2021

seitron

seitron
Innovation Technology

1981_ Seitron SpA, founded by M. Sc. Vito Feleppa, is active in the thermoregulation sector from the very beginning. Over the years the company has expanded its application range towards the safety gas sector (gas detectors for residential and industrial applications) and to the portable instrumentation sector. Seitron is a leading Italian & worldwide provider of combustion and emissions analyzers. The company had a remarkable evolution through the years, that requested huge changes. However the company purpose has always remained the same: to understand and fully satisfy all customers' needs, supporting them with accuracy and attention, thanks to its very cohesive team and a continuous improvement in quality, performances and qualified service. Seitron is well-known in Italy, but also active all around Europe, Asia, America and Oceania: about 50% of the production, thanks to the developed distribution network, is exported to more than 65 foreign Countries. To improve the presence in the market of North and South America, a new sales & service location has been started up in USA. The secret to Seitron business expansion and success lies in the continuous investment in Research and Development, with the purpose of offering unique & innovative products, not only with the highest performances but also environmentally friendly and competitive in the energy side. This is why Seitron manages and controls all steps of the production process, by directly handling all projects, production and sales and aftersales service. Finally, the design concept has an important role in ensuring a perfect combination between functionality and appearance.

2020 in numbers:
- 14 milion turnover
- 85 employees

Fondation

Seitron history begins in Bassano del Grappa, rising from M. Sc. Vito Feleppa's entrepreneurial idea. First steps were made in the thermoregulation field.

1985

Combustion Analyzers

Seitron starts the development and production of a complete range of portable instruments and combustion analyzers.

2015

IoT Products

Seitron moves its first steps towards the sector of IoT products (Internet of Things), by projecting and producing the first connected thermostats, which can be controlled via app.

2021

1981

Gas Sector

Seitron widens its products range including the gas safety sector, by developing gas detectors for residential applications and gas systems for industrial plants.

2004

Seitron Service Milan

Seitron Service Milan is opened, dedicated to combustion and emissions analyzers maintenance for the North-West of Italy.

2019

Seitron Americas

Seitron Americas is born, the first step for the consolidation of the company presence in the American continent.

2015_ Seitron Service Milan has the main task of supporting all North-West of Italy (Lombary, Liguria, Piemonte, Aosta Valley) with maintenance, calibration, and technical assistance of Seitron combustion and emissions analyzers. It is located in Segrate, nearby East Milan Ring Road. This investment proves the company intention to strengthen the Italian leadership in the supply and assistance of combustion analyzers thanks to a stronger direct presence in the North-West, therefore in the most important Italian area in terms of industry and commerce.

2021_ Seitron Americas Seitron Americas is lauched, the first step for the consolidation of the company presence in the American continent. This new location, located in the USA, represents a landmark for both North and South America as a support for sales and customer service.

It allows Seitron to cover a geographic area more efficiently as the Americas have traditionally a been an important export partner.

FAMILY PRODUCTS INDEX

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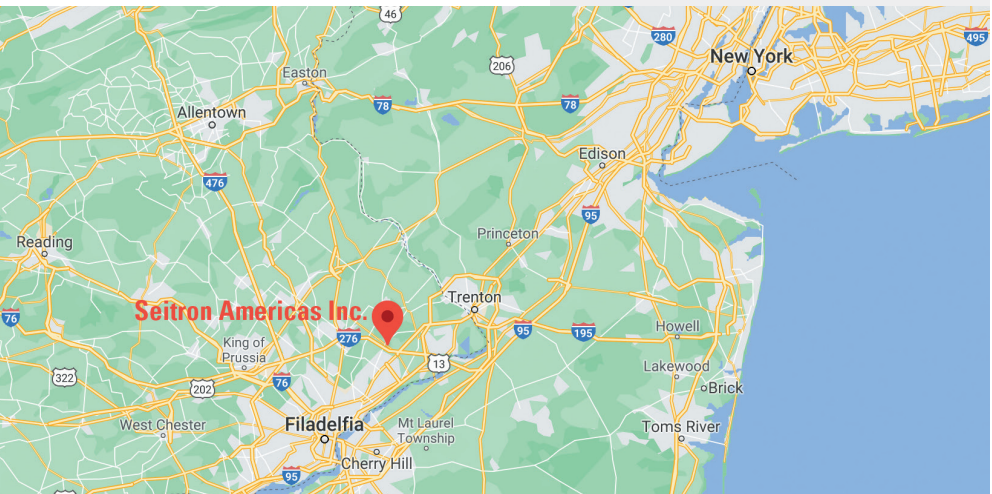
info@seitron.it
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COMBUSTION ANALYZERS

INDUSTRIAL AND EMISSIONS ANALYZERS

CHEMIST RANGE for Combustion Analysis

The periodic boiler analysis, also known as boiler combustion analysis/smoke test, is key to ensure the safety of the boiler, improve its efficiency and reduce its emissions
The combustion analyzer meets the needs of any operator who wishes to perform combustion analyses in a simple and immediate way, while being always up to date with current standards such as UNI 10389-1.
Seitron combustion analyzers can perform several measures, such as:

- Gas systems tightness test (for new systems UNI 7129 and existing systems UNI 11137)
- Differential temperature measurement
- Gas pressure measurement
- Draft measurement according to UNI 10845 standard
- Calculation of the boiler heat losses and efficiency
- Detection of CO values in closed rooms

The portable Seitron instruments are designed to help maximize combustion efficiency, for easily setting up, install and adequately maintain any residential and / or commercial boiler and burner.
The series of the gas combustion analyzers Novo, CHEMIST 100 BE GREEN, CHEMIST 500 BE GREEN and CHEMIST 500 are dedicated to professionals for HVAC assistance, providing the necessary instruments to perform the job in a quick and correct way.

In fact, Seitron combustion analyzers are the ideal solution to monitor boiler and burner processes. All of our analyzers are designed and manufactured in Italy to provide high quality, compact design, strong build and easy to use instruments.

Applications
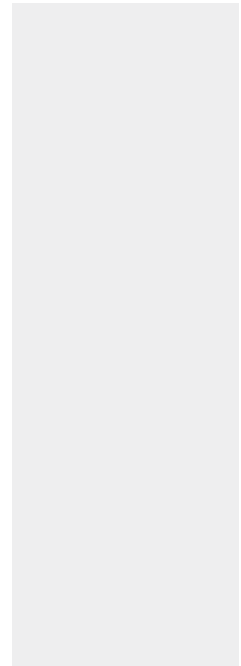
Combustion analysis of residential Boilers

Combustion analysis of Pellet Boiler

NEW

Novo
UP TO 4 SENSORS

PORTABLE COMBUSTION ANALYZER

7" Touch Display

**15 Preprogrammed Fuels
(Including Wood, Pellets, Biogas And Coal)**

CO Protection Dilution Pump

Rechargeable Lithium Ion Batteries

**Integrated water trap, with LED backlight
and easy to clean**

4 Pa Ventilation Measurement

**Simultaneous measurement of boiler gas
pressure**

Draught Measurement

Tightness Test

4 YEARS WARRANTY ON INSTRUMENT AND GAS SENSORS

Seitron Smart Analysis

GET IT ON Google Play · Download on the App Store · HUAWEI EXPLORE IT ON AppGallery

Seitron Smart Analysis Windows 10

Windows 7 or later

EVERY KIT INCLUDES:

- Instrument
- Smoke probe with 300 mm interchangeable tip
- Integrated water trap
- Combustion air temperature Probe
- Gas valve pressure measuring tube
- Power Adapter and International Plug
- Hard plastic kit case
- Quick Guide
- Calibration Certificate

MAIN FEATURES

- Precalibrated Gas Sensors
- 3 analysis in sequence with automatic calculation of the average and printing of the result
- Automatic autozero (with smoke sampling probe inserted in the chimney)
- Autozero pressure sensor, for a more stable and reliable draft measurement
- Self-diagnosis with verification of the functions and status of the sensors
- User selectable language
- Automatic calculation of the pipe volume
- Integrated magnets
- 100 MB for complete analyzes memory
- Dimensions:
  Analyzer 270Ax93Lx68Pmm, weight 0,9 Kg
  Kit 125Ax465Lx335Pmm, weight 5 Kg

MEASURED VALUES

- Flue gas temperature and Temperature Differential
- Outdoor air temperature and room temperature
- Draft and Pressure Differential
- Ambient CO

CALCULATED VALUES

- Boiler efficiency, including condensing
- Stack losses and excess air
- CO
- Flow velocity with Pitot tube
- Burning power

FEATURES	Novo 2	Novo 3	Novo 4S	Novo 4N
O2 Sensor	✓	✓	✓	✓
CO/H2 Sensor	✓	✓	✓	✓
NO Sensor	-	✓	✓	✓
NOx Calcolated	-	✓	✓	✓
NO2 Sensor	-	-	-	✓
NOx Measured (NO+NO2)	-	-	-	✓
SO2 Sensor	-	-	✓	-
Kit with integrated Printer	Novo 2P	Novo 3P	Novo 4P S	Novo 4P N
Kit with Bluetooth Printer *(Thermal Paper Roll included)*	Novo 2 ST	Novo 3 ST	-	-

Novo X
Modular Gas Analyzer Kit up to 4 sensori (O_2 + up to 3 sensors of your choice)

NEW UPDATED FEATURES

7" touch screen (85x155mm)

The new device was redesigned to give the user an improved & easy-to-use experience. The analyzer includes a large 7" touchscreen that grants maximum visibility of all the information along with quick & smooth browsing experience.

Integrated water trap

The water trap design has been completely redesigned to guarantee maximum performance & easy maintenance. A large inspection window with backlit LED allows user to easily & quickly check the water level & filter at any time.

New Updated Analyzer Housing

The guidelines for the development of the Novo have been reliability and ease of use, which also inspired the new cover. With a rubber finish which confers a steady and simple grip, as well as a sturdy and modern design, the new housing offers a pleasant and functional use experience.

Simple ONE Probe Connection

One source of major improvement to our analyzer is the new, updated flue gas sampling probe connection. Instead of three (3) separate connections for temperature, draft and flue gases, it has been redesigned to just one (1) simple connection. The new connection allows user to attach the probe without looking with an easy plug-n-play design.

When performing a combustion analysis of the various combustion parameters, often you will also need a pressure manometer at the same time to check and/or adjust the gas pressures of the equipment. The newly designed Novo allows you now measure combustion parameters and Gas pressures at the SAME TIME, drastically reducing the service time and limiting the needs for separate devices.

Intuitive interface

In addition to the elegant and ergonomic design, the Novo features a simple, intuitive & efficient touchscreen interface.

The New, Easy-to-use user interface allows the user to quickly create customizable combustion reports, set and/or change the parameters of the device, carry out multiple optional measurements, and so much more.

It is also possible to customize the home screen with the user's profile picture and information.

The combustion report can be printed out with our signature BUILT-IN integrated printer or with an optional wireless Bluetooth® printer.

The new generation of LONG-LIFE gas sensors installed in the Novo, allows for reliable & accurate measurements with longer sensor life than the competition.
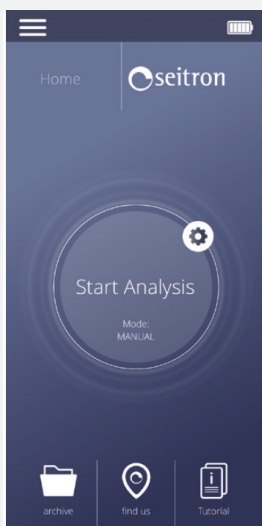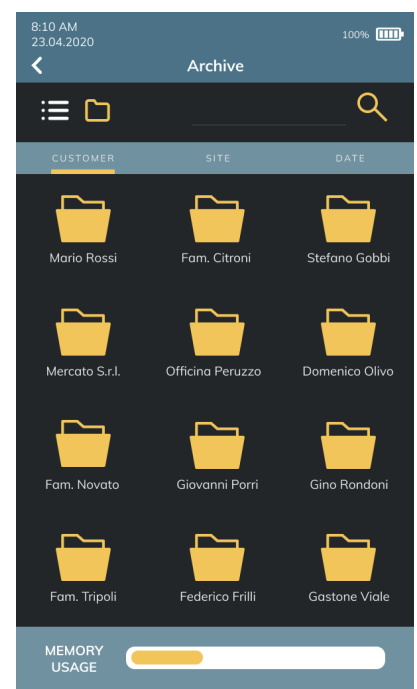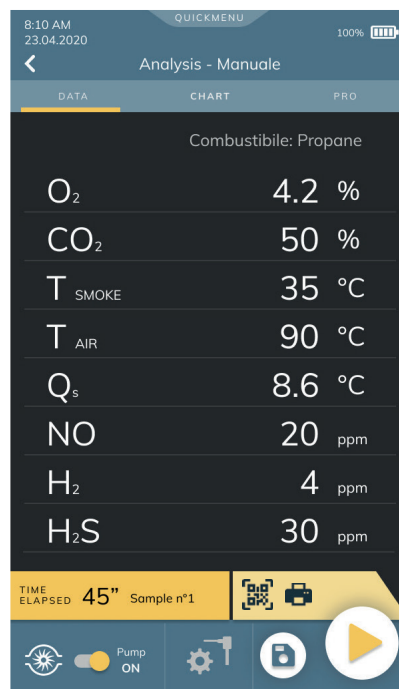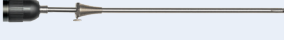
Seitron Smart Analysis

SEITRON SMART ANALYSIS APP

• Data logging

• Report creation

• QR code or real-time App

• Sending of reports by e-mail   (csv, pdf, xml)

COD.	PHOTO	DESCRIPTION
AJPB01		Li-Ion Rechargeable Battery; 3,7Vdc - 6 A/h
AJKA02		Power supply with US plug, USB type C and 1.8 m cable
AJCR01		Hard plastic Case
AJTA01		Water trap with flue gas filter
AACFA01		Dust filters for AACTA03 (pack of 5 pieces) dimensions 12x32 mm
AARC10		Long Life thermal paper roll 57x35
AAST04	batterie incluse	Thermal printer with Bluetooth connection

COD.	PHOTO	DESCRIPTION
AJTB01		Gas pressure tube. Length 1 m
AJSJ01		Smoke sampling probe handle with 1.8 m cable
AJPT01		Interchangeable 180 mm tip for AJSJ01 handle, maximum temperature 400 °C
AJPT02		Interchangeable 300 mm tip for AJSJ01 handle, maximum temperature 600 °C
AJPT03		Interchangeable 750 mm tip for AJSJ01 handle, maximum temperature 800 °C
AJPT04		Interchangeable 1000 mm tip for AJSJ01 handle, maximum temperature 1200 °C
AJEX01		3 m extension cable for smoke sampling probes with handle AJSJ01

Novo - SENSORI GAS

GAS	COD.	RANGE	SENSOR TYPE	
O2 Long Life	Novo O2 LL	0...25% v/v	Electochemical Sensor	
CO / H2	Novo CO/H2	0...500.0 ppm	Electochemical Sensor	
		501...8000 ppm	Electochemical Sensor	
CO Mid	Novo CO Mid	0...20000 ppm	Electochemical Sensor	
CO High	Novo CO High	0...100000 ppm	Electochemical Sensor	
NO	Novo NO	0...500.0 ppm	Electochemical Sensor	
		501...5000 ppm	Electochemical Sensor	
NO2	Novo NO2	0...100.0 ppm	Electochemical Sensor	
		101...1000 ppm	Electochemical Sensor	
SO2	Novo SO2	0...500.0 ppm	Electochemical Sensor	
		501...5000 ppm	Electochemical Sensor	
H2	Novo H2	0...2000 ppm	Electochemical Sensor	
H2 High	Novo H2	0...40000 ppm	Electochemical Sensor	
H2S	Novo H2S	0...5000 ppm	Electochemical Sensor	
H2S Low	Novo H2S low	0...500.0 ppm	Electochemical Sensor	
NH3 Low	Novo NH3	0...500.0 ppm	Electochemical Sensor	
CxHy	Novo CxHy	0..5% vol CH4	Pellistore Sensor	
CH4 NIDR	Novo CH4 NDIR	0..100% vol	NDIR Sensor	
CO2 NDIR	Novo CO2 NDIR	0..50% vol	NDIR Sensor	

RESOLUTION	ACCURACY	
0.1% vol	±0.2% vol	
0.1 ppm	±2 ppm ±5% v.m.	0 .. 40 ppm 40.1 .. 500.0 ppm
1 ppm	±10% v.m.	501 .. 8000 ppm
1 ppm	±10 ppm ±5% v.m. ±10% v.m.	0 .. 200 ppm 201 .. 4000 ppm 4001 .. 20000 ppm
1 ppm	±100 ppm ±10% v.m.	0 .. 1000 ppm 1001 .. 100000 ppm
0.1 ppm	±2 ppm ±5% v.m.	0 .. 40 ppm 40.1 .. 500.1 ppm
1 ppm	±10% v.m.	501 .. 5000 ppm
0.1 ppm	±2 ppm ±5% v.m.	0 .. 40 ppm 40.1 .. 100.1 ppm
1 ppm	±10% v.m.	101 .. 1000 ppm
0.1 ppm	±2 ppm ±5% v.m.	0 .. 40 ppm 40.1 .. 500.1 ppm
1 ppm	±10% v.m.	501 .. 5000 ppm
1 ppm	± 10 ppm ± 10% v.m.	0 ppm - 100 ppm 101 ppm - 2000 ppm
10 ppm	± 100 ppm ± 10% v.m.	0 ppm - 1000 ppm 1001 ppm - 40000 ppm
1 ppm	± 10 ppm ± 10% v.m.	0 ppm - 100 ppm 101 ppm - 5000 ppm
0.1 ppm	±5 ppm ±5% v.m.	0 .. 100.0 ppm 101 .. 500.0 ppm
0.1 ppm	±10 ppm ±10% v.m.	0 .. 100.0 ppm 100.1 .. 500.0 ppm
0.01% vol	±0.25% abs	
0.01% vol	±0.3 vol ±10% v.m.	0 .. 10% vol 10.01% .. 100.00% vol
0.01% vol	±1 vol ±2% fs	0 .. 10.00% vol 10.01% .. 50.00% vol

CHEMIST 100 BE GREEN
UP TO 3 SENSORS

PORTABLE COMBUSTION ANALYZER

B/W Backlit LCD (50 X 50 Mm)

**15 Preprogrammed Fuels
(Including Wood, Pellets, Biogas And Coal)**

Rechargeable Lithium Ion Batteries

IR Communication

Qr Code To Acquire Analysis With Smartphone

Draught Measurement (Optional)

Tightness Test (Optional)

batteries included

Bluetooth Printer
AAST04

CHEMIST 100 BE GREEN WARRANTY: 2 YEARS ON INSTRUMENT AND GAS SENSORS

Seitron Smart Analysis

EVERY KIT INCLUDES:

- Instrument

- 300 mm Smoke Probe with 2 m cable

- Water trap with dust filter, stainless steel fittings and
  silicon hose

- Combustion air temperature Probe

- Preassure Measures Kit

- Power Adapter and International Plug

- Hard plastic kit case

- Quick Guide

- Calibration Certificate

MAIN FEATURES

- Precalibrated gas sensors
- Self diagnostic function with sensors status
- QR code generation
- Automatic recognition of condensing boiler
- Internal memory for 5 analyses
- Up to 10 hrs. autonomy of continuous operation
- Dimensions:
  Analyzer 70Ax60Lx170Pmm, weight 0,35 Kg
  Kit 122Ax406Lx290Pmm, weight 2,35 Kg

MEASURED VALUE

- Flue gas temperature and Temperature Differential
- Outdoor air temperature and room temperature
- Gage and Pressure Differential
- Ambient CO

CALCULATED VALUES

- Boiler efficiency, including condensing
- Stack losses

FEATURES	101	101 S	102	102 S	103	103 S
O2 Sensor	✓	✓	✓	✓	✓	✓
CO/H2 Sensor	✓	✓	✓	✓	✓	✓
NO Sensor	-	-	-	-	✓	✓
NOx Calcolated	-	-	-	-	✓	✓
Expandable to 3 sensors	-	-	✓	✓	✓	✓
Draft measurement with internal sensor (optional)	-	-	✓	✓	✓	✓
Gas pipe tightness (optional)	-	-	✓	✓	✓	✓
Gas pipes volume automatic calculation (optional)	-	-	✓	✓	✓	✓
Kit with Bluetooth Printer	-	✓	-	✓	-	✓
Thermal Paper Roll	-	✓	-	✓	-	✓

CHEMIST 500 BE GREEN / 500

UP TO 4 SENSORS

PORTABLE COMBUSTION ANALYZER

Blue Backlit Lcd (55 X 95 Mm)

