

## General catalogue 2023



Società italiana per la costruzione di apparecchi elettrici $\quad \square$


## Since 1969

## More than 50 years of experience in manufacturing:

## CRM4.0

PROGRAMMABLE THERMOSTAT, MULTI-ZONE AND MULTIMEDIA 6

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## Manufacturer since 1969

The constant expansion of thermohydraulic and electrical distribution allows Perars to be closer and closer to its customers. The presence in more than 40 countries worldwide are the heritage of the Company, which pays attention to the needs of every geographical area.

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| NEXT |  | SLIM |  | ZEFIRO 80x80 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2ix-cesit |  | P208c: | $\bigcirc$ : | 2009 | Frose | ${ }^{\text {rease }}$ |
| $\begin{aligned} & \text { TE028A - TE0 } \\ & \text { TE029A - TE0 } \end{aligned}$ |  | TE011B | TE400/B - TE410/B TE402/B - TE411/B | TE530B - TE531B - TE532B |  |  |

RECESSED
PROGRAMMABLE THERMOSTATS - H 45 mm

| $\frac{\text { WI-FI }}{\text { WI-FI }}$ |
| :---: |
|  |  |
|  |

CDS29WIFI

DIGITAL "NEXT"
SOFT TOUCH


CDS28-CDS29

WALL MOUNTED
PROGRAMMABLE THERMOSTATS WI-FI

CRM033WIFI

THERMOSTATS
DIGITAL
скизз
next


TE028A - TE028B TE029A - TE029B


WI-FI


CR029WIFI
R028WIFI


ZEFIRO 80x80


TE530B - TE531B - TE532B

THERMOSTATS - H 45 mm ELECTRONIC

THERMOSTATS FOR ROUND AND SQUARE BOX ELETTRONIC


TE301/MC - TE331/MC TE303/MC - TE333/MC TE305/MC

MODULO FANCOIL


TEF365/MC

| ZEFIRO | PERSONAL |
| :--- | :---: |
| TE510A - TE510B |  |
| TE511A - TE511B | TE101 - TE103 |
| TE513A - TE513B |  |

INDUSTRIAL TEMPERATURE CONTROL MODULAR THERMOSTATS 2 DIN ELECTRONIC

CONTACT THERMOSTATS
ELECTRONIC


TE082 - TE083 TE084


TE075 - TE076 TE077-TE078


TE052/M


4 Perar


RECESSED THERMOSTATS - H 45 mm

DIGITAL "NEXT"
DIGITAL "MODULO"

## SOFT TOUCH



TE541 - TE541E
CONTROL DEVICES
CONTROL BOXES


## CRM4.0 - PROGRAMMABLE THERMOSTAT MULTI-ZONE AND MULTIMEDIA



- It is a programmable thermostat always connected that allows to program, manage and control the comfort of the different rooms of the house, adapting to the users' needs, reducing the energy consumption.
- Adjust up to 8 zones and 16 actuators to ensure maximum comfort and minimum waste in the various areas of the apartment. With the advanced thermoregulation module MTE01 it can also interact with single boilers with OpenTherm protocol version 2.2 (Advanced Class V thermoregulation).
- Simple to install and use, it can also be managed by remote through the APP that can be downloaded on smartphones and tablets.
- Equipped with software for integration and Alexa voice commands.

Ready for the home automation functions of the home: shutters, curtains, lights, irrigation...
CRM4.0 system complies with the European directive 2014/53/UE (RED).
CRM4.0 is available in 3 versions:

## 1DOCRM031WIFI

Wall mounted model equipped with:

- Wi-Fi
- Alexa voice assistance Software
- RF 868 MHz
- M-BUS radio 868 MHz
- 1 relay
- Internal temperature probe
- Remote probe input
- Built-in power supply


## 1DOCRM032WIFI

Wall mounted model equipped
with:

- Wi-Fi
- Alexa voice assistance Software
- RF 868 MHz
- M-BUS radio 868 MHz
- RS485 (for control box)
- Internal temperature probe
- Remote probe input
- Built-in power supply


## 1DOCRM033WIFI

Table model equipped with:

- Wi-Fi
- Alexa voice assistance

Software

- RF 868 MHz
- M-BUS radio 868 MHz
- Internal temperature probe
- Plug-in power supply


## GENERAL INSTALLATION SCHEME

ON WEB


IN THE APARTMENT


Server
$\bullet$


Router


CRM4.0 can be programmed and controlled both on site and by remote via internet for the access to the cloud. The CRM4.0 868 MHz frequency allows to reach each side of your home.

## CLOUD WEB CONNECTION



CRM4.0.0 is able to thermoregulate any type of installation


System complying the European Directive 2014/53/EU (RED)


## THERMOREGULATION

Wireless thermoregulation of each room or per zones

CRM4.0 can manage up to a maximum of 8 zones and 16 actuators.


With CRM4.0 or smartphone you can regulate the temperature of each room or zone.


Suitable for all types of installation with any type of system

## EXISTING SYSTEMS



Ring systems

RENOVATED OR NEW INSTALLATIONS WITH ZONE HEATING


## RENOVATED OR NEW INDEPENDENT HEATING INSTALLATIONS



MULTI-ZONE PROGRAMMABLE THERMOSTAT MULTIMEDIA INTERFACE
perp오

CRM4.0 is a user friendly system, easy to manage for all types of users.

## THERMOREGULATION MENU ON CRM4.0




Overview of time profiles and temperature sets


๗ル 3
$\lrcorner \overbrace{\text { operations }}^{2}$

By selecting, it changes the management from heating to air conditioning


Thermal season selection
EASY MODE


To simplify, it is also possible to activate a practical and simple function called "EASY MODE".
CRM4.0 will autonomously perform the necessary procedures to obtain the optimal thermal comfort desired in each zone.

QUICK FUNCTIONS


CRM4.0 is equipped with a drop-down menu which can be recalled by scrolling from top to bottom.
From this menu with rapid selection the user can access the most used functions to control the entire system:

- IN/OUT function
- Holiday function
- Cleaning function

"Special functions" allow scenarios when cleaning, when leaving or entering the house, or when scheduling vacation times. Everything can be controlled quickly from the CRM4.0 or smartphone.

THERMOREGULATION MENU ON SMARTPHONE

operation
operations


EASY MODE
QUICK FUNCTIONS


By selecting, it changes the management from heating to air conditioning
$\qquad$ summer mor winter

## CONSUMPTION DISPLAY



## MULTI-ZONE PROGRAMMABLE THERMOSTAT

## MULTI-ZONE MULTIMEDIA PROGRAMMABLE THERMOSTAT COMMON FEATURES CRM 4.0

- Power supply 230V AC 50Hz/5Vdc included in the package
- 4.3" TFT color scrolling touch screen display
- No. 8 programmable zones for hourly profiles on 4 temp. levels
- Zone programming: daily and weekly
- Communication systems: Wi-Fi for internet connection; Wireless RF 868 Mhz for communication with ancillaries; MBus Radio; Bus RS485
- Calculation of the anti-condensation dew point
- Temperature setting range $+4^{\circ} \mathrm{C} \div+39^{\circ} \mathrm{C}$
- Connection range $30 \div 120 \mathrm{~m}$ in relation to the wall structure and obstacles inside the rooms
- Accuracy $\pm 0.5^{\circ} \mathrm{C}$
- Gradient $1^{\circ} \mathrm{K} / 15 \mathrm{~min}$
- Regulation type: modulating or ON/OFF
- IP30
- Operating temperature $-5^{\circ} \mathrm{C} \div+55^{\circ} \mathrm{C}$
- Storage temperature $-5^{\circ} \mathrm{C} \div+55^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $128.5 \times 26 \times 88.5 \mathrm{~mm}$


1DO CRM031WIFI Wall-mounted multi-zone programmable thermostat with display

- Wired relay output 5(3)A 250V AC.
- Wi-Fi
- Frequency RF 868 MHz
- MBus Radio (Reading meters compatible)
- Input remote temperature probe 1PA STE02 usable as 2nd zone
- Wall installation


1DO CRM032WIFI Wall-mounted multi-zone programmable-thermostat with display and BUS 485 connection for distribution box and/or single boiler

- BUS RS485 Output for actuator connections
- Wi-Fi
- Frequency RF 868 MHz
- MBus Radio (Reading meters compatible)
- Input remote temperature probe 1PA STE02 usable as 2nd zone
- Wall installation


## 1D0 MTE01 Advanced thermoregulation module for 1D0 CRM032WIFI for single boiler

- Suitable for boilers with OpenTherm protocol 2.2 (evolved thermoregulation Class V)



## 1D0 CRM033WIFI Multi-zone desktop programmable thermostat with display

- Wi-Fi - MBus Radio (Reading meters compatible)
- Frequency RF 868 MHz
- Table installation


1D0 TETX05 Wall-mounted RF zone thermostat, IP30

- Power supply $2 \times 1.5 \mathrm{~V}$ AA type batteries - Alkaline
- Accuracy $\pm 0.5^{\circ} \mathrm{C}$
- 2 " $1 / 3$ digital LCD display
- Gradient $1^{\circ} \mathrm{K} / 15$ min.
- Bidirectional RF868 MHz wireless radio connection
- Type of regulation: modulating or ON / OFF
- Connection range $30 \div 120 \mathrm{~m}$
- Autonomy about 2 years
- Temperature adjustment range $+4 \div+39^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $84 \times 23 \times 84 \mathrm{~mm}$



## 1 D0 STX01 RF ambient wall temperature probe, IP30

- Power supply $2 \times 1.5 \mathrm{~V}$ AAA - Alkaline batteries
- Accuracy $\pm 0.1^{\circ} \mathrm{C}$
- 5 digit TRH LCD display with temperature signaling environment, low battery, offset, background noise
- Bidirectional RF868 MHz wireless radio connection
- Gradient $1^{\circ} \mathrm{K} / 15$ min.
- Autonomy about 3 years
- Wall installation
- Connection range $30 \div 100 \mathrm{~m}$
- Measuring range $-30 \div+70^{\circ} \mathrm{C}$

1D0 STX03A Built-in RF room temperature probe in 1 civil module, anthracite color, IP40 1DO STX03B Built-in RF room temperature probe in 1 civil module, white color, IP40

- Power supply 230V a.c.
- Bidirectional RF868 MHz wireless radio connection
- Connection range $30 \div 100 \mathrm{~m}$
- Measuring range $-30 \div+70^{\circ} \mathrm{C}$
- Accuracy $\pm 0.1^{\circ} \mathrm{C}$
- Gradient $1^{\circ} \mathrm{K} / 15$ min.
- Installation of 1 civil module in flush-mounted box
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 40 \times 95 \times 23 \mathrm{~mm}$



## 1 D0 RXTEUM01 Wall-mounted combined temperature + relative humidity probe, IP30

- Power supply $2 \times 1.5 \mathrm{~V}$ AA type batteries - Alkaline
- 2 " $1 / 3$ digital LCD display
- Bidirectional RF868 MHz wireless radio connection
- Connection range $30 \div 120 \mathrm{~m}$
- Temperature adjustment range $+4 \div+39^{\circ} \mathrm{C}$
- Relative humidity \% adjustment range from App
- Accuracy $\pm 0.1^{\circ} \mathrm{C}$
- Gradient $1^{\circ} \mathrm{K} / 15$ min.
- Autonomy about 3 years
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 84 \times 23 \times 84 \mathrm{~mm}$



## ACCESSORIES

1D0 SWCDM01
1PA STE02
1PA BTTETX01
1PR PSA01
1PR PMS01
1PR PMT02
1VA ROUTEROO2
C.DOM Manager Software to control CRM4.0 from PC

NTC temperature probe with 4 m cable for 1D0 CRM031WIFI and 1D0 CRM032WIFI
Table base for 1D0 TETX05 and 1D0RXTEUM01
Replacement batteries for TETX05, RXTEUM01, VTRX05
Replacement batteries for STX01
Replacement batteries for VTRX04
Router LTE/4G with batteries

MULTI-ZONE MULTIMEDIA PROGRAMMABLE THERMOSTAT

Perpr도

## DEVICES FOR CONSUMPTION READING

## COMPACT MECHANICAL ENERGY METERS

1D0 CC15R03
Hot/cold mechanical energy meter DN15, M-BUS radio reading 1DO CC25R03
Hot/cold mechanical energy meter DN20, M-BUS radio reading

- Inductive bidirectional scanning single jet meter
- Reverse flow detection
- Temperature measurement cycle 2-60 sec.
- Installation in output
- Horizontal/vertical installation
- Temperature probes Pt1000 with cable length 1,5 meters
- Directive 2004/22/EC (MID MI-004) and in compliance with EN 1434

| CODE | Nominal flow rate Qp (m3/h) | DN | External thread | Lenght (mm) | $\begin{gathered} \text { PN } \\ \text { (bar) } \end{gathered}$ | Max. flow rate Qs (m3/h) | Min. flow rate Qi (l/h) | Pressure drop $\Delta \mathrm{p}$ at Qp (bar) | Pressure drop $\Delta p$ at Qs (bar) | Heat temp. range ( ${ }^{\circ} \mathrm{C}$ ) | Refrigeration temp. range ( $\left.{ }^{\circ} \mathrm{C}\right)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1D0 CC15R03 | 1,5 | 15 | G3/4"B | 110 | 16 | 3 | 60 | 0,2 | 0,84 | 15-90 | 5-90 |
| 1D0 CC25R03 | 2,5 | 20 | G1"B | 130 |  | 5 | 100 | 0,17 | 0,675 |  |  |

## COMPACT ULTRASONIC ENERGY METERS



## 1DO UL1520R01

Compact hot/cold ultrasonic energy meter DN15, M-BUS radio reading
1DO UL3525R01
Compact hot/cold ultrasonic energy meter DN20, M-BUS radio reading

- Reverse flow and air presence detection
- Measuring element with no moving parts
- Installation possible in all positions in output
- Straight sections not required
- Pt1000 temperature probes with 1.5 m cable length
- MID 2004/22/EC certification (EN 1434), class 2


## ELECTRONIC UNIT

- Replaceable 3V lithium battery, service life 10 years
- Removable electronic unit, cable length 85 cm
- Protection class: IP65
- Operating temperature $5-55^{\circ} \mathrm{C}$
- 8-digit LCD display (up to 3 decimal places)
- Memory of max. flow rate and power values

| CODE | Nominal flow rate Qp (m3/h) | DN | External thread | Lenght (mm) | $\begin{aligned} & \text { PN } \\ & \text { (bar) } \end{aligned}$ | Max. flow rate Qs (m3/h) | Min. flow rate Qi ( $/ \mathrm{h}$ ) | Pressure drop $\Delta p$ at Qp (bar) | Pressure drop $\Delta \mathrm{p}$ at Qs (bar) | Heat temp. range ( ${ }^{\circ} \mathrm{C}$ ) | Refrigeration temp. range ( ${ }^{\circ} \mathrm{C}$ ) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1DO UL1520R01 | 1,5 | 15 | G3/4"B | 110 | 16 | 3 | 0,015 | 0,21 | 0,85 | 15-90 | 5-90 |
| 1DO UL3525R01 | 3,5 | 20 | G1"B | 130 |  | 7 | 0,035 |  | 0,885 |  |  |

## ACCESSORIES

1D0 131205002
Fitting set DN20 $3 / 4$ "x¹/2" for heat meters CC15 / UL15
1DO 131207002
Fitting set DN25 1 " $x$ ³/4" for heat meters CC25 / UL35

## HOT/COLD SANITARY WATER METERS



1 DO CACS2503
Domestic hot water meter DN15 connections 80 mm , M-BUS ready 1DO CACS2502
Domestic hot water meter DN15 connections $110 \mathrm{~mm}, \mathrm{M}$-BUS ready 1D0 CACS4002
Domestic hot water meter DN20 with 130 mm connections, M-BUS ready 1DO CAFS2503
Domestic cold water meter DN15 connections 80 mm , M-BUS ready 1 DO CAFS2502
Domestic cold water meter DN15 connections 110 mm, M-BUS ready 1 DO CAFS4002
Domestic cold water meter DN20 with 130 mm connections, M-BUS ready

- Single jet meter and dry dial - Condensation-proof dial
- Magnetic drive
- MID 2004/22/CE Approved Range 160-H and 50 -V
- $360^{\circ}$ rotating cover
- Certified for use with drinking water (D.M. 174)

| CODE | Nominal flow rate Qp (m3/h) | DN | External thread | Lenght (mm) | PN (bar) | Maximum flow rate Qs (m3/h) | Minimum flow rate Qi ( $/ \mathrm{h}$ ) | Operating temperature ( $\left.{ }^{\circ} \mathrm{C}\right)$ | Pulse value (I) | Min. reading (l) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1D0 CACS2503 | 2,5 | 15 | G3/4"B | 80 | 16 | 3,13 | 25 | water $90^{\circ} \mathrm{C}$ | - | 0,05 |
| 1D0 CACS2502 |  |  |  | 110 |  |  |  |  |  |  |
| 1D0 CACS4002 | 4,0 | 20 | G1"B | 130 |  | 5,0 | 40 |  | - | 0,05 |
| 1DO CAFS2503 | 2,5 | 15 | G3/4"B | 80 |  |  |  | water $50^{\circ} \mathrm{C}$ | - | 0,05 |
| 1 D0 CAFS2502 |  |  |  | 110 |  | 3,13 | 25 |  |  |  |
| 1D0 CAFS4002 | 4,0 | 20 | G1"B | 130 |  | 5,0 | 40 |  | - | 0,05 |

1D0 MBR03
MBR03 M-BUS radio transmitter module for M-BUS-ready meters
-Transmission of consumption data relative to the last 15 month-ends

- Automatic radio activation
-Protection degree: IP68
- The installation of the M-BUS radio module must be simultaneous with the installation of the water meter

VTRX05 ELECTRONIC VALVE

## VTRX05 INTELLIGENT ELECTRONIC VALVE FOR RADIATORS AND TOWEL WARMERS

The most advanced and efficient answer for the thermoregulation of every radiator.

The VTRX05 intelligent electronic valves installed in radiator systems can be associated to CRM4.0 for the realization of multimedia multizone systems and/or installed stand alone on radiators/towel warmers of the house.

The VTRX05 installed stand-alone allow to turn on radiators with precise regulation of temperature set T1 (comfort temperature), T2 (reduction temperature) through the valve frontal buttons.

The VTRX05, equipped with intelligent self-learning, regulate the hourly periods of comfort (T1) and reduction (T2) according to the trend of life of the user thus assuming the function of daily programmable thermostat applied to each radiator of the house.


T1


## TECHNICAL NOTE

VTRX05 is realized with hardware and firmware solutions that allow to reduce the natural difference between temperature measured by VTRX probe and real room temperature.
Moreover, through the valve menu it is possible to access the off-set function for further adjustments between the value read by the VTRX temperature probe and the real room temperature.
The VTRX05 valve is realized with modulating operation of the thermostatic valve to minimize the energy consumption of each radiator.
The stand-alone installation of the intelligent electronic valve VTRX05 is easy to use for the reduction of energy consumption from heating of:

- Radiators and towel warmers installed in apartments
- Radiators installed in public places: offices, stores, schools, etc.
- Radiators installed in hotel rooms, RSA, etc.


## NEW ALLOCATORS OMS COMPATIBLE



1SE100301
GIUSTO-100N2 allocator


1SE100302
GIUSTO-100NE2 allocator

## 1SE100301-GIUSTO-100N2 ALLOCATOR

OMS compatible allocator for displaying the heat consumption units of the radiator.
Safe and precise, applied on each radiator, it allows the precise calculation of consumption thus obtaining a quantification of the thermal consumption and, consequently, of the costs.

The transmission of the daily consumption data is sent to the receiving device together with the consumption of last 7 days and consumption of the last 12 months.

The Giusto-100N2 allocator can provide for two-way communication for the fifteen days following installation in order to allow parameterization at a later time without necessarily having to access the home. After 15 days or immediately after parameterization, it switches to OMS compatible one-way.
The allocator is approved according to the European standard EN834 and is powered by long-lasting batteries.

## 1SE100302 - GIUSTO-100NE2 ALLOCATOR

Electronic heat cost allocator equipped with a remote probe suitable in case of convectors, radiators covered by radiator covers and / or various obstructions.
The device is fixed to the wall following the specifications of the legislation while the external probe is fixed on the heating body.

Included in the package:

- zamak plate with remote probe
- 2 screws and 2 fischer
- 1 seal and 1 anti-burglary label
- 1 small lid
- 2 plastic clamps


## CONSULTATION OF CONSUMPTION DATA

The "ticks" relating to consumption are displayed thanks to the clear parameterization of the heat cost allocator on the basis of the heat output and the type of heating body.
The reader acquires consumption data in WBF through a WSL868 key and EQUO software or, alternatively, through a remote reading thanks to floor control units and master control unit which autonomously posts the data on the server.

As per the recent regulations that suggest periodic consultation of the consumption data, the WEB portal is available which draws from the server the data and makes them easily accessible to the system manager, the condominium administrator and the individual condominium. The portal allows viewing consumption of heating and consumption of cold and domestic hot water, facilitating the perception of the trend through graphic representations expense by the User.

## INDIRECT METERING COLLECTIONG DATAS WITH CRM4.0

The allocators GIUSTO-100N2 and GIUSTO-100NE2 combined with CRM4.0 allow the reading of the consumption data on Smartphone and Tablet with updated data at 24:00 of every day.


Reading the daily saved consumption data received from all allocators connected to CRM4.0.


Graphic reading of the consumption trend of the single device.

