DICROMAT +CR / 2 +CR	MOTION	P.I.R.	ON/OFF	CEILING / BUILT IN			
ISIMAT	MOTION	P.I.R.	ON/OFF	WALL / SURFACE		-- --	
ISIMAT +	MOTION	P.I.R.	ON/OFF	WALL / SURFACE		-- --	
MULTIMAT	MOTION	P.I.R.	ON/OFF	WALL / CEILING / INN - OUT CORNER		-- --	
PROXIMAT	MOTION	P.I.R.	ON/OFF	WALL / INN - OUT CORNER		-- --	
PROXIMAT PRO CR	MOTION	P.I.R.	ON/OFF	WALL / CEILING			
ECOMAT	MOTION		ON/OFF	WALL / CEILING / INN - OUT CORNER		-- --	

PRODUCT SELECTION CHARTS

MOTION / PRESENCE DETECTORS

MODEL	OPERATION	TECNOLOGY	CONTROL TYPE	MOUNTING	DETECTION ZONE	REMOTE CONTROL	
ORBIMAT	MOTION	P.I.R.	ON/OFF	WALL / INSTALLATION BOX		-- --	
MINIMAT	MOTION	P.I.R.	ON/OFF	WALL / INSTALLATION BOX		-- --	
ECOMAT MINI	MOTION		ON/OFF	WALL / CEILING		-- --	
SPOTMAT LED	MOTION	P.I.R.	LED	WALL / CEILING		-- --	
PLADILED 96	MOTION	P.I.R.	ON/OFF LED	CEILING / SURFACE		-- --	
PLADI-E27	MOTION		ON/OFF	CEILING / SURFACE		-- --	
DECOLED 72	MOTION	P.I.R.	LED	WALL		-- --	
PROXILED 8	MOTION	P.I.R.	LED	WALL		-- --	
PROXILED 15	MOTION	P.I.R.	LED	WALL		-- --	

CHRONOTHERMOSTATS

MODEL	PROGRAMMING	SCREEN	Nº PROGRAMS / Nº TEMPERATURES	POWER SUPPLY	OPTIONS	
CHRONOS	Digital	backlit	7 / 3 + anti-icing		Telephone controller	
MIRUS TOUCH	Digital	backlit	7 / 2 + anti-icing		-- --	
BIKO APP	Digital	LCD	7 / 6 + anti-icing		App Programming, installation box	
ORUS GSM	Digital	LCD	7 / 3 + anti-icing	230 V	GSM Communication, App programming, auxiliary input (temperature or alarm)	
ORUS RF	Digital	LCD	7 / 3 + anti-icing		Radiofrequency communication	
ORUS	Digital	LCD	7 / 3 + anti-icing		External sensor and telephone controller.	
MIRUS	Digital	LCD / backlit	7 / 2 + anti-icing		-- --	
ATHENA	Digital	LCD	7 / 3 + anti-icing		4 zone control, external sensor and telephone controller	
KRON PLUS	Digital	LCD	8 / 2 + anti-icing		Installation box	
DECO CRONO	Digital	LCD	8 / 2 + anti-icing	230 V	Installation box	
LYRA	Using moveable tappets	-- --	1 / 2		-- --	

THERMOSTATS

MODEL	PROGRAMMING	SCREEN	POWER SUPPLY	OPTIONS	
THALOS	Digital	backlit		Input for reduction of night-time temperature	
NEO ML +	Digital	LCD		Compatible with underfloor heating systems or external sensors	
TEK / TEK SW	Digital	LCD		TEK incorporates a manual switch: ON, OFF and night-time mode. TEK SW incorporates a manual switch: heating, air conditioning and night-time mode.	
DECO TERMO	Digital	LCD	230 V	Installation box	
CLIMA	Manual temperature selector	-- --	None	-- --	