15 Preprogrammed Fuels
(Including Wood, Pellets, Biogas And Coal)

CO Protection Dilution Pump

Rechargeable Lithium Ion Batteries

Qr Code To Acquire Analysis With Smartphone

4 Pa Ventilation Measurement

Draught Measurement

Tightness Test

CHEMIST 500 BE GREEN

**CHEMIST 500
Built-in Printer**

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4 Years warranty on instrument and gas sensors

Seitron Smart Analysis

GET IT ON
Google Play

Download on the
App Store

EXPLORE IT ON
HUAWEI AppGallery

**Seitron Smart Analysis
Windows 10**

Windows 7
or later

EVERY KIT INCLUDES:

- Instrument
- 300 mm Smoke Probe with 2 m cable
- Water trap with dust filter, stainless steel fittings and
  silicon hose
- Combustion air temperature Probe
- Preassure Measures Kit
- Power Adapter and International Plug
- Hard plastic kit case
- Quick Guide
- Calibration Certificate

MAIN FEATURES

- Precalibrated gas sensors
- 3 consecutive analysis with average calculation
- Automatic autozero with sampling probe in the stack
- Self diagnostic function with sensors status
- 10 different preprogrammed languages
- Automatic calculation of gas pipes volume
- Hard plastic body with magnets
- Internal memory for 1000 analysis
- Dimensions:
  Analyzer 270Ax93Lx68Pmm, weight 0,8 Kg
  Kit 130Ax510Lx430Pmm, weight 3,4 Kg

MEASURED VALUES

- Flue gas temperature and Temperature Differential
- Outdoor air temperature and room temperature
- Draft and Pressure Differential
- Ambient CO

CALCULATED VALUES

- Boiler efficiency, including condensing
- Stack losses and excess air
- CO
- Flow velocity with Pitot tube
- Burning power

FEATURES	502 / 502 BG	502 B / 502 B BG	502 BS BG	502 C / 502 C BG	503 / 503 BG	503 B / 503 B BG	503 BS BG	504 N / 504 N BG	504 S / 504 S BG
O2 Sensor	✓	✓	✓	✓	✓	✓	✓	✓	✓
CO/H2 (0 .. 8000 ppm) Sensor	✓	✓	✓	0-20000 ppm	✓	✓	✓	✓	✓
NO Sensor	-	-	-	-	✓	✓	✓	✓	✓
NOx Calcolated	-	-	-	-	✓	✓	✓	-	✓
NOx Measured (NO+NO2)	-	-	-	-	-	-	-	✓	-
NO2 Sensor	-	-	-	-	-	-	-	✓	-
SO2 Sensor	-	-	-	-	-	-	-	-	✓
CO Dilution Pump (up to 100.000 ppm)	✓	-	-	✓	✓	-	-	✓	✓
Kit with Bluetooth Printer (only for BE GREEN)			✓				✓		
Thermal Paper Roll (only for Chemsit 500)	✓	✓	✓	✓	✓	✓	✓	✓	✓

CHEMIST 500 BE GREEN X / 500 X
Modular Gas Analyzer Kit up to 4 sensori (O_2 + up to 3 sensors of your choice)

CHEMIST SERIES for Industrial Emissions Analysis

Our team is committed to provide the most suitable & custom version of any instrument to match almost any application & need. Standards regulating exhaust gas emissions in industrial systems are also becoming more and more strict, being of great relevance for both climate and health protection

In high intensity and high resources consuming processes, great quantities of toxic gases are produced, such as carbon monoxide (CO), carbon dioxide (CO2), nitrogen oxides (NOX) or sulfur dioxide (SO2).

Often performed in extreme environments, featuring high levels of humidity, high temperatures and presence of particulate matter coming from combustion gases, the emissions measurements are needed in order to verify the measure and the quality of the combustion. The analyses are typically performed by special laboratories, maintenance technicians of industrial plants or by the industries themselves.

In order to answer these needs, Seitron has developed a line of industrial emissions analyzers, either portable for periodical measurements or fixed for continuous analysis.

The CHEMIST 600 and CHEMIST 600 BE GREEN are compact, hand-held instruments, which can measure up to 6 different gases, which can be customized based on the type of application.

The analyzer CHEMIST 900 offers the maximum flexibility as it incorporates both NDIR and electro-chemical technologies, which allow for the measurement of up to 12 different gases, all in a convenient portable format.

The analyzer CHEMIST 900 RACK is the instrument dedicated to the continuous measurement of industrial emissions. Thanks to its rack mounting, it is ideal for research and development environments as well as process monitoring.

Applications

Chemical Industries

Laboratories

Biogas Factories

Industrial Motors

Industrial Burners

Waste-to-energy Plants

Pellet Boilers

Industrial Cement Furnaces

```
O2          17.0 %
CO2          2.2 %
λ, n         5.35
T fumi      81.6 °C
T aria      18.9 °C
ΔT          62.7 °C
Qs          11.2 %
ηs          88.8 %
ηc           0.0 %
ηt          88.8 %
CO           27 ppm
Rif. O2      0.0 %
CO rif      145 ppm
Tiraggio   0.116 hPa
Note:
```

CHEMIST 600 BE GREEN / 600

UP TO 6 SENSORS

INDUSTRIAL EMISSIONS ANALYZER

Blue Backlit Lcd (55 X 95 Mm)

**15 Preprogrammed Fuels
(Including Wood, Pellets, Biogas And Coal)**

CO Protection Dilution Pump

Rechargeable Lithium Ion Batteries

Qr Code To Acquire Analysis With Smartphone

External Water Trap with Dust Filter

4 Pa Ventilation Measurement

Draught Measurement

Tightness Test

CHEMIST 600 BE GREEN

**CHEMIST 600
Built-in Printer**

1 Year warranty on instrument and gas sensors

Seitron Smart Analysis

GET IT ON Google Play — Download on the App Store — EXPLORE IT ON HUAWEI AppGallery

Seitron Smart Analysis Windows 10

Windows 7 or later

EVERY KIT INCLUDES:

- Instrument
- 300 mm Smoke Probe with 3 m cable
- Water trap with dust filter, stainless steel fittings and silicon hose
- Combustion air temperature Probe
- Preassure Measures Kit
- Power Adapter and International Plug
- Hard plastic kit case
- Quick Guide
- Calibration Certificate

MAIN FEATURES

- Precalibrated gas sensors
- 3 consecutive analysis with average calculation
- Automatic autozero with sampling probe in the stack
- Self diagnostic function with sensors status
- 10 different preprogrammed languages
- Automatic calculation of gas pipes volume
- Hard plastic body with magnets
- Internal memory for 1000 analysis
- Dimensions:
  Analyzer 270Ax93Lx68Pmm, weight 0,8 Kg
  Kit 130Ax510Lx430Pmm, weight 3,4 Kg

MEASURED VALUES

- Flue gas temperature and Temperature Differential
- Outdoor air temperature and room temperature
- Draft and Pressure Differential
- Ambient CO

CALCULATED VALUES

- Boiler efficiency, including condensing
- Stack losses and excess air
- CO
- Flow velocity with Pitot tube
- Burning power

FEATURES	605 / 605 BG	606 HC / 606 HC BG	606 CO2 / 606 CO2 BG
up to 6 senosrs	✓	6 sensors	6 sensors
O2 Sensor	✓	✓	✓
CO/H2 (0 .. 8000 ppm) Sensor	✓	✓	✓
NO Sensor	✓	✓	✓
NO2 Sensor	✓	✓	✓
SO2 Sensor	✓	✓	✓
CxHy Measured	-	✓	-
C02 Sensor	-	-	✓
NOx Measured (NO+NO2)	✓	✓	✓

CHEMIST 600 X BE GREEN / X 600
Modular Gas Analyzer Kit up to 6 sensori of your choice

AACE01 - Case with active external cooler
Possibility to equip the analyzer case with the active external cooler.
We suggest to use it in environments with high humidity to measure NO2, SO2, NH3 and H2S.
- Power supply 230V
- Power supply by external power-bank 12V
- For probes AASF32, AASF35, AASF36, AASF37

CHEMIST 900 1-12 SENSORS
INDUSTRIAL EMISSIONS ANALYZER

Chemist 900 is an industrial emissions and combustion analyzer, mainly used for industrial burners, cogeneration groups, gas turbines, industrial ovens and processes, laboratories and generally everywhere the need is to measure and register for long periods the gas emissions, in compliance with existing regulations.

**PRICE ON REQUEST
CHEMIST 900 WARRANTY:
1 YEAR ON INSTRUMENT, GAS
SENSOR AND PRINTER**

Seitron Smart Analysis

GET IT ON Google Play   Download on the App Store   EXPLORE IT ON HUAWEI AppGallery

**Seitron Smart Analysis
Windows 10**

Windows 7 or later

THE INSTRUMENT CONSISTS OF:

- Gas sampling system
- Expansion water trap
- Combustion Air temperature with 200mm tip
- Kit for differential temperature measurement
- 1000mm hose for remote condensate drainage
- USB cable
- Power supply cable
- UE/Schuko/USA plug
- Configuration software for laptop on usb pendrive
- Instructions manual
- Calibration certificate

Equipped for:
- Water trap system/cyclone cooling with Peltier sensor
- Installation with 1 to 9 sensors for "flex" electrochemical gases
- NDIR bench to measure up to 3 gases
- Gas sampling probe (with or without heated head)

MAIN FUNCTIONS

- Heated Sampling Probes (up to 6 m)
- Efficiency calculations
- Condesing efficiency calculation
- PCI efficiency calculation
- PCS efficiency calculation
- 15 default fuels
- 32 settable fuels
- CO sensor protected by an automatic dilution system

MEASUREMENT

- NDIR bench (measuring up to 3 gases)
- Electrochemical gas measurement sensors (up to 9)
- Local or remote combustion air measurement
- Sensors temperature measurement through thermal compensation
- Measurement of the differential pressure
- Air speed for air or flue gas leaving the stack with the use of Pitot tube
- Suction pump flow rate measurement

CHEMIST 900

Central Unit Version	Flex gas sensors (max 9)	NDIR bench (CO2/CO/CxHy)	Anti-condensation cyclone Cooler with Peltier cell	Anti-condensation trap
Chemist 901	✓	-	-	✓
Chemist 901 IR3	✓	✓	-	✓
Chemist 902	✓	-	✓	-
Chemist 902 IR3	✓	✓	✓	-

GAS SAMPLING SYSTEMS

- **Passive Type:** utilizes sensors with different tip lengths and fittings, made of different materials, with flexible tube connection to the central unit in various lengths.

- **Active Type:** utilizes gas sampling sensor with heated head and flexible tube. This characteristic prevents water vapour condensation to reach the central unit, since it affects measurements of gases easily soluble in water, such as NO2 and SO2.
  The active sensor maintains the gas sample at a higher temperature than the dew point and keeps it stable as far as the cooling system: this is a fast, cyclone type with Peltier cell. The water vapour condenses so quickly that the NO2 and SO2 gases do not have time to dissolve in water.

Passive gas sampling probe

Active gas sampling probe with heated head and hose

750 mm gas sampling probe for industrial motors

CHEMIST 900 - TECHNICAL FEATURES

Power supply: Battery charge: Charging time: Instrument battery life:	100 .. 260V~ or Li-ion battery pack with internal protection circuit, rechargeable. With mains cable with IEC C14 socket. 8 hours from 0% to 90%. 10 hours of continuous operation (except printer and Peltier cell group). 2 hours with Cooler working.
Display:	Backlit TFT graphical colour display. 4.3" 480×272 pixel.
Connectivity Communication port: Bluetooth:	 TYPE B USB connector. Communication distance: <100 metres (open field).
Autozero: Dilution:	Automatic autozero cycle with gas sampling probe in stack. CO sensor measurement range expansion system up to 100,000ppm (10.00%). Starting point programmable by the user.
Gas measurement sensors: Infrared bench: Fuel type:	Up to 9, configurable among electrochemical, NDIR (single cell) and Pellistor. 3 gases NDIR bench: CO, CO2, CxHy. 12 preprogrammed and 16 programmable by the user.
Self diagnostics: Temperature measurement: Ambient temperature measurement:	Check all functions and internal sensors with status indication. TcK double input with mini connector (ASTM E 1684-96) for Temperature Differential measurement (supply and return). Via internal sensor or via T2 TcK input with remote sensor.
Printer: Printer power supply: Printer battery life:	Integrated, thermal, with easy paper loading and paper level sensor. Analyzer batteries. With fully charged batteries up to 40 analysis reports.
Internal Data Memory: User data: Printer header:	16.000 complete data analysis, time and customer's name can be stored. 8 programmable user names. 6 lines × 24 characters, user customisable.
In-line filter:	With replaceable cartridge, 99% efficiency with 20μm particles.
Vacuum pump: Capacity pump:	2.0 l/min flow rate in the stack up to 300hPa head. Internal sensor measuring pump flow rate.
Cooler sample treatment Drying system: Type: Set point temperature cooler: Max. temp. deviation from set point: Condensate emptying pump: Peristaltic duty cycle pump: Warm-up time: Operating temperature: Anti-condensation trap Type: Condensate emptying pump: Operating temperature:	 Rapid water condensation using cyclone system Peltier cell +5°C +10°C from set point Peristaltic hose 38 ml/min 30s On .. 30s Off ~ 15 .. 20 minutes -5°C .. +45°C Integrated Peristaltic hose 38 ml/min -5°C .. +45°

Carbon black: **Tightness test (where required):** **Condensing boiler efficiency :** **Ambient gases:** **Draught test:**	Using a manual external pump; the smoke index can be uploaded and printed. Tube gas tightness test with separate receipt printing, using AAKT05 accessory, subject to European standards UNI 7129 (new installations) and UNI 11137: 2012 (existing installations), with automatic calculation of the tube volume. Automatic assessment of the condensing boiler, with calculation and printing of the boiler efficiency. Separate measurement and printing of the ambient CO concentration. Draught test execution using external probe (AACDP02)
Working temperature: **Storage temperature:** **Humidity limit:** **Protection level:** **External dimensions:** **Weight:**	-5°C .. +45°C -20°C .. +50°C 20% .. 80% RH IP21 50 x 36 x 20 cm (W x H x D). 50 x 46 x 13 cm (W x H x D) with intermediate drawer for heated head and sensor transportation. ~ 12 kg (Typical configuration: nine sensors - Cooler - IR bench - smoke sampling sensor - power cable - USB cable - carrying strap - two paper rolls - USB stick - condensate drain tube - remote air intake tube - combustive air sensor). ~ 13 kg (Typical configuration with additional accessories such as: 3m extension for smoke sensor - auxiliary air sensor - 300mm Pitot Tube - draught gauge). ~ 16,7 kg (Typical configuration with additional accessories and intermediate drawer containing: heated head sensor with 300mm tip and heated tube).
Compliant with European standards EN 50379-1 and EN 50379-2 for the following measurements:	• O2 • CO • NO • SO2 • Temperature (flue gas) • Temperature (combustion air) • Pressure (draught) • Pressure (differential)

NDIR benches available for simultaneous measurement up to 3 gases:

Gas	Measure type	Range	Resolution	Response Time (t 90)
CO	NDIR	0 .. 2500 ppm 2500 .. 100000 ppm (10% Vol) 100000 .. 500000 ppm (50% Vol)	1 ppm 10 ppm 100 ppm	< 10 sec
CO2	NDIR	0 .. 50 % Vol	0,1 % Vol	< 10 sec
CH4 *	NDIR	0 .. 100 % Vol	1 ppm	< 10 sec
HC (C3H8)*	NDIR	0 .. 30000 ppm	1 ppm	< 10 sec

(*) : The NDIR bench always measures the 3 gases CO, CO2, HC (ref. to methane CH4) or HC (ref. to propane C3H8)

CHEMIST 900 RACK 1-6 SENSORS
INDUSTRIAL EMISSIONS ANALYZER

The CHEMIST 900 RACK is an onsite continious emissions monitor (CEM). This device can measure emissions generated by industrial combustion or transformation processes and it analyzes different gases thanks to the NDIR and electrochemical technology.

Combustions and emissions parameters are displayed in real time on a TFT color display, on a PC Software or on a PLC that receives data via RS485 serial connection. The sensors are thermally compensated in order to avoid measurement errors that could be caused by temporary thermal variation. The distinctive feature of the Chemist 900 Rack is its rack structure that allows to use it into standard 19" cabinet or even in laboratories because it comes standard equipped with 4 rubber bumpers. The Chemist 900 Rack is designed to perform long-lasting analyses periods thanks to an automatic commutation system that allows to reset both the gas sensors and the pressure sensor used for draft measures or differential pressure measures. This, together with a Pitot tube, allows measure the smoke speed inside the evacuation duct. A relevant feature of the Chemist 900 Rack is a cooling system that causes a quick condensation of the moisture contained in the gas thus allowing the gas to reach the sensors without dissolving in water. The gases that benefit from this system are NO2, SO2, NH3, H2S. Condensation water is collected into a water tank and emptied on a timed basis by a membrane pump. The gas sample and the air used for sensors cleaning are filtered by two interchangeable dust filters. The Chemist 900 rack is equipped with a system that allows taking in gases from two different points (e.g. two stacks) and carry them into a single smoke suction line (image 1). All parameters and collected data are sent via serial communication port type RS485 and USB communication port in order to connect to the PC for the analysis reading. The user can archive and analyze the collected data with the dedicated software provided with the instrument, Chemist Smart Analysis. Files are saved with .csv extension.

SAMPLING LINE SELECTION SYSTEM

Relay 3

SAMPLING L1

SAMPLING L1 / L2

Relay 4

SMOKE T° L1

SMOKE T° L2

SAMPLING L2

USB

PC

RS485

PLC
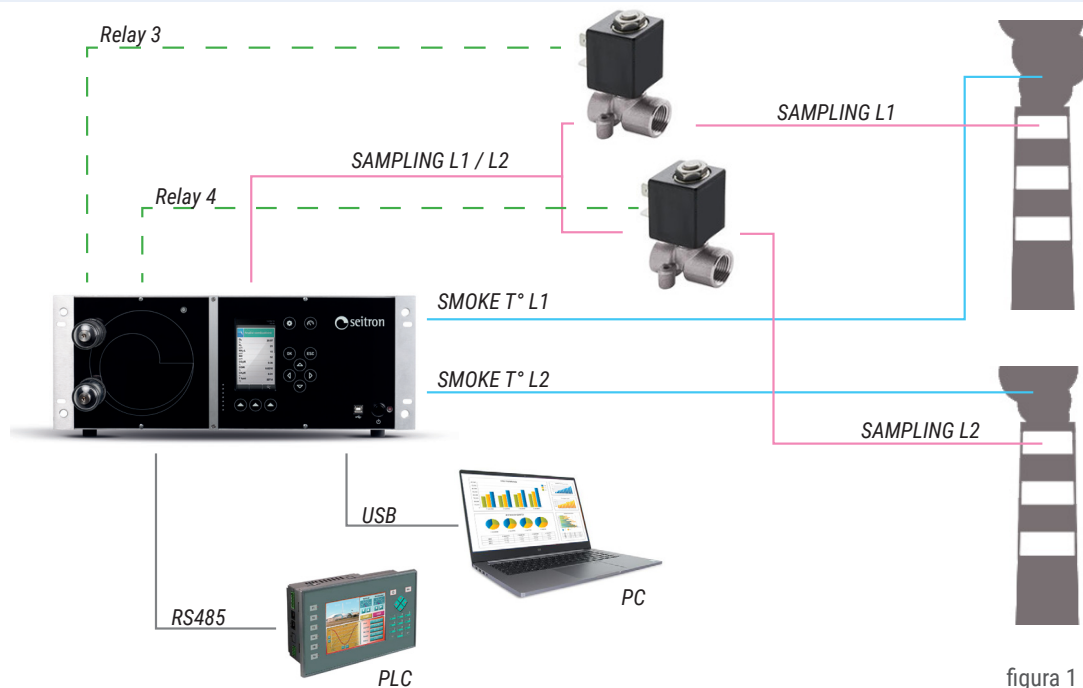
figura 1

THE INSTRUMENT CONSISTS OF:
- Gas sampling system
- USB cable,
- Power supply cable
- UE/Schuko/USA plug
- Calibration certificate
- Instructions manual

Predisposto per:
- Water trap system/cyclone cooling with Peltier sensor
- Installation with 1 to 3 sensors for "flex" electrochemical gases
- NDIR bench to measure up to 3 gases
- Gas sampling probe (with or without heated head)

MAIN FUNCTIONS

- Serial communication port type RS485 according to protocol MODBUS® RTU USB Communication
- Possibility of communication on ethernet line with external module
- 4 .. 20 mA isolated output
- 4 alarm relays outputs
- Heated Sampling Probes
- Efficiency calculations
- Condesing efficiency calculation
- PCI efficiency calculation
- PCS efficiency calculation
- 15 default fuels
- 32 settable fuels
- CO sensor protected by an automatic dilution system

MEASUREMENT

- NDIR bench (measuring up to 3 gases)
- Electrochemical gas measurement sensors (up to 3)
- Smoke temperature measurement (2 temperatures)
- Local or remote combustion air measurement
- Sensors temperature measurement through thermal compensation
- Draft in the stack with automatic autozero
- Measurement of the differential pressure
- Air speed for air or flue gas leaving the stack with the use of Pitot tube
- Suction pump flow rate measurement

External dust filter — Power Led — TFT 4.3" display — Touch Keypad — ON/OFF Key — External dust filter — USB Connector type B — Programming Led

NDIR benches available for simultaneous measurement up to 3 gases:

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(*) : The NDIR bench always measures the 3 gases CO, CO2, HC (ref. to methane CH4) or HC (ref. to propane C3H8)

BACK COVER DESCRIPTION
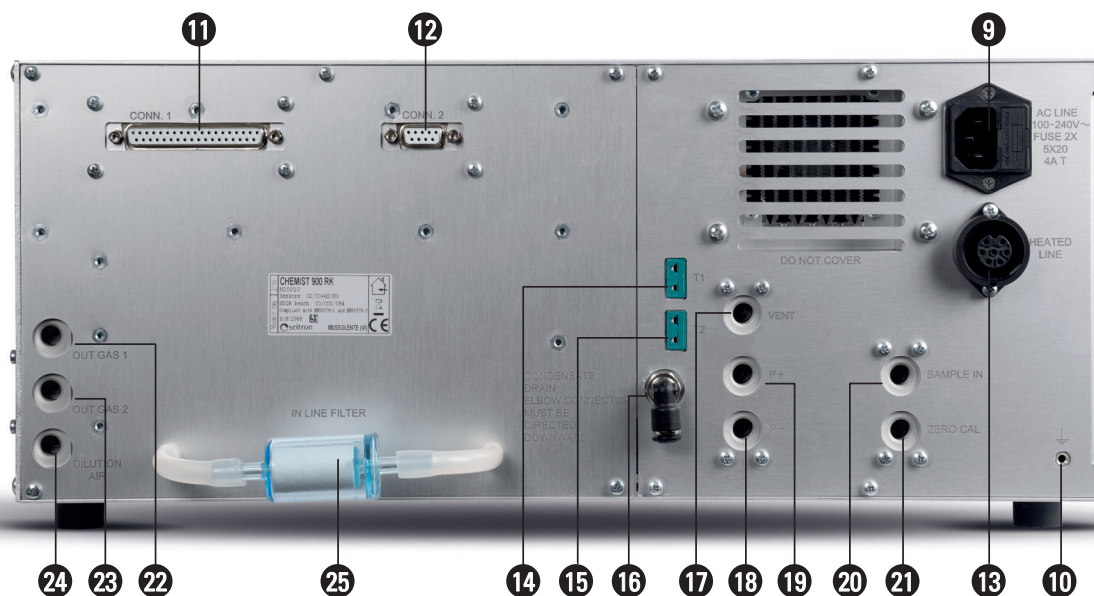
9. Power Supply 'AC LINE - 90 .. 264V-'
Plug IEC C14 to connect the power cable to the instrument, provided with the instrument itself. On the plug there is a fuse-holder hidden under a flap, containing 2 fuses 5x20 4A T.