## FIXING ACCESSORIES

| CODE | DESCRIPTION |
| :---: | :---: |
| 2SE007KTS | Standard fixing kit for 1SE100301: 1 zama plate, 2 trapezoidal anchor, 2 screws TC m4x40 |
| 2SE100202 | TAMPER-PRO0F SEAL for 1SE100301, package 50 pcs. |
| 2SE100302 | WIDE 55 ALUMINIUM PLATE - 55 mm wide - package 10 pcs. (for 1SE100301 order separately 2SE100304) |
| 2SE100303 | WIDE 88 ALUMINIUM PLATE - 88 mm wide- package 10 pcs. (for 1SE100301 order separately 2SE100304) |
| 2SE100304 | STANDARD ZAMA PLATE - 10 pcs. for 1SE100301 |
| 2SE100401 | STANDARD TRAPEZOIDAL ANCHOR - 35 mm wide on long side - package 50 pcs. |
| 2SE100402 | WIDE 50 TRAPEZOIDAL ANCHOR - 50 mm wide on long side - package 20 pcs. |
| 2SE100403 | SHAPED ANCHOR P. 45 - distance between pipe (pitch) 45 / 46 mm - package 20 pcs. |
| 2SE100404 | EXPANSION CORNER - the package includes the expansion corners, M4 hex nuts and M4 x 35 cylinder head screws - package 20 pcs |
| 2SE100405 | M3 THREADED PLATE 16x6x4 - for M3 screws - package 50 pcs. |
| 2SE100407 | M4 THREADED PLATE 30x6x6 - for M4 screws - package 50 pcs. |
| 2SE100701 | M3 FLANGED HEX NUT - package 100 pcs. |
| 2SE009KTS | Metal clamp kit composed by: a 1 meter metal belt, 4 steel heads with screw, 4 washers, 4 Yellow tamper-proof seals, 4 M3 nuts and 4 studs M3x10 |
| 2SE008KTS | U-Bolt kit composed by: 1 U clevis, 4 nuts M3 and central aluminium body |
| 2SE100601 | Self-Tapping Screw. Made of galvanized iron, cylindrical head $2.9 \times 25 \mathrm{~mm}$ - package 100 pcs. |
| 2SE100602 | Self-Tapping Screw. Made of galvanized iron, cylindrical head $3.9 \times 25 \mathrm{~mm}$ - package 100 pcs. |
| 2SE100610 | Self-Tapping Screw. Made of galvanized iron, cylindrical head $4.2 \times 16 \mathrm{~mm}$ - package 100 pcs. |
| 2SE100603 | Self-Tapping Screw. Made of galvanized iron, cylindrical head $4.8 \times 25 \mathrm{~mm}$ - package 100 pcs. |
| 2SE100608 | Self-Tapping Screw. Made of galvanized iron, cylindrical head $5.5 \times 25 \mathrm{~mm}$ - package 100 pcs. |
| 2SE100501 | M3 X 10 welding stud- package 100 pcs. |
| 2SE100502 | M3 X 20 welding stud - package 100 pcs. |
| 2SE100604 | M3 x 30 cylindrical head screw - package 100 pcs. |
| 2SE100606 | M4 x 40 cylindrical head screw - package 100 pcs. |
| 2SE100607 | M4 x 60 cylindrical head screw - package 100 pcs. |
| 2SE100609 | M4 x 100 cylindrical head screw - package 100 pcs |
| 2SE100900 | Special Meter specially studied for a safe and easy identification at the 75\% high of the heating body. |
| 2SE100800 | Pattex two-component adhesive 2K tube Metal |
| 2SE002KTS | Fixing kit for use of two-component adhesive on 1SE100301 comprehensive of: 1pc. standard aluminum plate with 2pcs. M3x10 studs. Order separately: 2pcs. M3 hex nuts, 1pc. tamper-proof seal (2SE100201 or 2SE100202 based on allocator model) and 1pc. standard zama plate (2SE100304) if for 1SE100301-10 pcs. |
| 2SE003KTS | Fixing kit for use of two-component adhesive for 1SE100301 comprehensive of: 1pc. 55 wide aluminum plate with 2pcs. M3x10 studs. Order separately: 2pcs. M3 hex nuts, 1pc. tamper-proof seal (2SE100201 or 2SE100202 based on allocator model) and 1pc. standard zama plate (2SE100304) if for 1SE100301-10 pcs. |
| 2SE004KTS | Fixing kit for use of two-component adhesive for 1SE100302 comprehensive of: 1pc. standard aluminum plate with 2pcs. M3x10 studs. Order separately: 2pcs. M3 hex nuts,1pc. tamper-proof seal - 10 pcs. |
| 2SE005KTS | Fixing kit for use of two-component adhesive for 1SE100302 comprehensive of: 1pc. 55 wide aluminum plate with 2 pcs. M3x10 studs. Order separately: 2 pcs. M3 hex nuts, 1pc. tamper-proof seal - 10 pcs. |

## CONCENTRATOR OF THE FLOOR

## 1SE100901 NODO-1000R landing repeater 3v battery operated

- The landing control unit to collect via radio and the transmit data concerning the consumption of a number of apartments to the concentrator gateway with GPRS modem.
- A concentrator can be installed each 2-3 floors, depending on the geometry of the building and the actual radio range obtainable.
- The concentrator as per set schedule collects the readings from all radio devices and sends them to the concentrator with GPRS modem.


## CONCENTRATOR GPRS



## 1SE100902 NODO-1000RG concentrator with GPRS modem 230v a.c

- Concentrator with built-in GPRS modem
- It allows the communication of consumption together with any faults and tampering to the service center
- A concentrator with GPRS modem is installed for each building or staircase, depending on the geometry of the building and the actual radio range obtainable
- Network configuration of the landing repeater NODO-100R, by EQUO Software
- With scheduled readings, it reads the devices of its radio area, stores data and send them to the service center
- Compatible only with SIM M2M Vodafone (check with other operators)
- Dimensions L x P x H mm: 210x200×50


## AMBIENT TEMPERATURE RECORDER

## 1SE100911 GRADO-200R temperature logger

- It detects the ambient temperature and calculates the medium value of the detected temperatures read on three time slots.
- The device stores every day the three medium temperature T1, T2, T3 for a period of 18 months
- The stored data read via radio from the outside of the building by WSL key 1SE100801 / WSL key 1SE100802 with communication secured by password.
Alternatively, with control units Nodo-1000R / Nodo-1000RG / Nodo-1001ME if the installation is equipped.
- Equipped with anti-tempering system.

INDIRECT METERING

EQUO It's a software to carry out the measurement of the thermal power installed in a condominium, parameterizes the allocators and pulse counters, reads the seasonal consumption and allocates the heating costs. It is easily installed on a standard PC and interacts via radio with the WSL Key for reading and managing the allocators. EQUO is not available for Apple computers.
The reading and management of the allocators can be performed remotely through the installation of repeaters and concentrators RETE-1000R, RETE-1000RG. It is available in 3 versions:


## 1SE 101201 EQUO PROFESSIONAL

For thermo-technical professionals

- Selection heater and input heater data
- Design of heat regulation components (valves, heads, lockshields)
- Determine the installed power
- Determine the parameters to set in the allocators
- Generate the report of the installed thermal power for the certification by authorized technical personnel
- Calibrate the presetting of the thermostatic valves

Allows you to store neatly the data for the calculation of the power of radiators, evaluated according to the UNI EN 442:2004 (manufacturer's data archive), imputes, eventually, the power of the intake pipes flow and return; stores the data of the valves and lockshields. Suited to detect the total power of the apartment with detail of single radiator, the thousandths craft of the power installed, the total power of the system. Processes data to perform the calibration of pre-adjustable valves

## 1SE 101202 EQUO ENTERPRISE

For allocation service manager

- Manage user details
- Acquisition of faults on allocators and pulse counters via radio
- Read data, via radio, memorized by allocators and pulse counters
- Consumption validation
- Individual allocation of the heating costs
- Generation of allocations reports in PDF and EXCEL

It has the features of the Professional version and in addition it reads the data via radio of the heat cost allocators, allows the validation of consumption for periods (season, monthly) and allows the use of different algorithms to estimate any missing consumption. In the cost allocation phase, it allows you to produce a detail of the relevant expenses divided into expenses for thermal power used and expenses according to consumption, according to the UNI 10200 sector technical standard. The UNI10200 cost allocation module also provides for the presence of heat meters direct and domestic hot water meters.

## 1SE 101203 EQUO FULL

For installers
EQUO FULL offers the functionalities of the 2 versions above and also allows the installation and the maintenance of allocators and pulse counters, the local and remote parametrisation as well as protection enabling of the system.


## 1SE 100801 WSL small key

(Wireless Serial Link) for radio communication from the landing of the building between laptop and allocators / pulse counters via EQUO software. Necessary to carry out readings onsite and to manage the devices. The key allows up to 10.000 parameterizations.

## 1SE 100802 WSL key

(Wireless Serial Link) for radio communication from the outside of the building between laptop and allocators / pulse counters via EQUO software. Necessary to carry out readings onsite and to manage the devices. The key allows up to 10.000 parameterizations.

1SE 100809 Replacement antenna for WSL key


## FEATURES

As for the current standards, with the aim of making the data available to the user in a clear and transparent way, the Web portal is born. The read data from the various metering devices are acquired with Nodo-1000R and Nodo-1000RG control units on a monthly basis. The infrastructure, designed to automatically post data on the FTP server, allows, once the web portal is activated, periodic consultation of the relevant consumptions.
The portal allows to be viewed:

- Heating Indirect consumptions measured with GIUSTO-100N2 / GIUSTO-100NE2
- Heating Direct consumptions measured with compact energy meter
- Consumption of domestic hot and cold water

The portal framework is designed to provide different information and different levels of interaction to the three intended user profiles: Apartment, Building Manager, Heat Manager

The profiles are specified below:

## USER Apartment

## (Apartment owner)

Logging into the web portal, this user can view the latest readings, the historical readings and the consumption trend of their own apartment.

## USER Building Manager (Building Administrator)

Logging into the web portal, this user can manage several Apartment users. In particular, the Building Manager user can view the latest readings, the historical readings and the trends of the accounting devices of all condominiums managed by this user

## USER Heating Manager

Logging into the web portal, this user manages the Building Manager and Apartment users.
The Manager user has all the write and read privileges.

- Programmable thermostat connected to internet. It's programmable and readable by smartphone, tablet e PC.
- Expandable (up to 30 devices, included max 1 energy meter) for zone valves control.



## 1TX CR028WIFIKIT

Starter kit: 1 Wi-Fi programmable thermostat 1TX CR028WIFI + 1 Smartbox 1TX RX01WIFI
Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE
The ready-to-use solution to adjust the temperatures of your home directly from your smartphone.
The kit includes the 1TX CR028WIFI chronothermostat and the Smartbox 1TX RX01WIFI.

Backlit display

## 1TX CR028WIFI - 3V

Wi-Fi programmable thermostat 3 V with radio receiver 868.35 MHz , white color Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 3V - 2x1.5V AA alkaline batteries - Summer / Winter control
- Output: 1 potential free changeover contact: - Temperature adjustable by $0,5^{\circ} \mathrm{C}$ sets

5 (3) A / 250V a.c.

- 4.3" backlit LCD display
- Backlit buttons
- ON / OFF operation mode with adjustable differential from (0.2-0.3-0.5-0.7 ${ }^{\circ} \mathrm{C}$ ) or modulating (control period 10/15/20/25 minutes)
- Up to 10 daily programs
- Minimum programming: 1 minute
- Holiday Program (energy saving)
- Pump activation program
- Timed backlighting
- Keyboard lock
- Wall mounting
- Dimensions (LxWxH) $128.5 \times 88.5 \times 26 \mathrm{~mm}$

The programmable thermostat WI-FI Perfer powered by 3 V alkaline batteries (it doesn't need 230V), allows to change easily and quickly the traditional thermostats.


## 1TX RX01WIFI

Smartbox 5V for Wi-Fi Programmable thermostat 3V with radio receiver 868.35MHz
Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 5V 350 mA (Powered by an external - Connected via Ethernet cable RJ45 to the router micro USB adapter) (included)
- PCB antenna build in
- Dimensions (LxWxH) $102 \times 35 \times 77 \mathrm{~mm}$



## 1TX ME01WIFI

Power meter with radio receiver $868.35 \mathrm{MHz}-1$ DIN
Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 200-260V 50Hz - Dimensions (LxWxH) 17,5×60×90 mm
- PCB antenna build in


Backlit display

1TX CR029WIFI - 230V
Wi-Fi programmable thermostat 230 V with radio receiver 868.35 MHz , white color

- Power supply 230V - 50Hz
- Output: 1 potential free changeover contact: 5 (3) A / 250 V a.c.
- 4.3" backlit LCD display
- Backlit buttons
- ON / OFF operation mode with adjustable differential from 0.2 to $1,2^{\circ} \mathrm{C}$ or modulating (control period from 7 to 20 minutes)
- Up to 10 daily programs
- Summer / Winter control
- Temperature adjustable by $0,5^{\circ} \mathrm{C}$ sets
- Minimum programming: 1 minute
- Holiday Program (energy saving)
- Pump activation program
- Timed backlighting
- Keyboard lock
- Wall mounting
- Dimensions (LxWxH) $128.5 \times 88.5 \times 26 \mathrm{~mm}$

MULTI-INSTALLATION / MULTI-ZONE MANAGEMENT
To manage multiple devices in a home or in different systems.


## EASY TO INSTALL

The new programmable thermostat CR029WIFI simplifies the installation and configuration operations. Using the Perry APP the parameters of time, date and time programming synchronize in few seconds.


TEMPERATURE SETTING
Simple and intuitive.


## ADVANCED SETTINGS

Temperature locks, offset, regulation for floor or traditional installation.

## WEEKLY PROGRAMMING

Up to 10 levels of temperature per day.


## VOICE ASSISTANTS

The new Perry Wi-fi programmable thermostat supports Alexa and Google Home. From now on, it will be easy to manage the home temperature.works with amazon alexa


## SHARING

App allows sharing the devices with other users (with setting limits). Function particularly useful in the family or in rented homes.



[^0]- Pausing for household cleaning
- Input for telephone programmer or remote contact
- Summer / Winter control
- Input for remote probe (CR028)
- Holidays program and pump activation program
- Temperature setting lock
- User / Installer password
- Backlighting: timed (CR028), timed and fixed (CR029)
- Relay status indicator
- Maintenance settings during blackout 48-hour (CR029)
- Temperature offset: adjustable according to product positioning
- Temperature setting range: $5-37.7^{\circ} \mathrm{C}$
- Dimensions: (L x W x H) $128.5 \times 88.5 \times 26 \mathrm{~mm}$

1PA STE02 NTC temperature probe with 4 m cable, for CRO28<br>Detection probe with $2 \times 1.5 \mathrm{~mm}^{2}$ shielded cable - IP65 - Extendable up to max. 20 m .<br>The probe allows temperature sensing in another room, underfloor or outside.



Time and standard heating program are preset at the factory and can be modified by the user at any time
1CR CR017AG - Anthracite color - Daily
1CR CR017BG - White color - Daily
1CR CR018AS - Anthracite color - Weekly
1CR CR018BS - White color - Weekly
"UP \& DOWN Compact" digital programmable thermostat 3 V series

- Power supply 3V - 2x1.5V AAA alkaline
- 4" 1 ² LCD display
- 1 potential-free changeover contact output: 5(2)A/250V a.c.
- 10 Temperature levels + anti-freeze
- Minimum programming time 60 minutes
- Temperature offset: adjustable according to product positioning (winter / summer)
- Automatic daylight saving time adjustment
- Preset at the factory
- ON / OFF operation mode with adjustable differential switch or proportional with control period $7 / 10 / 13 / 20^{\prime}$
- 3 operation modes: intelligent / eco / optimised
- Temporary / permanent manual operation modes
- Autonomy: 12 months
- Holiday Program and pump activation program
- Pausing for household cleaning
- Temperature setting lock
- Keypad lock
- Password protection for access to keyboard
- Heating setting range: 15-17-18-19-20-20,5-21-22-23-24 ${ }^{\circ} \mathrm{C}$
- Cooling setting range: 20-22-23-24-25-26-27-28-32-36${ }^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $133 \times 26 \times 90 \mathrm{~mm}$



## 1CR CR311B

"SLIM" serie digital programmable thermostat

- Multilanguage menu
- Power supply 3V - 2x1.5V AAA alkaline
- 1 potential-free changeover contact output: 5(2)A/250V a.c.
- ON / OFF operation mode with adjustable differential from 0.2-1.2 ${ }^{\circ} \mathrm{C}$ or modulating with control period from 7-20 min
- 4 preset modifiable programs
- Temperature levels: 3 + anti-freeze
- Independent manual temperature
- Temperature adjustable by $0,1^{\circ} \mathrm{C}$ sets
- Minimum programming: 30 minutes
- Independent manual temperature
- Automatic daylight saving time change
- Summer / Winter control
- Holiday Program and pump activation program
- Pausing for household cleaning
- Temperature setting lock
- User / Installer password
- Autonomy: 12 months
- Relay status indicator
- Temperature offset: adjustable according to product positioning
- Temperature setting range: $5-37.7^{\circ} \mathrm{C}$
- Dimensions: (L x W x H) $120 \times 21 \times 80 \mathrm{~mm}$


1CR CR308/G - Daily
1CR CR309/S - Weekly
"EASY" series digital analogue programmable thermostat 3 V - white color

- Power supply 3V - 2x1.5V AA alkaline
- 2" 2/3 LCD display
- 1 potential-free changeover contact output: 5 (3)A/250V a.c.
- ON / OFF operation with adjustable differential switch $0.3 / 0.5 / 0.70 .9^{\circ} \mathrm{C}$ or adjustable proportional cycle 7/10/15/20 min
- Temperature adjustment on display
- Temperature levels $2+$ anti-freeze fixed at $5^{\circ} \mathrm{C}$
- Autonomy: 24 months
- Minimum programming 30 minutes
- Permanent manual operation
- Total ON / OFF function
- Temperature lock
- Telephone control input
- Temperature setting range: $5-37.7^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $121.5 \times 31.5 \times 82 \mathrm{~mm}$


## THERMOSTATS - WALL MOUNTED



1TP TE028A - Anthracite color - 3V
1TP TE028B - White color - 3V
1TP TE029A - Anthracite color - 230V
1TP TE029B - White color - 230V
"NEXT" series menu driven daily digital thermostat

- Power supply: 3V 2x1,5AA alkaline batteries (TE028) $230 \mathrm{Vac} 50-60 \mathrm{~Hz}$ (TE029)
- Multilanguage menu
- 4.3" backlit LCD display
- Backlit buttons
- Output: 1 potential free changeover contact:

5 (3) A / 250Va.c.

- ON / OFF operation mode with adjustable differential

Backlit display
from $0.2-1.2^{\circ} \mathrm{C}$ or modulating with control period from 7-20'

- Temperature levels: 2 + anti-freeze
- Temperature adjustable by $0,1^{\circ} \mathrm{C}$ sets
- Pausing for household cleaning
- Input for telephone programmer or remote contact
- Input for remote probe (TE028)
- Summer / Winter control
- Pump activation program
- Temperature setting lock
- User password
- Installer password
- Backlighting: timed (TE028), timed and fixed (TE029)
- Relay status indicator
- Temperature offset: adjustable according to product positioning
- Wall mounting
- Temperature setting range: $5-37.7^{\circ} \mathrm{C}$
- Dimensions: (L x W x H) $128.5 \times 88.5 \times 26 \mathrm{~mm}$

Keys lit in different colors depending on consumption


Below $18,0^{\circ} \mathrm{C}$ the keys light up in green indicating low consumption


Between $18,1^{\circ} \mathrm{C}$ and $21^{\circ} \mathrm{C}$ the keys light up in blue indicating optimal consumption


Above $21,1^{\circ} \mathrm{C}$ the keys light up in red indicating consumtion over needs

## 1PA STE02 NTC temperature probe with 4 m cable, for CRO28

Detection probe with $2 \times 1.5 \mathrm{~mm}^{2}$ shielded cable - IP65 - Extendable up to max. 20 m .
The probe allows temperature sensing in another room, underfloor or outside.

1TP TE530B - 3V
1TP TE531B - 230V
"ZEFIRO" series $80 \times 80$ digital thermostat, white color

- Power supply: 3V 2x1.5V AAA alkaline batteries (TE530B) 230 V a.c. $50-60 \mathrm{~Hz}$ (TE531B)
- 2" 1/3 LCD display
- 1 potential-free changeover contact output: 5 (3) A / 250Va.c.
- ON / OFF operation with adjustable differential switch
$0.2-1,2^{\circ} \mathrm{C}$ or proportional with $7 / 20^{\prime}$ control period
- Temperature levels $2+$ anti-freeze
- Temperature adjustable by $0.1^{\circ} \mathrm{C}$ sets
- LOW BAT indicator (TE530B)
- Autonomy: 24 months (TE530B)
- Relay status indicator
- SUM/WIN control
- Temperature setting lock
- Temperature offset: adjustable according to product positioning
- Temperature setting range: $5-37.7^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $84 \times 23 \times 84 \mathrm{~mm}$


## 1TP TE532B

"ZEFIRO" series $80 \times 80$ digital thermostat 230V, for public areas white color

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 2" 1/3 LCD display
- 1 potential-free changeover contact output: 5 (3) A / 250Va.c.
- ON / OFF operation with adjustable differential switch $0.2-1,2^{\circ} \mathrm{C}$ or proportional with $7 / 20$ minutes control period
- Temperature levels 2 + anti-freeze
- Temperature adjustable by $0.1^{\circ} \mathrm{C}$ sets
- Temperature setting range: $5-37.7^{\circ} \mathrm{C}$
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 89,7 \times 27 \times 87,4 \mathrm{~mm}$

Inaccessible controls, reserved to installer:

- temperature SET adjustment
- SUM / WIN control
- on /off
- adjustment settings
- Temperature offset: adjustable according to product positioning



## 1TP TE011B

## "SLIM" series 3V digital thermostat, white color

- Power supply: nº 2 Alkaline stilo batteries 1,5 V type AAA (LRO 3)
- 2,6" LCD display
- Multilanguage menu
- Type of output: voltage free relay with COM / NO / NC changeover contact - max 5(3)A/250 V ~
- Type of temperature adjustment: differential ON/ OFF adjustable from $0.2^{\circ} \mathrm{C}$ to $1.2^{\circ} \mathrm{C}$ or modulating proportional cycles adjustable from 7 to 20 minutes
- Number of temperature levels: 2+antifreeze
- Setting temperature Set: in step of $0.1^{\circ} \mathrm{C}$
- Ambient temperature display range: $-5^{\circ} \mathrm{C} \div+37.7^{\circ} \mathrm{C}$
- Winter and Summer mode)
- Pump activation program
- Temperature set lock
- User password
- Installer password
- Relay ON signal
- Autonomy: more than 1 year
- Wall mount
- Temperature correction: adjustable from $-3.0^{\circ} \mathrm{C}$ to $+3.0^{\circ} \mathrm{C}$
- Dimensions (LxWxH) $120 \times 21 \times 80 \mathrm{~mm}$



## 1TP TE400/B - 3V <br> 1TP TE410/B - 230V <br> "SLIM" series digital thermostat with ON / OFF / NIGHT REDUCTION control, white color

- Power supply: 3V $2 \times 1.5 \mathrm{~V}$ AAA alkaline batteries (TE400/B) 230 V c.a. $50-60 \mathrm{~Hz}$ (TE410/B)
- 1" LCD display
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with settable differential switch 0.3 / 0.5 / $0.7 / 0.9^{\circ} \mathrm{C}$
- Adjustment according to a graduated scale with analogue and digital setting
- Autonomy: 12 months (TE400/B)
- 1 temperature level with continuous adjustment + fixed reduced control $-4^{\circ} \mathrm{C}$ on the set value
- ON / OFF / NIGHT REDUCTION control
- LOW BAT indicator LED
- Relay status indicator LED
- Remote night reduction control input
- Max Temperature setting lock
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $120 \times 21 \times 80 \mathrm{~mm}$


1TP TE402/B - 3V
1TP TE411/B-230V
"SLIM" series digital thermostat with SUMMER / OFF / WINTER control, white color

- Power supply: 3V 2x1.5V AAA alkaline batteries (TE402/B) 230V c.a. $50-60 \mathrm{~Hz}$ (TE411/B)
- 1" LCD display
- 1 potential-free changeover contact output:

8 (2) A / 250V a.c.

- ON / OFF operation with settable differential switch 0.3 / $0.5 / 0.7 / 0.9^{\circ} \mathrm{C}$
- Adjustment according to a graduated scale with analogue and digital setting
- Autonomy: 12 months (TE402/B)
- 1 temperature level with continuous adjustment + fixed reduced control $-4^{\circ} \mathrm{C}$ on the set value
- SUMMER / OFF / WINTER control
- LOW BAT indicator LED
- Relay status indicator LED
- Remote night reduction control input
- Max Temperature setting lock
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $120 \times 21 \times 80 \mathrm{~mm}$



## 1TP TE500A - Anthracite color <br> 1TP TE500B - White color

"ZEFIRO" series electronic thermostat with LED

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- Remote input for night reduction $-4^{\circ} \mathrm{C}$ on the set-point value
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- Mains connection indicator LED
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $120 \times 27.5 \times 81 \mathrm{~mm}$



## 1TP TE501A - Anthracite color

## 1TP TE501B - White color

"ZEFIRO" series electronic thermostat with ON / OFF control

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with fixed differential at $0.4^{\circ} \mathrm{C}$
- ON / OFF control
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Wall mounting or semi recess
- Remote input for night reduction $-4^{\circ} \mathrm{C}$ on the set-point value
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- Mains connection indicator LED
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $120 \times 27.5 \times 81 \mathrm{~mm}$



## 1TP TE502B

"ZEFIRO" series electronic thermostat with floor probe, white color

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output:

8 (2) A / 250V a.c.