PRODUCT SELECTION CHARTS

ENERGY MEASUREMENT AND MANAGEMENT

CONTAX S0

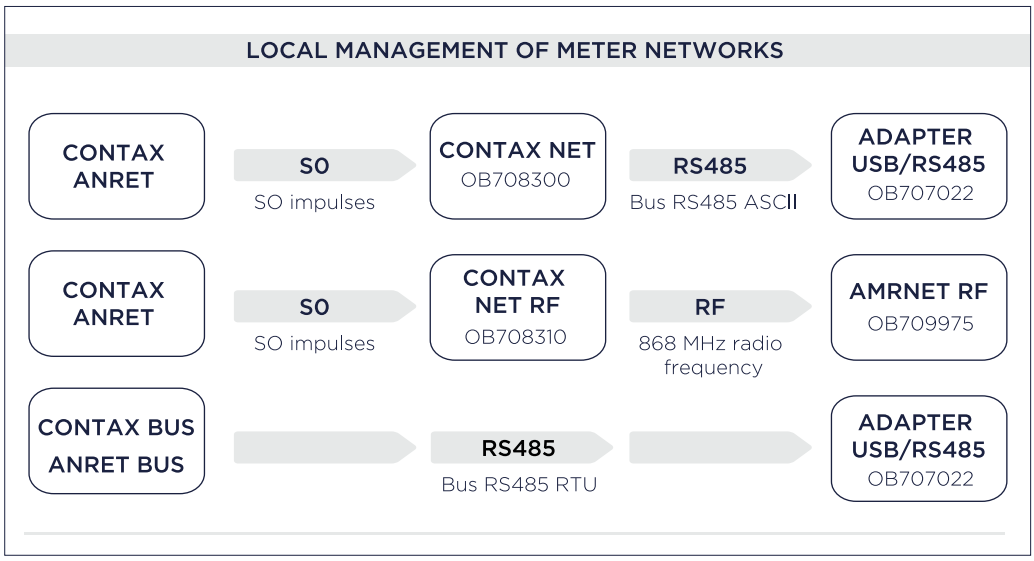
MODEL	SUPPLY	DISPLAY	MEASUREMENT	AMPERAGE	PARAMETERS	COMMUNICATIOS	
CONTAX 2511 S0	Single-phase	Mechanical	Direct	25 A	KWh TOTAL	S0	
CONTAX 2521 S0 MID	Single-phase	Mechanical	Direct	25 A	KWh TOTAL	S0	
CONTAX 3221 S0	Single-phase	Mechanical	Direct	32 A	KWh TOTAL	S0	
CONTAX 6521 S0	Single-phase	Mechanical	Direct	65 A	KWh TOTAL	S0	
CONTAX 0641 S0	Single-phase	Mechanical	Indirect	1.000 / 5 A	KWh TOTAL	S0	
CONTAX D-2221	Single-phase	Digital	Direct	22 A	KWh TOTAL / KWh PARTIAL		
CONTAX D-3221 S0	Single-phase	Digital	Direct	32 A	KWh TOTAL	S0	
CONTAX D-3221 RF	Single-phase	Digital	Direct	32 A	KWh TOTAL	RF	
CONTAX D-6331 S0	Single-phase	Digital	Direct	63 A	KWh TOTAL / KWh PARTIAL	S0	
CONTAX D-6521 S0	Single-phase	Digital	Direct	65 A	KWh TOTAL	S0	
CONTAX 0643 S0 CONTAX 0643i S0	Three-phase	Mechanical	Indirect	1.000 / 5 A	KWh TOTAL	S0	
CONTAX 0643 AR S0	Three-phase	Mechanical	Indirect	1.000 / 5 A	KWh TOTAL	S0	
CONTAX D-9073 S0	Three-phase	Digital	Direct	90 A	KWh TOTAL / KWh PARTIAL	S0	