10. Connection for grounding of the instrument.

11. 37 poles connector (4 outputs 4..20mA and 4 relay outputs)
Makes available for the user 4 4..20mA outputs and 4 relay outputs with potential free change over.

12. Serial connector RS485
Serial communication port type RS485 according to MODBUS® RTU protocol.

13. 'HEATED LINE' Connector
Plug for the heated line connection.

14. 'T1' Connector
Tc-K connector to plug in the male connector Tc-K of the probe for the measure of the smoke temperature.

15. 'T2' Connector
Tc-K connector to plug in the male connector Tc-K of the combustion air probe.

16. Condensation water drain

17. 'VENT' Connector - Female connector M5
Air vent used by the pressure sensor to perform the self-zeroing. If the instrument is installed on a rack or in pressurized environments, the air vent must be moved remotely at room temperature.

18. Pneumatic connector 'P-' - female connection 1/8 GAS BSPP.
Negative input (P-) to be used for the draft measurement.

19. Pneumatic connector 'P+' - female connection 1/8 GAS BSPP.
Positive input (P+) to be used for the measurement of the pressure in general.

20. Pneumatic connector 'SAMPLE IN' - female connection 1/8 GAS BSPP.
Input for the connection of the gas sampling probe.

21. Pneumatic connector 'ZERO CAL' - female connection 1/8 GAS BSPP.
Input for the line connection to the remote air vent in order to perform the self-zeroing. If the instrument is placed in a closed and polluted environment, it is possible to move the instrument air vent in a room with clean air using the 'ZERO CAL' connector

22. Connector 'OUT GAS 1' - female connection 1/8 GAS BSPP.
Analyzed gas remote output.

23. Connector 'OUT GAS 2' - female connection 1/8 GAS BSPP.
Analyzed gas remote output.

24. Connector 'DILUTION AIR' - female connection 1/8 GAS BSPP.
Remote air vent for CO dilution.

25. Dust filter for NDIR (infrared) bench protection

Technical Features

Power supply	90 .. 264 Vac
Power absorption at 230 V	100 VA
Display	TFT 4.3", 272 x 480 pixels graphic color with backlight
PC Communication port	USB Connector type A
Connectivity	USB-RS485 MODBUS RTU
Autozero	Automatic autozero cycle with the probe inserted in the chimney
Suction pump	2,2 l/min head at the stack up to 300 hPa.
Line Filters	Replaceable cartridge, 95% efficiency with 20um particles
Sample treatment	Peltier cooling system with automatic emptying of the condensation water
Size	19" /4 HE / 400 mm
Operation temperature	+0°C + 45°C
Stock temperature	-20°C + 60°C
Alarm relay	4 x SPDT AC/DC 24 V 1A
Protection fuses	2 x 4A 5 x 20 T
Analog Outputs	4 x 4-20 mA max resistance load 1 KOhm
Gas 1, Gas 2 Output Connector	1/8 BSPP
Gas Input Connector	1/8 BSPP
Pressure P1, P2 Input Connector	1/8 BSPP
Condensate drainage Output Connector	1 /8 BSPP - fast connection tube 6 mm diameter
Air Connector	1/8 BSPP
Compliant with European Standards	EN 50270, EN 50379-1 ed EN 50379-2
Compliant with USA Standard	CTM030 and CTM034

Chemist Smart Analysis

Dedicated PC Software that allows:
• Manual analysis
• Periodic data logger parameters set up (autozero time, autozero range, stand-by time, sampling range, number of analysis cycles, start and end date of the analysis)
• Pump control
• Graphical or numerical visualisation of the parameters
• Alarms visualisation
• Instrument parameters set up
• Fuels set up
• Alarms set up
• 4-20mA channels set up
• Operator data set up
• CSV files data storing
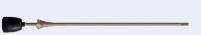

**Windows Software
Seitron Smart Analysis**

Windows 7 or later
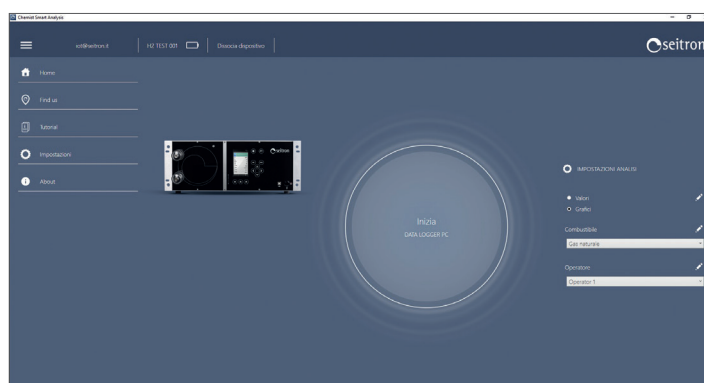
Gas Analysis Probes

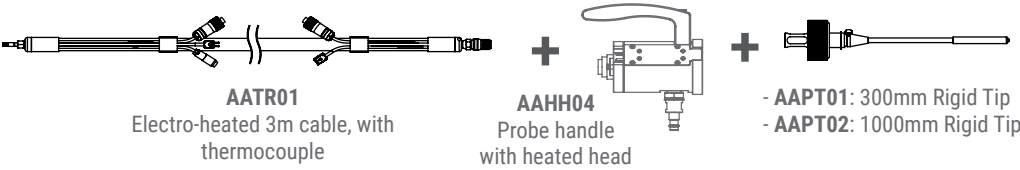| CODE	PHOTO	DESCRIPTION	CHEMIST 100 BG	CHEMIST 500/500 BG	CHEMIST 600/600 BG	CHEMIST 900	CHEMIST 900 RACK
AASF51A		180 mm flue gas sampling probe, cable length 2m, maximum temperature 400 ° C, without anti-condensation unit	✓	✓	✓		
AASF62A		300 mm flue gas sampling probe, cable length 3m, maximum temperature 600 ° C, without anti-condensation unit	✓	✓	✓		
AASF65A		750 mm flue gas sampling probe, cable length 3m, maximum temperature 800 ° C, without anti-condensation unit		✓	✓		
AASF66A		1000 mm flue gas sampling probe, cable length 3m, maximum temperature 1200 ° C, without anti-condensation unit		✓	✓		
AASF71A		180 mm flue gas sampling probe, cable length 1.5m, maximum temperature 400 ° C, without anti-condensation unit	✓				
AASF72A		300 mm flue gas sampling probe, cable length 1.5m, maximum temperature 600 ° C, without anti-condensation unit	✓				
AASL05A		300 mm flue gas sampling probe, cable length 2m, maximum temperature 600 ° C, without anti-condensation unit	✓	✓	✓		
AASF31		180 mm flue gas sampling probe, cable length 3m, maximum temperature 400 ° C			*✓	✓	✓
AASF32		300 mm flue gas sampling probe, cable length 3m, maximum temperature 600 ° C			*✓	✓	✓
AASF35		750 mm flue gas sampling probe, cable length 3m, maximum temperature 600 ° C			*✓	✓	✓
AASF36		1000 mm flue gas sampling probe, cable length 3m, maximum temperature 1200 ° C			*✓	✓	✓

* : compatible with active external cooler AACE01
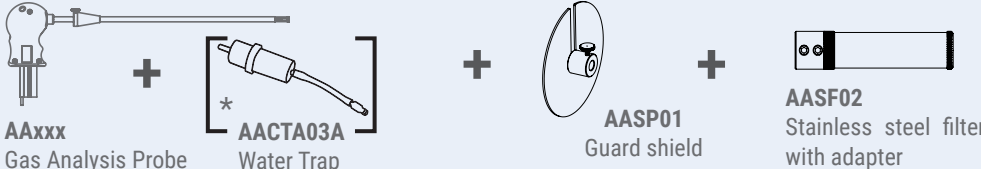
Modular Probes

CODE	PHOTO	DESCRIPTION	CHEMIST 100 BG	CHEMIST 500/500 BG	CHEMIST 600/600 BG	CHEMIST 900	CHEMIST 900 RACK
AAPT07		300mm flexible tip (*). Measuring range temperature 130°c - for AASJ02 / AASJ03 / AASJ05 handle	✓	✓	✓	✓	✓
AAPT08		180mm rigid tip (*). Temperature measurement range 400°C - for AASJ02 / AASJ03 / AASJ05 handle	✓	✓	✓	✓	✓
AAPT09		300mm rigid tip (*). Measuring range temperature 600°C - for AASJ02 / AASJ03 / AASJ05 handle	✓	✓	✓	✓	✓
AAPT10		750mm rigid tip (*). Temperature measurement range 800°C - for AASJ02 / AASJ03 / AASJ05 handle	✓	✓	✓	✓	✓
AAPT11		1000mm rigid tip (*). Temperature measuring range 1200°C - for AASJ02 / AASJ05 handle	✓	✓	✓		
AASJ02		Flue gas suction probe handle; without ferrule. Cable: 3 m. Fitting diameter 9 mm, without anti-condensation unit	✓	✓	✓		
AASJ03		Flue gas suction probe handle, without tip, rubber hose length 3 m. Fitting diameter 9 mm, without anti-condensation unit				✓	✓
AASJ05		Flue gas suction probe handle; without ferrule. Cable: 1,8 m. Fitting diameter 9 mm,without anti-condensation unit	✓	✓	✓		

Accessories for Residential Applications

CODE	PHOTO	DESCRIPTION	CHEMIST 100 BG	CHEMIST 500/500 BG	CHEMIST 600/600 BG	CHEMIST 900	CHEMIST 900 RACK
AACKP01		Pressure Differential measurement kit 2 x 1 m hoses + fittings		✓	✓	✓	✓
AACTO01		Silicone conical fitting 44 - 22 mm	per kit prova tenuta				
AACTO02		Silicone conical fitting 32 - 18 mm	per kit prova tenuta				
AAKT05		Kit for tightness test with 4 ways manifold, manual pump, 100 ml syringe, hoses, 1 silicone conical fitting	✓	✓	✓	✓	
AARA01		Threaded 9 mm diameter fitting, 1/4" gas coupling, 1/4" to 1/8" gas nipple (for tightness test)	per kit prova tenuta				
AARA02		Gas valve hose adapter: d.i. 7 mm	✓	✓	✓		
AASA08		Outdoor air temperature 200 mm TcK probe, with 2 m cable	✓	✓	✓		
AASG01		Gas sniffer probe for Chemist 500 analyzers 1 m + fitting		✓	✓		
AATT01		"L"shaped Pitot Tube. 300 mm length, 6 mm external diameter. Without thermocouple		✓	✓	✓	✓
AATT02		"L"shaped Pitot Tube. 800 mm length, 6 mm external diameter. Without thermocouple		✓	✓	✓	✓

Accessories for Industrial Applications

CODE	PHOTO	DESCRIPTION	CHEMIST 100 BG	CHEMIST 500/500 BG	CHEMIST 600/600 BG	CHEMIST 900	CHEMIST 900 RACK
AACEX01		3 m extension cable for flue gas probe (code AASFxxx)		✓	✓	✓	✓
AAPM02		Bacharach hand Pump for carbon measurements		✓	✓	✓	✓
AACE01		Active external cooler (compatible with AASF3xx probes)				✓	
Automatic Carbon Measurement Probe **AASY01:** Handle with 3,5m cable **AAPT04** 750 mm Rigid Tip						✓	
Probe with electro-heated head and tube **AATR01** Electro-heated 3m cable, with thermocouple **AAHH04** Probe handle with heated head - **AAPT01**: 300mm Rigid Tip - **AAPT02**: 1000mm Rigid Tip						✓	✓
Accessories for industrial measurements, high temperatures and particularly dirty smokes **AAxxx** Gas Analysis Probe **AACTA03A** Water Trap **AASP01** Guard shield **AASF02** Stainless steel filter with adapter			✓	✓	✓	✓	✓
AATL01		S probe with clamp for 8mm tips, for use on waste systems	✓	✓	✓	✓	✓
AACP01		External unit for passive sample treatment, for NO2 and SO2 measurement, compatible with AASJ probe--	✓	✓	✓		

* : If not included in the probe AASFxxx

PRINTERS AND CONSUMABLES

CODE	PHOTO	DESCRIPTION	CHEMIST 100 BG	CHEMIST 500	CHEMIST 500 BG	CHEMIST 600	CHEMIST 600 BG	CHEMIST 900
AARC10		Long life plain thermal paper roll 57x30	✓	✓	✓	✓	✓	✓
AAST04	batteries included	Thermal printer with Bluetooth connection	✓		✓		✓	

SPARE REPLACEMENT PARTS

CODE	PHOTO	DESCRIPTION	CHEMIST 100 BG	CHEMIST 500/500 BG	CHEMIST 600/600 BG	CHEMIST 900	CHEMIST 900 RACK
AAPB01		Rechargeable Li-Ion battery, 3,7 V, 4,8 Ah		✓	✓		
AAPB13		Rechargeable Ni-MH battery, 7,4 V, 1800 mAh	✓				
AAPB12		Rechargeable Li-Ion battery; 11,6V - 6200mAh				✓	
AAKA02		Power Adapter with international plug, USB A / USB B with 2 m cable	✓	✓	✓		
AACFA01		Fine dust filters for AACTA03 (5 pcs. package) Dimensions 12x32 mm	✓	✓	✓		
AACTA03A		Water trap with dust filter, stainless steel fittings and silicon hose suitable for all combustion analyzers	✓	✓	✓		
AAFA02		Spare Part Filter; dimensions 12x57mm; (2PCS)				✓	✓
AAFA03		HDPE filter for industrial engine probe (2PCS); dimensions 12x32mm; suggested use for NH3 measurements with passive probes		✓	✓		
AAFA04		HDPE filter for industrial engine probe (2PCS); dimensions 12x57mm; suggested use for NH3 measurements with passive probes				✓	✓
AAFS01		Inox filter for industrial engine probe; dimensions 12x57mm (AAFS02 Spare Part)		✓	✓	✓	✓

CASE, HOLSTER AND ACCESSORIES

CODE	PHOTO	DESCRIPTION	CHEMIST 100 BG	CHEMIST 500/500 BG	CHEMIST 600/600 BG	CHEMIST 900	CHEMIST 900 RACK
AACR09		Hard plastic kit case	✓				
AACR10		Hard plastic kit case		✓	✓		
AASM06		Rubber holster		CHEMIST 500	CHEMIST 600		
AASM07		Rubber holster	✓				
AASM10		Rubber holster		CHEMIST 500 BG	CHEMIST 600 BG		
AAEB01		Trunk Extension - Chemist 900				✓	
AATY01		Trolley for Trunk - Chemsit 900				✓	

CALIBRATION CERTIFICATE

COD	DESCRIPTION
CER012	ISO 9001 calibration certificate for 2 sensors analyzers
CER013	ISO 9001 calibration certificate for 3 sensors analyzers
CER 014	ISO 9001 calibration certificate for 4 sensors analyzers
Calibration certificates on analyzers with more than 4 sensors can be performed by request	

To ensure your and your customers' safety, please remind that the current legislation imposes that all measuring instruments must be calibrated by a lab and certified every 12 months.

UNI 10389-1:2009 – Combustion analyzers

UNI 11137:2019 – Manometers and analyzers in use also for gas plants leak tests

UNI 10845:2018 – Manometers and analyzers in use also for open chamber boilers draft

(*) Chemist 900 and Chemsit 900 Rack Analyzers are excluded

MAINTENANCE CONTRACTS

COD	DESCRIPTION
CON009	Annual maintenance contract for 2 sensors analyzers: Gamma Chemist 500 and 500 Be Green
CON010	Annual maintenance contract for 3 sensors analyzers: Gamma Chemist 500 and 500 Be Green
CON011	Annual maintenance contract for 4 sensors analyzers: Gamma Chemist 500 and 500 Be Green

GAS SENSORS

GAS	CODE	RANGE	GAS SENSOR	RESOLUTION	ACCURACY
O2	AACSE15	0...25% v/v	Electrochemical sensor	0.1% vol	±0.2% vol
O2	AACSE50	0...25% v/v	Electrochemical sensor	0.1% vol	±0.2% vol
O2 Long Life	AACSE44	0...25% v/v	Electrochemical sensor	0.1% vol	±0.2% vol
CO / H2	AACSE12	0...8000 ppm	Electrochemical sensor	1 ppm	±10 ppm ±5% ±10%
CO / H2 Low Range	AACSE24	0...1000 ppm	Electrochemical sensor	0.1 ppm	±2 ppm ±5%
CO high immunity H2 with NOx filter	AACSE58	0...4000 ppm	Electrochemical sensor	1 ppm	±20 ppm ±5% ±10%
CO	AACSE17	0...10.00% Vol (100.000 ppm)	Electrochemical sensor	0.01% vol	±0.1% vol ±5%
CO	AACSE18	0...20000 ppm	Electrochemical sensor	1 ppm	±100 ppm ±5% ±10%
CO2	AACSE47	0...50% v/v	NDIR Sensor	0.1% vol	±1% ±2%
NO	AACSE60	0...2000 ppm	Electrochemical sensor	1 ppm	±5 ppm ±5% m.v. ±10% m.v.
NO	AACSE10	0...5000 ppm	Electrochemical sensor	1 ppm	±5 ppm ±5%
NO Low Range	AACSE25	0...500,0 ppm	Electrochemical sensor	0.1 ppm	±2 ppm ±5%
NO2	AACSE14	0...1000 ppm	Electrochemical sensor	1 ppm	±5 ppm ±5%
NO2 Low Range	AACSE26	0...500,0 ppm	Electrochemical sensor	0.1 ppm	±2 ppm ±5%
SO2	AACSE13	0...5000 ppm	Electrochemical sensor	1 ppm	±5 ppm ±5%
SO2 Low Range	AACSE28	0...500,0 ppm	Electrochemical sensor	0.1 ppm	±2 ppm ±5%
Sniffer Gas CH4	AACSE19	0...10000 ppm CH4	Electrochemical sensor		
CH4	AACSE73	0...100% v/v	NDIR single band Sensor	0,01% Vol	0-10% 10%-100%
CxHy	AACSE39	0...5.00% Vol CH4	Pellistor sensor	0.01% vol	±0.25% vol
H2	AACSE57	0...2000 ppm	Electrochemical sensor	1 ppm	± 10 ppm ± 10 %
H2	AACSE78	0...40000 ppm	Electrochemical sensor	10 ppm	± 100 ppm ± 10 % m.v.
H2S	AACSE72	0...5000 ppm	Electrochemical sensor	1 ppm	+/- 5ppm +/- 5% m.v. +/- 10% m.v.
H2S Low Range	AACSE35	0...500,0 ppm	Electrochemical sensor	0.1 ppm	±5 ppm ±5% m.v.
NH3	AACSE56	0...500,0 ppm	Electrochemical sensor	0.1 ppm	+/-10ppm +/-10% m.v.