- ON / OFF operation with fixed differential at $0.4^{\circ} \mathrm{C}$
- ON / OFF control
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Wall mounting
- Remote input for night reduction $-4^{\circ} \mathrm{C}$ on the set-point value
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- Mains connection indicator LED
- Temperature setting range: $0-+60^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $120 \times 27.5 \times 81 \mathrm{~mm}$



## 1TP TE503A - Anthracite color

1TP TE503B - White color
"ZEFIRO" series electronic thermostat with SUMMER / WINTER control

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 8 (2) A / 250V a.c.
- ON / OFF operation with fixed differential at $0.4^{\circ} \mathrm{C}$
- SUMMER / OFF / WINTER control
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 temperature level with continuous adjustment
- Wall mounting or semi recess
- Remote input for night reduction $-4^{\circ} \mathrm{C}$ on the set-point value
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- WINTER / SUMMER indicator LED
- Mains connection indicator LED
- Temperature setting range: 5-30 C
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 120 \times 27.5 \times 81 \mathrm{~mm}$



## 1TP TE565B

"ZEFIRO" series electronic thermostat for Fan Coil with SUMMER / OFF / WINTER control, white color

- Power supply 230V a.c. $50-60 \mathrm{~Hz}$
- 1 temperature level with continuous adjustment
- 1 polarized NO contact output: 5 (2) A / 250V a.c.
- Set-point with mechanical max temperature lock
- Proportional operation with fixed control period
- Relay status indicator LED
- SUMMER / OFF / WINTER control
- SUMMER / WINTER indicator LED
- $I^{\circ} \mathrm{II}^{\circ} \mathrm{III}{ }^{\circ}$ Speed control
- Power supply indicator LED
- Temperature adjustment on graduated scale with
- Temperature setting range: $5-30^{\circ} \mathrm{C}$ mechanical index set-point
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $120 \times 27.5 \times 81 \mathrm{~mm}$



## 1TP TE566B

Electronic thermostat "EUROPA" series for "Fan Coil" with SUMMER / OFF / WINTER control, white color

- Power supply 230V a.c. 50-60Hz
- 1 polarized NO contact output: 5 (2)A / 250V a.c.
- Proportional operation with fixed control period
- SUMMER / OFF / WINTER control
- Temperature adjustment on graduated scale with mechanical index set-point
- ${ }^{\circ} \|^{\circ}$ III ${ }^{\circ}$ Speed control
- 1 Temperature level with continuous adjustment
- Set-point with mechanical max temperature lock
- Relay status indicator LED
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions $(L \times W \times H) 74 \times 36 \times 74 \mathrm{~mm}$



## 1TP TE041

"EUROPA" series electronic thermostat, with SUMMER / WINTER control, white color

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 5 (2) A / 250V a.c.
- ON / OFF operation with adjustable differential switch $0,2-2,5^{\circ} \mathrm{C}$
- 1 Temperature level with continuous adjustment
- Set-point with mechanical temperature lock
- Relay status indicator LED
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 74 \times 36 \times 74 \mathrm{~mm}$
- SUMMER / WINTER control



## 1TP TE046

"EUROPA" series electronic thermostat, with ON / OFF control, white color

- Power supply 230V a.c. 50-60Hz
- 1 potential-free changeover contact output: 5 (2) A / 250V a.c.
- ON / OFF operation with adjustable differential switch $0,2-2,5^{\circ} \mathrm{C}$
- ON / OFF control
- 1 Temperature level with continuous adjustment
- Set-point with mechanical temperature lock
- Relay status indicator LED
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L×W x H) $74 \times 36 \times 74 \mathrm{~mm}$



## 1TP TE065

"EUROPA" series electronic thermostat for "Fan Coil" with SUMMER / OFF / WINTER control, white color

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 polarized NO contact output: 5 (2) A / 250V a.c.
- Proportional operation with fixed control period
- SUMMER / OFF / WINTER control
- $0 I^{\circ} \|^{\circ}$ III ${ }^{\circ}$ Speed control
- Relay status indicator LED
- Temperature adjustment on graduated scale with mechanical index set-point
- 1 Temperature level with continuous adjustment
- Set-point with mechanical temperature lock
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $74 \times 36 \times 74$ mm



## 1TG TEG130

"TEG" series gas expansion thermostat without LED indicator, white color

- 1 potential-free changeover contact output:
- Set-point with mechanical temperature lock 16(2,5)A/250V~
- ON / OFF indicator LED of the connected load
- ON / OFF operation with fixed differential switch
- Temperature setting range: 5-30 C
- 1 temperature level with continuous adjustment
- Temperature adjustment on graduated scale with mechanical index set-point
- Dimensions (L x W x H) $80 \times 43,5 \times 80 \mathrm{~mm}$



## 1TG TEG131

"TEG" series gas expansion thermostat with LED indicator, white color

- Power supply 230V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 16(2,5)A/250V~
- ON / OFF operation with fixed differential switch
- 1 temperature level with continuous adjustment
- Temperature adjustment on graduated scale with
mechanical index set-point
- Set-point with mechanical temperature lock
- ON / OFF indicator LED of the connected load
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $80 \times 43,5 \times 80 \mathrm{~mm}$



## 1TG TEG132

"TEG" series gas expansion thermostat with LED indicator and ON / OFF control, white color

- Power supply 230V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 16(2,5)A/250V~
- ON / OFF operation with fixed differential switch
- ON / OFF control
- 1 temperature level with continuous adjustment
- Temperature adjustment on graduated scale with mechanical index set-point
- Set-point with mechanical temperature lock
- ON / OFF indicator LED of the connected load
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $80 \times 43,5 \times 80 \mathrm{~mm}$


## 1TG TEG136

"TEG" series gas expansion thermostat with LED indicator and SUMMER / WINTER control, white color

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 16(2,5)A/250V~
- ON / OFF operation with fixed differential switch
- SUMMER / WINTER control
- 1 temperature level with continuous adjustment
- Temperature adjustment on graduated scale with mechanical index set-point
- Set-point with mechanical temperature lock
- ON / OFF indicator LED of the connected load
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $80 \times 43,5 \times 80 \mathrm{~mm}$


## 1PA TEG04N "TEG"series base for thermostat installation

[^1]
## CONTROL BOXES

## FUNCTIONAL FEATURES

The control boxes are electronic devices equipped with 4-8 inputs and 4-8 outputs for control of opening / closing of the electro valves mounted on distribution manifolds. Intelligent operation mode to start or stop any circulation pump installed in the hydraulic distribution box and / or the circulation pump of the individual boiler and / or the zone valve. When all the electro valves are close, the control box stops the pump / zone valve. When even only one of electro valves is open, the control box restarts the pump or the zone valve.
Input for the connection of a time switch for programming the operating times of the heating system of the apartment (and of offices) and input for remote control switching of the system for winter / summer mode.


- WINTER operation indicator LED
- SUMM ER operation indicator LED
- ON / OFF pump
- control indicator LED
- Protection degree IP 30
- Dimensions (L x W x H) $250 \times 76 \times 43 \mathrm{~mm}$



## 1AC BP08230

4-zones control box with $8+1$ relay outputs

- Power supply 230 V a.c. -50 Hz
- WINTER operation indicator LED
- Potential-free changeover contacts: $10 \mathrm{~A} / 250 \mathrm{~V}$ a.c.
- 8 controllable zones
- Output for active pump control with at least one open zone valve
- Output controlled by a time switch
- Remotely controlled SUM / WIN output
- SUMM ER operation indicator LED
- ON / OFF pump
- control indicator LED
- Protection degree IP 30
- Dimensions (L x W x H) $250 \times 76 \times 43 \mathrm{~mm}$

Inputs from zone programmable thermostasts and thermostats



1TX CRTX05 Wireless weekly digital programmable thermostat with 868.35 MHz RF output - white color Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 3V - 2x1.5V AA alkaline batteries - Temperature settings protected by password
- 3" 3/4 LCD display
- Adjustable temperature range: 5-39,9º
- ON / OFF operation with adjustable differential
- Automatic daylight saving time change switch $0.2-0.7^{\circ} \mathrm{C}$
- 2 temperature levels + anti-freeze (excludable or adjustable)
- SUMMER / WINTER option
- Possibility of correction of the detected room temperature (OFFSET).
- Interruption button for cleaning operations
- Minimum programming time 30 minutes
- Range: 30-130m
- MASTER function
- Dimensions: (L x W x H) $120 \times 21 \times 80 \mathrm{~mm}$
- 3 years autonomy

1PA BTCRTX01 Table base for wireless programmable thermostat


## 1TX TETX04 Wireless daily digital thermostat with 868.35 MHz RF output - white color

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 3V - 2x1.5V AA alkaline batteries
- 2" 1 3 LCD display
- ON / OFF operation with adjustable differential switch 0.2 $-0.7^{\circ} \mathrm{C}$
- 2 temperature levels + anti-freeze (excludable or adjustable)
- 3 years autonomy
- SUMMER / WINTER option
- Temperature settings protected by password
- Operational safety is ensured by a double transmission of information to the receiver
- Possibility of correction of the detected room temperature (OFFSET).
- Indication of ON status and LOW battery
- Adjustable temperature range: $5-39,9^{\circ} \mathrm{C}$
- Range: 30-130m
- Dimensions (L x W x H): $84 \times 23 \times 84 \mathrm{~mm}$

1PA BTTETX01 Table base for thermostat TETX04


1TX CCRX01 Status control unit zone 868.35 MHz - white color
Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE
The control unit activates the load (pump boiler) with at least one open electronic valve

- Power supply 230 V a.c. 50 Hz
- 1 potential-free changeover contact output: 5 (2) A / 250V
- Reception frequency: 868.35Mhz
- RF signal level indicator
- Dimensions (L×WxH) $133 \times 25 \times 90 \mathrm{~mm}$


> 1TX RX01/P 1-zone wall-mounted radio receiver - white color Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE
> - Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
> - Reception frequency: 868.35Mhz
> - 1TX RX01/P: 1 potential-free changeover contact output: 5 (2 )A / 250V a.c.
> output: 5 (2) A / 250V + 1 Output to control the 1TX RX02/P 2-zones wall-mounted radio receiver + 1 circulation pump output - white color
circulation pump 5 (2) A / 250 V a.c.

- Manual ON / OFF control
- RF signal level indicator
- Dimensions (L×W xH) $133 \times 25 \times 90 \mathrm{~mm}$



## 1TX RX0801/P 8-zones wall-mounted radio receiver + 1 circulation pump output - white color

 Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE- 18V power supply via BUS
- RF signal level indicator
- Reception frequency: 868.35 Mhz
- Signal to control the activated circulation pump
- BUS RS 485 output for 8 -output control + 1
- Adjustable pump control delay 0 " or 120 "
circulation pump control output
- Dimensions (L x W x H) $133 \times 25 \times 90 \mathrm{~mm}$
- Manual ON / OFF control


## 1TX BC0401/230 4-zones Control box

## 1TX BC0801/230 8-zones Control box

Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 4 polarized outputs at 230 V (1TX BC0401/230) 8 polarized outputs at 230 V (1TX BC0801/230)
- Load 8 (2) A / 250 V a.c. + 1 output to control the circulation pump 8 (2) A / 250 V a.c.
- IP 32 (IP 52 with accessory cable glands)
- Connection to receiver RX0801/P with BUS RS 485
- Fault indicator LED
- ON / OFF pump status indicator LED
- mains presence indicator LED
- ON / OFF zone status indicator LED
- Dimensions $(L \times W \times H) 250 \times 76 \times 43 \mathrm{~mm}$


1TX VTRX02 Electronic actuator for water radiators with $868,35 \mathrm{MHz}$ RF transceiver - white color Product complying the radio devices Directive 2014/53/UE and RoHS 2011/65/UE

- Power supply 3V - 2x1.5V type C alkaline batteries
- Approx. lifetime 3 years
- ON / OFF operation
- RF signal level indicator
- IP 40
- Fault and / or battery charge indicator
- Valve opening / closing condition indicator
- Threaded coupling for radiators with adaptation ring nut for the main thermostatic valves
- Dimensions: ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ): $62 \times 70 \times 97 \mathrm{~mm}$


## KITS FOR EXISTING SYSTEMS



1TX CRTX05RX01
Kit including 1 radio programmable thermostat + 1 wall-mounted 1-zone radio receiver 1TX RX01/P
CRTX05 programmable thermostat adjusts the time profiles and the temperature settings in the house. The RX01/P radio receiver activates / deactivates the connected load (pump, boiler, ...) according to the heat demand of the programmable thermostat.

## 1TX TETX04RX01

Kit including 1 radio thermostat + 1 wall-mounted 1-zone radio receiver 1TX RX01/P
TETX04 thermostat adjusts the temperature settings in the house. The RX01/P radio receiver activates / deactivates the connected load (pump, boiler, ...) according to the heat demand of the thermostat.

## ACCESSORIES

1PA ASVT01 Angle adapter for electronic valves on radiators
It allows the vertical installation of the electronic valves on the radiators

1PA PPBC01 Cable glands for control boxes
Package consists of $\mathrm{n}^{\circ} 11$ cable glands for control boxes, protection degree IP52

Zone 1
Programmable thermostat


CRTX05

Zone 2
Thermostat


CONDOMINIUM APARTMENT WITH VERTICAL PIPING SYSTEM

Zone 1 Internal probe Programmable thermostat

Zone 2 Internal probe Thermostat


NEW OR RENOVATED APARTMENTS WITH DISTRIBUTION BOX



## 1TM TE082

Electronic thermostat with adjustment on 2 temperature levels Comfort and Reduction - 2 DIN

- Power supply: 230 V a.c. -50 Hz
- 1 potential-free changeover contact output: 16 (3) A / 250V a.c.
- ON / OFF operation with adjustable differential switch $0.5-2.5^{\circ} \mathrm{C}$
- ON / OFF / ANTI-FREEZE control
- Comfort / reduction / automatic remote selection control
- 2 graduated scales with adjustment index
- 2 temperature levels with continuous adjustment
- Adjustable night reduction remote input
- Set-point with mechanical temperature lock
- Relay status indicator LED
- Comfort indicator LED
- Night reduction indicator LED
- Equipped with NTC-type remote probe, with white and anthracite caps to be recessed in wiring devices blind plug, extendedable up to max. 100 m with shielded cable
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $35 \times 60 \times 128 \mathrm{~mm}$


## 1TM TE083

## Electronic thermostat with ON / OFF / ANTI-FREEZE - 2 DIN

- Power supply 230 V a.c. -50 Hz
- 1 potential-free changeover contact output:

16 (3) A / 250V a.c.

- ON / OFF operation with adjustable differential switch $0.5-2.5^{\circ} \mathrm{C}$
- ON / OFF / ANTI-FREEZE control
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Adjustable night reduction remote input
- Relay status indicator LED
- Night reduction indicator LED
- Equipped with NTC-type remote probe, with white and anthracite caps to be recessed in wiring devices blind plug, extendedable up to max. 100 m with shielded cable
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 128 \mathrm{~mm}$


## 1TM TE084

## Electronic thermostat with SUMMER / OFF / WINTER - 2 DIN

- Power supply 230 V a.c. -50 Hz
- 1 potential-free changeover contact output: 16 (3) A / 250 V a.c.
- ON / OFF operation with adjustable differential switch $0.5-2.5^{\circ} \mathrm{C}$
- SUMMER / OFF / WINTER control
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Adjustable night reduction remote input
- Relay status indicator LED
- Night reduction indicator LED
- Equipped with NTC-type remote probe, with white and anthracite caps to be recessed in wiring devices blind plug, extendedable up to max. 100 m with shielded cable
- Temperature setting range: $5-30^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $35 \times 60 \times 128 \mathrm{~mm}$


## 1TM TE052/M

## Electronic thermostat for switchboards - 2 DIN

For switchboards cooling and anti-condensation

- Power supply 230 V a.c. - 50Hz
- 1 potential-free changeover contact output: 16 (3)A / 250 V a.c.
- ON / OFF operation with fixed differential switch $2^{\circ} \mathrm{C}$
- 2 graduated scales with adjustment index
- Cooling adjustment range $+20^{\circ} \mathrm{C} /+60^{\circ} \mathrm{C}$
- Anticondensation adjustment range $+0^{\circ} \mathrm{C} /+10^{\circ} \mathrm{C}$
- 2 temperature levels with continuous adjustment
- Remote probe input
- Relay status indicator LED
- Damaged probe indicator LED
- Equipped with NTC-type remote probe, with white and anthracite caps to be recessed in wiring devices blind plug, extendedable up to max. 100 m with shielded cable
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 128 \mathrm{~mm}$

|  | 1TM TE075 |  |
| :---: | :---: | :---: |
| -* | Electronic thermostat -30/ +30 ${ }^{\circ} \mathrm{C}-2$ DIN |  |
| - | - Power supply 230 V a.c. - 50 Hz <br> - 1 potential-free changeover contact output: 16 (3) A / 250V a.c. <br> - ON / OFF operation with fixed differential switch $1^{\circ} \mathrm{C}$ <br> - Graduated scale with adjustment index <br> - 1 temperature level with continuous adjustment | - Remote probe cable length max. 100m <br> - Remote probe input <br> - Adjustment range $-30^{\circ} \mathrm{C} /+30^{\circ} \mathrm{C}$ <br> - Relay status indicator LED <br> - Damaged probe indicator LED <br> - Dimensions (L x W x H) $35 \times 60 \times 128 \mathrm{~mm}$ |
|  | 1TM TE076 |  |
| -" | Electronic thermostat -20/+40 ${ }^{\circ} \mathrm{C}-2$ DIN |  |
| - | - Power supply 230 V a.c. - 50 Hz <br> - 1 potential-free changeover contact output: 16 (3) A / 250V a.c. <br> - ON / OFF operation with fixed differential switch $1^{\circ} \mathrm{C}$ <br> - Graduated scale with adjustment index <br> - 1 temperature level with continuous adjustment <br> - Remote probe input | - Remote probe cable length max. 100 m with shielded cable <br> - Adjustment range $-20^{\circ} \mathrm{C} /+40^{\circ} \mathrm{C}$ <br> - Relay status indicator LED <br> - Damaged probe indicator LED <br> - Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 128 \mathrm{~mm}$ |
|  | 1TM TE077 |  |
| -* | Electronic thermostat $0 /+60^{\circ} \mathrm{C}-2$ DIN |  |
|  | - Power supply 230 V a.c. - 50 Hz <br> - 1 potential-free changeover contact output: 16 (3) A / 250V a.c. <br> - ON / OFF operation with fixed differential switch $1^{\circ} \mathrm{C}$ <br> - Graduated scale with adjustment index <br> - 1 temperature level with continuous adjustment <br> - Remote probe input | - Remote probe cable length max. 100 m with shielded cable <br> - Adjustment range $0^{\circ} \mathrm{C} /+60^{\circ} \mathrm{C}$ <br> - Relay status indicator LED <br> - Damaged probe indicator LED <br> - Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 128 \mathrm{~mm}$ |
|  |  |  |
| - | Electronic thermostat $40 /+100^{\circ} \mathrm{C}-2$ DIN |  |
| - ${ }^{-}$ | - Power supply 230 V a.c. -50 Hz <br> - 1 potential-free changeover contact output: 16 (3) A / 250V a.c. <br> - ON / OFF operation with fixed differential switch $1^{\circ} \mathrm{C}$ <br> - Graduated scale with adjustment index <br> - 1 temperature level with continuous adjustment <br> - Remote probe input | - remote probe cable length max. 100m with shielded cable <br> - Adjustment range $40^{\circ} \mathrm{C} /+100^{\circ} \mathrm{C}$ <br> - Relay status indicator LED <br> - Damaged probe indicator LED <br> - Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 128 \mathrm{~mm}$ |

1TM STE01 PTC temperature detection probe with 1.5 m cable
Detection probe with shielded cable $2 \times 1.5 \mathrm{~mm}^{2}$ - IP 68 extendable up to max. 100m

## 1TM STE01/4 PTC temperature detection probe with 4m cable

Detection probe with shielded cable $2 \times 1.5 \mathrm{~mm}^{2}$ - IP 68 extendable up to max. 100 m


## 1TC TB060

## Contact thermostat for piping

- 1 potential-free changeover contact output 16 (5) A / 250V a.c.
- ON / OFF operation with fixed differential switch $4 \pm 2^{\circ} \mathrm{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Installation in piping with supplied elastic strap
- Adjustment range $+30^{\circ} \mathrm{C} /+90^{\circ} \mathrm{C}$
- IP 20
- Dimensions (L x W x H) $54 \times 56 \times 99 \mathrm{~mm}$



## 1TC TB065

## Thermostat, immersion bulb

- 1 potential-free changeover contact output: 16 (5) A / 250V a.c.
- ON / OFF operation with fixed differential switch $4 \pm 2^{\circ} \mathrm{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Bulb diameter 8 mm
- Bulb for immersion installation
- Adjustment range $+30^{\circ} \mathrm{C} /+90^{\circ} \mathrm{C}$
- IP 20
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $54 \times 72 \times 98.5 \mathrm{~mm}$


## 1TC TB071

Thermostat with safety limiting device

- 1 potential-free changeover contact output:

16 (5) A / 250V a.c.

- ON / OFF operation with fixed differential switch $4 \pm 2^{\circ} \mathrm{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Bulb diameter 14 mm
- Bulb for immersion installation
- Adjustment range $+30^{\circ} \mathrm{C} /+90^{\circ} \mathrm{C}$
- Safety limiting device $\mathrm{T}=100^{\circ} \mathrm{C}$
- IP 20
- Dimensions (L x W x H) $108 \times 56 \times 98.5 \mathrm{~mm}$



## 1TC TB081

## Thermostat for hot air generators

- 1 potential-free changeover contact output:

16 (5) A / 250 V a.c.

- ON / OFF operation with fixed differential switch $4 \pm 2^{\circ} \mathrm{C}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment
- Bulb diameter 14 mm
- Bulb for immersion installation
- Adjustment range $+30^{\circ} \mathrm{C} /+90^{\circ} \mathrm{C}$
- IP 20
- Installation in hot air generators
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $108 \times 56 \times 98.5 \mathrm{~mm}$


## 1TC TB088



## Thermostat with external probe $+4 /+40^{\circ} \mathrm{C}$

- 1 potential-free changeover contact output:
- Adjustment range $+4^{\circ} \mathrm{C} /+40^{\circ} \mathrm{C}$

16 (5) A / 250Va.c.

- IP 20
- ON / OFF operation with fixed differential switch $1,5 \pm 1^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $72 \times 45.5 \times 136 \mathrm{~mm}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment



## 1TC TB091

Thermostat with external probe $+\mathbf{2 0} /+60^{\circ} \mathrm{C}$


- 1 potential-free changeover contact output:
- Adjustment range $+20^{\circ} \mathrm{C} /+60^{\circ} \mathrm{C}$ 16 (5) A / 250Va.c.
- IP 54
- ON / OFF operation with fixed differential switch 1,5/-1 ${ }^{\circ} \mathrm{C}$
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $61 \times 60 \times 105 \mathrm{~mm}$
- Graduated scale with adjustment index
- 1 temperature level with continuous adjustment


## MOTION AND PRESENCE DETECTORS



Contact closing with zero load and "ZERO CROSSING" method
The relay contacts will open and close only in the instant when the voltage is equal to zero. This method allows to increase the contact lifetime by optimizing the activation and deactivation of the load. ZERO CROSSING products are particularly suitables for controlling electronic lamps, LED and energy-saving lamps.


- Equipped with adapter for installation in corners.
- Possibility of limiting the detection range by obscuring the segments of the lens either horizontally or vertically.