CONTAX BUS

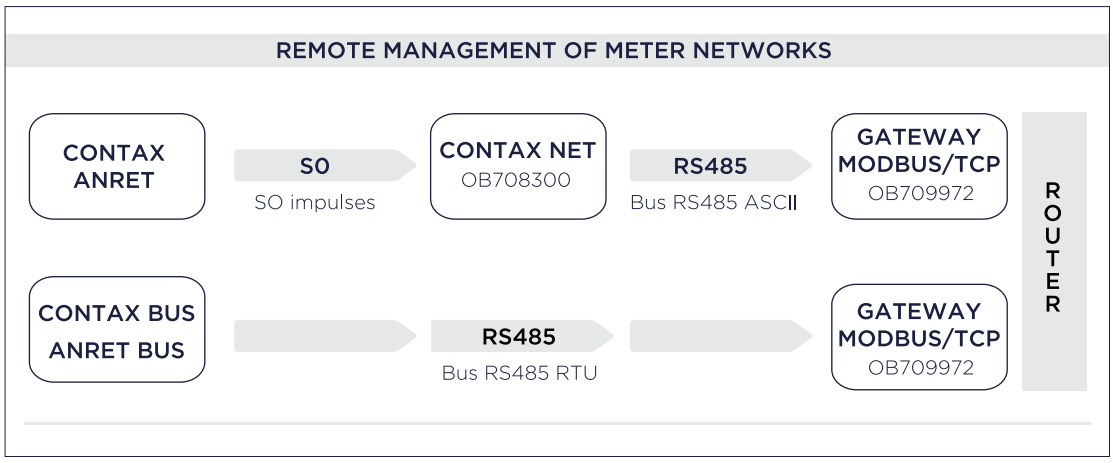
MODEL	SUPPLY / AMPERAGE	MEASUREM.	PARAMETERS	REGISTER	COMMUNICATIOS	RELAY	
CONTAX D-6041 BUS	Single-phase - 60 A	Direct	KV, A, W, VAr, VA, cos Phi y Hz	- Settable charge curve - Import/export - Tariffs. - Monthly closures	MODBUS RTU	WITHOUT	
CONTAX D-6593 BUS-R V 3x1	Single-phase - 3x65 A	Direct				WITH	
CONTAX D-6593 BUS-R	Three-phase - 65 A	Direct				WITH	
CONTAX D-10093 BUS	Three-phase - 100 A	Direct				WITHOUT	
CONTAX D-0643 BUS	Three-phase - 1.000/5 A	Indirect				WITHOUT	

PRODUCT REFERENCE: CONTAX D-6593 BUS-R V 3x1

LOCAL READING



REMOTE READING



PRODUCT SELECTION CHARTS

INSTRUMENTATION - NETWORK ANALIZERS

MODEL	SUPPLY	MOUNTING	MEASUREMENT	AMPERAGE	PARAMETERS	SPECIFICATIONS	
ANRET M	Single/Three	DIN RAIL	Indirect	10.000 / 5 A	V, A, W, Var, VA, Wh, VArh, cos Phi, phase angle and Hz		
ANRET Q	Single/Three	BUILT IN	Indirect	10.000 / 5 A			
ANRET M-R	Single/Three	DIN RAIL	Indirect	10.000 / 5 A		Output relay	
ANRET Q-R	Single/Three	BUILT IN	Indirect	10.000 / 5 A		Output relay	
ANRET M-BUS	Single/Three	DIN RAIL	Indirect	10.000 / 5 A		MODBUS RTU	
ANRET Q-BUS	Single/Three	BUILT IN	Indirect	10.000 / 5 A		MODBUS RTU	
ANRET M-22	Single-phase	DIN RAIL	Direct	22 A	V, A, W, Wh, cos Phi and Hz		
ANRET M-22 BUS	Single-phase	DIN RAIL	Direct	22 A		MODBUS RTU	
ANRET M-63	Single-phase	DIN RAIL	Direct	63 A			
ANRET M-90A BUS	Three-phase	DIN RAIL	Direct	90 A	V, A, W, Var, VA, Wh, VArh, cos Phi, Hz, angle and phase secuence	MODBUS RTU	
ANRET M-MULTI	Three-phase	DIN RAIL	Indirect	1.000 / 5 A	V, A, W, Var, VA, Wh, VArh, cos Phi, phase angle, Hz	DISPLAY LED	
ANRET Q-MULTI	Three-phase	BUILT IN	Indirect	1.000 / 5 A		DISPLAY LED	