	CHEMIST 100 BG	CHEMIST 500/500 BG	CHEMIST 600/600 BG	CHEMIST 900/900 RACK
		✓		
	✓			
		✓	✓	✓
0 .. 200 ppm 201 .. 2000 ppm 2001 .. 8000 ppm		✓	✓	✓
0 .. 40.0 ppm 40.1 .. 500.0 ppm		✓	✓	✓
0 .. 400 ppm 401 .. 4000 ppm 4001 .. 8000 ppm	✓			
0 .. 2.00 % 2.01 .. 10.00 %		✓	✓	✓
0 .. 2000 ppm 2001 .. 4000 ppm 4001 .. 20000 ppm		✓	✓	✓
0 .. 10 % 10 .. 50 %		✓	✓	✓
0 .. 100 ppm 101 .. 1000 ppm 1001 .. 2000 ppm	✓			
0 .. 100 ppm 101 .. 5000 ppm		✓	✓	✓
0 .. 40.0 ppm 40.1 .. 500.0 ppm		✓	✓	✓
0 .. 100 ppm 101 .. 1000 ppm		✓	✓	✓
0 .. 40.0 ppm 40.1 .. 500.0 ppm		✓	✓	✓
0 .. 100 ppm 101 .. 5000 ppm		✓	✓	✓
0 .. 40.0 ppm 40.1 .. 500.0 ppm		✓	✓	✓
		✓		
0,3% Vol 10% vm			✓	
		✓	✓	✓
0 ppm - 100 ppm 100 ppm - 2000 ppm			✓	✓
0 ppm - 1000 ppm 1001 - 40000 ppm			✓	✓
0-100,0 ppm 100,0-500,0 ppm 501-5000 ppm			✓	✓
0 .. 100.0 ppm 100.1 .. 500.0 ppm			✓	✓
0...100.0ppm 100.1 a 500.0			✓	✓

SENSORS FOR DISCONTINUED ANALYZERS

Gas	Range	Code	Chemist 200-300	Chemist 400	Casper
O2	0...25% v/v	AACSE07	✓		
O2	0...25% v/v	AACSE15		✓	✓
CO	0...8000 ppm	AACSE20			✓
CO / H2	0...8000 ppm	AACSE05	✓		
CO / H2	0...8000 ppm	AACSE12		✓	
NO	0...5000 ppm	AACSE06	✓		
NO	0...5000 ppm	AACSE10		✓	✓

PRESSOTEST 100

PORMDZBI

CER006
Calibration Certificate ISO 9001

batteries included

2 YEARS WARRANTY

DIGITAL MICROMANOMETER

Digital micromanometer with selectable measurement unit among the 6 most widely used. Auto-zero, hold and programmable cut-off.

TECHNICAL FEATURES

Power supply (battery)	6 x 1,5V AAA
Battery life	100h
Auto cut-off	Adjustable 1 .. 30 min.
Zeroing	Automatic
Full scale range	±130 hPa (mBar)
Resolution	0.01hPa (P<100hPa), 0.1hPa (P>100hPa)
Accuracy	1.5% v.l. (P<-15hPa); ±0.1hPa (-15hPa <P<+15hPa); 1% v.l. (P>15hPa);
LCD display	2x4 digits + analog scale
Dimensions	H162 W87 D41mm
Measurement units	Pa, hPa (mBar), kPa, mmH2O, mmHg, PSI
IP rating	IP30

GAS T ONE

KV0001
Kit For Pipes Tightness Test with Printer

KV0002
Kit For Pipes Tightness Test without Printer

CER008
Calibration Certificate ISO 9001

KIT FOR PIPES TIGHTNESS TEST

Kit for checking the tightness of fuel gas distribution systems.
Supplied in a practical rigid case, it includes:
- GAS-T-ONE micromanometer, developed for performing leak tests in accordance with the Europeans standards UNI 7129 (new systems) and UNI 11137 (existing systems);
- A Bluetooth® printer code KV0001 for printing the receipts documenting the results of the checks (rechargeable batteries included);
- A power supply unit; a series of tubes in a special non-porous plastic material with a ball cock;
- Plugs of different diameters and metal fittings;
- A pump in rubber for the use of air as a test gas.

Seitron Smart Analysis APP is available for QR Code reading, data acquisition directly from the Smartphone and sharing in pdf or csv format.

batteries included

2 YEARS WARRANTY

Seitron Smart Analysis

GET IT ON **Google Play**
Download on the **App Store**
EXPLORE IT ON **AppGallery**

POLF02

batteries included

2 YEARS WARRANTY

PORTABLE GAS DETECTOR
WITH RECHARGEABLE BATTERY

Microprocessor based portable gas detector. Wide LCD display with 4 digits, with measurement unit and battery charge indication, acoustic alarm. For hydrocarbon gases (natural gas, LPG, CxHy). Hold and auto-zero functions.

TECHNICAL FEATURES

Power supply battery	Battery pack Li-ion 3.7V, 2000 mAh
Battery life/auto power down	20h.. 30 min.
Display LCD	4 digits
Min. detectable value	100ppm CH4
Detectable gas	Natural gas, LPG, CxHy
Dimensions	H151 W72 D37mm
IP rating	IP20
Battery charger	5V

Notes: The gas sniffer PO LF02 is not a measurement instrument.
Digits figures in ppm on LCD are for indication only.
For this reason, no calibration certificate is supplied.

PORRDZBI

batteries included

2 YEARS WARRANTY

PORTABLE GAS DETECTOR

Microprocessor based portable gas detector. Wide LCD display with 4 digits, with measurement unit and battery charge indication, acoustic alarm. For hydrocarbon gases (natural gas and LPG). Hold and auto-zero functions.

TECHNICAL FEATURES

Power supply battery	6 x 1,5V AAA
Battery life/auto power down	4h / 1 .. 30 min.
LCD display	4 digits
Min. detectable value	100ppm CH4
Detectable gas	Natural gas, LPG
Dimensions	H151 W72 D37mm
IP rating	IP20

Notes: The gas sniffer POR RDZ BI is not a measurement instrument.
Digits figures in ppm on LCD are for indication only.
For this reason, no calibration certificate is supplied.

POTK01
Including 2 STS KX 01 probes
(1m lenght)

CER017
Calibration Certificate ISO9001

2 YEARS WARRANTY

2 TKC INPUTS THERMOMETER

Portable digital thermometer with LCD display. 2 inputs type K thermocouple. Functions: maximum; data hold; differential between the two temperatures and offset adjustment.

TECHNICAL FEATURES

Power supply (battery)	1x 9V
Battery life	~100h
Operating range	-200°C~1370°C -328°F~2490°F
Resolution	1°C or 1°F, 0,1°C or 0,1°F
Accuracy	±(0.5% T1-T2 reading +2°C or +2°F)
LCD display	4 digital liquid crystal display
Sensor	TcK
Dimensions	H184 W64 D30mm

ACCESSORIES

AAST04
Thermcal Bluetooth® Printer

batteries included

ACCHIAVE01
Gas Key 24-30 mm

STSKL01
Type K Thermocouple probe for liquids

STSKC01
K type Thermocouple probe for contact

PORFLU
Glass fluxmeter

KIT hygge Home

KTY001
1 KIT hygge Home weekly

NEW

batteries
included

The hygge Home KIT included:

1 Wireless batteries
Programmable
Thermostat
hygge

1 Wireless receiver for
the Boiler
hygge radio

1 Wi-Fi gateway
hygge way
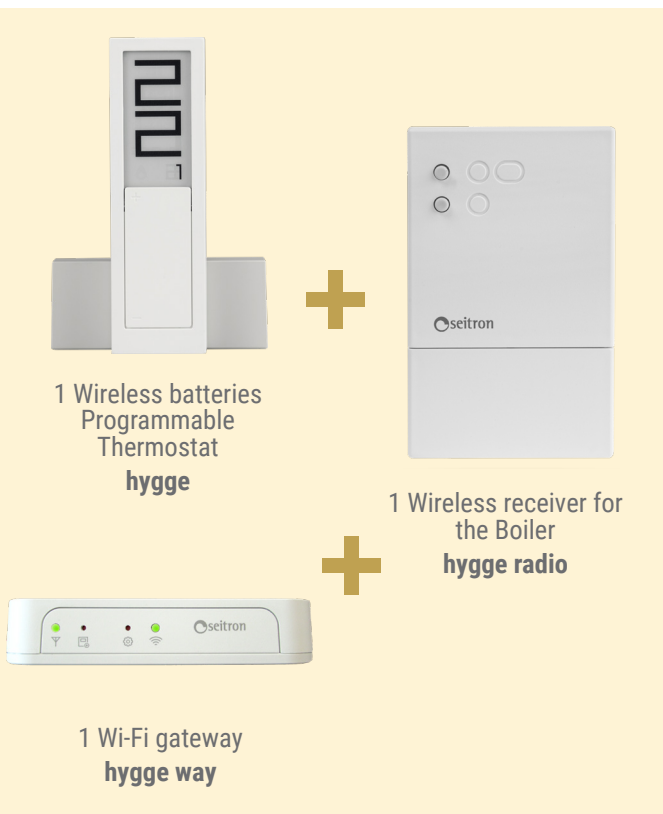
WIRELESS THERMOSTAT KIT CONTROLLED VIA APP

Hygge Home system allows to control the domestic heating through the wireless thermostat that can be easily moved in any room!
When being away from home, you can keep the temperature under control on your smartphone thanks to **Seitron Smart App**.

TECHNICAL FEATURES

Thermostat

Power Supply:	2 x1,5V batteries AAA
Working Range:	+5.0..+35.0 °C
Resolution:	0.1 °C
Class Reg.2013/811/CE:	I = 1,0%

Gateway

Power Supply:	100..253Vac 50-60Hz
Wi-Fi	802.11 b/g/n

Wireless Receiver

Poer Supply:	24V/230Vac 50Hz
Contacts rating:	2x6(4)A 250 Vac SPDT

Seitron Smart
Temperature under control

GET IT ON Google Play

Download on the App Store

EXPLORE IT ON AppGallery

Works with **IFTTT**

works with **Google Assistant**

The hygge Home KIT is compatible with **amazon alexa**

hygge

DTD31B
Weekly wireless thermostat

NEW

batteries included

Seitron Smart
Temperature under control

GET IT ON Google Play | Download on the App Store | EXPLORE IT ON AppGallery
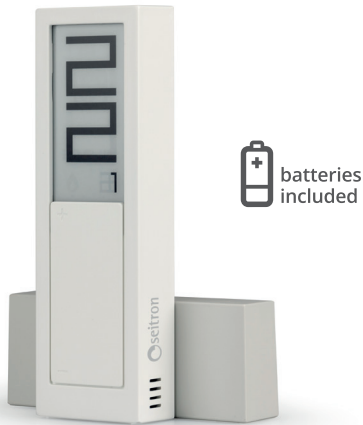
WIRELESS THERMOSTAT CONTROLLED VIA APP

hygge is the wireless thermostat that allows the control of the domestic heating directly on the smartphone.

Thanks to **Seitron Smart App** it is possible to program the home temperature, to activate the boost mode for a quick heating, to monitor the expenses through graphs and statistics about the boiler switch-on.

Hygge can be wall-mounted or easily moved from a room to another and placed on his magnet base.

TECHNICAL FEATURES

Power supply:	2x1.5V batteries size AAA
Dimensions:	35x115x19 mm (LxAxP)
Frequency:	868,450 MHz
Max. RF power transmitted: 1 mW	
Antenna Type:	Internal
Max.distance from receiver:	
	> 300 m in free field
	> 50 m inside buildings, depending on the type and environment
Working Range:	5,0 .. 35,0°C
Sensor Type:	NTC 10kohm ±1% @ 25°C B(25/85)=3977
Resolution:	0,1°C
Operating temperature:	0°C .. +50,0°C
Accuracy:	±1,0°C
Offset:	± 10.0°C. (Default 0.0°C)
IP rating:	IP30
Class Reg.2013/811/CE:	I = 1,0%

wi-time wall

GCW01MR
Black Color

GCW02MR
White Color

NEW

Wi Fi™

WORKS WITH alexa

Works with IFTTT

works with Google Assistant

Google, Google Play and YouTube
are trademarks of Google LLC.

Room Temperature Probe
STAD01

Room Temperature Probe
STLD01

WIFI PROGRAMMABLE THERMOSTAT - WEEKLY -

Wall mounted WiFi chronothermostat powered at 230V for hot / cold operation, with weekly programming that can be set via the **Seitron Smart App**. Antifreeze function. Boost function 30-60-90min. Functions for hotels and b & bs with settings lock and temperature adjustment range limitation. Possibility of expanding some features by pairing via radio with one or two switchON devices.

TECHNICAL FEATURES

Power Supply	100 .. 253V~ 50 .. 60Hz
Sensor type	NTC 10K Ohm ±1% @ 25°C
Contatct rating	max 3A 250V~ SPDT
WiFi	802.11 b/g/n
Boost mode	30-60-90 min
Display	Colors TFT
Dimensions	122x82x15 mm
Protection rating	IP30
Classe Reg.2013/811/CE	IV = 2,0%

Seitron Smart
Temperature under control

GET IT ON Google Play

Download on the App Store

EXPLORE IT ON HUAWEI AppGallery

App Seitron Smart

Set up and control your thermostats with Seitron Smart App for Android and iOS.

- Handle one or more thermostats in different buildings
- Easy to use
- Switch heating/cooling mode

wi-time

GIW01MR
Black Color

GIW02MR
White Color

WIFI PROGRAMMABLE THERMOSTAT - WEEKLY -

Semi-recessed WiFi chronothermostat powered at 230V for hot / cold operation, with weekly programming that can be set via the **Seitron Smart App**. Antifreeze function. Boost function 30-60-90min. Functions for hotels and b & bs with settings lock and temperature adjustment range limitation. Possibility of expanding some features by pairing via radio with one or two switchON devices.

TECHNICAL FEATURES

Power Supply	100 .. 253V~ 50 .. 60Hz
Sensor type	NTC 10K Ohm ±1% @ 25°C
Contatct rating	max 3A 250V~ SPDT
WiFi	802.11 b/g/n
Boost mode	30-60-90 min
Display	Colors TFT
Dimensions	122x82x15 mm
Protection rating	IP30
Classe Reg.2013/811/CE	IV = 2,0%

Room Temperature Probe
STAD01

Room Temperature Probe
STLD01

Seitron Smart
Temperature under control

App Seitron Smart

Set up and control your thermostats with Seitron Smart App for Android and iOS.

- Handle one or more thermostats in different buildings
- Easy to use
- Switch heating/cooling mode

hygge way

GG0315
hygge Gateway

NEW

Wi Fi™

WI-FI GATEWAY

This gateway is the centre of the thermoregulation home automation system, based on hygge thermostats. Its function is to collect the data flow coming from wireless thermostats 868MHz and to lead this information to the Cloud, in order to allow two operations:
• Remote control of the devices
• Data record
Gateway circuit is placed in an ABS plastic case. There are some LED on the gateway that indicate the device status:

LED 1 – Wi-fi: it indicates the communication status to the cloud
LED 2 – Radio: it indicates when there's a running communication towards the devices

TECHNICAL FEATURES

Wifi Connectivity:	802.11.b/g/n
RF Connectivity:	868 MHz bidirectional
Case:	ABS + PC
IP rating:	IP30

hygge radio

DRR32M
2 outputs receiver

NEW

2 CHANNELS RADIO RECEIVER (BIDIRECTIONAL)
2-channel radio receiver, equipped with an integrated antenna and 2 SPDT relay outputs that can drive an actuator or a circulation pump or directly a boiler. Suitable for 2-zone solutions. Two-color LED for indicating the status of the output relay and the quality of the radio connection with the related transmitter. Self-learning of the transmission code.
featured with bidirectional wireless technology, it allows to receive commands from DTD31B thermostats to control actuators, solenoid valves, automatic shutters, fans, or directly a boiler.

TECHNICAL FEATURES

Power supply:	24V/230V~ ±10% 50Hz
Absorption:	11VA
Output (relay):	2x6(4)A 250V~
Frequency:	868,450 MHz
Type of antenna:	Internal stylus
2 colors LED indicator:	Active relay / transmission quality
Protection rating:	IP3X
Dimensions:	A125 L78 P30,5mm

1 2 3 4

SIGNAL
OUT
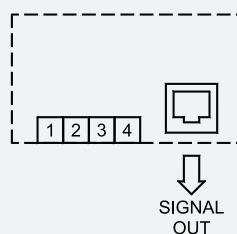
switchON

GS001M

NEW

Wi Fi™

WI-FI SWITCH

SwitchON is a Wi-Fi switch for the home automation, with a double functionality. It can be configured as wi-fi IoT switch (remote switch). Through the dedicated **Seitron Smart App**, it is possible to activate or deactivate two loads, one for each relay of the product; loads can be, for example, an irrigation system, a light system or a motorized overhead door; or it can be used as radio receiver with 2.4 GHz designed for the activation of one or two loads (electrothermical valve or circulator) in heating/cooling radio systems for domestic environments or offices. With the two outputs it is possible to manage also the mode and a heat pump activation.
Up to 6 wi-time thermostats can be connect to the switch-on.

TECHNICAL FEATURES

Power Supply	95..290Vac - 47..440Hz
Absorbed power	less than 2W
Relay Contacts Rating	2 x 3A 250Vac/3A 30Vdc max - SPDT
Wi-Fi	802.11 b/g/n
IP Rating	IP 3X
Dimensions	125x78x30.5 mm

Works with IFTTT

works with Google Assistant

switchON is compatible with **amazon alexa**

GS001M MODALITA' SWITCH IoT
GS001M IoT SWITCH MODE

GS001M MODALITA' SLAVE DEL GIW-MR
GS001M QIW-MR SLAVE MODE
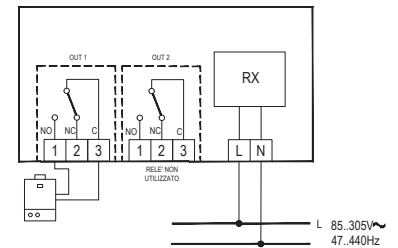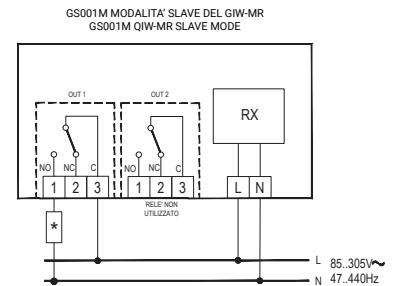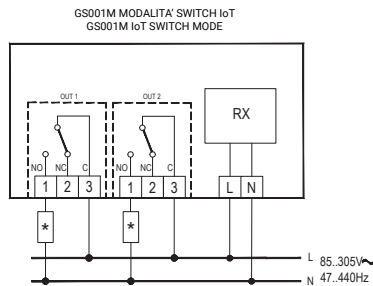
Seitron Smart
Temperatura sotto controllo
Temperature under control

GET IT ON **Google Play**

Download on the **App Store**

EXPLORE IT ON **AppGallery**
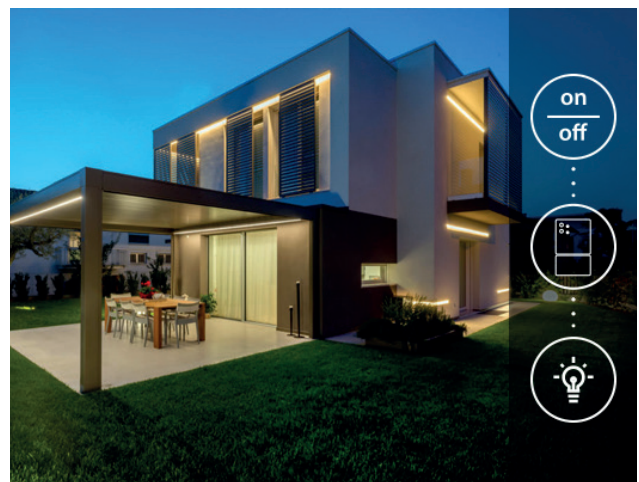
PROGRAMMABLE THERMOSTATS

FREETIME EVO
Daily and Weekly

TCD02B

Room Temperature Probe
STAD01

Room Temperature Probe
STLD01

ELECTRONIC PROGRAMMABLE THERMOSTAT - DAILY AND WEEKLY

Wall-mounted, battery powered daily programmable electronic thermostat, allows to set the room temperature easily and precisely.
It can be set from the menu in daily or weekly mode, according to your needs.
Suitable for controlling Heating and Cooling systems through a relay output with changeover contacts (C, NC, NO). The regulation of the room temperature happens on two levels: Comfort and Economy (according to the set time program).