1SP SP044B - IP44
1SP SP055B - IP55
Wall-mounted motion detector "ZERO" range - white color

- Power supply 230 V a.c. $\pm 10 \% 50 \mathrm{~Hz}$
- Maximum lighting load:
incandescent lamps 1.800W
fluorescent lamps (uncompensated) 480W
fluorescent lamps (compensated in parallel) 250W
CFL / LED lamps (230V) 7W $\div 23 \mathrm{~W}$ max 5 lamps
- Protection degree IP44 (SP044) - IP55 (SP055)
- Wire section at terminals 0,75..... 2,5 mm²
- Degree of pollution normal
- Detection angle up to $220^{\circ}$
- Detection distance 12 m
- Adjustment of deactivation delay from about 35" to about 20'
- Lux adjustment from 5 to 1.000 LUX
- Warm Up Time when first powered or after blackout about 40"
- Operating temperature from $-20^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
- Storing temperature from $-20^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) 72,6×91,6×93,5 mm


## 1SP SP003A - Anthracite color

1SP SP003B - White color
ZERO CROSSING
Wall-mounted infrared motion detector "CUBE" with "zero crossing"- IP 54

- Power supply 230 V a.c. $\pm 20 \% 50 \mathrm{~Hz}$
- Relay output 5A
- Maximum lighting load: incandescent lamps 1.000W fluorescent lamps (uncompensated) 480W fluorescent lamps (compensated in parallel) 200W CFL / LED lamps (230V) 7W $\div 23 \mathrm{~W}$ max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP 54
- Degree of pollution normal
- Detection angle $140^{\circ}$ - Detection distance max 10 m
- Head swivelling angle $180^{\circ}$ horizontal, $12^{\circ}$ vertical
- Adjustment of deactivation delay 10" - 12'
- Lux adjustment from 5 to 300 LUX
- Sensitivity adjustment $40 \mathrm{~cm}-10 \mathrm{~m}$
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 50 \times 64 \times 102 \mathrm{~mm}$


## 1SP SP005

ZERO GROSSING
Wall-mounted infrared motion detector with "zero crossing" - IP 55 white color

- Power supply $220 \div 240 \mathrm{~V}$ c.a. 50 Hz
- Maximum lighting load: incandescent lamps 2.000W fluorescent lamps (uncompensated) 480W fluorescent lamps (compensated in parallel) 220W CFL / LED lamps (230V) 7W $\div 23 \mathrm{~W}$ max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP 55
- Degree of pollution normal
- Detection angle $240^{\circ}$
- Detection distance max 12 m
- Head swivelling angle $180^{\circ}$ horizontal (limitable)
- Adjustment of deactivation delay 5" - 12'
- Lux adjustment from 5 to 1.000 LUX
- Sensitivity adjustment 3-12m
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 72 \times 106 \times 88 \mathrm{~mm}$

Possibility of manual override to keep the lights on 4 hours disabling the action of the sensor.

1SP SP060B
Wall-mounted motion detector with courtesy LED light - IP54

- Power supply 230V a.c. $\pm 10 \% 50 \mathrm{~Hz}$
- Maximum lighting load:
incandescent lamps 1.000W
fluorescent lamps (uncompensated) 400W
fluorescent lamps (compensated in parallel) 250W CFL / LED lamps (230V) 7W $\div 23 \mathrm{~W}$ max 5 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP54
- Detection angle $180^{\circ}$
- Detection distance 12 m
- Adjustment of deactivation delay from about 5" to 12'
- Lux adjustment from 20 to 300 LUX
- Insulation class II
- Consumption in stand-by mode 0,5W
- Dimensions (L x W x H) $60 \times 92 \times 80 \mathrm{~mm}$

- Head adjustable horizontally and vertically.


## 1SP SP010

ZERO CROSSING

## Wall-mounted infrared motion detector - IP 44 - white color

- Power supply $220 \div 240 \mathrm{~V}$ c.a. 50 Hz
- Maximum lighting load:
incandescent lamps 1.000W
fluorescent lamps (uncompensated) 400W
fluorescent lamps (compensated in parallel) 220W
CFL / LED lamps (230V) 7W $\div 23 \mathrm{~W}$ max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP44
- Degree of pollution normal
- Detection angle $180^{\circ}$
- Detection distance max 12 m
- Head swivelling angle $70^{\circ}$ horizontal $-35^{\circ}$ vertical
- Adjustment of deactivation delay 5 " - 12 '
- Lux adjustment from 1 to 1.000 LUX
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $65 \times 88 \times 95 \mathrm{~mm}$

- Possibility of manual override to keep the lights on 4 hours disabling the action of the sensor.


## 1SP SP015

ZERO CROSSING
1SP SP015CL - 1 potential free changeover contact
Ceiling mounted infrared presence detector with "zero crossing" - IP20

- Power supply $220 \div 240 \mathrm{~V}$ c.a. 50 Hz
- Maximum lighting load: incandescent lamps 2.000W fluorescent lamps (uncompensated) 480W fluorescent lamps (compensated in parallel) 250W CFL / LED lamps (230V) 7W $\div 23 \mathrm{~W}$ max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP 20
- Degree of pollution normal
- Detection angle $360^{\circ}$
- Detection distance max 12 m
- Adjustment of deactivation delay 2' - 15 '
- Lux adjustment from 5 to 1.000 LUX
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (DxW) Ø $130 \times 70$ mm


## 1SP SP020

Recess mounted in ceiling infrared presence detector with "zero crossing" - IP 20
ZERO CROSSING

- Power supply $220 \div 240 \mathrm{~V}$ c.a. 50 Hz
- Diameter installation hole $\varnothing 70 \mathrm{~mm}$
- Maximum lighting load: incandescent lamps 2.000W
fluorescent lamps (uncompensated) 480W fluorescent lamps (compensated in parallel) 250W
CFL / LED lamps (230V) 7W $\div 23 \mathrm{~W}$ max 8 lamps
- "ZERO CROSSING" on relay - Contact closure with zero load to increase the connectable load and relay endurance
- Protection degree IP 20
- Degree of pollution normal
- Detection angle $360^{\circ}$
- Detection distance max 14 m
- Adjustment of deactivation delay 10 settings
$5,10,20,40,80,160$ seconds $/ 5,10,20,40$ minutes
- Lux adjustment from 30 to 200 LUX
- Insulation class II
- CE marking reference standard LVD/EMC EN60669-2-1
- Dimensions (DxW) Ø 79,80 x 91 mm
- Height of lens 18 mm



## 1MC D002

Dimmer for flush mounting $\emptyset 60 \mathrm{~mm}$ round box

- Power supply 230 V c.a. $\pm 10 \% 50 \mathrm{~Hz}$
- Maximum lighting load:

Incandescent lamps TE 400W
Alogen lamps TE 400W
LED TE 100W
LED LE 25W
Electromechanical trasformers L type LE 200W

- P (min-max) 0-200/0-200/0-100/0-25/0-200W
- Button mode: LE or TE
- Max cross-section of wires to terminals: 0,75... $6 \mathrm{~mm}^{2}$
- Protection degree IP 20
- Working temperature from $-10^{\circ} \mathrm{C}$ to $+35^{\circ} \mathrm{C}$
- Storing temperature from $-10^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
- CE marking reference standard LVD/EMC DIRECTIVE BT; EMC: 2002/96/EC; 2002/95/EC, EN61000-3-2
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) 58,7 $\times 45 \times 25,3 \mathrm{~mm}$

WI-FI TIME SWITCHES

110 IOWF02
Wi-Fi time switch - 2 DIN

Charge reserve

Maintenance of programs without connection

Wi-Fi LED and relay status

## 110 IAWF0102

Astronomical Wi-Fi time switch - 2 DIN


- Power supply 230 V c.a. $50-60 \mathrm{~Hz}$
- Contact output: 16 (2) A / 250 V c.a.
- Max programs: 15 weekly programs for every function
- ON-OFF minimum connection time: 1 minute

- Visualisation: App
- Max cross-section of wires to terminals: 6 mmq
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: ||

I


- ON / OFF relay signal: LED
- Charge reserve: min. 72 hours
- Time tolerance: $\pm 0,5 \mathrm{sec} /$ day
- Operating temperature limits: $0^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+65^{\circ} \mathrm{C}$
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: ON/OFF/Reset button on front
- Clock setting accuracy: digital for hours/minutes
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 90 \mathrm{~mm}$


110 I060WF
Wi-Fi time switch - 60x60 module

- Power supply 230V c.a. +-10\% 50/60Hz
- Max programs: 15 weekly programs for function
- Connection with FASTOM
- Front button
- Max electric load 16A
- Relay status LED indicator on front
- Programmable via App
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 60 \times 26 \times 60 \mathrm{~mm}$



## PROGRAMMING EXAMPLES:

## WI-FI TIME SWITCH 2DIN

 Peract

backlit display

1103091 - Weekly-yearly - 1 channel 1103291 - Weekly-yearly - 2 channels Menu driven time switch - 2 DIN<br>110 5091S - Weekly-yearly - 1 channel<br>110 5291S - Weekly-yearly - 2 channels<br>Menu driven time switch with programming key - synchronizable with DCF and/or GPS time signal - 2 DIN

- Power supply 230V c.a. $\pm 10 \% 50-60 \mathrm{~Hz}$
- Contact output: limited current NO contact ZERO CROSSING 16 (10) A / 250V a.c.
- Max programs: 64 (matchable in blocks of days)
- ON-OFF minimum connection time: 1 second
- Visualisation: 1" 1/3 backlit LCD display
- Maximum lighting load: Incandescent LPs 3000W Fluorescent tube LPs, not compensated 1100W Parallely comp. fluorescent tube LPs 900W (tot capacity $125 \mu \mathrm{~F}$ )
Compact, fluorescent LPs $7 \mathrm{~W} \div 23 \mathrm{~W}$ (max. 23 lamp.)
LED $25 \times 4 \mathrm{~W} / 12 \times 8 \mathrm{~W} / 8 \times 15 \mathrm{~W}$
- Max cross-section of wires to terminals: 1 ... $6 \mathrm{~mm}^{2}$
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II $\square$
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 6 years
- Type of reserve: LITHIUM battery
- Time tolerance: $\pm 0,5 \mathrm{sec} /$ day
- Operating temperature limits: $0^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+65^{\circ} \mathrm{C}$
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: multifunction keys (menu programming) confirmation key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: automatic
- Programming: menu driven - programs protected in EEPROM
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 60 \times 90 \mathrm{~mm}$


## ACCESSORIES

1PR EMD01 "EMD" programming key
External memory to upload / download programs

## 110 SW001 Programming software for PC

It allows the programming on your computer. The created programs can be saved, sent via e-mail, printed or transferred to the time switch via the "EMD" programming key.


## 1PA RXDCF77 Time signal receiver from Frankfurt for synchronized time switches

- Power supply 230 V a.c. $50 / 60 \mathrm{~Hz}$
- Anti-UV opaline housing
- Wall-mounted or pole installation
- Wiring with cables up to $2.5 \mathrm{~mm}^{2}$
- BUS output signal
- Can be connected to max no. 10 time switches
- Protection degree IP 65
- LED intervention signalling
- Wiring with shielded cable diameter $7-11 \mathrm{~mm}$
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $72 \times 37.5 \times 147 \mathrm{~mm}$


## 1PA RXGPS01 Satellite GPS time signal receiver for synchronized time switches

- Power supply 230 V a.c. $50 / 60 \mathrm{~Hz}$
- Wall-mounted or pole installation
- BUS output signal
- Protection degree IP 65
- Wiring with shielded cable diameter $7-11 \mathrm{~mm}$
- Anti-UV opaline housig
- Wiring with cables up to $2.5 \mathrm{~mm}^{2}$
- Can be connected to max no. 10 time switches
- LED intervention signalling
- Dimensions (L×W x H) $72 \times 37.5 \times 147 \mathrm{~mm}$


110 1080/M - Daily - 1 channel
110 1280/M - Daily - 2 channels
110 1081/M - Weekly - 1 channel
110 1281/M - Weekly - 2 channels
Digital time switch module with automatic daylight saving time change


1107080 - Daily with automatic daylight saving time change - 1 channel 1107081 - Weekly with automatic daylight saving time change - 1 channel 1107281 - Weekly with automatic daylight saving time change - 2 channels Digital time switch - 2 DIN
1 potential-free changeover contact $-6:-$
1106080 - Daily without daylight automatic saving time change - 1 channel 1106081 - Weekly without daylight automatic saving time change - 1 channel Digital time switch - 2 DIN
1 potential-free changeover contact $-\sigma \mathbf{\sigma}$

- Power supply 230 V c.a. $\pm 20 \% 50-60 \mathrm{~Hz}$
- Contact output: 16 (2) A / 250 V a.c.
- Max programs: 58 (matchable in blocks of days)
- ON-OFF minimum connection time: 1 second
backlit display - Visualisation: 1" $1 / 3$ backlit LCD display
- Maximum lighting load: Incandescent LPs 3500W Fluorescent tube LPs, not compensated 2300W
 Parallely comp. fluorescent tube LPs 700W (tot capacity $35 \mu \mathrm{~F}$ )
Compact, fluorescent LPs 290W (7 x 15W)
LED max $n^{\circ} 15 \times 4 \mathrm{~W} / 10 \times 8 \mathrm{~W} / 7 \times 15 \mathrm{~W}$
- Max cross-section of wires to terminals: 1 ... $6 \mathrm{~mm}^{2}$
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: || ■
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 6 years
- Type of reserve: LITHIUM CR2032 rechargeable battery
- Time tolerance: $\pm 0,5 \mathrm{sec} /$ day
- Operating temperature limits: $0^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+65^{\circ} \mathrm{C}$
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: multifunction keys (menu programming) confirmation key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: for 4 geographic areas
- Programming: for hours, minutes and seconds
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 60 \times 90 \mathrm{~mm}$

backlit display


110 4091-1 channel
110 4291-2 channels
Astronomical twilight time switch - 2 DIN

- Power supply 230Vc.a.+/-10\%, 50Hz
- Contact output: limited current NO contact

ZERO CROSSING 16 (2) A / 250V a.c.

- Max programs: 45 ON-OFF
- ON-OFF minimum connection time: 1 minute
- Visualisation: 1" $1 / 3$ backlit LCD display
- Maximum lighting load: Incandescent LPs 3000W

Fluorescent tube LPs, not compensated 1100W
Parallely comp. fluorescent tube LPs 900W (tot capacity $125 \mu \mathrm{~F}$ )
Compact, fluorescent LPs $7 \mathrm{~W} \div 23 \mathrm{~W}$ (max. 23 lamp.)
LED max $n^{\circ} 25 \times 4 \mathrm{~W} / 12 \times 8 \mathrm{~W} / 8 \times 15 \mathrm{~W}$

- Max cross-section of wires to terminals: 1 ... $6 \mathrm{~mm}^{2}$
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II

1 SHOP SIGNBOARD - Operation with twilight / time / Astro logic
ON TWILIGHT
OFF TIME h 22:00
ON TIMEh 6:00
OFF ASTRONOMIC


2 PUBLIC/SQUARE/PARKING LIGHTING - Operation with astronomical logic and daytime intervention in twilight mode in case of storm ON ASTRONOMIC


## ACCESSORIES

1PR EMD01 "EMD" programming key
External memory to upload / download programs


## 1PR 6092 Outdoor cadmium-free probe

The probe is not included in the packing. it must be purchased separately.

- Installation outdoors on wall and/or pole
- Connection with cables measuring between 0.75 and $2.5 \mathrm{~mm}^{2}$
- Cabling with 4-8 mm shielded cable
- UV-resistant opal housing
- Protection degree IP 65
- Dimensions of sensor (L x W x H) $28 \times 48 \times 56 \mathrm{~mm}$ Peract



## 1101070 - Daily <br> 1101071 - Weekly <br> Digital time switch with automatic standard time / daylight saving time change - 1 DIN

- Power supply 230 V c.a. $50-60 \mathrm{~Hz}$
- Contact output: 16 (2) A / 250V a.c.
- Max programs: 96 (1IO 1070) - 672 (110 1071)
- ON-OFF minimum connection time: 15 minutes
- Visualisation: ¼" LCD display
- Maximum lighting load: 3500VA (each contact) Incandescent LPs 2300W
Fluorescent tube LPs, not compensated 1000W Parallely comp. fluorescent tube LPs 290W (tot capacity $35 \mu \mathrm{~F}$ ) Compact, fluorescent LPs 105W (7 x 15W)
LED max $n^{\circ} 15 \times 4 \mathrm{~W} / 10 \times 8 \mathrm{~W} / 7 \times 15 \mathrm{~W}$
- Max cross-section of wires to terminals: 1 ... $2.5 \mathrm{~mm}^{2}$
- Protection degree: IP20 - IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 15 days
- Type of reserve: NiMH rechargeable battery
- Time tolerance: $\pm 0,5 \mathrm{sec} /$ day
- Operating temperature limits: $0^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Type of installation: DIN rail / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: programming keys, ON/OFF key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: automatic
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 17.5 \times 60 \times 90 \mathrm{~mm}$



## 110 0022/D15 - Daily 110 0024/D15 - Weekly <br> Digital time switch with tappets and display - 2 DIN

- Power supply 230 V c.a. $50-60 \mathrm{~Hz}$
- Contact output: 16 (2) A / 250V a.c.
- Insulation class: II
- Max programs: 96 (1IO 1070) - 672 (110 1071)
- ON / OFF relay signal: ON/OFF in LCD display
- ON-OFF minimum connection time: 15 minutes
- Charge reserve: 15 days
- Type of reserve: NiMH rechargeable battery
- Visualisation: 1" LCD circular display
- Maximum lighting load: 3500VA (each contact) Incandescent LPs 2300W
Fluorescent tube LPs, not compensated 1000W
Parallely comp. fluorescent tube LPs 290W (tot capacity $35 \mu \mathrm{~F}$ )
- Time tolerance: $\pm 1 \mathrm{sec} /$ day
- Operating temperature limits: $0^{\circ} \mathrm{C}+55^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+65^{\circ} \mathrm{C}$
- Type of installation: DIN rail / wall-mounted / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: programming keys, ON/OFF key
- Clock setting accuracy: digital for hours/minutes
- Daylight saving time change: automatic
- Dimensions (L×W x H) $35 \times 60 \times 128 \mathrm{~mm}$
compact, fluorescent LPs 105W ( $7 \times 15 \mathrm{~W}$ )
- Max cross-section of wires to terminals: $2.5 \mathrm{~mm}^{2}$
- Protection degree: IP20 - IP30 (with terminal covers) IP40 (on rear of switchboard)
- Type of output: terminals with captive screw

Note: Art. 0022/D15-0024/D15 can be installed in rear of switchboard with accessory 1PA KTMP/2 (option)


1100012 D 15 - Daily - 72x72
1100016 D 15 - Weekly - 72x72
110 0012D15/M230 - Daily - 60x60 Module
110 0016D15/M230 - Weekly - 60x60 Module
Digital time switch with tappets and display

- Power supply 230 V c.a. $50-60 \mathrm{~Hz}$
- Insulation class: ||
- Contact output: 16 (2) A / 250 V a.c.
- Max programs: 96 (daily) - 672 (weekly)
- ON-OFF minimum connection time: 15 minutes
- Visualisation: LCD circular display
- Maximum lighting load: 3500VA (each contact) Incandescent LPs 2300W
Fluorescent tube LPs, not compensated 1000W
Parallely comp. fluorescent tube LPs 290W (tot capacity $35 \mu \mathrm{~F}$ )
Compact, fluorescent LPs 105W (7 x 15W)
LED max $n^{\circ} 15 \times 4 \mathrm{~W} / 10 \times 8 \mathrm{~W} / 7 \times 15 \mathrm{~W}$
- Max cross-section of wires to terminals: $2.5 \mathrm{~mm}^{2}$
- ON / OFF relay signal: ON/OFF in LCD display
- Charge reserve: 15 days
- Type of reserve: NiMH rechargeable battery
- Time tolerance: $\pm 1$ sec/day
- Operating temperature limits: $0^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Type of installation: wall-mounted / on rear of switchboard / recess mounting
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: programming keys, ON/OFF key, reset key
- Clock setting accuracy: digital for hours/minutes
- Protection degree: IP40 (wall-mounted, on rear of switchboard)
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $72 \times 67.5 \times 101 \mathrm{~mm}(72 \times 72)$ $60 \times 26 \times 60 \mathrm{~mm}(60 \times 60)$
- Type of output: terminals with captive screw

Note: Art. 0012D15-0016D15 can be installed on rear of switchboard with accessory 1PA SG001 (option)

# ELECTROMECHANICAL TIME SWITCHES 



1100017 - Daily - Without charge reserve
1100018 - Daily - With charge reserve
1100020 - Weekly - With charge reserve
Time switch with tappets - 72×72
110 0017M - Daily - Without charge reserve
110 0018M - Daily - With charge reserve
1100020 M - Weekly - With charge reserve
Time switch with tappets - $60 \times 60$ Module

- Power supply 230 V c.a. $50-60 \mathrm{~Hz}$
- Contact output: 16 (2) A / 250 V a.c.
- Max programs: 96 (daily) - 84 (weekly)
- ON-OFF minimum connection time: 15 minutes (daily) 120 minutes (weekly)

- Visualisation:mechanical tappets ring
- Max commutable power resistive load 3500 W inductive load $(\cos \phi>=0.6) 500 \mathrm{VA}$
- Max cross-section of wires to terminals: 1.5 ... 4 mm$^{2}$
- Protection degree: IP30
- Type of output: terminals with captive screw
- Insulation class: I|
- Charge reserve: 72 hours
- Type of reserve: NiMH rechargeable battery
- Time tolerance: $\pm 1 \mathrm{sec} /$ day
- Operating temperature limits: $-10^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Type of installation: DIN rail / wall-mounted / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: mechanical tappets, ON / Timer /OFF selector
- Clock indication: only for daily models
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $72 \times 48 \times 101 \mathrm{~mm}(72 \times 72)$
$60 \times 26 \times 60 \mathrm{~mm}(60 \times 60)$

Note: Art. 0017-0018-0020 can be installed on rear of switchboard with accessory 1PA SM72 (option)


1100170 - Daily without charge reserve - 1 DIN
1100171 - Daily with charge reserve - 1 DIN
1100021 - Daily without charge reserve - 2 DIN
1100022 - Daily with charge reserve - 2 DIN
1100024 - Weekly with charge reserve - 2 DIN
Time switch with tappets

- Power supply 230 V c.a. $50-60 \mathrm{~Hz}$
- Contact output: 16 (4) A / 250 V a.c.
- Max programs: 48-96 (0170 / 0171)
- ON-OFF minimum connection time: 30 minutes (daily) 15 minutes ( 0170 / 0171) - 3.5 hours (weekly)
- Visualisation:mechanical tappets ring
- Max commutable power resistive load 3500 W inductive load ( $\cos \phi>=0.6$ ) 1000 VA
- Max cross-section of wires to terminals: $4 \mathrm{~mm}^{2}$
- Protection degree: IP20 - IP30 (with terminal covers) IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: |l ■
- Charge reserve: max 150 hours - 100 hours (0171)
- Type of reserve: NiMH rechargeable battery
- Time tolerance: $\pm 1 \mathrm{sec} /$ day
- Operating temperature limits: $-10^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Type of installation: DIN rail / wall-mounted / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: mechanical tappets timer / ON selector (0170/0171)
ON / Timer /OFF selector
- Clock setting accuracy: mechanical with reference index
- Programming: mechanical key ring (blocks $\left.15^{\prime} / 120^{\prime}\right)$
- Dimensions ( $(\times W \times H) 17.5 \times 60 \times 128 \mathrm{~mm} 1 \mathrm{DIN}$ $35 \times 60 \times 90 \mathrm{~mm} 2$ DIN


Time switch with tappets with ON/OFF min. 15 minutes
1100031 - Daily without charge reserve - 2 DIN
1100032 - Daily with charge reserve - 2 DIN
1100034 - Weekly with charge reserve - 2 DIN

- Power supply 230 V c.a. $50-60 \mathrm{~Hz}$
- Contact output: 16 (4) A / 250 V a.c.
- Max programs: 96
- ON-OFF minimum connection time: 15 minutes (daily) 105 minutes (weekly)
- Visualisation:mechanical tappets ring
- Max commutable power resistive load 3500 W inductive load ( $\cos \phi>=0.6$ ) 1000 VA
- Max cross-section of wires to terminals: $2.5 \mathrm{~mm}^{2}$
- Protection degree: IP20, IP40 (on rear of switchboard)
- Type of output: terminals with captive screw
- Insulation class: II
- Charge reserve: max 150 hours
- Type of reserve: NiMH rechargeable battery
- Time tolerance: $\pm 1 \mathrm{sec} /$ day
- Operating temperature limits: $-10^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Storing temperature: $-10^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Type of installation: DIN rail / wall-mounted / on rear of switchboard
- Housing: thermoplastic - grey RAL 7035
- Type of use: civil / tertiary / industrial
- Controls: mechanical tappets