INSTRUMENTATION - AMMETERS, VOLTMETERS AND FREQUENCY METERS

MODEL	PARAMETERS	SUPPLY	SCALE	MEASUREM.	AMPERAGE	MOUNTING	SPECIFICATIONS	
METRA M-V/A-R	Voltmeter or Ammeter	Single-phase	Volts 600 Va.c. Amps 1.000 / 5 A	Indirect	10.000 / 5 A	DIN RAIL	Output relay	
METRA Q-V/A-R				Indirect	10.000 / 5 A	BUILT IN	Output relay	
METRA M-V+A	Voltmeter and Ammeter		Volt.10 a 615 Va.c. Amps 1.000 / 5 A	Indirect	10.000 / 5 A	DIN RAIL		
METRA Q-V+A				Indirect	10.000 / 5 A	BUILT IN		
METRA M-V/A	Voltmeter or Ammeter		Volts 600 Va.c. Amps 1.000 / 5 A	Indirect	10.000 / 5 A	DIN RAIL		
METRA Q-V/A				Indirect	10.000 / 5 A	BUILT IN		
METRA M-V 1V DC	Voltmeter	Direct current	Volts 1 Vd.c.	Direct	-- --	DIN RAIL		
METRA M-V 10V DC			Volts 10 Vd.c.	Direct	-- --	DIN RAIL		
METRA M-V 100V DC			Volts 100 Vd.c.	Direct	-- --	DIN RAIL		
METRA M-V 600V DC			Volts 600 Vd.c.	Direct	-- --	DIN RAIL		
METRA Q-V 1V DC			Volts 1 Vd.c.	Direct	-- --	BUILT IN		
METRA Q-V 10V DC			Volts 10 Vd.c.	Direct	-- --	BUILT IN		
METRA Q-V 100V DC			Volts 100 Vd.c.	Direct	-- --	BUILT IN		
METRA Q-V 600V DC			Volts 600 Vd.c.	Direct	-- --	BUILT IN		
METRA M-A 10A DC	Ammeter		Amps 10 Ad.c.	Direct	10 Ad.c.	DIN RAIL		
METRA M-A XA DC			Amps1.000/5 Ad.c.	Indirect	1.000 / 5 A	DIN RAIL		
METRA M-A 10A AC		Single-phase	Amps 10 Aa.c.	Direct	10 Aa.c.	DIN RAIL		
METRA Q-A 10A DC		Direct current	Amps 10 Ad.c.	Direct	10 Ad.c.	BUILT IN		
METRA Q-A XA DC			Amps1.000 /5 Ad.c.	Indirect	1.000 / 5 A	BUILT IN		
METRA Q-A 10A AC		Single-phase	Amps 10 Aa.c.	Direct	10 Aa.c.	BUILT IN		
METRA M-H	Frequencymeter		Hertz 100 Hz	Direct	-- --	DIN RAIL		
METRA Q-H				Direct	-- --	BUILT IN		

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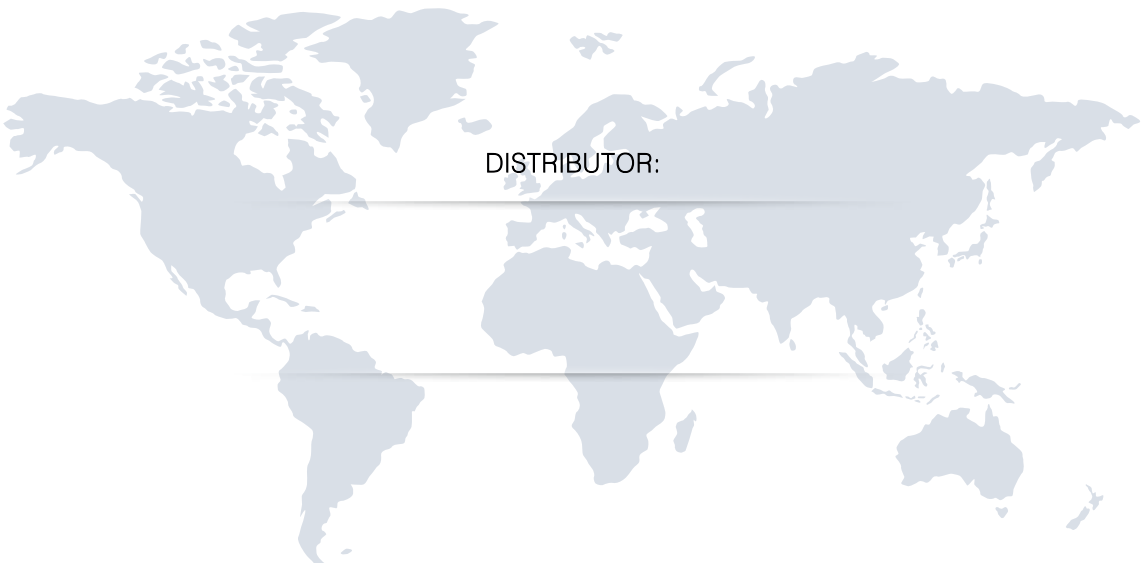

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