TECHNICAL FEATURES

Power supply:	2 x 1,5V alkaline
Battery life:	>3 years
Contact rating:	5(1)A 250V~ SPDT
Type of internal sensor:	NTC 10K Ohm ±1% @ 25°C
Range:	-9,9°C .. +50,0°C
Precision:	±1,0°C
Resolution:	0.1°C. (0.0°C .. 50.0°C)
	0.2°C. (-9.9°C .. -0.1°C)
Max. remote sensor wires length:	15 m
Protection grade:	IP 30
Classe Reg. 2013/811/CE	IV=2,0%
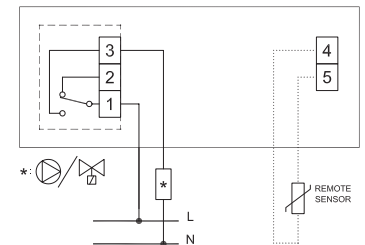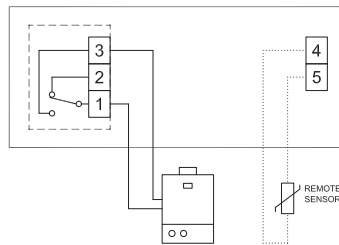
A SIMPLE WAY TO SAVE MONEY

Discover Freetime Evo, the battery-powered programmable thermostat easy to set up. Freetime Evo allows you to save energy on your cooling and heating bills, and at the same time to lower the emissions with benefits to the environment.

FREETIME *plus*

TCD01B

**Room Temperature Probe
STAD01**

DIGITAL PROGRAMMABLE THERMOSTAT - DAILY -

Battery powered chonothermostat for heating/cooling, daily programming with pins for 2 adjustable temperature levels and anti-frost function. Large backlit LCD display. Adjustable differential. Facility for remote sensor. Very user friendly.

TECHNICAL FEATURES

Battery powered	2 x 1,5V AA
Operation	On/Off Heating/Cooling
Available set-points	2 (comfort-economy)
Working range	10 .. 30°C
Adjustable Anti-frost	0°C .. 25.0°C
Adjustable differential	0.0°C .. 20.0°C
Internal sensor	NTC (10k Ohm @ 25°C)
Temperature display	Backlit 3 digit LCD
Output (relay)	5(1)A @ 250V~ SPDT
IP rating	IP30
Dimensions	H87 W133 D32mm
Class Reg.2013/811/EC	IV = 2,0%
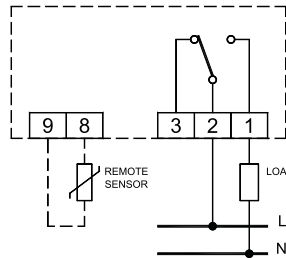
Main applications:
driving zone valves - pumps - wall boilers

TEMPORA

TCEGIOBI03

ELECTRONIC PROGRAMMABLE THERMOSTAT

Battery powered analog electronic programmable thermostat, daily (TCEGIOBI03) and weekly (TCESETBI03) programming with timer for 2 temperatures adjustable with knobs. Three operating modes: off-antifrost/automatic/manual.

TECHNICAL FEATURES

Programming	Daily (TCEGIOBI03)
	Weekly (TCESETBI03)
Operation	On/Off-anti frost/manual
Available set-points	2 (comfort-economy)
IP rating	IP20
Working range (comfort)	10 .. 30°C
Working range (economy)	10 .. 26°C
Internal sensor	NTC (10k Ohm @ 25°C)
Output (relay)	5(1)A @ 250V~ SPDT
Dimensions	H84 W156 D36mm
Class Reg.2013/811/EC	I = 1,0%
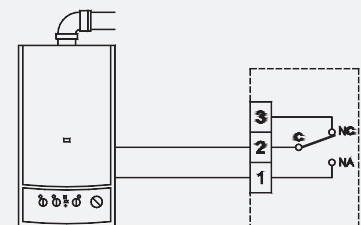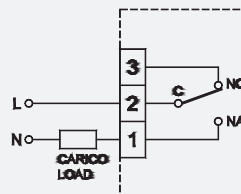
THYGROS

THW01B
Dehumidification only in cooling mode

THW02B
Dehumidification in heating and cooling modes

Sonda Ambiente
STAD01

PROGRAMMABLE THERMO-HYGROSTAT

Battery powered programmable thermo-hygrostat, heating/cooling and humidification/dehumidification modes, up to 7 different programs with 48 time cycles per day and 3 temperature and humidity levels (Comfort, Economy, Off/Antifrost). Antifrost function and dew point control. Large backlit LCD. Start optimizer. Holidays (1h ÷ 99dd) and cleaning mode. Facility for switching on via telephone and facility for remote sensor.

TECHNICAL FEATURES

Available modes	3 (comfort-economy-Off/anti frost)
Working range	5 .. 40°C
Anti-frost	0,5 .. 25°C
Internal sensor	NTC (10k Ohm @ 25°C)
Output	5(1)A @ 250V~ SPDT
Dimensions	H87 W132 D27mm
IP rating	IP30
Available set-points	3 (comfort-economy-Off/dew point)
Working range	10 .. 95% RH
Output	5(1)A @ 250V~ SPDT
Class Reg.2013/811/EC	I = 1,0%
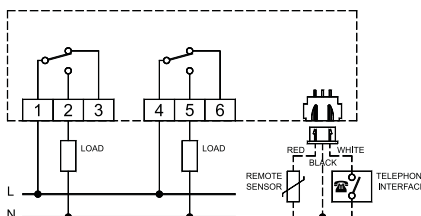
THERMOSTATS

WIRING BOXES

TADDY
TAD02B

Room Temperature Probe
STAD01

BATTERY POWERED DIGITAL THERMOSTAT

The device can be used both in heating and cooling systems, and it is featured with a wide backlit display for the visualization of all the functional indications and the detected room temperature. The device can be used both in heating and cooling systems. Furthermore, the device offers the possibility to set the value of the antifreeze temperature and the Offset regulation on the internal and remote sensor.

TECHNICAL FEATURES

Power supply:	2 x 1,5V, alkaline batteries (type AAA)
Setting range:	Comfort: 5°C .. 40°C - Economy: 5°C .. 40°C
Type of sensor:	NTC 10KOhm ±1% @ 25°C
Differential:	0.0°C .. 5.0°C (Default 0.2°C)
Antifrost:	OFF / 0.0°C .. 25.0°C (Default 3.0°C)
Offset internal sensor:	± 9.9°C (Default 0.0°C)
Contact rating:	5(1)A 250V~ SPDT, voltage free.
Dimensions:	85x85x24,6 mm
Protection rating:	IP 30
Class Reg.2013/811/EC:	I = 1,0%
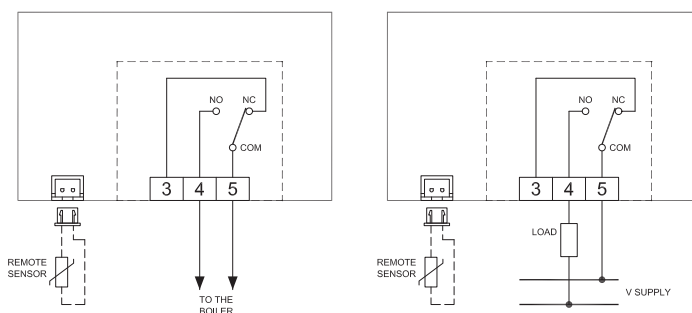
TADDY
TAD02M
230Vac

TAD022
24Vac

Room Temperature Probe
STAD01

230V/24V DIGITAL ROOM THERMOSTAT

The device can be used both in heating and cooling systems, and it is featured with a wide backlit display for the visualization of all the functional indications and the detected room temperature. The device can be used both in heating and cooling systems. Furthermore, the device offers the possibility to set the value of the antifreeze temperature and the Offset regulation on the internal and remote sensor.

TECHNICAL FEATURES

Power supply	(TAD 02M) 230V~ -15/+10% 50Hz
	(TAD 022) 24V~ -15/+10% 50Hz
Absorbed power:	1,7VA
Setting range:	Comfort: 5°C .. 40°C
Differential:	0.0°C .. 5.0°C (Default 0.2°C)
Antifrost:	OFF / 0.0°C .. 25.0°C (Default 3.0°C)
Offset internal sensor:	± 9.9°C (Default 0.0°C)
Contact rating:	5(1)A 250V~ SPDT, voltage free.
Grado di protezione:	IP30
Classe Reg.2013/811/CE:	I = 1,0%

www.seitron.com
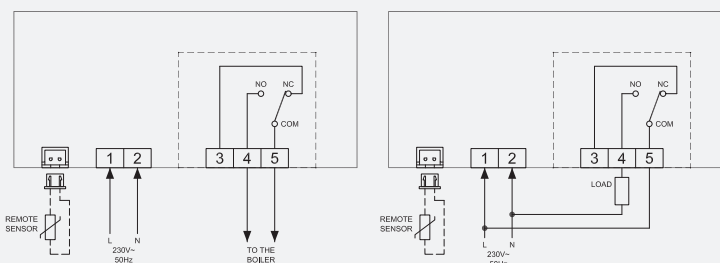
TAS04M
230Vac

TAS042
24Vac

TA S04MT
230V~ Tamperproof

**TAS042T**
24V~ Tamperproof

Room Temperature Probe
STANP3

Remote Probe
STLNTSA150

ELECTRONIC ROOM THERMOSTAT

On/off room thermostat for heating systems. Special pin stop system for limiting the setpoint range. Internal sensor and facility for remote sensor (STL NTS A 150 or STA NP3).

TECHNICAL FEATURES

Power supply	(TAS04M) 230V~ -15/+10% 50Hz
	(TAS042) 24V~ -15/+10% 50Hz
Working range	6 .. 30°C
Power consumption	7 VA max.
Differential	0.5°C
Sensor	NTC (4k7 Ohm @ 25°C)
Output (relay)	1x5(1)A @ 250V~ SPDT
Red LED indicator	Relay active
Dimensions	H85 W85 D31mm
IP rating	IP30
Class Reg.2013/811/EC	I = 1,0%

TAS05M
230Vac

TAS052
24Vac

TAS05MT
230V~ Tamperproof

TAS052T
24V~ Tamperproof

Room Temperature Probe
STANP3

Remote Probe
STLNTSA150

ELECTRONIC ROOM THERMOSTAT NIGHT SET-BACK

On/off room thermostat for heating systems with adjustable night set-back. Special pin stop system for limiting the setpoint range. Internal sensor and facility for remote sensor (STL NTS A 150 or STA NP3).

TECHNICAL FEATURES

Power supply	(TAS05M) 230V~ -15/+10% 50Hz
	(TAS052) 24V~ -15/+10% 50Hz
Working range	6 .. 30°C
Night set-back range	2°C .. 7°C (Default 4,5°C)
Power consumption	7 VA max.
Differential	0.5°C
Sensor	NTC (4k7 Ohm @ 25°C)
Output (relay)	1x5(1)A @ 250V~ SPDT
Red LED indicator	Relay active
Dimensions	H85 W85 D31mm
IP rating	IP30
Class Reg.2013/811/EC	I = 1,0%

TAEZN4MC
230Vac

TAEZN42C
24Vac

Room Temperature Probe
STANP3

Remote Probe
STLNTSA150

DEADBAND THERMOSTAT

Adjustable deadband thermostat with two outputs for heating/cooling, automatic change-over based on air. Special pin stop system for limiting the set-point range. Internal sensor and facility for remote sensor.

TECHNICAL FEATURES

Power supply	(TAEZN4MC) 230V~ -15/+10% 50Hz
	(TAEZN42C) 24V~ -15/+10% 50Hz
Working range	6 .. 30°C
Neutral zone	1 .. 11°C (adjustable)
Internal sensor	NTC (4k7 0hm @ 25°C)
Differential	<0.5°C
Output (relay)	2x5(1)A @ 250V~ SPDT
Red LED indicator	Heating
Green LED indicator	Cooling
Dimensions	H85 W85 D31mm
IP rating	IP30
Class Reg.2013/811/EC	I = 1,0%
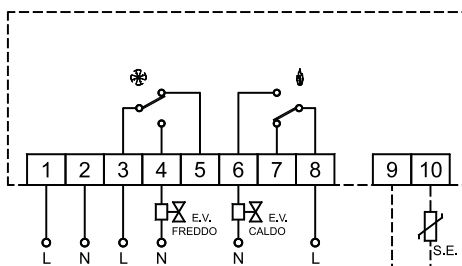
TAN01M
230Vac

TAN012
24Vac

Room Temperature Probe
STANP3

Remote Probe
STLNTSA150

ELECTRONIC ROOM THERMOSTAT HEATING/COOLING 230V - 24V

On/off room thermostat for heating/cooling systems. Special pin stop system for limiting the setpoint range. Internal sensor and facility for remote sensor (STL NTS A 150 or STA NP3).

TECHNICAL FEATURES

Power supply	(TAN01M) 230V~ -15/+10% 50Hz
	(TAN012) 24V~ -15/+10% 50Hz
Working range	6 .. 30°C
Power consumption	7 VA max.
Differential	0.5°C
Sensor	NTC (4k7 Ohm @ 25°C)
Output (relay)	1x5(1)A @ 250V~ SPDT
Red LED indicator	Relay active
Slide switch	Off/heating/cooling
Dimensions	H85 W85 D31mm
IP rating	IP30
Class Reg.2013/811/EC	I = 1,0%

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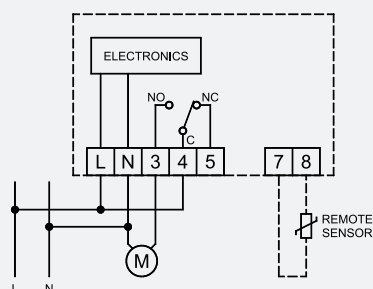
TM001M

TM002M
With light indication

ROOM THERMOSTAT
ROOM THERMOSTAT WITH LIGHT INDICATION

Electro-mechanical room thermostat with gas filled bellow. Light indication (only for cod. TM002M). Special pin stop system for limiting the set-point range.

TECHNICAL FEATURES

Working range	8 .. 30°C
Sensor	Vapour pressure
Differential	<1°K
Contacts rating	TM0 01M 16A @ 250V~ SPDT
	TM0 02M 16A @ 250V~ SPDT
Dimensions	H85 W85 D31mm
IP rating	IP30
Class Reg.2013/811/EC	I = 1,0%
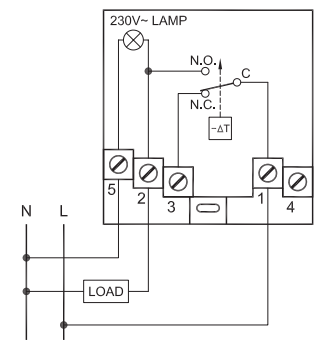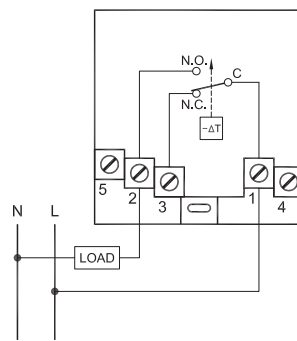
TM003M
On/Off switch

TM004M
Heating/cooling switch

ON/OFF THERMOSTAT
HEATING/COOLING THERMOSTAT

Electro-mechanical room thermostat with gas filled bellow. Light indication. On/off switch (cod. TM003M) or heating/cooling switch (cod. TM004M). Special pin stop system for limiting the set-point range.

TECHNICAL FEATURES

Working range	8 .. 30°C
Sensor	Vapour pressure
Differential	<1°K
Contacts rating	10A @ 250V~ SPDT
Dimensions	H85 W85 D31mm
IP rating	IP30
Class Reg.2013/811/EC	I = 1,0%
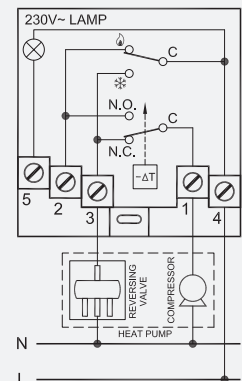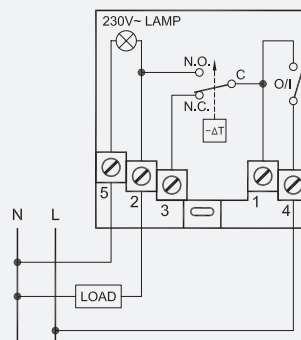
THERMOSTATS RANGE COMPARISON CHART

CODE	Power Supply	LCD	Selector	Tamper-proof	Remote Probe opt.	Night Set	Dead Band	Output
TAD02B	Batteries	✓	On-Off	--	✓	✓	--	1x5A
TAD02M	230V	✓	On-Off	--	✓	✓	--	1x5A
TAD022	24V	✓	On-Off	--	✓	--	--	1x5A
TAS042	24V	--	--	--	✓	--	--	1x5A
TAS042T	24V	--	--	✓	✓	--	--	1x5A
TAS04M	230V	--	--	--	✓	--	--	1x5A
TAS04MT	230V	--	--	✓	✓	--	--	1x5A
TAS052	24V	--	--	--	✓	✓	--	1x5A
TAS052T	24V	--	--	✓	✓	✓	--	1x5A
TAS05M	230V	--	--	--	✓	✓	--	1x5A
TAS05MT	230V	--	--	✓	✓	✓	--	1x5A
TAN012	24V	--	Off/Heating/Cooling	--	✓	--	--	1x5A
TAN01M	230V	--	Off/Heating/Cooling	--	✓	--	--	1x5A
TAEZN42C	24V	--	--	--	✓	--	✓	2x5A
TAEZN4MC	230V	--	--	--	✓	--	✓	2x5A
TM001M	230V	--	--	--	--	--	--	1x16A
TM002M	230V	--	--	--	--	--	--	1x16A
TM003M	230V	--	On/off	--	--	--	--	1x10A
TM004M	230V	--	Heating/Cooling	--	--	--	--	1x10A

FLOOR HEATING POWER AND WIRING UNITS

European demand for under floor heating systems, also known as UFH (Under Floor Heating) has been constantly increasing for years. This growth is due to a series of advantages which traditional solutions do not have: better environmental comfort, cleaning and design, lower consumption, higher adaptability to condensating boilers and to all renewable heating sources with low temperature as well as the possibility of cooling in summer.

In all Northern Europe UFH systems have been the most used solution in the new plants for years. Their sales are continually increasing in Italy, too. UFH systems are intrinsically split into zones, because each room is powered by its own dedicated circuit, starting from a manifold equipped with on – off valves.

SEITRON has developed specific solutions for zone adjustment of under floor heating systems, both with wired products and completely wireless, products communicating via radio. (See else where in the catalogue the wireless system section).

WIRE CONNECTION SOLUTION

This solution is based on two ranges of products:

•   Electronic room thermostats : a complete range of reliable competitive and high performance devices with 230V~ or 24V~ supply, available also in tamperproof 230V~ or 24V~ version.