ON / Timer /OFF selector

- Clock setting accuracy: mechanical with reference index
- Programming: mechanical key ring (blocks 15’)
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 60 \times 90 \mathrm{~mm}$


## PLUG / SOCKET TIME SWITCHES - ACCESSORIES STAIRCASE TIMERS



1100055 - Daily - Shuko Germany
1100056 - Weekly - Shuko Germany
1100053 - Daily - plug Italy
1100054 - Weekly - plug Italy
Plug time switch 16 A

- Power supply 230V a.c. $50 / 60 \mathrm{~Hz}$
- Minimum intervention interval 15 min
- Contacts 16 A
- Maximum commutable power 3500 VA

1PA SG001 Plastic profile for installing 72x72 time switches on rear of switchboard


1PA KTMP2 Kit for installation of 2 DIN modules on rear of switchboard
Kit including: 2 hooks + finishing front for installing 2 DIN modules on the rear of the switchboard

## 1PA KTMP4 Kit for installation of 4 DIN modules on rear of switchboard

Kit including: 2 hooks + finishing front for installing 4 DIN modules on the rear of the switchboard

## 1IT 1051

## Staircase timer, wall-mounted

Electronic timer switch, can perfectly replace the three-wire electromechanical models made in Germany, Spain, etc

- Power supply 230 V a.c. $+-10 \% 50 / 60 \mathrm{~Hz}$
- 1 polarized NO contact output: 16(3) A / 250 V a.c.
- Maximum lighting load: incandescent LPs 2300W

Fluorescent LPs 290W
Electronic fluorescent LPs 105W (7 x 15W)

- Adjustable timing from 30 sec at 7 min +/-10\%
- Restorable
- Max 30 external START and push buttons (also luminous)
- Fixed light switch
- Wall or panel mounting
- 3-wire connection - cables up to $2.5 \mathrm{~mm}^{2}$
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $88 \times 55 \times 110 \mathrm{~mm}$


## IIT 1062

## Staircase timer 1 DIN

- Power supply 230V a.c. +/- 10\%, 50 Hz
- Type of output relay with NO single-pole polarized contact ZERO CROSSING 16A / 250V a.c.
- Maximum lighting load: Incandescent LPs 3600W Fluorescent tube LPs, not compensated 1000W Parallely comp. fluorescent tube LPs 1000W (tot capacity $140 \mu \mathrm{~F})$
- Time adjustment: from 30 seconds to 20 minutes
- Ability to activate stair cleaning function
- Maximum wire section at terminals: $1 \mathrm{~mm}^{2} \div 6 \mathrm{~mm}^{2}$
- Protection degree: IP 20
- Operating temperature limits of module: $-10^{\circ} \mathrm{C} \div+55^{\circ} \mathrm{C}$
- Storage temperature limits: $-20^{\circ} \mathrm{C} \div+65^{\circ} \mathrm{C}$
- Type of installation: DIN rail
- Maximum current consumption of illuminated pushbuttons 150 mA with overload protection
- CE reference standards: LVD/EMC EN60669-2-3 EN60669-2-1
- Dimensions (L x W x H): 17,5 x $60 \times 90 \mathrm{~mm}$



## 1IT 1067

## Multifunction staircase timer 1 DIN

- Power supply 230 V a.c. +/- $10 \%, 50 \mathrm{~Hz}$
- Type of output relay with NO single-pole polarized contact ZERO CROSSING 16A / 250V a.c.
- Maximum lighting load: Incandescent LPs 3600W Fluorescent tube LPs, not compensated 1000W Parallely comp. fluorescent tube LPs 1000W (tot capacity $140 \mu \mathrm{~F})$
- Time adjustment: from 30 seconds to 20 minutes
- Switch off warning in the TW and TWI operation modes
- Ability to activate stair cleaning function in the T and TW operation modes
- Maximum wire section at terminals: $1 \mathrm{~mm}^{2} \div 6 \mathrm{~mm}^{2}$
- Protection degree: IP 20
- Operating temperature limits of module: $-10^{\circ} \mathrm{C} \div+55^{\circ} \mathrm{C}$
- Storage temperature limits: $-20^{\circ} \mathrm{C} \div+65^{\circ} \mathrm{C}$
- Type of installation: DIN rail
- Maximum current consumption of illuminated pushbuttons 150 mA with overload protection
- CE reference standards: LVD/EMC EN60669-2-3 EN60669-2-1
- Dimensions (L x W x H): $17,5 \times 60 \times 90 \mathrm{~mm}$


1IC 7242
Photocell lighting control switch for wall-mounting and/or pole installation

- Power supply 230 V a.c. 50 / 60Hz
- Outdoor installation
- Output 1 polarized NO contact: 16 (2) A / 250Va.c.
- Connection with cables up to $2.5 \mathrm{~mm}^{2}$
- Wiring with shielded cable diameter 4-9 mm
- Intervention threshold adjustment trimmer, 2-200 Lux
- Threshold signalling LED
- Anti-UV opaline housing
- Protection degree IP 54
- Dimensions ( $\varnothing$ L x W x H) $\varnothing 82 \times 97 \times 101 \mathrm{~mm}$

1IC 7243
Photocell lighting control switch with replaceable control module for wall-mounting and/or pole installation Product being particularly suitable to facilitate system maintenance personnel: the control part that can be removed from the base of the contacts allows a quick intervention in the product without disconnecting the load

- Power supply 230 V a.c. $50 / 60 \mathrm{~Hz}$
- Outdoor installation
- Output 1 polarized NO contact: 16 (2) A / 250Va.c.
- Connection with cables up to $2.5 \mathrm{~mm}^{2}$
- Wiring with shielded cable diameter 7-11 mm
- Pre-calibrated at the factory at 10 Lux $\pm 20 \%$
- Intervention threshold adjustment trimmer, 2-200 Lux
- Threshold signalling LED
- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions (L x W x H) $72 \times 37.5 \times 147 \mathrm{~mm}$

1PR 7243M Spare module for photocell lighting control switch item 7243

- Power supply 230 V a.c. $50 / 60 \mathrm{~Hz}$
- Outdoor installation
- Output 1 polarized NO contact: 16 (2) A / 250Va.c.
- Pre-calibrated at the factory at 10 Lux $\pm 20 \%$
- Intervention threshold adjustment trimmer, 2-200 Lux
- Threshold signalling LED Anti-UV opaline housing
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $72 \times 37.5 \times 80 \mathrm{~mm}$


1IC 7245
Photocell lighting control switch model "FEBO" for wall-mounting and/or pole installation
The factory 10 LUX calibration prevents difficult interventions by the installer

- Power supply 230 V a.c. 50 / 60Hz
- Outdoor installation
- Output 1 polarized NO contact: 16 (2) A/250Va.c.
- Connection with cables up to $2.5 \mathrm{~mm}^{2}$
- Wiring with shielded cable diameter 7-11 mm
- Pre-calibrated at the factory at 10 Lux $\pm 20 \%$
- Intervention threshold adjustment trimmer, 2-200 Lux
- Threshold signalling LED
- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions (L x W x H) $55 \times 45 \times 106 \mathrm{~mm}$



## IIC 7051

Photocell lighting control switch with adjustment 2-10.000Lux, 2 DIN
It allows progressively lighting street tunnels

- Power supply 230 V a.c. 50 / 60Hz DIN assembly plus outdoor probe
- Output 1 changeover contact, potential-free: 16 (2) A / 250V a.c.
- Connection with cables up to $2.5 \mathrm{~mm}^{2}$
- Adjustment range 2-100 / 2-1000 /

2-10.000 Lux (3 scales)

- Activation delay $8 \mathrm{sec} \pm 10 \%$
- Deactivation delay $38 \mathrm{sec} \pm 10 \%$
- Threshold calibration signalling LED
- Operation signalling LED Intervention threshold adjustment trimmer
- Dimensions DIN (L x W x H) $35 \times 60 \times 90 \mathrm{~mm}$


## EXTERNAL PROBE

- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions of the probe $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 28 \times 48 \times 56 \mathrm{~mm}$



## IIC 7052

Photocell lighting control switch with adjustment 2-200 Lux, 2 DIN
Provided with hysteresis and activation / deactivation delays to prevent false switching

- Power supply 230 V a.c. 50 / 60 Hz DIN assembly plus outdoor probe
- Output 1 changeover contact, potential-free: 16 (2) A / 250V a.c.
- Connection with cables up to $2.5 \mathrm{~mm}^{2}$
- Adjustment range 2-200 Lux adjustable
- Activation delay 8 sec $\pm 10 \%$
- Deactivation delay $38 \mathrm{sec} \pm 10 \%$
- Threshold calibration signalling LED
- Operation signalling LED Intervention threshold adjustment trimmer
- Dimensions DIN ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 90 \mathrm{~mm}$


## EXTERNAL PROBE

- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions of the probe $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 28 \times 48 \times 56 \mathrm{~mm}$




## 1IC 7053N

Photocell lighting control switch with adjustment $0 \div 1.000$ lux - 1 DIN
High performance with minimum dimensions for controlling inductive loads like fluorescent lamps or LEDs

- Power supply: 230 V a.c. $+/-10 \%, 50 \mathrm{~Hz}$
- Type of output: relay with NO potential free contacts
(Cadmium free) 16A / 250V a.c. with zero crossing
- Maximum wire section at terminals: $1 \mathrm{~mm}^{2} \div 6 \mathrm{~mm}^{2}$
- Threshold intervention (lux) adjustment: 0 $\div 1.000$ Lux
- Double adjustment scale
- Selector for operating mode selection: -always ON
-always OFF
- Threshold adjustment: 0 $\div 100$ Lux
- Threshold adjustment: 0 $\div 1.000$ Lux
- Trimmer for setting threshold adjustment
- Delay in switching on / off to avoid false switching: ON delay: 15 seconds
OFF delay: 30 seconds
- LED operating status
- Cadmium free relay
- Dimensions module ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ): $17,5 \times 60 \times 90 \mathrm{~mm}$


## EXTERNAL PROBE

- Probe with Cadmium free precision photodiode sensor anti-UV opaline housing
- Protection degree IP 65
- Dimensions probe ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ): $28 \times 48 \times 56 \mathrm{~mm}$


## ACCESSORIES

## 1PR EMD01 "EMD" programming key

External memory to upload / download programs
1PR 6092 Outdoor spare cadmium free probe for DIN photocell lighting control switch 1IC 7053N, 1 IC 7052 (production XX/19)

- Outdoor wall-mount and / or pole installation
- Connection with cables from $0.75 \mathrm{~mm}^{2}$ to $2.5 \mathrm{~mm}^{2}$
- Wiring with shielded cable diameter $4-8 \mathrm{~mm}$
- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions (L x W x H) $28 \times 48 \times 56 \mathrm{~mm}$

1PR 6093 Outdoor spare cadmium free probe for DIN photocell lighting control switch 1IC 7051 (production XX/19)

- Outdoor wall-mount and / or pole installation
- Connection with cables from $0.75 \mathrm{~mm}^{2}$ to $2.5 \mathrm{~mm}^{2}$
- Wiring with shielded cable diameter 4-8 mm
- Anti-UV opaline housing
- Protection degree IP 65
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $28 \times 48 \times 56 \mathrm{~mm}$


1GA 47917MET/P - Natural gas CH4
1GA 47917GPL/P - LPG
"ZEFIRO" series wall-mounted and / or Semi-recessed detector with BUS output

- Power supply 230V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 8 (2) A / 250Va.c.
- Microprocessor with fume selection program to prevent false alarms
- Microprocessor with timer to signal product service every 5 years
- Remote sensor recognition (BUS system)
- Digital BUS output for signaller control (max 15)
- Interconnection length max 800m ( $2 \times 1.5 \mathrm{~mm}^{2}$ )
- Alarm memory
- ON / TEST selector
- Self-diagnosis test
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas concentration LED on 3 signalling levels
- Intervention level: 5.000 ppm 10\% LIE (CH4)
1.860 ppm 10\% LIE (LPG)
- Wall-mounted IP 42
- Dimensions (L x W x H) $120 \times 40 \times 82$ mm
- Semi-recessed installation with accessory IP 40
- Dimensions (L x W x H) $120 \times 27.5 \times 82 \mathrm{~mm}$


1GA 48917MET/P - Natural gas CH4
1GA 48917GPL/P - LPG
"ZEFIRO" series wall-mounted and / or Semi-recessed signaller with BUS input series

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- Microprocessor with fume selection program to prevent false alarms
- Microprocessor with timer to signal product service every 5 years
- Digital BUS input
- Alarm memory
- ON / TEST selector
- Self-diagnosis test
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas concentration LED on 3 signalling levels
- Intervention level: 5.000 ppm 10\% LIE (CH4)
1.860 ppm 10\% LIE (LPG)
- Wall-mounted IP 42
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $120 \times 40 \times 82 \mathrm{~mm}$
- Semi-recessed installation with accessory IP 40
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $120 \times 27.5 \times 82 \mathrm{~mm}$


1GA 50917MET/P - Natural gas CH4
1GA 50917GPL/P - LPG
"ZEFIRO" series wall-mounted and / or Semi-recessed detector with BUS output

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 8 (2) A / 250Va.c.
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas presence indicator LED
- Intervention level: 5.000 ppm 10\% LIE (CH4)
1.860 ppm 10\% LIE (LPG)
- Wall-mounted IP 42
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 120 \times 40 \times 82 \mathrm{~mm}$
- Semi-recessed installation with accessory IP 40
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 120 \times 27.5 \times 82 \mathrm{~mm}$


1GA 51917MET/P - Natural gas CH4
1GA 51917GPL/P - LPG
"ZEFIR0" series wall-mounted and / or Semi-recessed natural gas (CH4) signaller

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas presence indicator LED
- Signalling level: 5.000 ppm 10\% LIE
1.860 ppm 10\% LIE (LPG)
- Wall-mounted IP 42
- Dimensions (L x W x H) $120 \times 40 \times 82$ mm
- Semi-recessed installation with accessory IP 40
- Dimensions (L x W x H) $120 \times 27.5 \times 82 \mathrm{~mm}$



## GAS SAFETY

## 1GA 50916/CHCO

## Wall-mounted carbon monoxide (CO) and natural gas (CH4) detector

The detector can detect two gases: natural gas $(\mathrm{CH} 4)$ and carbon monoxide (CO) Intervention sensitivity:

- natural gas at 10\% of the lower explosion limit
- carbon monoxide, when the maximum allowed 300ppm CO concentration is exceeded, or rather in case low but damaging concentrations 30ppm for 2 hours persist for long periods in the premises.
- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 2 potential-free changeover contacts output: 5 (2)A / 250Va.c.
- Natural gas catalytic sensor
- Natural gas intervention level 5000 ppm 10\% LIE
- Semi-conductor sensor for CO
- CO intervention level 30 / 300 (30ppm after 2 hours 300ppm immediately)
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas presence indicator LED (2 different)
- Protection degree IP 42
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 115 \times 50 \times 150 \mathrm{~mm}$

```
1GA 50916/CO
Wall-mounted carbon monoxide (CO) detector
Intervention sensitivity to carbon monoxide, when the maximum allowed 300ppm CO concentration is exceeded, or rather in case low but damaging concentrations 30ppm for 2 hours persist for long periods in the premises.
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- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- 1 potential-free changeover contact output: 5 (2) A / 250Va.c.
- Semi-conductor sensor for CO
- CO intervention level 30 / 300 (30ppm after 2 hours 300ppm immediately)
- Signalling buzzer 85dB at 1m
- ON indicator LED
- Fault indicator LED
- Gas presence indicator LED
- Protection degree IP 42
- Dimensions (L×W $\times \mathrm{H}) 115 \times 50 \times 150 \mathrm{~mm}$


## KITS

1GA 50917MET/1.2
Wall-mounted natural gas detector kit with $1 / 2$ " NO solenoid valve
Kit including:
no. 1 1GA 50917MET/P with no. 1 1EV EV020


## 1GA 50917GPL/1.2

Wall-mounted LPG gas detector kit with 1/2" NO solenoid valve
Kit including
no. 1 1GA 50917GPL/P with no. 1 1EV EV020


## 1GA 50917MET/3.4 <br> Wall-mounted natural gas detector kit with $3 / 4$ " NO solenoid valve <br> Kit including

no. 1 1GA 50917MET/P with no. 1 1EV EV021


## 1GA 50917GPL/3.4

Wall-mounted LPG gas detector kit with 3/4" NO solenoid valve
Kit including
no. 1 1GA 50917GPL/P with no. 1 1EV EV021


1GA 100M - 1 zone
1GA 300M-3 zones

## Control unit for wall or panel installation

Microprocessor control units to create a complete supervision and control system, with high flexibility. Equipped with a series of micro switches through which it is possible: to eliminate the probe when not installed or faulty, detect which type of gas (Toxic or Explosive), choose the functioning of the relay (pulses or continuous), choose the insertion or deactivation of Positive Safety


- Power supply 230V a.c. 50 Hz

Battery-operated secondary power supply 12 V d.c. $\pm 10 \%$

- Pre-alarm output relay in exchange
- Output relay ON / OFF
- 1st alarm set for all the probes at 8\% of the L.E.L. (120ppm)
- 2nd alarm set for all the probes at 13\% of the L.E.L. (200ppm)
- General alarm set at 20\% of the L.E.L. (300ppm)
- 1 connectable probe of type: catalytic,



## 1GA 2001

## 1-zone control unit for toxic and explosive gases - 6 DIN

Microprocessor control unit manufactured to remotely control the presence of explosive or toxic gases by means of a probe. Precise self-diagnosis systems perform a continuous control of probe conditions and connection.

- Power supply 230 V a.c. $50 \mathrm{~Hz} \pm 10 \%$ Battery-operated secondary power supply 12V d.c. $\pm 10 \%$
- 3 potential-free contact outputs: 10A 250 V a.c. resistive - 5A 30V d.c. resistive
- Pre-alarm 13\% of LIE explosive gases and 200ppm for CO
- Alarm 20\% of LIE explosive gases and 300ppm for CO
- 1 connectable probe, type: catalytic, electrochemical cell, pellistor, semiconductor
- Analogue input signal $4 \mathrm{~mA} \div 20 \mathrm{~mA}$
- Max probe distance 100m
- RESET and TEST controls
- Signalling buzzer
- Operation status indicator LED
- Gas type indicator LED
- Main alarm and pre-alarm indicator LED
- Gas concentration indicator LED with thresholds
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 105 \times 58 \times 90 \mathrm{~mm}$



## 1GA 2002

## 2-zones control unit for toxic and explosive gases - 6 DIN

Microprocessor control unit manufactured to remotely control the presence of explosive and/or toxic gases by means of probes. Precise self-diagnosis systems perform a continuous control of probe conditions and connection.

- Power supply 230V a.c. $50 \mathrm{~Hz} \pm 10 \%$ Battery-operated secondary power supply 12 V d.c. $\pm 10 \%$
- 3 potential-free contact outputs: 10A 250 V a.c. resistive - 5A 30V d.c. resistive
- Pre-alarm 13\% of LIE explosive gases and 200ppm for CO
- Alarm 20\% of LIE explosive gases and 300ppm for CO
- 2 connectable probes, type: catalytic, electrochemical cell, pellistor, semiconductor
- Analogue input signal $4 \mathrm{~mA} \div 20 \mathrm{~mA}$
- Max probe distance 100m
- RESET and TEST controls
- Signalling buzzer
- Operation status indicator LED
- Gas type indicator LED
- Main alarm and pre-alarm indicator LED
- Gas concentration indicator LED with thresholds in each zone
- Dimensions (L x W x H) $105 \times 58 \times 90$ mm


## 1GA 2004

## 4-zones control unit for toxic and explosive gases - 9 DIN

Microprocessor control unit manufactured to remotely control the presence of explosive and/or toxic gases by means of probes. Precise self-diagnosis systems perform a continuous control of probe conditions and connection.

- Power supply 230 V a.c. $50 \mathrm{~Hz} \pm 10 \%$ Battery-operated secondary power supply 12 V d.c. $\pm 10 \%$
- 3 potential-free contact outputs: 10A 250 V a.c. resistive - 5A 30V d.c. resistive
- Pre-alarm 13\% of LIE explosive gases and 200ppm for CO
- Alarm 20\% of LIE explosive gases and 300ppm for CO
- 4 connectable probes, type: catalytic, electrochemical cell, pellistor, semiconductor
- Analogue input signal $4 \mathrm{~mA} \div 20 \mathrm{~mA}$
- Max probe distance 100 m
- RESET and TEST controls
- Signalling buzzer
- Operation status indicator LED
- Gas type indicator LED
- Main alarm and pre-alarm indicator LED
- Display that shows the gas concentration in sequence for each zone
- Continuous 2" scanning in each probe
- Dimensions (L×WxH) $158 \times 58 \times 90 \mathrm{~mm}$

1GA 4200MET - Natural gas CH4
1GA 4200GPL - LPG

## Catalytic sensor - IP55

Microprocessor probe with AUTOMATIC calibration and self-diagnosis to adapt to harsh environments and variable temperatures to prevent false alarms due to irregular events.

- Power supply 12-24V d.c. +/- 10\%
- Catalytic sensor for NATURAL gas (4200MET) or LPG
(4200GPL) having a duration of 5 years
- Detector measurement field $0 \div 20 \%$ LIE
- Analogue output signal $4 \mathrm{~mA} \div 20 \mathrm{~mA}$
- Replaceable sensor
- Protection degree IP 55
- Max control unit distance 100 m
- Probe body material: self-extinguishing ABS
- Working temperature limit $-10^{\circ} \mathrm{C}+40^{\circ} \mathrm{C}$
- LED indicator: gree regular, yellow warning, red alarm
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 75 \times 58 \times 114 \mathrm{~mm}$


1GA 4200MET/A - Natural gas CH4
1GA 4200GPL/A - LPG
Catalytic sensor housing made in die-cast aluminium - IP66
Microprocessor probe with AUTOMATIC calibration and self-diagnosis to adapt to harsh environments and variable temperatures to prevent false alarms due to irregular events.

- Power supply 12-24V d.c. +/- 10\%
- Catalytic sensor for NATURAL gas (4200MET/A) or LPG (4200GPL/A) having a duration of 5 years
- Detector measurement field 0 $\div 20 \%$ LIE
- Analogue output signal $4 \mathrm{~mA} \div 20 \mathrm{~mA}$
- Replaceable sensor
- Protection degree IP 66
- Max control unit distance 100 m
- Probe body material: aluminium
- Working temperature limit $-10^{\circ} \mathrm{C}+40^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $100 \times 60 \times 100 \mathrm{~mm}$



## 1GA 4400C0

## CO Sensor - IP 55

Microprocessor probe to detect TOXIC GASES, such as carbon monoxide, with self-diagnosis. It is used when the maximum allowed 300ppm CO concentration is exceeded, or rather in case low but damaging concentrations 30ppm for 2 hours persist for long periods in the premises.

- Power supply $12-24 \mathrm{~V}$ d.c. + - $10 \%$
- Electrochemical cell
- Catalytic sensor for LPG gas having a duration of 5 years
- Detector measurement field $0 \div 20 \%$ LIE
- Analogue output signal $4 \mathrm{~mA} \div 20 \mathrm{~mA}$
- Replaceable sensor
- Alarm 300 ppm
- Protection degree IP 55
- Max control unit distance 100 m
- Probe body material: aluminium
- Working temperature limit $-20^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Power supply indicator LED
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $78 \times 58 \times 114 \mathrm{~mm}$


## 1GA 4400C0/A

CO Sensor housing made in die-cast aluminium - IP 66
Microprocessor probe to detect TOXIC GASES, such as carbon monoxide, with self-diagnosis. It is used when the maximum allowed 300ppm CO concentration is exceeded, or rather in case low but damaging concentrations 30ppm for 2 hours persist for long periods in the premises.

- Power supply $12-24 \mathrm{~V}$ d.c. +/- $10 \%$
- Electrochemical cell
- Catalytic sensor for LPG gas having a duration of 5 years
- Detector measurement field $0 \div 20 \%$ LIE
- Analogue output signal $4 \mathrm{~mA} \div 20 \mathrm{~mA}$
- Replaceable sensor

1GA 895MET - Natural gas CH4
1GA 895GPL - LPG
ATEX explosion-proof probe
ATEX certified gas detection probe with control prerogative with catalytic technology sensors for explosive and toxic gas. Probe managed by a microprocessor that provides an alarm signal to the control panel to which it is connected and allows self-diagnosis and automatic calibration, to maintain maximum detection accuracy over time. The self-calibration allows the probe to adapt in harsh environments and at variable temperatures, avoiding false alarms due to abnormal events.

- Power supply $12-24 \mathrm{~V}$ d.c. $+/-10 \%$
- Catalytic sensor
- Replaceable sensor
- Detector measurement field 0 $\div 20 \%$
- Analogue output signal $4 \mathrm{~mA} \div 20 \mathrm{~mA}$
- Alarm 300 ppm
- Protection degree IP 66
- Max control unit distance 100 m
- Probe body material: aluminium
- Working temperature limit $-20^{\circ} \mathrm{C}+50^{\circ} \mathrm{C}$
- Dimensions (L x W x H) $100 \times 60 \times 100 \mathrm{~mm}$
- Protection degree IP 66
- Max control unit distance 100 m
- Probe body material: aluminium
- Working temperature limit $-10^{\circ} \mathrm{C}+60^{\circ} \mathrm{C}$
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) 100 mm


## ACCESSORIES

1GA HE55ES Replacement sensor IP 55 for 1GA 4200MET, 1GA 4200GPL, 1GA 4400 CO

- Power supply $12-24 \mathrm{~V}$ c.c. $\pm 10 \%$ • Internal reed functional test
- Low profile 3,2 cm - Dual LED status indicators (alarm / fault)
- Mounting on universal base ready for 16 mm tubes - EN 54 Certification part 7/9
- LED optical detector output - Protection degree IP20
- Functional test by laser test tool method
- Overall dimensions (with base) mm Ø $102 \times 43 \mathrm{~mm}$


1GA 6020
Fixed temperature sensor $78{ }^{\circ} \mathrm{C}$

- Reaching the temperature of $+78^{\circ} \mathrm{C}$ the alarm rings
- Internal reed functional test
- Power supply $12-24 \mathrm{~V}$ c.c. $\pm 10 \%$
- Dual LED status indicators (alarm / fault)
- Low profile
- EN 54 Certification part 7/9
- Bicolor LED to signal the installation status
- Protection degree IP20
- Functional test by laser test tool method
- Dimensions (with base) $\varnothing 102 \times 43$ mm
- Mounting on universal base ready for 16 mm tubes


## 1GA 6030

Combined detector with constant feed temperature

- The alarm rings when there is a too quick increase of the temperature
- Power supply $12-24 \mathrm{~V}$ c.c. $\pm 10 \%$
- Low profile
- Bicolor LED to signal the installation status
- Functional test by laser test tool method
- Mounting on universal base ready for 16 mm tubes
- Internal reed functional test
- Dual LED status indicators (alarm / fault)
- EN 54 Certification part 7/9
- Protection degree IP20
- Dimensions (with base) $\varnothing 102 \times 43$ mm


## 1PA BRA01 Fixing base

## SEGNALLERS



1GA 6150
Fire siren piezoelectric optical-acoustic for indoor installation

- Power supply $12-24 \mathrm{~V}$ c.c.
- Indoor piezoelectric optical-acoustic fire siren
- Flashing with FIRE writing
- Red ABS container
- 90 dB power, with three types of sound modulation type: siren, bell and pre-alarm
- EN 54-3 CPD certification



## 1PA BPA01 Wall base for fire button 6180

- Support for red color surface mounting
- EN 54-11 CPD certification


## 1PA BSA01 Replacement batteries for fire siren 6160

- Nominal voltage 12V
- Maximum charging current $0,5 \mathrm{~A}$
- Nominal capacity 2Ah
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 178 \times 34 \times 60 \mathrm{~mm}$

Peras

## GAS SOLENOID VALVES, with manual reset NORMALLY CLOSED N.C.

This solenoid valve is made in such a way as to ensure the gas shut-off for both danger signals sent by gas detectors (methane, LPG, carbon monoxide, and others) or safety thermostats, or for power failure in the network (black out). For added security this solenoid valve can be reset only in the presence of mains voltage and only when the gas detector is not detecting any danger.
Simply powering the coil the valve does not open. You need to act manually on the reset mechanism.

CE APPROVAL IN ACCORDANCE WITH EN 161

COMPLIANCE DIRECTIVE 2009 / 142 / EC (GAS DIRECTIVE)

6 BAR VERSION COMPLIANT WITH DIRECTIVE 97 / 23 / EC (PED DIRECTIVE) COMPLIANCE WITH DIRECTIVE 94/9/EC [ATEX DIRECTIVE]

COMPLIANCE WITH DIRECTIVE
2004 / 108 / EC [ELECTROMAGNETIC COMPATIBLIITY]

COMPLIANCE WITH DIRECTIVE 2006 / 95 / EC (LOW VOLTAGE)


| 40 | N.C. 1/2" Solenoid valve DN15 threaded 230V 50-60 Hz brass body int. 66 |
| :---: | :---: |
| 1EV EV041 | N.C. 3/4"Solenoid valve N.C. DN20 threaded 230V 50-60 Hz brass body int. 66 |
| 1EV EV042 | N.C. 1"Solenoid valve DN25 threaded 230V 50-60 Hz brass body int. 82 |
| 1EV EV045 | N.C. 1"¼ Solenoid valve DN32 threaded 230V 50-60 Hz aluminium body int. 160 |
| 1EV EV043 | N.C. 1 ¹⁄2 2 Solenoid valve DN40 threaded 230V 50-60 Hz aluminium body int. 160 |
| 1EV EV044 | N.C. 2" Solenoid valve DN50 threaded 230V 50-60 Hz aluminium body int. 160 |
| 1EV EV060 | N.C. Solenoid valve DN65 flanged 230V 50-60 Hz aluminium body int. 290 |
| 1EV EV061 | N.C. Solenoid valve DN80 flanged 230V 50-60 Hz aluminium body int. 310 |
| 1EV EV062 | N.C. Solenoid valve DN100 flanged 230V 50-60 Hz aluminium body int. 350 |
| 1EV EV063 | N.C. Solenoid valve DN125 flanged 230V 50-60 Hz aluminium body int. 480 |
| 1EV EV064 | N.C. Solenoid valve DN150 flanged 230V 50-60 Hz aluminium body int. 480 |
| 1EV EV065 | N.C. Solenoid valve DN200 flanged 230V 50-60 Hz aluminium body int. 600 |
| 1EV EV066 | N.C. Solenoid valve DN300 flanged 230V 50-60 Hz aluminium body int. 737 |

GAS SOLENOID VALVES, with automatic reset NORMALLY CLOSED N.C. in Class "A"
Solenoid valves for gas, normally closed which open when the coil is powered and close when there is no power. These solenoid valves may be controlled by pressure switches, thermostats, etc.

CE APPROVAL IN ACCORDANCE WITHEN 161

COMPLIANCE DIRECTIVE 2009/142 / EC (GAS DIRECTIVE)

COMPLIANCE WITH DIRECTIVE 94/9 / EC [ATEX DIRECTIVE]

COMPLIANCE WITH DIRECTIVE 2004/108/EC (ELECTROMAGNETIC COMPATIBLLITY)

COMPLIANCE WITH DIRECTIVE 2006 / 95 / EC (LOW VOLTAGE)


| 1EV EV005 | N.C. 1/2" solenoid valve DN15 threaded 230V 50-60 Hz aluminium body int. 70 |
| :---: | :---: |
| 1EV EV006 | N.C. 3/4" solenoid valve DN20 threaded 230V 50-60 Hz aluminium body int. 70 |
| 1EV EV007 | N.C. 1" solenoid valve DN25 threaded 230V 50-60 Hz aluminium body int. 90 |
| 1EV EV017 | N.C. 1" 1/4 solenoid valve DN32 threaded 230V 50-60 Hz aluminium body int. 160 |
| 1EV EV008 | N.C. 1" ½ solenoid valve DN40 threaded 230V 50-60 Hz aluminium body int. 160 |
| 1EV EV009 | N.C. 2" solenoid valve DN50 threaded 230V 50-60 Hz aluminium body int. 160 |
| 1EV EV010 | N.C. solenoid valve DN65 flanged 230V 50-60 Hz aluminium body int. 290 |
| 1EV EV011 | N.C. solenoid valve DN80 flanged 230V 50-60 Hz aluminium body int. 310 |
| EV EV012 |  |

## GAS SOLENOID VALVES, with manual reset NORMALLY OPEN N.O.

The operation principle of the N.O. solenoid valves is very simple and therefore extremely safe. The electromagnetic coil, when powered, releases the valve closing device which is normally open.
The reset is manual to check the causes for gas detection.
During normal operation there is no power consumption, and therefore, in addition to energy saving, no component is subjected to usury.


1EV EV020 N.0. $1 / 2^{\prime \prime}$ solenoid valve DN15 threaded 230V 50-60 Hz brass body int. 66
1EV EV021 N.0. $3 / 4$ " solenoid valve DN20 threaded 230V 50-60 Hz brass body int. 66
1EV EV022 N.O. 1" solenoid valve DN25 threaded 230V 50-60 brass body int. 82
1EV EV027 N.O. 1" $1 / 4$ solenoid valve DN32 threaded $230 \mathrm{~V} 50-60 \mathrm{~Hz}$ aluminium body int. 160
1EV EV023 N.O. $1^{11} 1 / 2$ solenoid valve DN32 threaded $230 \mathrm{~V} 50-60 \mathrm{~Hz}$ aluminium body int. 160
1EV EV024 N.O. 2" solenoid valve DN40 threaded 230V $50-60 \mathrm{~Hz}$ aluminium body int. 160
1EV EV025 N.O. solenoid valve DN65 flanged 230V 50-60 Hz aluminium body int. 280
1EV EV026 N.O. solenoid valve DN80 flanged 230V 50-60 Hz aluminium body int. 310

## INTERMITTENT SERVICE TRANSFORMERS



1TD TR10SI/Q0D 10VA transformer for intermittent service, outputs 4-8-12V - 2 DIN
Power supply 230V a.c. - 50Hz
Installation on rear of switchboard IP 40
Outputs 4-8-12V
Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 90 \mathrm{~mm}$


1TD TR15SI/Q0D 15VA transformer for intermittent service, outputs 4-8-12V - 2 DIN
Power supply 230 V a.c. -50 Hz Installation on rear of switchboard IP 40
Outputs 4-8-12V
Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 90 \mathrm{~mm}$


1TD TR15SI/DDV 15VA transformer for intermittent service, outputs 12-12-24V 2 DIN
Power supply 230 V a.c. -50 Hz
Installation on rear of switchboard IP 40
Dimensions (L x W x H) $35 \times 60 \times 90 \mathrm{~mm}$


1TD TR30SI/DDV 30VA transformer for intermittent service, outputs 12-12-24V - 3 DIN
Power supply 230 V a.c. -50 Hz
Installation on rear of switchboard IP 40 Outputs 12-12-24V

Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $52.5 \times 60 \times 90 \mathrm{~mm}$


1TD TR01402/N 10VA transformer for intermittent service, outputs 4-8-12V, wall-mounted
Power supply 230 V a.c. -50 Hz
Installation on rear of switchboard IP 40
Outputs 4-8-12V
Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 128 \mathrm{~mm}$


1TD TR01403/N 15VA transformer for intermittent service, outputs 4-8-12V, wall-mounted

Power supply 230 V a.c. -50 Hz
Outputs 4-8-12V
Wall-mounted IP 30

Installation on rear of switchboard IP40
Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 60 \times 128 \mathrm{~mm}$

1TD TR01409/N 20VA transformer for intermittent service, outputs 4-8-12V, wall-mounted
Power supply 230 V a.c. -50 Hz
Installation on the rear of the
Outputs 4-8-12V
switchboard IP40
Wall-mounted IP30
Dimensions $(L \times W \times H) 52.5 \times 60 \times 128 \mathrm{~mm}$


1TD TR01404/N 25VA transformer for intermittent service, outputs 4-8-12V, wall-mounted
Power supply 230 V a.c. -50 Hz
Installation on rear of switchboard IP 40
Outputs 4-8-12V
Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $52.5 \times 60 \times 128 \mathrm{~mm}$


1TD TR01435/N 40VA transformer for intermittent service, outputs 12-12-24V, wall-mounted

Power supply 230 V a.c. -50 Hz
Installation on rear of switchboard IP 40
Outputs 12-12-24V
Wall-mounted IP 30


## CONTINUOUS SERVICE TRANSFORMERS

## 1TD TR010/Q0D 10VA transformer for continuous service, outputs 4-8-12V - 2 DIN

Power supply 230 V a.c. -50 Hz
Outputs 4-8-12V

Installation on rear of switchboard IP 40
Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 90 \mathrm{~mm}$


1TD TR010/DDV 10VA transformer for continuous service, outputs 12-12-24V - 2 DIN
Power supply 230 V a.c. -50 Hz
Installation on rear of switchboard IP 40
Outputs 12-12-24V
Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 60 \times 90 \mathrm{~mm}$


1TD TR015/Q0D 15VA transformer for continuous service, outputs 4-8-12V - 2 DIN
Power supply 230V a.c. $-50 \mathrm{~Hz} \quad$ Installation on rear of switchboard IP 40
Outputs 4-8-12V
Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 60 \times 90 \mathrm{~mm}$

1TD TR015/DDV 15VA transformer for continuous service, outputs 12-12-24V - 2 DIN
Power supply 230V a.c. -50 Hz Installation on rear of switchboard IP 40
Outputs 12-12-24V
Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 60 \times 90 \mathrm{~mm}$


1TD TR024/DDV 24VA transformer for continuous service, outputs 12-12-24V - 3 DIN
Power supply 230 V a.c. -50 Hz Installation on rear of switchboard IP 40
Outputs 12-12-24V
Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 52.5 \times 60 \times 90 \mathrm{~mm}$


1TD TR030/DDV 30VA transformer for continuous service, outputs 12-12-24V - 3 DIN
Power supply 230V a.c. -50 Hz Installation on rear of switchboard IP 40
Outputs 12-12-24V Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $52.5 \times 60 \times 90 \mathrm{~mm}$

1TD TR040/DDV 40VA transformer for continuous service, outputs 12-12-24V - 3 DIN
Power supply 230 V a.c. -50 Hz Installation on rear of switchboard IP 40
Outputs 12-12-24V

Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $52.5 \times 60 \times 90 \mathrm{~mm}$

1TD TR063/DDV 63VA transformer for continuous service, outputs 12-12-24V - 6 DIN

Power supply 230 V a.c. -50 Hz
Installation on rear of switchboard IP 40

Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $105 \times 60 \times 90 \mathrm{~mm}$

Outputs 12-12-24V
Installation on terminal board IP 20

## ACCESSORIES

1PA KTM02 Kit with base + terminal covers for 2 DIN transformers
1PA KTM03 Kit with base + terminal covers for 3 DIN transformers

## CHIMES, DIN DON, BUZZERS



## ELECTROMECHANICAL STEP RELAYS



## 1RI 0112AC/I <br> Electromechanical step relay 12 V a.c.

- Power supply 12 V a.c. 50 / 60 Hz
- Panel / recess mounting
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 1 contact 2 sequences
- Dimensions (L $\times$ W $\times H$ ) $45 \times 22 \times 45 \mathrm{~mm}$


1RI 0124AC/I
Electromechanical step relay 24 V a.c.

- Power supply 24 V a.c. $50 / 60$ Hz
- Contacts 10 A / 250 V a.c.
- Panel / recess mounting
- Presetting of fastening holes with screws
- Mechanical - sequential operation
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 45 \times 22 \times 45 \mathrm{~mm}$

- Available contacts: 1 contact 2 sequences



## 1RI 01230AC/I <br> Electromechanical step relay 230 V a.c.

- Power supply 230V a.c. 50 / 60 Hz
- Panel / recess mounting
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Presetting of fastening holes with screws
- Available contacts: 1 contact 2 sequences
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 45 \times 22 \times 45 \mathrm{~mm}$