•   Wiring center which make easier the connection of the room thermostats and the manifold on- off valves, available in 6, 8 and 12 channels, 230V~ or 24V~ supply.
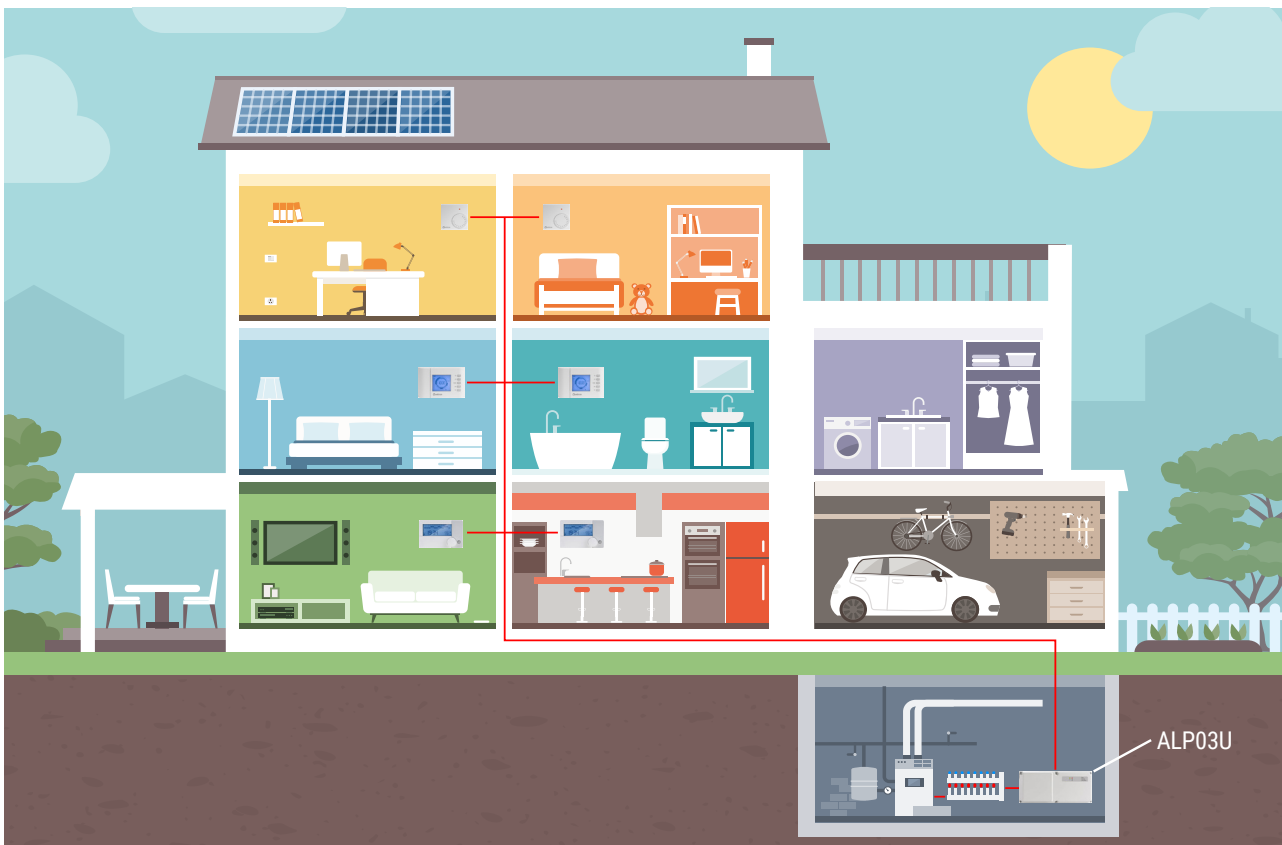
ALP03U

Installation example of a ALP03U with 6 room thermostats in input, 6 valves and a pump connected at the output.

ALC006M
With 230V/24V transformer

ALC006U
Without transformer

6 CHANNELS WIRING BOX

6 outputs wiring box for floor heating plants with 230V~/24V~ transformer (cod. ALC006M) or without transformer (cod. ALC006U). 6 outputs available.

TECHNICAL FEATURES

Power supply	cod. ALC006M: 230V~ ±10% 50Hz
	cod. ALC006U: Universal (24 .. 230V~)
Power absorption cod. ALC006M: 24VA	
Max load	cod. ALC006M: 1A @ 24V~(Tot.)
	cod. ALC006U: 2A @ V power supply (Tot.)
Dimensions	H100 W245 D60mm
IP rating	IP30
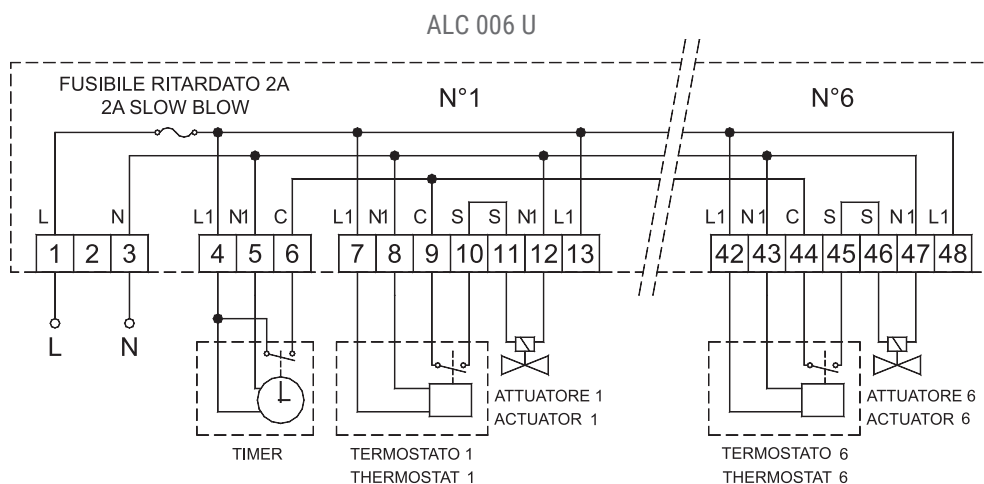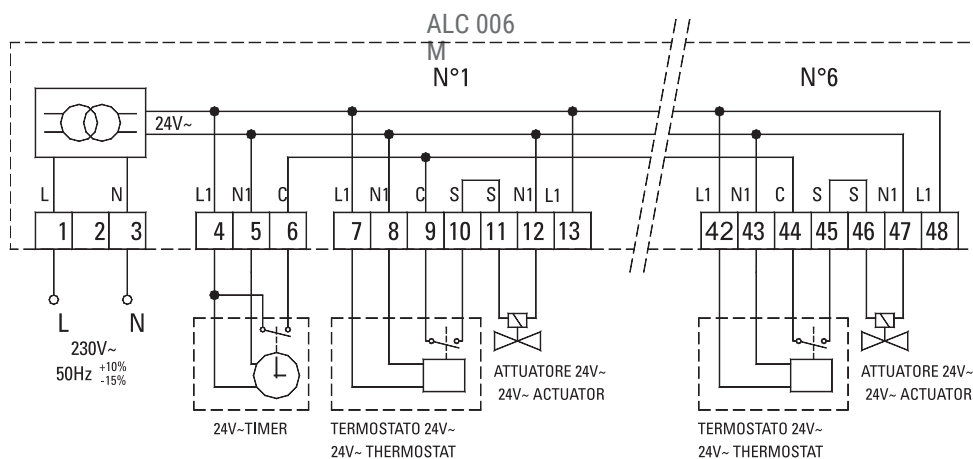
ALC012M
With 230V/24V transformer

ALC012U
Without transformer

WIRING BOX 12 CHANNELS

12 outputs wiring box for floor heating plants with 230V~/24V~ transformer (cod. ALC012M) or without transformer (cod. ALC012U). 12 outputs available

TECHNICAL FEATURES

Power supply	cod. ALC012M: 230V~ ±10% 50Hz
	cod. ALC012U: Universal (24 .. 230V~)
Power absorption cod. ALC012M: 40VA	
Max load	cod. ALC012M: 10A @ 24V~(Tot.)
	cod. ALC012U: 10A @ V power supply (Tot.)
Dimensions	H100 W245 D60mm
IP rating	IP30

ALC 012 M

ALC 012 U
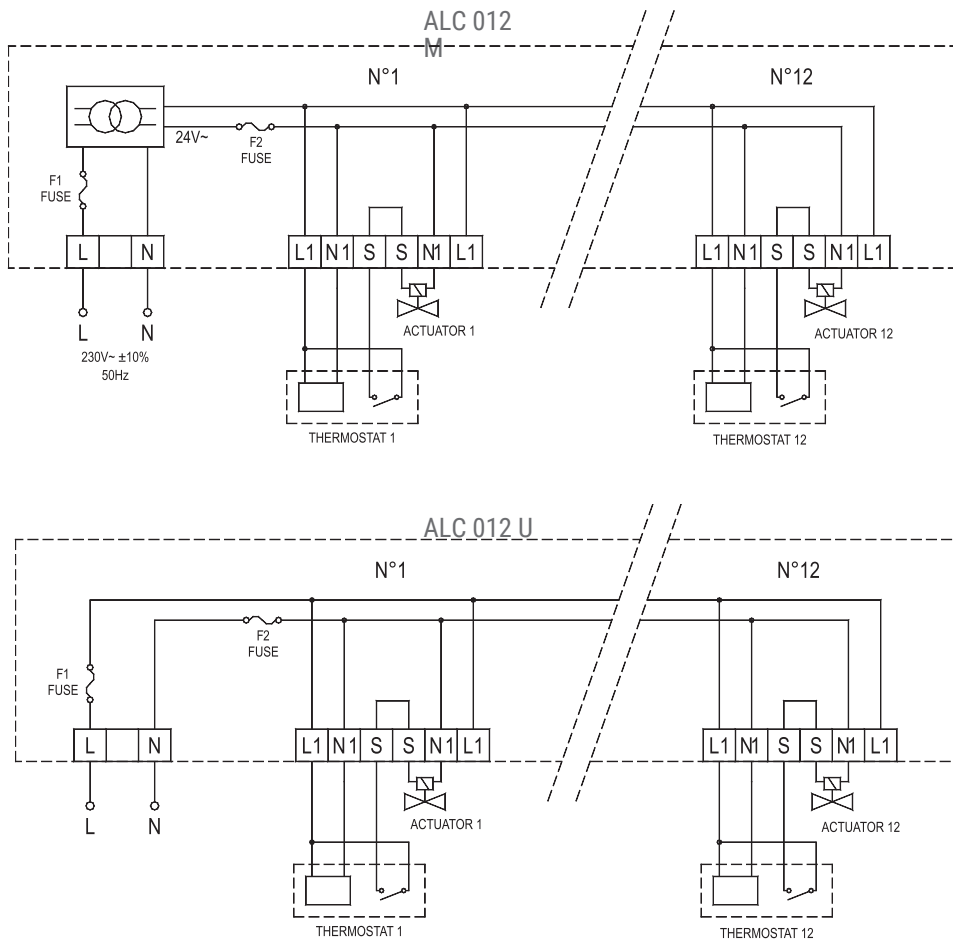
ALP06U

4 CHANNELS WIRING BOX
PUMP AND BOILER CONTROL 230V-24V

Electronic control for floor heating systems, with 24V~ or 230V~ power supply. The control offers the possibility to connect up to 4 thermostats and up to 4 actuators with selectable power supply between 24V~ or 230V~. Pump output, boiler control output and input for an external clock for the activation of the section of the actuators and thermostats.

TECHNICAL FEATURES

Power supply	230V ±10% 50Hz or
	24V ±10% 50Hz
Power absorption	Depends on the loads connected
Output :	
Pump (powered)	3A
Boiler (voltage free)	1A
Actuators and thermostats	max 1A each channel
	max 1A total
Green LED indicator	Power supply
Red LED indicator	Pump active
IP protection	IP30
Case	ABS V0 self-extinguishing
Dimensions	H100 W130 D60mm
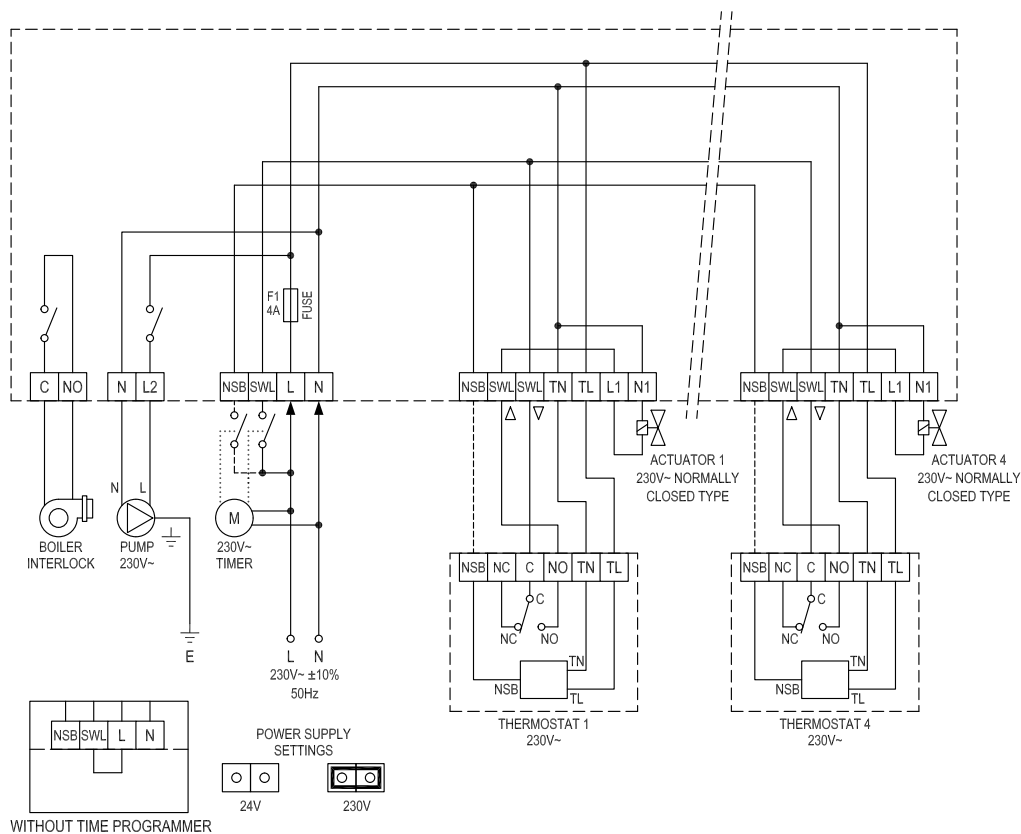
ALCD08M0M

8 CHANNELS WIRING BOX
PUMP AND BOILER CONTROL 230V

Electronic control for floor heating systems, with 230V~ power supply. The control offers the possibility to connect up to 8 channels, with a thermostat and up to 5 actuators each. Pump output with fixed delay time of 2.5 minutes, boiler control output and input for an external clock for the activation of the section of the actuators and thermostats.

TECHNICAL FEATURES

Power supply	230V~ ±10% 50Hz
Power absorption	According to the loads rating
Illuminated switch	On/Off
IP protection	IP44
Contacts rating: Pump	5A@250V~ SPST
Contacts rating: Boiler interlock	5A@250V~ SPST
Maximum applicable load:	
Actuators and thermostats	1,25A each channel
	2A total
Dimensions	H125 W320 D67mm
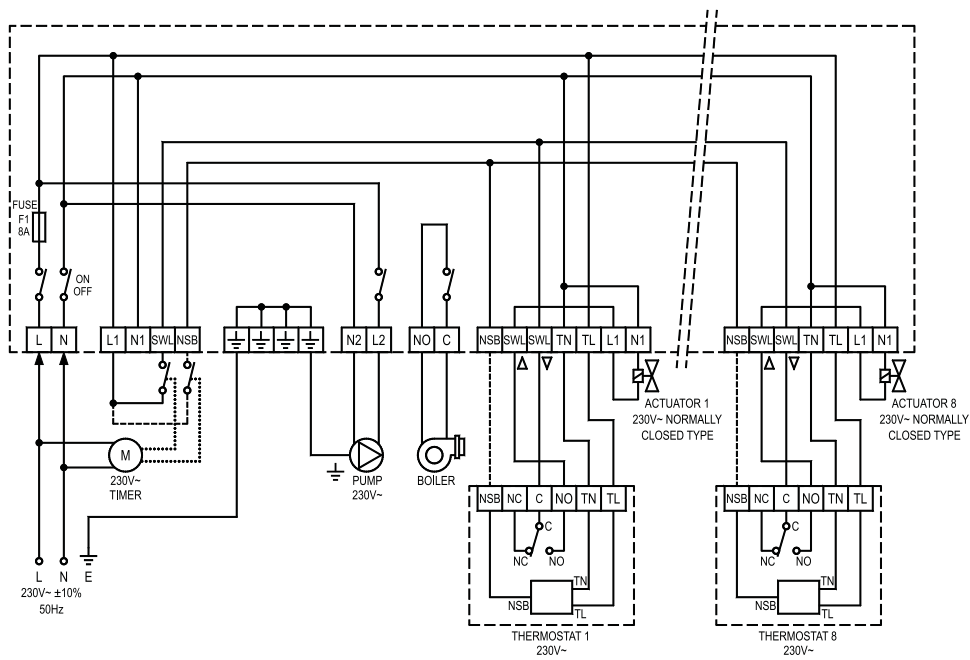
ALCD08M02

8 CHANNELS WIRING BOX
PUMP AND BOILER CONTROL 230V-24V

Electronic control for floor heating systems, with 230V~ power supply. The control offers the possibility to connect up to 8 channels, with a thermostat (24V~) and up to 5 actuators (24V~) each. Pump output with fixed delay time of 2.5 minutes, boiler control output and input for an external clock for the activation of the section of the actuators and thermostats.

TECHNICAL FEATURES

Power supply	230V~ ±10% 50Hz
Power absorption	According to the loads rating
Illuminated switch	On/Off
IP protection	IP44
Pump output	230V~
Boiler interlock output	Voltage free contact
Thermostats/actuators outputs	24V~
Time prog. output (optional)	24V~
Contacts rating: Pump	5A@250V~ SPST
Contacts rating: Boiler interlock	5A@250V~ SPST
Maximum applicable load:	
Actuators and thermostats	1A each channel
	2A total
Dimensions	H125 W320 D67mm
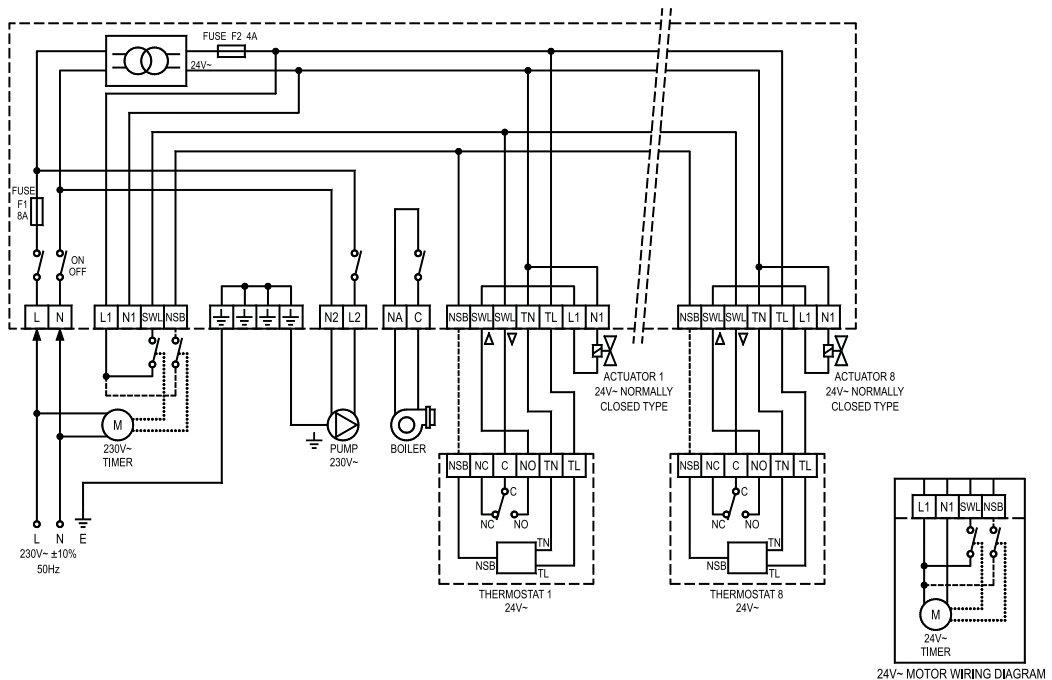
ALP03U

8 CHANNELS WIRING BOX
PUMP CONTROL 230V - 24V AND BOILER

Electronic control for heating floor systems. The control offers the possibility to connect up to 8 thermostats and 8 actuators with selectable power supply between 230V~ or 24V~. Pump output is available + boiler interlock, input for an external clock for the activation of the section of the actuators and thermostats.