## 1RI 0212AC/I

Electromechanical step relay 12 V a.c.

- Power supply 12 V a.c. 50 / 60 Hz
- Panel / recess mounting
- Contacts 10 A / 250 V a.c.
- Presetting of fastening holes with screws
- Mechanical - sequential operation
- Dimensions (L×W $\times \mathrm{H}$ ) $45 \times 22 \times 45 \mathrm{~mm}$

- Available contacts: 2 contacts 2 sequences



## 1RI 0224AC/I

Electromechanical step relay 24 V a.c.

- Power supply 24 V a.c. 50 / 60 Hz
- Panel / recess mounting
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Presetting of fastening holes with screws
- Available contacts: 2 contacts 2 sequences
- Dimensions (L×W $\times \mathrm{H}) 45 \times 22 \times 45 \mathrm{~mm}$



## 1RI 02230AC/I

Electromechanical step relay 230V a.c.

- Power supply 230 V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts $10 \mathrm{~A} / 250 \mathrm{~V}$ a.c.
- Mechanical - sequential operation
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $45 \times 22 \times 45 \mathrm{~mm}$



## 1RI 0412AC/I

Electromechanical step relay 12 V a.c.

- Power supply 12 V a.c. 50 / 60 Hz
- Contacts $10 \mathrm{~A} / 250 \mathrm{~V}$ a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L $\times$ W $\times \mathrm{H}$ ) $45 \times 22 \times 45 \mathrm{~mm}$



## 1RI 04230AC/I

Electromechanical step relay 230 V a.c.

- Power supply 230V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $45 \times 22 \times 45 \mathrm{~mm}$



## 1RI 0612AC/I

Electromechanical step relay 12 V a.c.

- Power supply 12 V a.c. 50 / 60 Hz
- Panel / recess mounting
- Contacts 10 A / 250 V a.c.
- Presetting of fastening holes with screws
- Mechanical - sequential operation
- Dimensions (L x W x H) $45 \times 22 \times 45 \mathrm{~mm}$
- Available contacts: 2 contacts 3 sequences


1RI 0624AC/I
Electromechanical step relay 24 V a.c.

- Power supply 24 V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 3 sequences
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 45 \times 22 \times 45 \mathrm{~mm}$



## 1RI 06230AC/I

Electromechanical step relay 230 V a.c.

- Power supply 230V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 3 sequences
- Panel / recess mounting
- Presetting of fastening holes with screws
- Dimensions (L x W x H) $45 \times 22 \times 45 \mathrm{~mm}$

1VA CPL001 Capacitor for luminous push buttons
Capacitor to be used with step relays in case of systems with luminous push buttons


## 1RI 01110ACPC <br> Electromechanical step relay 110 V a.c. ready for capacitor

- Power supply 110 V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 1 contact 2 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) $35 \times 22 \times 45 \mathrm{~mm}$


## 1RI 01230ACPC

Electromechanical step relay 230V a.c. ready for capacitor

- Power supply 110 V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 1 contact 2 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) $35 \times 22 \times 45 \mathrm{~mm}$


## 1RI 04110ACPC

Electromechanical step relay 110V a.c. ready for capacitor

- Power supply 110 V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor

- Dimensions (L x W x H) $35 \times 22 \times 45 \mathrm{~mm}$


## 1RI 04230ACPC

Electromechanical step relay 230 V a.c. ready for capacitor

- Power supply 230V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) $35 \times 22 \times 45 \mathrm{~mm}$



## 1RI 06110ACPC

Electromechanical step relay 110 V a.c. ready for capacitor

- Power supply 110 V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions (L x W x H) $35 \times 22 \times 45 \mathrm{~mm}$



## ELECTROMECHANICAL STEP RELAYS

## 1RI 06230ACPC <br> Electromechanical step relay 230V a.c. ready for capacitor

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 10 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 3 sequences
- Panel / recess mounting
- Predisposition for fastening holes with screws
- Ready for clip-on capacitor
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 22 \times 45 \mathrm{~mm}$

1VA CPL002 Clip-on capacitor for luminous push buttons
Clip-on capacitor to be used in step relays in case of systems with luminous push buttons
Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 22 \times 17.5 \mathrm{~mm}$

## 1RI 0212AC/M <br> Electromechanical step relay 12V-1 DIN

- Power supply 12 V a.c. $50 / 60$ Hz
- Installation on DIN rail
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Control button
- Dimensions (L x W x H) $17.5 \times 60 \times 90 \mathrm{~mm}$

- Available contacts: 2 contacts 2 sequences


## 1RI 0224AC/M <br> Electromechanical step relay 24V-1 DIN

- Power supply 24 V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 2 sequences
- Installation on DIN rail
- Control button
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 17.5 \times 60 \times 90 \mathrm{~mm}$



## 1RI 02230AC/M

Electromechanical step relay 230V-1 DIN

- Power supply 230V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 2 sequences
- Installation on DIN rail
- Control button
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 17.5 \times 60 \times 90 \mathrm{~mm}$



## 1RI 0412AC/M

Electromechanical step relay 12V-1 DIN

- Power supply 12 V a.c. 50 / 60 Hz
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Available contacts: 2 contacts 4 sequences
- Installation on DIN rail
- Control button
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 17.5 \times 60 \times 90 \mathrm{~mm}$

- Installation on DIN rail
- Control button
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 17.5 \times 60 \times 90 \mathrm{~mm}$
- Mechanical - sequential operation

- Available contacts: 2 contacts 4 sequences


## 1RI 04230AC/M <br> Electromechanical step relay 230V - 1 DIN

- Power supply 230V a.c. $50 / 60 \mathrm{~Hz}$
- Contacts 16 A / 250 V a.c.
- Mechanical - sequential operation
- Installation on DIN rail
- Control button
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 17.5 \times 60 \times 90 \mathrm{~mm}$

- Available contacts: 2 contacts 4 sequences



## 1RT 200/MT/MF <br> Multifunction, multi-voltage timer relay with display - 1 DIN

- Power supply 12-24-48-110-230V a.c. $50 / 60 \mathrm{~Hz}$
- Controllable load (in AC1) 16 A / 250 V a.c.
- Controllable load (in AC15) 3 A / 240V a.c.
- Potential-free changeover contact
- 14 functions available in the display
- Double timer T1, T2 independently adjustable
- Backlit display, amber color
- Digital adjustment of work times, hours, minutes, seconds and tenths of seconds
- Load operation hour counter
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $17.5 \times 60 \times 90 \mathrm{~mm}$


## 1RT 80S

## Multivoltage STAR DELTA timer relay 1 DIN

- It serves for delay ON of three-phase motor star/delta
- Time t1 (star)
- Time range setting by rotary switch
- Fine time setting by potentiometer
- Time t2 delay between $\boldsymbol{N} \boldsymbol{\Delta}$
- Fine time setting by potentiometer
- Red LED multifunction flashes or shines depending on the operating status
- Supply terminals A1-A2
- Power supply AC/DC 12-240 V (AC 50/60 Hz)
- Power input (max.) 2 VA/1,5 W
- Supply voltage tolerance $-15 \%+10 \%$
- Supply indication green LED
- Time scale t1: $0,1 \mathrm{~s}-100$ days, $\mathrm{t} 2: 0,1 \mathrm{~s}-1 \mathrm{~s}$
- Setting switch and potentiometer
- Time tolerance 5\% mechanical setting
- Accuracy repeat 0,2\% on the set value
- Output type 2 changeover contacts
- Contacts material AgNi
- Current rating 16 A / AC1
- Inrush current 30 A / 3 s
- Breaking capacity 4.000 VA / AC1, 384 W/DC
- Switching voltage 250V AC/24V DC
- Power dissipation(contacts) max 1.2 W
- Output indication multifunction red LED
- Electrical life 50.000 operations
- Mechanical life 10.000.000 operations
- Reset time max. 150 ms
- Civil / tertiary / industrial use
- Type installation DIN rail
- Protection degree (IP) IP20 / IP40 rear panel
- Dielectrical strength 4.000 V ac
- Max cross-section of wires to terminals $1 \times 2,5$ or $2 \times 1,5$ $\mathrm{mmq}, 1 \times 2,5 \mathrm{mmq}$ with cable lug
- Operating temperature $-20 \div 55^{\circ} \mathrm{C}$
- Storing temperature $-30 \div 70^{\circ} \mathrm{C}$
- Degree of pollution 2
- Overvoltage category III
- Standard EN 61812-1
- Dimensions (L x W x H) mm 17,6 x $64 \times 90$
- Weight 78 g .


## 1RT 80MTMF <br> Multifunction, multivoltage timer relay 1 DIN

- Multifunction relay for universal use in automation, control and regulation or in house installations.
- Easy function and well-organized time set with rotary switch
- Multifunction red led flashes or shines depending on the operating status
- Supply terminals A1 - A2
- Power supply AC/DC 12-240 V (AC 50/60 Hz)
- Power input (max.) 2 VA/1,5 W
- Time tolerance -15\% +10\%
- Supply indication green LED
- Time scale t1: 0,1 s-10 days,
- Setting switch and potentiometer
- Time tolerance 5\% mechanical setting
- Accuracy repeat $0,2 \%$ on the set value
- Output type 1 changeover contact
- Contacts material AgNi
- Current rating 16 A / AC1
- Breaking capacity 4.000 VA / AC1, 384 W/DC
- Switching voltage 250 V AC/24V DC
- Power dissipation(contacts) max 1.2 W
- Output indication multifunction red LED
- Electrical life 50.000 operations
- Mechanical life 10.000 .000 operations
- Pulse length min 25 ms / max no limits
- Reset time max. 150 ms
- Civil / tertiary / industrial use
- Type installation DIN rail
- Protection degree (IP) IP20 / IP40 rear panel
- Dielectrical strength 4.000 V ac
- Max cross-section of wires to terminals
$1 \times 2,5 \circ 2 \times 1,5 \mathrm{mmq}, 1 \times 2,5 \mathrm{mmq}$ with cable lug
- Operating temperature $-20 \div 55^{\circ} \mathrm{C}$
- Storing temperature $-30 \div 70^{\circ} \mathrm{C}$
- Degree of pollution 2
- Overvoltage category III
- Standard EN 61812-1
- Dimensions ( $(\times W \times H)$ mm 17,6 $\times 64 \times 90$
- Weight 62 g .


## 1RT 80A

Single-function time relay with delay on the switch on 1 DIN
1RT 80B
Single-function time relay INTERVAL ON 1 DIN
1RT 80C
Single-function time relay OFF delay 1 DIN
1RT 80E

## Single-function time relay FLASHER - ON first 1 DIN

- Singlefunction time relays are suitable for applications where there is a clear function requirement in advance and for universal use in automation, control and regulation or in house installations.
- Choice of four types: A, B, C, E.
- All functions initiated by the supply voltage can use the control input to inhibit the ongoing delay (pause)
- Multifunction red LED flashes or shines depending on the operating status.
- Supply terminals A1-A2
- Power supply AC/DC 12-240 V (AC 50/60 Hz)
- Power input (max.) 2 VA/1,5 W
- Time tolerance -15\% +10\%
- Supply indication green LED
- Time scale t1: 0,1 s - 100 hours
- Setting switch and potentiometer
- Time tolerance 5\% mechanical setting
- Accuracy repeat 0,2\% on the set value
- Output type 1 changeover contact
- Contacts material AgNi
- Current rating 16 A / AC1
- Breaking capacity 4.000 VA / AC1, 384 W/DC
- Switching voltage 250V AC/24V DC
- Power dissipation(contacts) max 1.2 W
- Output indication multifunction red LED
- Electrical life 50.000 operations
- Mechanical life 10.000 .000 operations
- Reset time max. 150 ms
- Civil / tertiary / industrial use
- Type installation DIN rail
- Protection degree (IP) IP20 / IP40 rear panel
- Dielectrical strength 4.000 V ac
- Max cross-section of wires to terminals $1 \times 2,5 \circ 2 \times 1,5 \mathrm{mmq}, 1 \times 2,5 \mathrm{mmq}$ with cable lug
- Operating temperature $-20 \div 55^{\circ} \mathrm{C}$
- Storing temperature $-30 \div 70^{\circ} \mathrm{C}$
- Degree of pollution 2
- Overvoltage category III
- Standard EN 61812-1
- Dimensions (L x W x H) mm 17,6×64×90
- Weight 61 g


## MEASURING INSTRUMENTS



## 1SD SD02AV/2

Ammeter and voltmeter for alternate current measurements - 2 DIN

- Digital modular voltmeter and ammeter for alternate current measurements with 3-digit LED display
- Power supply 230 V a.c. $+-10 \% 50-60 \mathrm{~Hz}$
- Input voltage $0 . .500 \mathrm{~V}$ max a.c. $(45 . . .100 \mathrm{~Hz})$
- Input current 5A a.c.
- CAT III 300V
- Amperometric loads between 5 and 999 A with TA
- Reading accuracy class 0.5\%
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 63 \times 85 \mathrm{~mm}$



## 1SD SD03A/2

Ammeter for alternate current measurements - 2 DIN

- Digital modular ammeter for alternate current measurements with 3-digit LED display
- Power supply 230 V a.c. $+-10 \% 50-60 \mathrm{~Hz}$
- Input current Inom=5A Imax=6A a.c.
- CAT III 300V
- Amperometric loads between 5 and 999 A with TA
- Reading accuracy class 0.5\%
- Dimensions (L x W x H) $35 \times 63 \times 85 \mathrm{~mm}$



## 1SD SD04V/2

Voltmeter for alternate current measurements - 2 DIN

- Digital modular voltmeter for alternate current measurements with 3-digit LED display
- CAT III 300V
- Amperometric loads between 5 and 999 A with TA
- Reading accuracy class 0.5\%
- Dimensions (L x W x H) $35 \times 63 \times 85 \mathrm{~mm}$



## 1SD SD05MM/2

Single-phase multimeter - 2 DIN

- Digital single-phase multimeter with 3-digit LED display on 2 lines
- Voltage measurement 0-230V
- Current measurement 0.1-26A (30A)
- Active Power Measurement 8.00 kW
- Active Energy Measurement (Wh) on 2 lines
- Accounting period 15 min
- Direct connection energy count 9.99 / 999 kWh
- Measurement of the power factor
- Hour counter
- Digital filter
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 35 \times 63 \times 85 \mathrm{~mm}$



## 1SD SD10MT/2

## Three-phase multimeter - 2 DIN

- Digital three-phase multimeter with
- Phase current I1, I2, I3

3-digit LED display on 2 lines

- Phase average current I average
- Phase-phase voltage VL1, VL2, VL3
- Current in "len" neutral (<imbalance>)
- Phase-neutral voltage VL1-N, VL2-N, VL3-N
- Basic active power
- Average VL phase average voltage
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $35 \times 63 \times 85 \mathrm{~mm}$

1C0 2400-24V a.c.
1C0 1100-110V a.c.
1CO 2200-220V a.c.
1CO 3800-380V a.c.
1CO CC1236-10-50V d.c.
Hour counter

- Recording ability 99,999.99
- Dimensions (L×W x H) $55 \times 56 \times 55 \mathrm{~mm}$
- Installed in the panel / on rear of switchboard

1CO C024/2-24V a.c.


1C0 C0110/2-110V a.c.
1CO C0230/2-230V a.c.
1 CO C036C/2-12-36V d.c.
Hour counter - 2 DIN

- Power supply <10VA - Reading accuraacy 1/100h (36sec) -
- Recording ability 99,999.99 $1 / 10 \mathrm{~h} 6 \min (\mathrm{CO} 36 \mathrm{C} / 2)$
- Accuracy class 0.5\% - 1\% (CO36C/2)
- Dimensions (L x W x H) $35 \times 63 \times 85 \mathrm{~mm}$


## 1SD SD05CEM/2

## Single-phase analog energy counter - 2 DIN

It accounts for the ACTIVE energy consumption in single-phase 230V systems, up to a maximum current of 100 A with an impulsive output of 100 ms for each consumed Wh: open collector transistor $5-27 \mathrm{~V}$ d.c. $\max 27 \mathrm{~mA}$ d.c.

- 230 V power supply c.a. $\pm 10 \% 50-60 \mathrm{~Hz}$
- Digit number 5 numbers + 1 decimal
- Reading resolution 0.1 KWh
- Rated voltage 230V
- Input current 100A max
- Current / Minimum measurable power 40 mA / 9 W
- Accuracy Class 1 IEC62053-21, Class B EN50470-3
- Dimensions (L x W x H) $36 \times 63 \times 99 \mathrm{~mm}$


## 1SD SD06CEM/1



## Single-phase analog energy counter - 1 DIN

It accounts for the ACTIVE energy consumption in single-phase 230 V systems, up to a maximum current of 45 A with direct connection, with an impulsive output: transistor open collector 5-27 d.c. max 27 mA d.c.

- 230 V power supply c.a. $\pm 10 \% 50-60 \mathrm{~Hz}$
- Input current 45A max
- Digit number 5 numbers + 1 decimal
- Current / Minimum measurable power 20 mA / 4,5 W
- Reading resolution 0.1 KWh
- Accuracy Class 1 IEC62053-21, Class B EN50470-3
- Rated voltage 230V
- Dimensions (L x W x H) $17.5 \times 62 \times 119 \mathrm{~mm}$

1SD SD05CEM2DGT - Digital
1SD SD05CEM2MID - Digital - MID CERTIFIED
Single-phase digital energy counter - 2 DIN
It regulates the consumption of ACTIVE energy and the electric power in 230 V systems c.a. single phase, up to a maximum current of 100 A with direct connection, double pulse output: open collector transistor $5-27 \mathrm{~V}$ d.c. max 27 mA d.c .. Push-button reset for partial consumption readings

- 230 V power supply c.a. $\pm 10 \% 50-60 \mathrm{~Hz}$
- Number of digits 6 numbers + 1 decimal
- Reading resolution 0.1 KWh
- Rated voltage 230V
- Input current 100A max

1SD SD06CEM1DGT - Digital
1SD SD06CEM1MID - Digital - MID CERTIFIED Single-phase digital energy counter - 1 DIN
It regulates the consumption of active energy in 230 V systems c.a. single phase, up to a maximum current of 45 A with direct connection, with impulsive output: open collector transistor 5-27 V d.c. max 27 mA d.c.

## 1SD SD10CET4MID

## Three-phase digital energy counter 100A 4 DIN, MID Certified



It regulates the consumption of ACTIVE energy and the electric power in 400V systems c.a. three-phase with neutral up to a maximum current of 100A
Impulsive output: open collector transistor Impulsive output: 30ms 1000 pulse / kWh

- 400 power supply c.a. $\pm 20 \% 50 \mathrm{~Hz}$
- Reading resolution 0.1 KWh
- Current / Minimum measurable power 40 mA / 9 W
- MID certificate (CEM2MID)
- Accuracy Class 1 IEC62053-21, Class B EN50470-3
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $36 \times 63 \times 99 \mathrm{~mm}$
- 230 V power supply c.a. $\pm 10 \% 50-60 \mathrm{~Hz}$
- Number of digits 5 numbers + 1 decimal
- Reading resolution 0.1 KWh
- Input current 45A max
- Current / Minimum measurable power 20 mA / 4,5 W
- MID certificate (CEM1MID)
- Accuracy Class 1 IEC62053-21, Class B EN50470-3
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 17.5 \times 62 \times 119 \mathrm{~mm}$
- Digit number 6 numbers +1 decimal
- Rated voltage $3 \times 230 / 400 \mathrm{~V}$
- Input current 100A max
- Class B EN50470-3, MID
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 72 \times 100 \times 66 \mathrm{~mm}$


1CL RLG01/3PVC - PVC cable 3x1-3 m long 1CL RLG02/5PVC - PVC cable $3 \times 1-5 \mathrm{~m}$ long 1CL RLG03/10PVC - PVC cable $3 \times 1$ - 10 m long 1CL RLG04/15PVC - PVC cable $3 \times 1$ - 15 m long 1CL RLG05/20PVC - PVC cable 3x1-20 m long 1CL RLG06/25PVC - PVC cable $3 \times 1$ - 25 m long Floating level regulator for clear water

- Electric range 10 (8) A / 250 V
- Protection degree IP 68
- Operating Temperature $0-50^{\circ} \mathrm{C}$
- Dimensioni ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $81 \times 131 \times 42 \mathrm{~mm}$
- Pressure resistance 1 BAR

1CL RLG025NEOP - NEOPRENEcable $3 \times 1$ - 5 m long
1CL RLG0310NEOP - NEOPRENEcable $3 \times 1-10 \mathrm{~m}$ long
1CL RLG0520NEOP - NEOPRENEcable $3 \times 1$ - 20 m Iong


1CL RLG10/5PVC - PVC cable $3 \times 1$ - 5 m long 1CL RLG11/10PVC - PVC cable $3 \times 1$ - 10 m long 1CL RLG12/20PVC - PVC cable $3 \times 1-20 \mathrm{~m}$ long Floating level regulator for sewage water

- Electric range 10 (8) A / 250 V

Pressure resistance 2 BAR

- Switching angle $\pm 45^{\circ}$
- Protection degree IP 68
- Operating Temperature $0-50^{\circ} \mathrm{C}$

1CL RLG20/5NEOP - NEOPRENEcable $3 \times 1$ - 5 m long 1CL RLG21/10NEOP - NEOPRENEcable 3x1-10 m long
1CL RLG22/20NEOP - NEOPRENEcable 3x1-20 m long

- Dimensioni (L×W x H) $117 \times 117 \times 222 \mathrm{~mm}$

1CL RLG3005PVC - PVC cable $3 \times 1$ - 5 m long
1CL RLG3010PVC - PVC cable $3 \times 1$ - 10 m long
1CL RLG3020PVC - PVC cable 3x1-20 m long
1CL RLG3005NEOP - NEOPRENEcable 3x1-5 m long - ENEC Approved
1CL RLG3010NEOP - NEOPRENEcable 3x1-10 m long - ENEC Approved 1CL RLG3020NEOP - NEOPRENEcable 3x1-20 m Iong - ENEC Approved


Floating level regulator for sewage water

- Electric range 10 (3) A / 250 V
- Pressure resistance 2 BAR
- Switching angle $\pm 10^{\circ}$
- Operating Temperature $0-50^{\circ} \mathrm{C}$
- Protection degree IP 68
- Dimensions (L×W WH) $100 \times 100 \times 156 \mathrm{~mm}$


1CL RLE024/2-24V
1CL RLE230/2-230V
Electronic level regulator 24V - 2 DIN

- Power supply 24V 50-60 Hz (RLE024/2)

230V 50-60 Hz (RLE230/2)

- Electrode voltage 12 V
- Relay range 5A / 250 V
- Adjustable sensitivity
- Max. connection length between control unit and probes, approx. 70-80m
- Installation on terminal board IP 20
- Installation on rear of switchboard IP 40
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 37 \times 58 \times 95 \mathrm{~mm}$


1CL RLEME/3
Multivoltage electronic level regulator series E evolved - 3 DIN

- Power supply 24/117/230V $50-60 \mathrm{~Hz}$
- Electrode voltage 12Vpp
- Range of 1st relay 5A / 250 V
- Range of 2nd relay 2A / 250 V
- Adjustable intervention delay 0-16sec
- Emptying / filling intervention mode
- Max. connection length between control unit and probes, approx. 1000m
- Installation on terminal board IP 20
- Installation on rear of switchboard IP 40
- Dimensions $(\mathrm{L} \times \mathrm{W} \times \mathrm{H}) 53 \times 58 \times 95 \mathrm{~mm}$

1CL RLE230E/2
Electronic level regulator 230V series E evolved - 2 DIN

- Power supply $230 \mathrm{~V} 50-60 \mathrm{~Hz}$
- Electrode voltage 12Vpp
- Relay range 5A / 250 V
- Adjustable intervention delay 0-16sec
- Emptying / filling intervention mode
- Max. connection length between control unit and probes, approx. 1000m
- Installation on terminal board IP 20
- Installation on rear of switchboard IP 40
- Dimensions ( $\mathrm{L} \times \mathrm{W} \times \mathrm{H}$ ) $37 \times 58 \times 95 \mathrm{~mm}$


## ACCESSORIES

1CL SF010 Probe with electronic wire connection

- Installation directly in the liquid - Dimensions ( $\mathrm{D} \times \mathrm{L}$ ) $22 \times 85 \mathrm{~mm}$
- Max. operating temperatures $80^{\circ} \mathrm{C}$
- Max. operating temperatures $80^{\circ} \mathrm{C}$


## AUTOMATIC HYGIENIC DEVICES



1DC AMF06
"MISTRAL" serie automatic hand dryer with infrared sensor, white ABS 1DC AMF06B
"MISTRAL" serie automatic hand dryer with infrared sensor, white stainless steel 1DC AMF06CS
"MISTRAL" serie automatic hand dryer with infrared sensor, satin stainless steel
Mistral electric hand dryer ideal for high turnout, superfast and energy saving. Integrated and certi fi ed antibacterial action, with antibacterial fi lter and UV lamp as standard equipment.
Complete range with vandal-proof stainless steel versions.

- Power supply 220V - 240V
- Infrared sensor
- 26.000 rpm engine
- IP23 - CLASS II
- Power: total 1100 W resistance 550 W engine 550 W
- Antibacterial filter
- UV lamp for sanitization of the engine
- Air speed 300 km/h
- Air volume $52 \mathrm{l} / \mathrm{sec}$.
- Noise level $75 \mathrm{~dB}(\mathrm{~A})$ at 2 m
- Polypropylene - stainless steel AISI 304
- Dimensions (LxWxH) $285 \times 221 \times 157 \mathrm{~mm}$


1DC AMF05
"EOLO JET" serie automatic hand dryer with infrared sensor, white
200 1DC AMF05C
"EOLO JET" serie automatic hand dryer with infrared sensor, chrome
km/h

With a depth of less than 10 cm "EOLO JET" is one of the smallest towels on the market.
The quick drying combined with a power of only 900 W allow significant energy savings.

- Power supply 220V - 240V
- Electronic infrared sensor
- 28.000 rpm engine
- IP23 - CLASS II
- Power: total 900 W resistance 500 W engine 400 W