TECHNICAL FEATURES

Power supply	230V ±10% 50Hz or
	24V ±10% 50Hz
Power absorption	Depends on the loads connected
Output :	
Pump (powered)	5A @ 250V~ SPDT
Boiler (voltage free)	1A @ 250V~ SPDT
Actuators and thermostats	8x1A @ 250V~
Green LED indicator	Power supply
Red LED indicator	Pump active
IP protection	IP30
Case	ABS V0 self-extinguishing
Dimensions	H100 W245 D60mm

ALP 03U 230V

ALP 03U 24V

DIN RAIL MOUNTING KIT

ACKB01
for: DLP241, DLP841, ALCPxx, ALPxxx

ACKB02
for: ALCDxxx
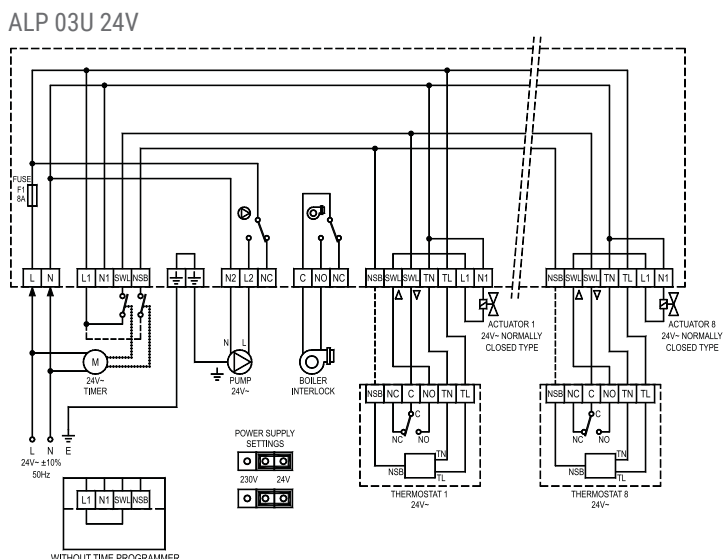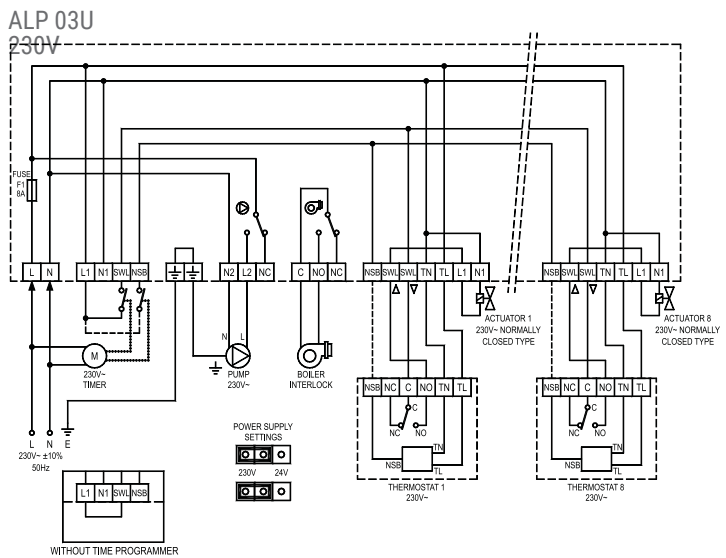
WIRELESS THERMOSTATS

Seitron wireless range: technology and functionality at the highest levels

Seitron wireless solutions for thermoregulation enable to obtain high comfort performances thanks to their unique and unmatched simple installation and use.

In fact, whenever there may be difficulties in wiring installation to connect the thermoregulation devices between each other, a wireless solution (or via radio) allows to overcome them, keeping the same or even higher performances compared to the wired systems.

If in some circumstances the cable or radio technology is a customer's decision, sometimes the installation of a wireless system is the only possible choice, for example when the installation of wires and ducts over or inside the walls is not possible, for instance in buildings with a high artistic value or new plants that require the addition of regulation units. Furthermore, these systems are preferable in case of plants with frequent wall arrangement modifications, allowing therefore to avoid the continuous rebuild of the cable systems.

Being easy to be installed, Seitron wireless series is also an economic choice compared to the traditional cable systems that require a thermostat for each room, each of them wire-connected to the zone valve. In this case the main costs are due to the labour costs, that together with cables and ducts costs can reach the 70-90% of the overall cost. Even if the wireless solution may seem more expensive in terms of thermostats and receivers costs, on the other hand the costs for cables and ducts are equal to zero and the labour cost is more than halved. Thus the total installation cost of the wireless systems compared to the wired ones is significantly lower.

Featuring a modern and functional design, the new Seitron thermostats transmit a very low power radio signal – around 1mW – that lasts a few milliseconds, reducing any electromagnetic pollution risk. Also interference danger can be avoided: European standards require that frequencies of 868MHz can be used only on devices with intermittent and occasional transmission.
Seitron radio products are distinguished by the way the signal is transmitted:

MONODIRECTIONAL SYSTEM
In this system the transmission takes place in one single direction: from the transmitter (thermostat) toward the receiver (for example relay module). It is suitable for simple systems, e.g. point-to-point systems, however it doesn't allow to show on the wall-installed thermostat any setting that, in some occasions, can be managed by the system administrator, for instance set-point temperature or heating/cooling set-up.

BIDIRECTIONAL SYSTEM
In this system the transmission can occur in both directions: not only from the transmitter (thermostat) to the receiver (relay module) but also on the other way around. This possibility allows in some cases, e.g. in commercial environments (such as schools, hospitals, offices), to manage some settings in a remotely and 'centralized' mode, which will then be transmitted to the display of the thermostat mounted on the wall, thus informing the user in the most efficient way.
Economic, easy, safe, Seitron wireless thermoregulation systems represent the ideal choice for any occasion.

Wireless KIT: Thermostat + Receiver (Pre-Paired)

KTR005
TRD02B + DRR01M

batteries included

KIT VIA RADIO 2

Kit including one wireless thermostat and one single channel receiver with 1 output.
Chronothermostat and receiver already pre-paired at the factory, for even easier and faster installation.

Room temperature Probe
STANP3

KCR005
DCD01B + DRR01M

KIT VIA RADIO 3
FREETIME *plus*

Kit including one wireless daily programmable thermostat and one single channel receiver with 1 output.
Chronothermostat and receiver already pre-paired at the factory, for even easier and faster installation.

Room temperature Probe
 STAD01

KCR006
DCW01B + DRR01M

KIT VIA RADIO 4
MAGICTIME *plus*

Kit including one wireless weekly programmable thermostat and one single channel receiver with 1 output.
Chronothermostat and receiver already pre-paired at the factory, for even easier and faster installation.

Room temperature Probe
 STA D01

FREETIME *plus* VIA RADIO

DCD01B

Room temperature Probe
STAD01

WIRELESS DAILY PROGRAMMABLE THERMOSTAT

Battery powered digital programmable thermostat, heating/cooling modes, daily programming with pins for 2 adjustable temperature levels. Redundant data transmission, every 3 minutes. Control of pellet stoves and floor heating systems. Anti-frost function. Large backlit LCD display. Internal sensor and facility for remote sensor.

TECHNICAL FEATURES

Programming	Daily
Operation	On/Off, PWM
Available set points	3 (comfort-economy-Off/anti frost)
Working range	5 .. 35°C
Adjustable hysteresis	0,1 .. 5,0°C
Internal sensor	NTC (10k Ohm @ 25°C)
Input for an external sensor	Configurable
Max. distance from receiver	50 meters
Transmission frequency	868,150 MHz
Antenna type	Internal
Dimensions	H87 W133 D32mm
Class Reg.2013/811/EC	IV = 2,0%
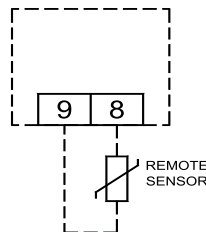
MAGICTIME *plus* VIA RADIO

DCW01B

Room temperature Probe
STAD01

WIRELESS WEEKLY PROGRAMMABLE THERMOSTAT

Battery powered digital programmable thermostat, heating/cooling modes, up to 7 different programs with 48 time cycles per day and 3 temperature levels (Comfort, Economy, Off/Antifrost). Redundant data transmission, every 3 minutes. Control of pellet stoves and floor heating systems. Anti-frost function.Holidays(1h ÷ 99dd.) and cleaning mode. Internal sensor and facility for remote sensor. Facility for switching on via telephone.

TECHNICAL FEATURES

Operation	On/Off, PWM
Working range	10 .. 30°C
Available time cycles per day	1 .. 48
Adjustable hysteresis	0,1 .. 5,0°C
Internal sensor	NTC (10k Ohm @ 25°C)
Input for an external sensor	Configurable
Max. distance from receiver	50 meters
Transmission frequency	868,150 MHz
Antenna type	Internal
Dimensions	H87 W133 D32mm
Class Reg.2013/811/EC	IV = 2,0%

SENSORE REMOTO   INTERFACCIA TELEFONICA

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TRD02B

batteries included
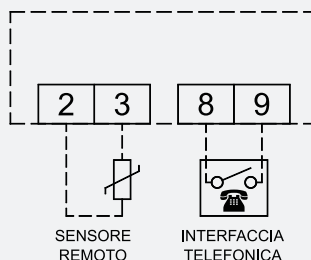
Room temperature Probe
STANP3

WIRELESS DIGITAL THERMOSTAT

Wireless thermostat with blue backlit LCD. It has several operating modes: comfort, economy, off/antifreeze. It is configurable by setting parameters: offset, hysteresis setpoint min. max. etc.. Internal sensor for room temperature and facility for remote sensor. Heating/Cooling selection can be managed by the thermostat or on the receiver. Limitation for final user intervention.

TECHNICAL FEATURES

Working range	5 .. 35°C adjustable
Transmission frequency	868,150 MHz
Internal sensor	NTC (4k7 @ 25°C)
External sensor (opt.)	NTC (4k7 @ 25°C)
Max. distance from receiver	> 50 meters (inside average buildings)
Data trasmission time	3 min/10 min
Antenna type	Internal
IP rating	IP30
Dimensions	H85 W85 D23,6 mm
Class Reg.2013/811/EC	IV = 2,0%

REMOTE SENSOR
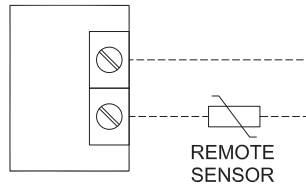
DTPF85BC

DTPF85BCT
Tamperproof

batteries included

batteries included

Room temperature Probe
STAOP3

WIRELESS THERMOSTAT

Wireless thermostat for temperature regulation in domestic environment or offices to be combined with relevant receiver system. Internal sensor and input for remote sensor. Special pin stop system to optionally limit the setpoint knob range. Redundant radio command transmission with selectable time period. Heating/Cooling internal selection or manageable at receiver side. Possibility of regulation with economy managed at receiver side.

TECHNICAL FEATURES

Working range	6 .. 30°C
Transmission frequency	868,150 MHz
Internal sensor	NTC (100k @ 25°C)
Red LED indicator	Low battery
Max. distance from receiver	50 meters (inside average buildings)
Data trasmission time	3 min/10 min
Antenna type	Internal
IP rating	IP30
Dimensions	H85 W85 D28,5mm
Class Reg.2013/811/EC	IV = 2,0%

1   2

REMOTE SENSOR
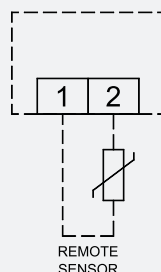
DRR01M
1 output receiver

RECEIVER 1 OUTPUT

1-channel radio receiver, equipped with an integrated antenna and an SPDT relay output that can drive an actuator or a circulation pump or directly a boiler. Two-color LED for indicating the status of the output relay and the quality of the radio connection with the relative transmitter. Self-learning of the transmission code. Valid solution for all buildings where it is not convenient to take the cables from the thermostats to the heating plant.

TECHNICAL FEATURES

Power supply		230V~ ±10% 50Hz
Power absorption		11VA
Output (relay)		1 (x 6A) @ 250V~
Transmission frequency		868,150 MHz
Antenna type		Internal stylus
Bicolour LED indicator		Active relay/ transmission quality
IP rating	IP4X	
Dimensions		H125 W78 D30,5mm
Class Reg.2013/811/EC		IV = 2,0%
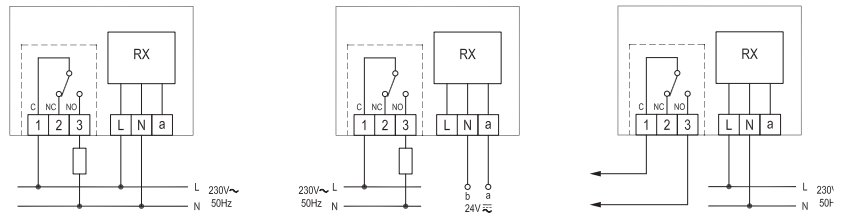
DRR02M
2 output receiver

RECEIVER 2 OUTPUT

2-channel radio receiver, equipped with an integrated antenna and two SPDT relay outputs that can drive an actuator or a circulation pump or directly a boiler. Suitable for 2-zone solutions. Two-color LED for indicating the status of the output relay and the quality of the radio connection with the relative transmitter. Self-learning of the transmission code. Also available hot / cold in sequence with neutral zone, selectable with internal jumper.

TECHNICAL FEATURES

Power supply		230V~ ±10% 50Hz
Power absorption		11VA
Output (relay)		2 (x 6A) @ 250V~
Transmission frequency		868,150 MHz
Antenna type		Internal stylus
Bicolour LED indicator		Active relay/ transmission quality
IP rating	IP4X	
Dimensions		H125 W78 D30,5mm
Class Reg.2013/811/EC		IV = 2,0%

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DRR42M
2 output receiver

2 CHANNELS RADIO RECEIVER FOR HOME AUTOMATION SYSTEMS

The receiver is able to get radio inputs from the Modbus® transceiver antenna (DA0421), featured with two SPDT relays outputs and two LEDs giving an indication about the status of the outputs and the quality of the radio signal. This system offers an optimal solution in buildings where it is not possible to physically wire the thermostat to the room which must be thermally controlled. By operating on the frequency of 868,150 MHz (LPD) it provides the user with the advantages of this bandwidth, such as the great immunity from radio disturbances and a greater efficiency of the radio signal range.

TECHNICAL FEATURES

Power supply:	230V 50Hz / 24V
Absorption:	11VA
Relay contacts ratings:	2 x 6(4)A 250V (voltage free)
Frequency:	868,150 MHz
Type of antenna:	internal stylus
2 colors LED indicator:	Active relay / transmission quality
Protection rating:	IP3X
Dimensions:	A125 L78 P30,5mm
Classe Reg.2013/811/CE:	IV = 2,0%
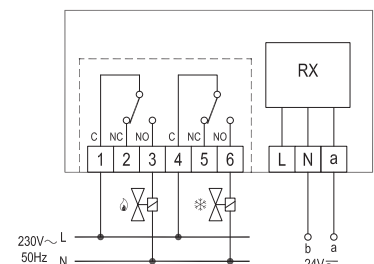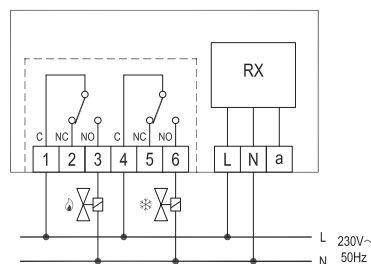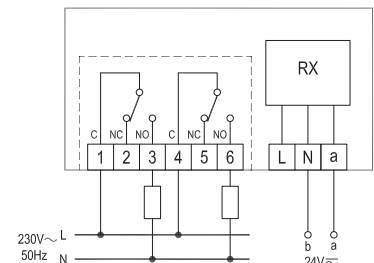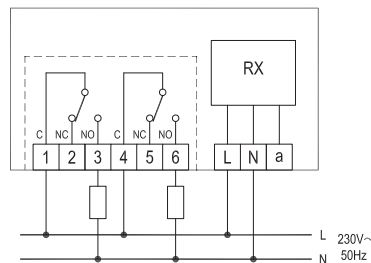
DA0411

ACTIVE ANTENNA FOR DLP MODULES

868,150 MHz receiving active antenna for DLP relay modules, equipped with a 5mt cable. It can be configured to make different jobs: Repeater: relays radio commands received by one or more wireless devices, for range problems in harsh environments or doubling the actual range. Receiver for home automation: this antenna can be connected to a pc or a home automation controller via RS485 bus, the home automation controller will get all the commands coming from wireless thermostats via proprietary protocol or MODBUS® RTU protocol. In case the device is used as a repeater or receiver and so it will not be connected to a DLP module, it will need a 12VDC external power supply.

TECHNICAL FEATURES

Transmission frequency	868,150 MHz
Bicolour LED indicator	Active module/status
IP rating	IP30
Power supply	6 .. 14 VDC (read txt)
Power absorption	80 mA max
Dimensions	H85 W85 D31mm

```
1 2 3 4    [RJ]
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     OUT
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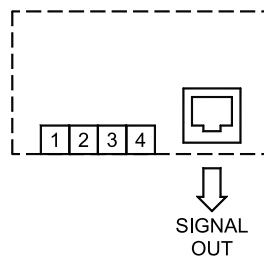
DA0421

TRANSCEIVER ANTENNA FOR HOME AUTOMATION SYSTEMS

Connected to a pc or to a home automation hub, through RS485 bus, it allows to extend the inputs range coming from the radio thermostats, to the home automation hub through MODBUS® RTU protocol.
Unlike the DA0411, the DA0421 can also transmit actuation inputs to one or more DRR42M receivers which output relays can directly control the actuators, solenoid valves, automatic shutters, fans, etc.
A maximum of 32 DRR42M receivers can be controlled by a DA0421.

TECHNICAL FEATURES

Power supply:	6..14 VDC (from data cable or terminals)
Absorption:	80mA max
Frequency:	868,150 MHz
Type of antenna:	internal stylus
2 colors LED indicator:	Active relay / transmission quality
Protection rating:	IP30
Dimensions:	A85 L85 P31mm