- Air speed 200 km/h
- Air volume31 l/sec.
- Noise level $80 \mathrm{~dB}(\mathrm{~A})$ at 2 m
- Material ABS
- Weight $1,2 \mathrm{~kg}$
- Dimensions (LxWxH) $238 \times 156 \times 99,5 \mathrm{~mm}$

1DC AMP03 - Push button
1DC AMFO4 - Controlled by photocell Hand dryer series "EOLO"

- Power supply 230V a.c. $50-60 \mathrm{~Hz}$
- Insulation class II
- Commutator motor
- Air temperature $67^{\circ} \mathrm{C}$ at 10 cm
- Power 1.500 W
- Noise level $75 \mathrm{~dB}(\mathrm{~A})$ at 1 m
- Air volume 1.450 litres/minute
- Dimensions (L x W x H) $133 \times 26 \times 280 \mathrm{~mm}$


1DC DS008
Liquid soap dispenser

- Manual operation
Wall-mounted
- Capacity 11
- Dimensions (L x W x H) $130 \times 95 \times 275 \mathrm{~mm}$


1DC DC009
Paper tissue dispenser

- Pull manual operation • Wall-mounted
- Capacity approx. 600pcs
- Dimensions (L x W x H) $300 \times 155 \times 295 \mathrm{~mm}$


1DC ACP06
Push button hairdryer series "EOLO"

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- Insulation class II
- Commutator motor
- Power 750 W

Air temperature $56^{\circ} \mathrm{C}$ at 10 cm

- Air volume 1.050 litres/minute
- Noise level $75 \mathrm{~dB}(\mathrm{~A})$ at 1 m
- Dimensions (L x W x H) $133 \times 26 \times 280$ mm


## 1DC ACT10

Nozzle hair dryer series "EOLO"

- Power supply 230V a.c. 50-60Hz
- Commutator motor
- Power 750 W
- Air volume 1.050 litres/minute
- Insulation class II

Air temperature $71^{\circ} \mathrm{C}$ at 10 cm

- Noise level $72 \mathrm{~dB}(\mathrm{~A})$ at 1 m
- Dimensions (L x W x H) $206 \times 133 \times 280 \mathrm{~mm}+$ 350 mm tube


1DC ACPH13
Hair dryer for hotels

- Power supply 230 V a.c. $50-60 \mathrm{~Hz}$
- Power 1.800 W
- on / off button
- Safety thermostat

3 temperature position/air flow

- Weight 0,82 kg
- Dimensions (L x W x H) $250 \times 220 \times 140$ + 90 cable mm


## EMERGENCY LIGHTS



1LE 002M
Anti black－out lamp，extractable torch for electric panels－ 3 DIN
－Power supply 230 V c．a．$\pm 15 \% 50 \mathrm{~Hz}$
－ 1 LED 0，5W 20 lumen
－Black－out autonomy 2 h
－Recharge time 36 h
－Replaceable battery Ni－MH 3，6V－ 140 mAh
－Consumption $15 \mathrm{~mA} 3,5 \mathrm{VA}$
－Protection degree IP20
－Max cross－section of wires to terminals： $0,5 . \ldots . .1,5 \mathrm{~mm}^{2}$
－Working temperature from $0^{\circ} \mathrm{C}$ to $+40^{\circ} \mathrm{C}$
EN 60598－2－2－230V 50／60 Hz
PC－IP2O－IK04 回 $\nabla$ C
－Storing temperature from $-10^{\circ} \mathrm{C}$ to $+60^{\circ} \mathrm{C}$
－CE marking reference LVD／EMC EN60598－1，
EN60598－2－2，EN62471 55015：2006，EN61547
－Dimensions $(L \times W \times H) 38,5 \times 60 \times 90 \mathrm{~mm}$

1PR WW00822 Battery pack for replacement for emergency light 1LE002M

## ＂NEXT＂series emergency lights

EN 60598－2－22－230V 50／60 Hz PC－IP42／IP65－IK04 回 $\nabla$ C
－Autonomy 1，5／ 3 h depending from model
－Installable on casing type 503，502， 506
－Recharge time 12 h
－Dimensions（L x W x H） $252 \times 38$（recessed）／ $30 \times 113 \mathrm{~mm}$
－Protection degree IP42 or IP65

Standard SE Multiled／Not Maintained Multiled

|  | 1LE L60L0 | COLOR | сом． | LUMEN | AUTONOMY | 易 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { IP } \\ & 42 \end{aligned}$ |  | White | － | 60 lm | 1，5 h | 0，5 | 20 |
|  | 1LE L100L0 | White | － | 105 lm | 1，5 h | 0，6 | 20 |
|  | 1LE L120L0 | White | － | 130 lm | 1，5 h | 0，6 | 20 |
|  | 1LEL150L0 | White | － | 170 lm | 1，5 h | 0，6 | 20 |
|  | 1LE L200L0 | White | － | 180 lm | 1，5 h | 0，6 | 20 |
|  | 1LE L3100L0 | White | － | 75 lm | 3 h | 0，6 | 20 |
| $\begin{aligned} & \text { IP } \\ & 65 \end{aligned}$ | 1LE LE60L0 | White | － | 60 lm | 1，5 h | 0，5 | 20 |
|  | 1LE LE100L0 | White | － | 105 lm | 1，5 h | 0，6 | 20 |
|  | 1LE LE120L0 | White | － | 130 lm | 1，5 h | 0，6 | 20 |
|  | 1LE LE150L0 | White | － | 170 lm | 1，5 h | 0，6 | 20 |
|  | 1LE LE200L0 | White | － | 180 lm | 1，5 h | 0，6 | 20 |
|  | 1LE LE3100L0 | White | － | 75 lm | 3 h | 0，6 | 20 |

SA Multiled／Maintained Multiled

|  |  | COLOR | сом． | Lumen | AUTONOMY | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $42$ | 1LE LL600 | White | － | 55 lm | 1，5 h | 0，5 | 20 |
|  | 1LE LL1000 | White | － | 100 lm | 1，5 h | 0，6 | 20 |
|  | 1 LE LL1500 | White | － | 150 lm | 1，5 h | 0，6 | 20 |
|  | 1LE LL31000 | White | － | 70 lm | 3 h | 0，6 | 20 |
| $\begin{aligned} & \mathrm{IP} \\ & 65 \end{aligned}$ | 1LE LLE600 | White | － | 55 lm | 1，5 h | 0，5 | 20 |
|  | 1LE LLE1000 | White | － | 100 lm | 1，5 h | 0，5 | 20 |
|  | 1LE LLE1500 | White | － | 150 lm | 1，5 h | 0，6 | 20 |
|  | 1LE LLE31000 | White | － | 70 lm | 3 h | 0，6 | 20 |


| Accessories | 1LE LFE | Spring for installation in false ceilings |
| :---: | :---: | :---: |
|  | 1LE LDB | Blade diffuser |
|  | 1LE LMEP | Wall recessed casing for wall recessed installation |
|  | 1LE UAV | Protection cage |
|  | 1LE USBC | Bracket for ceiling recessed |
| Maximum viewing distance （according to EN 1838 for signals with internal lighting） | 1LE LPNL | Sticker pictogram $215 \times 75 \mathrm{~mm}$ ，arrow left to be placed directly on the lamp |
|  | 1LE LPNR | Sticker pictogram $215 \times 75 \mathrm{~mm}$ ，arrow right to be placed directly on the lamp |
| 22 m | 1LE LPNSD | Sticker pictogram $215 \times 75 \mathrm{~mm}$ ，arrow down to be placed directly on the lamp |
| Maximum viewing distance （according to EN 1838 for signals with internal lighting） <br> 15 m | 1LE LNL | Sticker pictogram $230 \times 110 \mathrm{~mm}$ ，arrow left for 1LE LBD |
|  | 1LE LNR | Sticker pictogram $230 \times 110 \mathrm{~mm}$ ，arrow right for 1LE LBD |
|  | 1LE LNSD | Sticker pictogram $230 \times 110 \mathrm{~mm}$ ，arrow down for 1LE LBD |

－Rapid assembly
－Protection degree IP44
－Autonomy 1 ／ 2 ／ 3 h depending from model
－Recharge time 24 h
－Dimensions（L x W x H） $252 \times 40 \times 100 \mathrm{~mm}$

Standard SE Multiled／Maintained Multiled

|  | 1LE G60L | COLOR | сом． | LUMEN | AUTONOMY | 囫 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| IP44 |  | White | － | 70 lm | 1 h | 0，3 | 30 |
|  | 1LE G100L | White | － | 110 lm | 1 h | 0，3 | 30 |
|  | 1LE G150L | White | － | 150 lm | 1 h | 0，3 | 30 |
|  | 1LE G200L | White | － | 210 Im | 1 h | 0，3 | 30 |
|  | 1LE G300L | White | － | 325 Im | 1 h | 0，4 | 30 |
|  | 1LE G400L | White | － | 400 lm | 1 h | 0，4 | 30 |
|  | 1LE G500L | White | － | 500 lm | 1 h | 0，4 | 30 |
|  | 1LE G2300L | White | － | 305 Im | 2 h | 0，4 | 30 |
|  | 1LE G3100L | White | － | 130 lm | 3 h | 0，4 | 30 |
|  | 1LE G3200L | White | － | 200 lm | 3 h | 0，4 | 30 |

SE Multiled／Maintained Multiled

|  |  | COLOR | COM． | LUMEN | AUTONOMY | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { IP } \\ & 65 \end{aligned}$ | 1LE GST100L | White | － | 110 lm | 1 h | 0，3 | 30 |

SA Multiled／Not Maintained Multiled

|  | COLOR | сом． | LUMEN | AUTONOMY | 呙 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1LE GL60 | White | － | 80 lm | 1 h | 0，3 | 30 |
| 1LE GL100 | White | － | 100 lm | 1 h | 0，3 | 30 |
| 1 LE GL150 | White | － | 170 lm | 1 h | 0，3 | 30 |
| 1LE GL200 | White | － | 200 lm | 1 h | 0，3 | 30 |
| 1LE GL300 | White | － | 300 lm | 1 h | 0，3 | 30 |
| 1 LE GL3100 | White | － | 110 lm | 3 h | 0，4 | 30 |

Autotest SE Multiled／Maintained Multiled

|  |  | COLOR | сом． | LUMEN | AUTONOMY | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \hline \mathrm{IP} \\ & 44 \end{aligned}$ | 1LE GA60L | White | － | 70 lm | 1 h | 0，3 | 30 |
|  | 1LE GA100L | White | － | 130 lm | 1 h | 0，3 | 30 |
|  | 1LE GA150L | White | － | 170 lm | 1 h | 0，3 | 30 |
|  | 1LE GA200L | White | － | 200 lm | 1 h | 0，3 | 30 |
|  | 1LE GA300L | White | － | 310 lm | 1 h | 0，4 | 30 |
|  | 1LE GA400L | White | － | 465 lm | 1 h | 0，4 | 30 |
|  | 1LE GA3200L | White | － | 195 lm | 3 h | 0，4 | 30 |

SA Multiled／Not Maintained Multiled


| Accessories | 1LE GDB | Blade diffuser compatible wit all lamps "Serie GS" |
| :---: | :---: | :---: |
|  | 1LE GDBE | Blade diffuser for ceiling recessed installation, compatible with all lamps "Serie GS" equipped with G-ME accessory |
|  | 1LE GDBP | Wall (surface) blade diffuser compatible with all lamps "Serie GS" |
|  | 1LE GDBPE | Blade diffuser for ceiling recessed installation, compatible with all lamps "Serie GS" equipped with G-ME accessory |
|  | 1LE GME | Recession frames for lamps "Serie GS", white color |
|  | 1LE O-AT | M20 mounting tube adaper. It doesn't guarantee the degree of insulation IP67 |
|  | 1LE S-TE | Command for control up to 300 Standard or Autotest lamps |
|  | 1LE GAMS | Watertight kit (IP65) consisting of gaskets, PG7 cable glands and gaskets for screws |
|  | 1LE GMS | Waterproof case IP67 and IK10 for lamps "Serie GS" |
| Maximum viewing distance (according to EN 1838 for signals with internal lighting) <br> 18 m | 1LE NL | Sticker pictogram $150 \times 90 \mathrm{~mm}$, arrow left to be placed directly on "Serie GS" lamps |
|  | 1LE NR | Sticker pictogram $150 \times 90 \mathrm{~mm}$, arrow right to be placed directly on "Serie GS" lamps |
|  | 1LE NSD | Sticker pictogram $150 \times 90 \mathrm{~mm}$, arrow down to be placed directly on "Serie GS" lamps |
| Maximum viewing distance (according to EN 1838 for signals with internal lighting) | 1LE PDA | Sticker pictogram $240 \times 120 \mathrm{~mm}$, arrow left/right. For 1LE GDB and 1LE GDBE |
|  | 1LE PDSD | Sticker pictogram $240 \times 120 \mathrm{~mm}$, arrow down. For 1LE GDB and 1LE GDBE |
| 24 m | 1LE PDSU | Sticker pictogram $240 \times 120 \mathrm{~mm}$, arrow up. For 1LE GDB and 1LE GDBE |

## "ELIOS" series emergency lights

EN 60598-2-22-230V 50/60 Hz PC - IP44 - IK04

回 $\boldsymbol{F}$ C

- Installable on casing type 503
- Rapid assembly
- Protection degree IP44
- Autonomy 1 / 2 / 3 h depending from model
- Recharge time 10 / 24 h
- Dimensions (L x W x H) $322 \times 52 \times 120 \mathrm{~mm}$

SE Multiled / Not Maintained Multiled

|  | 1LE D30L0 | COLOR | сом. | Lumen | AUTONOMY | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | White | - | 45 lm | 1 h | 0,5 | 20 |
| $\begin{array}{\|c\|} \hline \mathrm{IP} \\ 44 \\ \hline \end{array}$ | 1LE D60L0 | White | - | 60 lm | 1 h | 0,5 | 20 |
|  | 1LE D100L0 | White | - | 110 lm | 1 h | 0,5 | 20 |
|  | 1LE D120L0 | White | - | 120 lm | 1 h | 0,5 | 20 |
|  | 1LE D150L0 | White | - | 140 lm | 1 h | 0,5 | 20 |
|  | 1LE D200L0 | White | - | 200 lm | 1 h | 0,5 | 20 |
|  | 1LE D250L0 | White | - | 2351 m | 1 h | 0,5 | 20 |
|  | 1LE D300L0 | White | - | 330 lm | 1 h | 0,5 | 20 |
|  | 1LE D400L0 | White | - | 400 lm | 1 h | 0,6 | 20 |
|  | 1LE D500L0 | White | - | 480 lm | 1 h | 0,6 | 20 |
|  | 1LE D600L0 | White | - | 580 lm | 1 h | 0,7 | 20 |
|  | 1LE D700L0 | White | - | 675 lm | 1 h | 0,8 | 20 |
|  | 1LE D2200L0 | White | - | 200 lm | 2 h | 0,6 | 20 |
|  | 1LE D2400L0 | White | - | 410 lm | 2 h | 0,7 | 20 |
|  | 1LE D360L0 | White | - | 60 lm | 3 h | 0,5 | 20 |
|  | 1LE D3200L0 | White | - | 200 lm | 3 h | 0,6 | 20 |
|  | 1LE D3400L0 | White | - | 450 lm | 3 h | 0,6 | 20 |


|  |  | COLOR | сом． | LUMEN | AUTONOMY | 易 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $44$ | 1LE DL1000 | White | － | 130 lm | 1 h | 0，5 | 20 |
|  | 1LE DL1500 | White | － | 170 lm | 1 h | 0，5 | 20 |
|  | 1LE DL2000 | White | － | 230 lm | 1 h | 0，5 | 20 |
|  | 1LE DL2500 | White | － | 235 Im | 1 h | 0，5 | 20 |
|  | 1LE DL3000 | White | － | 360 lm | 1 h | 0，5 | 20 |
|  | 1LE DL4000 | White | － | 400 lm | 1 h | 0，6 | 20 |
|  | 1LE DL5000 | White | － | 480 lm | 1 h | 0，7 | 20 |
|  | 1LE DL22000 | White | － | 270 lm | 2 h | 0，7 | 20 |
|  | 1LE DL31000 | White | － | 120 lm | 3 h | 0，7 | 20 |

SA Multiled／Maintained Multiled

|  |  | COLOR | сом． | LUMEN | Autonomy | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{IP} \\ & 44 \end{aligned}$ | 1LE DL60M | White | － | 70 lm | 1 h | 0，5 | 20 |
|  | 1LE DL150M | White | － | 145 Im | 1 h | 0，5 | 20 |
|  | 1LE DL200M | White | － | 170 lm | 1 h | 0，5 | 20 |
|  | 1LE DL300M | White | － | 325 lm | 1 h | 0，5 | 20 |

Autotest SE Multiled／Not Maintained Multiled

|  | COLOR | сом． | Lumen | AUTONOMY | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1LE DA100L0 | White | － | 135 lm | 1 h | 0，5 | 20 |
| 1LE DA200L0 | White | － | 195 lm | 1 h | 0，5 | 20 |
| 1LE DA300LO | White | － | 290 lm | 1 h | 0，5 | 20 |
| 1LE DA400L0 | White | － | 390 lm | 1 h | 0，6 | 20 |
| 1LE DA500L0 | White | － | 490 lm | 1 h | 0，6 | 20 |
| 1LE DA600L0 | White | － | 580 lm | 1 h | 0，7 | 20 |
| 1LE DA2200L0 | White | － | 210 lm | 2 h | 0，5 | 20 |
| 1LE DA3200L0 | White | － | 180 lm | 3 h | 0，6 | 20 |

Autotest SA Multiled／Maintained Multiled

|  | COLOR | сом． | LUMEN | AUTONOMY | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1LE DAL100M | White | － | 92 lm | 1 h | 0，5 | 20 |
| 1LE DAL200M | White | － | 210 lm | 1 h | 0，5 | 20 |
| 1LE DAL300M | White | － | 300 lm | 1 h | 0，5 | 20 |
| 1LE DAL2200M | White | － | 200 lm | 2 h | 0，5 | 20 |
| 1LE DAL3100M | White | － | 120 lm | 3 h | 0，5 | 20 |

DALI
Works with NormaLINK $\bigcap$

（0ath $\quad$| 品 |
| :---: |
| 44 |

SE Multiled／Not Maintained Multiled

|  | COLOR | сом． | LUMEN | AUTONOMY | 呙 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1LE DID100L | White | DALI | 140 lm | 1 h | 0，5 | 20 |
| 1LE DID200L | White | DALI | 190 lm | 1 h | 0，5 | 20 |
| 1LE DID300L | White | DALI | 300 lm | 1 h | 0，5 | 20 |
| 1LE DID400L | White | DALI | 410 lm | 1 h | 0，6 | 20 |
| 1LE DID500L | White | DALI | 500 lm | 1 h | 0，6 | 20 |
| 1LE DID2200L | White | DALI | 200 lm | 2 h | 0，5 | 20 |
| 1LE DID3200L | White | DALI | 200 lm | 3 h | 0，6 | 20 |

SA Multiled／Maintained Multiled

|  | COLOR | сом． | LUMEN | AUTONOMY | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1LE DIDL100M | White | － | 92 lm | 1 h | 0，5 | 20 |
| 1LE DIDL200M | White | － | 210 lm | 1 h | 0，5 | 20 |
| 1LE DIDL300M | White | － | 300 lm | 1 h | 0，5 | 20 |
| 1LE DIDL2200M | White | － | 215 lm | 2 h | 0，5 | 20 |
| 1LE DIDL3100M | White | － | 120 lm | 3 h | 0，5 | 20 |


| Accessories | 1LE DAT | Wire adaptors (external tube) |
| :---: | :---: | :---: |
|  | 1LE DMS | Waterproof box IP-66, IK -10 |
|  | 1LE DMDB | IP65 box for blade diffuser, IK-07 |
|  | 1LE USBL | Bracket for ceiling recessed |
|  | 1LE UAV | Protection cage |
|  | 1LE DKS | Hanging kit. 300 mm |
|  | 1LE STE | Command for control up to 300 Standard or Autotest lamp |
|  | 1LE DDB | Blade diffuser $332 \times 132 \mathrm{~mm}$. |
|  | 1LE DMEL | Ceiling recession frame for ELIOS emergency lights |
|  | 1LE DMEP | Kit including wall recessed casing for wall recessed installation of Elios lamp |
|  | 1LE DDBEL | Blade diffuser for recessed installation in false ceiling |
| Maximum viewing distance (according to EN 1838 for signals with internal lighting) | 1LE NL | Sticker pictogram $150 \times 90 \mathrm{~mm}$, arrow left for DMDB and DDB |
|  | 1LE NR | Sticker pictogram $150 \times 90 \mathrm{~mm}$, arrow right for DMDB and DDB |
|  | 1LE NSD | Sticker pictogram $150 \times 90 \mathrm{~mm}$, arrow down for DMDB and DDB |
|  | 1LE NSU | Sticker pictogram $150 \times 90 \mathrm{~mm}$, arrow up for DMDB and DDB |
| Maximum viewing distance (according to EN 1838 for signals with internal lighting) | 1LE LNL | Sticker pictogram $230 \times 110 \mathrm{~mm}$, arrow left for DMDB and on lamp diffuser |
|  | 1LE LNR | Sticker pictogram $230 \times 110 \mathrm{~mm}$, arrow right for DMDB and on lamp diffuser |
| $22 \text { m }$ | 1LE LNSD | Sticker pictogram $230 \times 110 \mathrm{~mm}$, arrow down for DMDB and on lamp diffuser |
|  | 1LE LNSU | Sticker pictogram $230 \times 110 \mathrm{~mm}$, arrow up for DMDB and on lamp diffuser |
| Maximum viewing distance (according to EN 1838 for signals with internal lighting) | 1LE PDUA | Non-sticker pictogram $230 \times 110 \mathrm{~mm}$, arrow left/right for DMDB and DDBEL |
|  | 1LE PDUSD | Non-sticker pictogram $230 \times 110 \mathrm{~mm}$, arrow down for DMDB and DDBEL |
| $24 \mathrm{~m}$ | 1LE PDUSU | Non-sticker pictogram $230 \times 110 \mathrm{~mm}$, arrow up for DMDB and DDBEL |

## "InvisibiLED" series emergency lights

EN 60598-2-22-230V 50/60 Hz PC - IP40 - IK04回 C

- Rapid assembly
- Recharge time 24 h
- Protection degree IP40
- Dimensions ( $\varnothing \times \mathrm{W}$ ) $50 \times 33 \mathrm{~mm}$
- Autonomy 1 / 3 h depending from model

Standard
SE / Not Maintained

|  | 1LE VSE | OPTICS | сом. | Lumen | AUTONOMY | 品 | KIT |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & \text { IP } \\ & 40 \end{aligned}$ |  | Area | - | 205 lm | 1 h | 0,2 | 20 |
|  | 1LE VVE | Corridor | - | 205 Im | 1 h | 0,3 | 20 |
|  | 1LE VSEH | Area | - | 410 lm | 1 h | 0,5 | 20 |
|  | 1LE VVEH | Corridor | - | 415 Im | 1 h | 0,5 | 20 |
|  | 1LE VSE3 | Area | - | 205 lm | 3 h | 0,4 | 20 |
|  | 1LE VVE3 | Corridor | - | 205 Im | 3 h | 0,4 | 20 |

SA / Maintained



# RETURN OF GOODS - General terms and sales conditions RESERVED TO PERAY CUSTOMERS 

## A - WARRANTY RETURNS

Warranty returns will include all products that are considered to be out of order and sent DDP (Delivery Duty Paid) to our headquarter in Veniano (CO) - Italy - via Milanese 11, within the period of 24 months from the manufacturing date specified in each individual product. As far as the aforesaid products are concerned, they will be replaced with brand new products, except for the items whose sales price, net of discount, is higher than 52.00 €. For technical reasons, all Hygiene Devices are excluded, as a laboratory check is necessary for them before the full acceptance of the WARRANTY, with subsequent repairing. It is understood that in case of products whose sales price net of discount is higher than 52.00 €, the necessary repairs will be carried out, and then the products will be resent to the sender. In case of Warranty products, no charge will be issued, except in case the product is damaged and/or tampered with due to installation negligence. In this case, they will be considered as non-warranty returns.

B - NON-WARRANTY RETURNS
Non-warranty returns will include all products that are sent DDP (Delivery Duty Paid) to our headquarter in Veniano (CO) - Italy after the period of 24 months, and within 5 years from the manufacturing date specified in each individual product. As far as all non-warranty products are concerned, we will replace the products with a new product and/or with an item that was recovered as new product, and we will charge $50 \%$ of the product cost according to the prices of the pricelist in force. It is understood that in case of products whose sales price net of discount is higher than 52.00 €, and for technical reasons, all Hygiene Devices will be subject to the necessary repairs, and then will be resent to the sender. Note. All items not included in the catalogue any more, but within 5 years from the above-mentioned date in each individual product, will be repaired or replaced with equivalent products, and then resent to the sender at the aforesaid conditions.

## C - PRODUCTS RETURNED LATER THAN 5 YEARS

The products that are returned later than 5 years from the production date labelled on the product will be resent to the sender without being subject to any intervention.

## GENERAL TERMS AND SALES CONDITIONS

## 1 - ACCEPTANCE OF THE CONTRACT

Each order is accepted according to the following sales conditions and general terms, unless otherwise agreed, to be confirmed in writing by Perry Electric.

## 2 - WI-FI PRODUCTS

Perry Electric shall not, under any circumstances, be liable if the products fail to operate due to the interruption of the internet network or unavailability of these resources: Cloud, Server, Portal
2.1 Internet access costs are charged to users according to the rates of their mobile phone provider.

## 3 - TERMS OF DELIVERY

Orders are accepted with a delivery date within 45 days, unless otherwise agreed, to be confirmed in writing by Perry Electric.

## 4 - PRICES

Prices are without VAT.

## 5 - RISKS

The goods always travel at the risk of the purchaser who, in its own interest, must check the quantity and the conditions of the goods before the collection and eventually express proper reserves to the transporting company.

6 - TRANSPORT
Transport is, if not specifically indicated, at the customers' charge.

## 7 - SPECIAL VOLTAGE

For orders with supply voltages different from those indicated in the catalogue, there will be at least a $15 \%$ increase on the standard price.

## 8 - NON STANDARD QUANTITIES

For quantities different from the standard packing, there will be a $5 \%$ increase on the standard price.

## 9 - CLAIMS

Claims have to be made in writing to Perry Electric in Veniano (CO) - Italy - via Milanese 11, within 8 days from goods receipt. Perry reserves the right or not to accept the return of eventual faulty devices that have to be sent DDP (Delivery Duty Paid) to our headquarter in Veniano (CO) - Italy - via Milanese 11.

## 10 - PAYMENT TERMS

Payments must be done for the fixed amount at the fixed dates. In case of delay in payment, even partial, beyond the terms agreed at the time of order, Perry Electric is entitled to apply an interest rate equivalent to the banks' current interest rate increased by 4\%.

## 11 - COMPETENT COURT

The Court of Milan - Italy, will be competent for all disputes.

## 12 - VERIFICATION OF LOCAL STANDARDS

The importer/distributor is obliged to verify the local standards and regulations of the country of sale/installation of the product.

Technical data and information mentioned in this documentation are subject to modifications. Perry Electric reserves the right to modify the mentioned specifications without prior notice, at any time, according to the evolution of materials and technologies. The products must be installed in compliance with the general standards in force, by qualified electricians. Perry Electric declines any liability in connection with the use of products that provide for special environmental and/or installation standards, whose compliance falls under the competence of the installer.


## CATALOGUE



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TEL. +39 031.8944.1
www.perry.it
export@perry.it


[^0]:    1CR CR028A - Anthracite color - 3V
    1CR CR028B - White color - 3V
    1CR CR029A - Anthracite color - 230V
    1CR CRO29B - White color - 230V
    "NEXT" series menu driven weekly digital programmable thermostat

    - Multilanguage menu
    - Power supply: 3V 2x1,5AA alkaline batteries (CR028) $230 \mathrm{~V} 50-60 \mathrm{~Hz}$ (CRO29)
    - 4.3" backlit LCD display
    - Output: 1 potential free changeover contact: $5(3) \mathrm{A} / 250 \mathrm{~V}$ a.c.
    - ON / OFF operation mode with adjustable differential from
    $0.2-1.2^{\circ} \mathrm{C}$ or modulating with control period from $7-20 \mathrm{~min}$
    - 4 preset modifiable programs

    Backlit display

    ##  <br> - -

    - Temperature levels: 3 + anti-freeze
    - Independent manual temperature
    - Temperature adjustable by $0,1^{\circ} \mathrm{C}$ sets
    - Minimum programming: 30 minutes
    - Temporary / permanent manual operation
    - Automatic daylight saving time change

[^1]:    Base for TEG" thermostat installation "in round and / or rectangular recessed boxes