```
1 2 3 4    [RJ]
    SIGNAL
     OUT
```
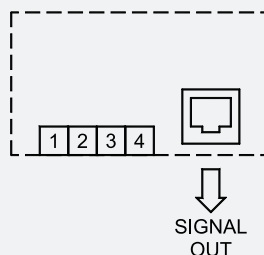
RELAY MODULES DLP241M, DLP841M, DLP8412

The DLP are relay modules for driving electro-thermal actuator or other types in wireless heating or cooling systems for home or offices. They feature 2 (DLP241M) or 8 (DLP841M / DLP8412) independent channels which in turn can be linked up to a wireless thermostat or programmable thermostat.

The modules also feature an auxiliary relay to control a pump or a boiler. Every single thermostat periodically sends a radio signal to the DAPF84 active antenna, which sends through a data cable the information to the DLP module, which will turn on or off the actuator relay output linked to the thermostat.

The auxiliary relay is turned on when at least one of the actuator output is active, and can be used to drive the pump or the boiler.

The modules have several LEDs on the frontal panel to indicate power on, output actuator status, auxiliary relay status; moreover the colour of the output actuator LEDs continuously shows the quality of the radio link with the relevant transmitter.

Configuration and testing of the system is extremely easy thanks to the self-learning function of the thermostat address.

It is possible to control with a night set back on any thermostat channel by associating it to a programmable thermostat channel.

The modules feature a Heating/Cooling input and a Global Standby input.

Actuators are 230V~ supplied or can be supplied from an auxiliary voltage (i.e. 24V~), and both NC normally closed and NO normally open actuators can be driven.

The DLP241M can be connected in chain to a DLP841M module to form a 10 channels system with just one antenna or up to 10 DLP841M modules can be connected in chain to form an up to 80 zone multichannel system with just one antenna. DLP8412, 230 V powered, can drive directly 24 V electro thermal actuators .

This system is a valid solution for all those buildings where it is not convenient to lay down wires from the thermostats to the heating-cooling room, moreover it enables high flexibility in positioning thermostats in the room.

230V~ / 24V~ RELAY MODULES DLP

2 or 8 channels relay module and circulator pump output for heating/cooling plants.

DLP241M

2 CHANNELS RELAY MODULE + PUMP OUTPUT 230V

Two channels relay module for heating/cooling plants.

TECHNICAL FEATURES

Power supply	230V~ -15%+10% 50Hz
Power absorption	3W
Relay rating	2x3A @ 250V~ cosfi=1
Maximum total load current	6A
IP rating	IP30
Dimensions	H100 W130 D60mm
Class Reg.2013/811/EC	IV = 2,0%
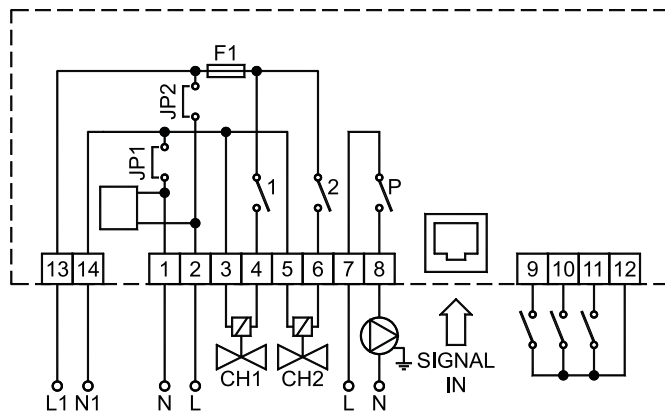
DLP441M

4 CHANNELS RELAY MODULE + PUMP OUTPUT 230V

Four channels relay module for heating/cooling plants.

TECHNICAL FEATURES

Power supply	230V~ -15%+10% 50Hz
Power absorption	4W
Relay rating	4x3A @ 250V~ cosfi=1
Maximun total load current 8A	
Circulator relay rating	3A @ 250V~ cosfi=1 SPST
IP rating IP30	
Dimensions	H100 W245 D60mm
Class Reg.2013/811/EC	IV = 2,0%
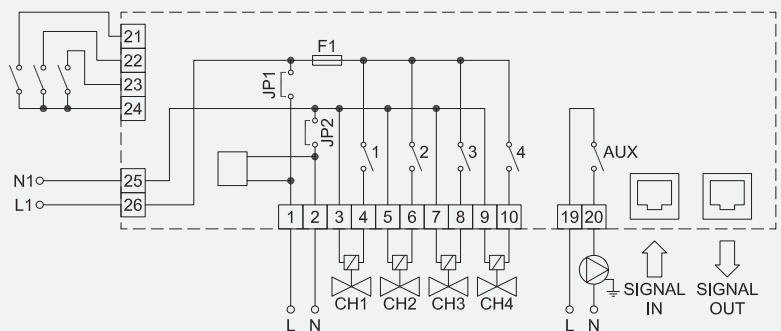
DLP841M

8 CHANNELS RELAY MODULE + PUMP OUTPUT 230V

8 channels relay module for heating/cooling plants.

TECHNICAL FEATURES

Power supply	230V~ -15%+10% 50Hz
Power absorption	4W
Relay rating	8x3A @ 250V~ cosfi=1
Maximun total load current 8A	
Circulator relay rating	3A @ 250V~ cosfi=1 SPST
IP rating IP30	
Dimensions	H100 W245 D60mm
Class Reg.2013/811/EC	IV = 2,0%
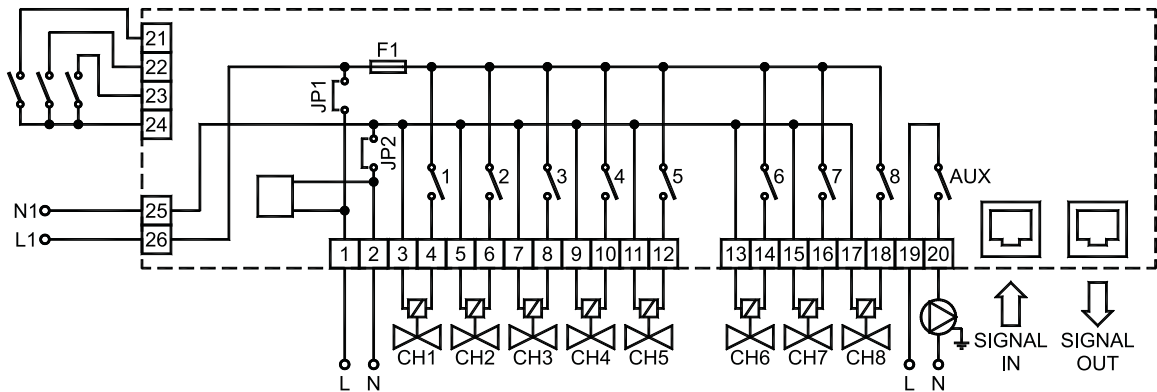
DLP8412

8 CHANNELS 24V MODULE + PUMP OUTPUT + BOILER INTERLOCK

Eight channels module for 24V low voltage heating/cooling plants. It is equipped with a high efficiency "green" AC/DC power supply to directly supply electrothermic actuators at 24Vdc.
This module can drive up to 14 electrothermic actuators with 24V 4W startup absorption.
The 8 outputs are overload and short circuit protected: in case of fault, the problem is signalled on the output LEDs.
The module features two auxiliary relay outputs to separately drive the pump and the boiler; a 230V pump can be directly wired.

TECHNICAL FEATURES

Power supply	90-264V~ 47-63Hz
Power absorption	2W (with DAPF84 connected)
Relay rating pump and boiler	5A@250V~ cosfi=1
Output rating actuator	8x3A @ 24V=
Max total power output	63W
Max load number	14 (4W startup)
IP rating	IP44
Dimensions	H125 W320 D67mm
Class Reg.2013/811/EC	IV = 2,0%
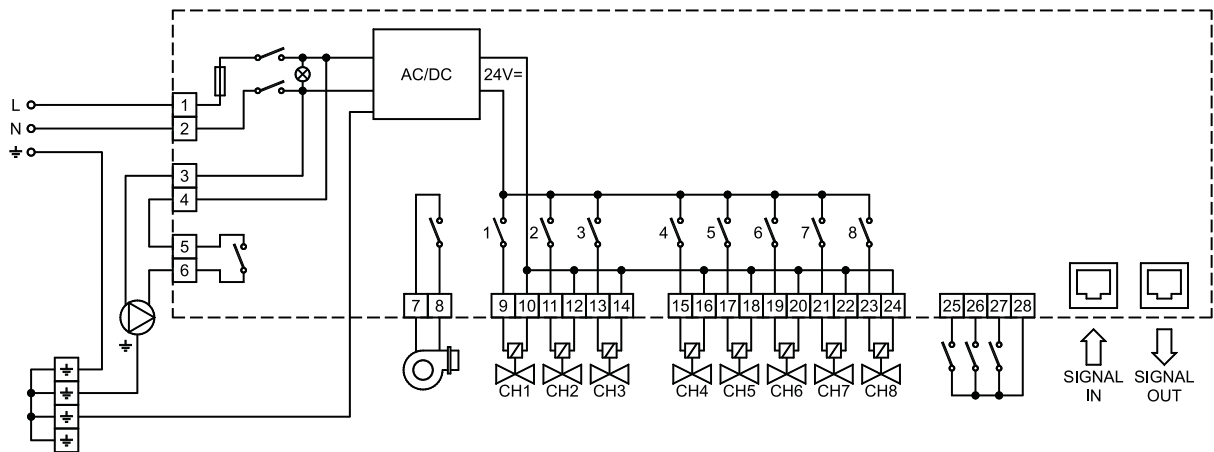
Typical Wireless Designs

1 Zone installation with wireless Thermostat or programmable Thermostat

Wireless Programmable Thermostat
(DC D01B o DC W01B)

Wireless LCD Thermostat
(TR D02B)

Wireless Receiver
(DR R01M o DR R02M)

2 Zones installation with wireless prog. Thermostat or thermostat - day/night

Active antenna
(DA 0411)

2 channels relay module + pump
(DLP 241M)

Wireless Programmable Thermostat
(DC D01B o DC W01B)

Wireless Thermostat
(DTP F85BC)

Wireless LCD Thermostat
(TR D02B)
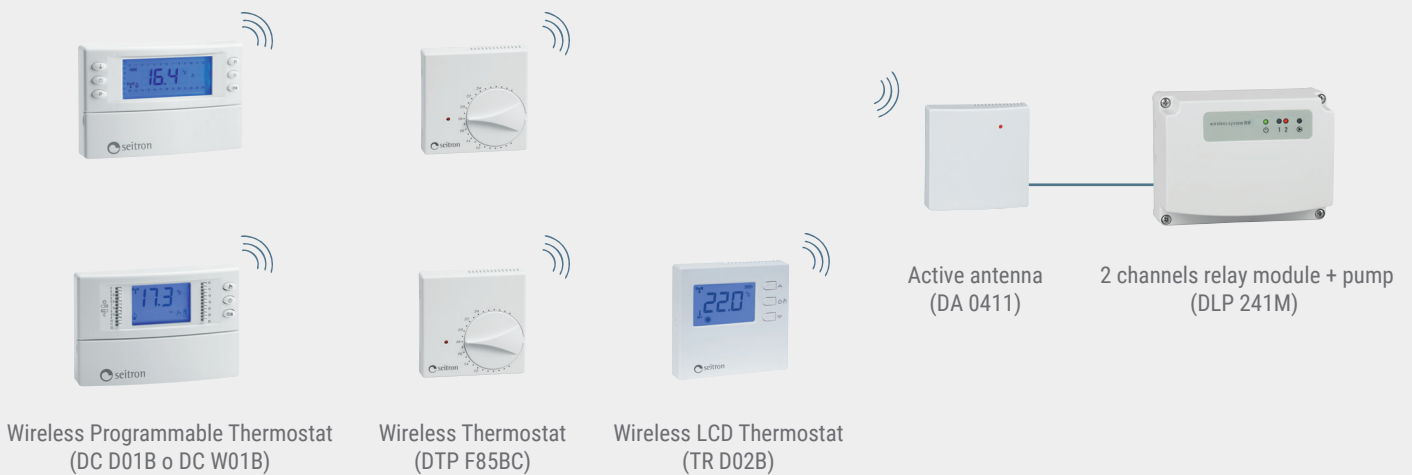
Multizone installation with wireless prog. Thermostat or thermostat from 8 to 80 zone

Active antenna
(DA 0411)

8 channels relay module + pump
(DLP 841M)
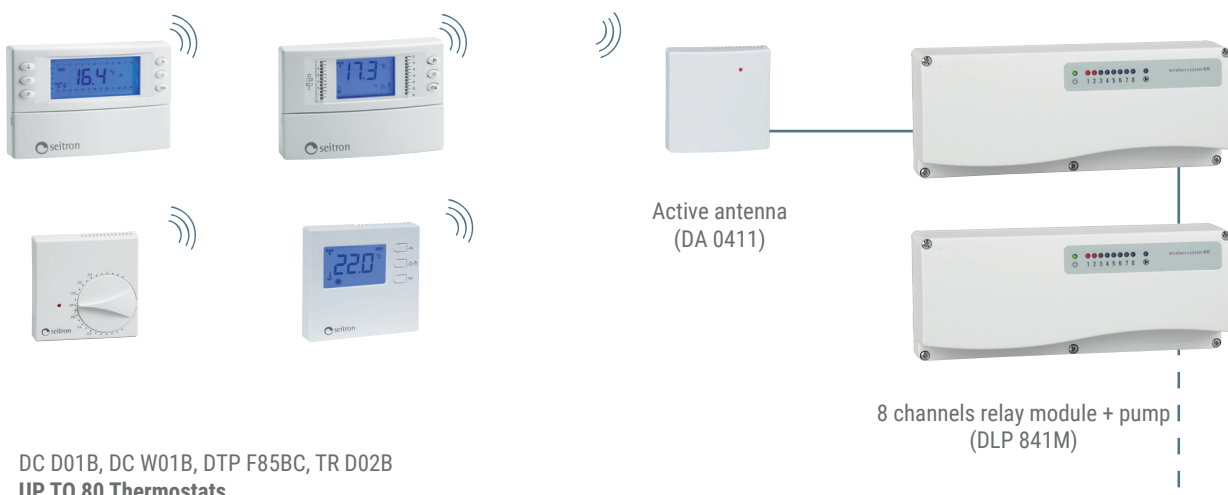
DC D01B, DC W01B, DTP F85BC, TR D02B
UP TO 80 Thermostats

UP TO 10 MODULES
(with only 1 antenna DA 0411)

RECEIVERS

Active Antenna
(DA0411)

8 channels Module
(DLP841M / DLP8412)
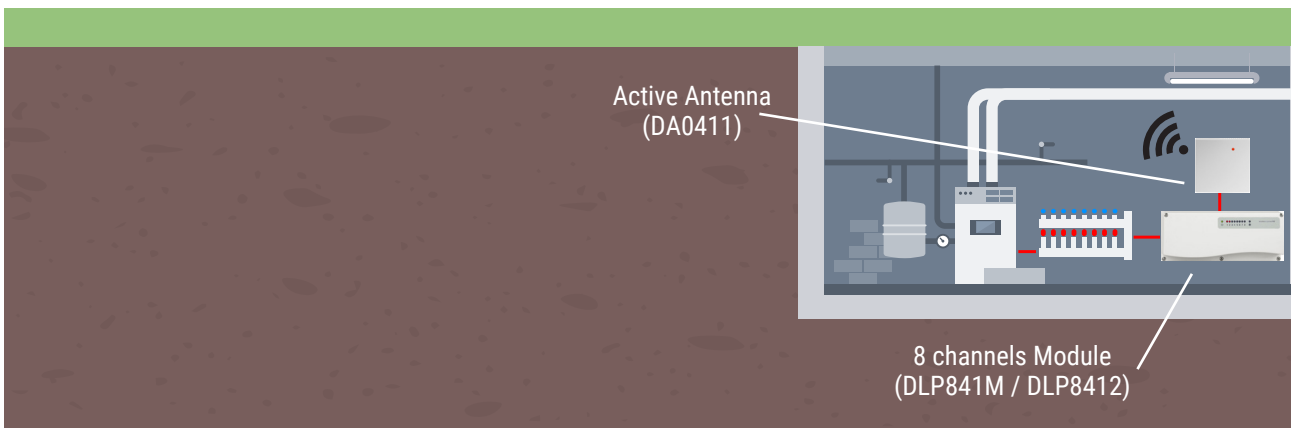
Installation example with 6 wireless thermostats, one DA 0411 active antenna and one DLP 841 2 relay module.

Example of Wireless system managed by a PLC

The Seitron wireless products, developed for home automation systems, are an effective solution to provide buildings with BMS control systems (Building Management System) the regulation of heating and cooling systems, even if an arrangement for a proper electrical connection has not been made.

If it is not possible to make masonry works, the wireless Seitron products for home automation systems are helpful to connect the BMS control system to the different environments where it is necessary to regulate the temperature.

The system can be made up by:
- a receiver-transmitter DA0421.
- one or more wireless temperature sensors DTPF85BCT.
- one or more wireless receiver actuators DRR42M.

The DA0421 represents the range-extender interface of the BMS control system towards the Seitron wireless products ecosystem. It is a receiver-transmitter which acts as a gateway between the radio signals at 868 MHz and the commands on serial port with Modbus® RTU protocol. It can receive the temperatures data detected by several wireless sensors installed inside the different building rooms; every DA0421 can acquire up to 50 different room temperatures detected by as many wireless temperature sensors. The DA0421, moreover, can transmit actuating commands to one or several DRR42M receivers which output relays can directly control the actuators, solenoid valves, automatic shutters, fans, etc. A maximum of 32 DRR42M receivers can be controlled by a DA0421.

A PLC featured with a serial port with Modbus® RTU protocol acts as Master querying the DA0421, so the PLC acquires the temperature of the several rooms of the building, executing the regulation algorithms specifically for the type of system, decides how to pilot the different actuators, sends the actuators status calculated to the DA0421 which transmits what has been received via Modbus® to one or more DRR42M receivers which pilot the actuators. So it is possible to manage the thermoregulation for several rooms from one single spot without having special dedicated electrical wirings.

The DA0421 is featured with a self-learning procedure which can be performed by pressing the dedicated button or via Modbus® RTU command to pick up the temperature sensors. Moreover, it can activate a transmission channel and so a Test mode toward a DRR42M receiver. The test mode consists in a series of ON/ OFF commands every 2 seconds aiming to test the radio connection and to perform the self-learning procedure.

DTPF85BCT   DTPF85BCT   DTPF85BCT   TAMPERPROOF THERMOSTATS

.. up to 50 units
for any DA0421

PLC

Modbus®

DA0421

2 CHANNELS WIRELESS RECEIVERS

.. up to 32 units
(64 relay output) for any DA0421

DRR42M   DRR42M   DRR42M

TRD03B

batteries included
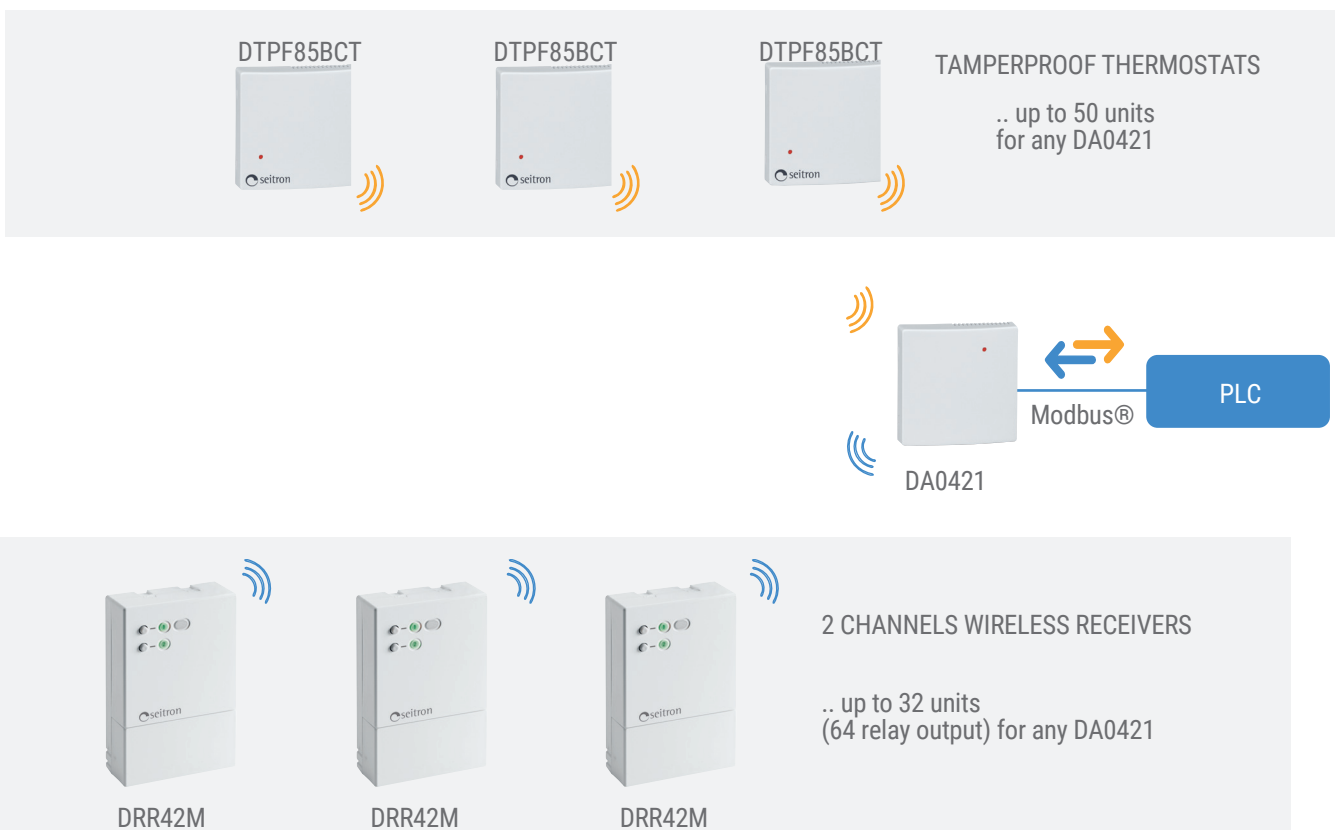
Room Temperature probe
STAD01

RADIO DIGITAL THERMOSTAT (BIDIRECTIONAL)

Wireless thermostat featuring an LCD screen with blue backlight. It has different operating modes: comfort, economy, off/antifreeze. Configurable by setting parameters: offset, hysteresis, setpoint min. max., ecc. Internal sensor for room temperature and predisposition for remote sensor connection. Summer/Winter selection by pressing a button. User setting can be limited. Featured with bidirectional wireless technology, when paired with a gateway DA0311, can be remotely managed, and so the operation modes, the setpoint temperatures, Summer/Winter selection can be remotely modified.

TECHNICAL FEATURES

Battery powered:	2 x 1.5V AA
Working range:	5 .. 35 ° C configurable
Frequency:	868.450 MHz
Internal / external sensor (opt.):	NTC (10K @ 25 ° C)
Max distance from the receiver:	> 50 m (x normal buildings)
Data transmission time:	1 .. 10 min (configurable)
Antenna type:	Internal
Protection degree:	IP30
Dimensions:	H85 W85 D23,6mm
Reg Class 2013/811 / CE:	IV = 2.0%

REMOTE SENSOR
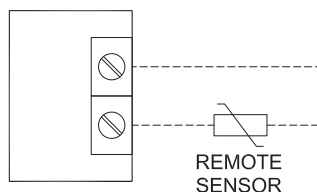
DA0311

TRANSCEIVER ANTENNA FOR HOME AUTOMATION SYSTEMS

Transceiver antenna for home automation systems, featured with bidirectional wireless technology, it acts as gateway between radio inputs at 868 MHz and inputs on serial port with Modbus® protocol.
When it is connected to a pc or to a home automation hub, it allows to connect the automation hub with one or more TRD03B radio thermostats, making possible to remote control every radio thermostat.
A maximum of 50 thermostats can be managed by a DA0311.

TECHNICAL FEATURES

Power supply:	6..14 VDC
Absorption:	80mA max
Frequency:	868,150 MHz
Type of antenna:	internal stylus
2 colors LED indicator:	Active relay / transmission quality
Protection rating:	IP30
Dimensions:	A85 L85 P31mm

1 2 3 4

SIGNAL OUT

www.seitron.com
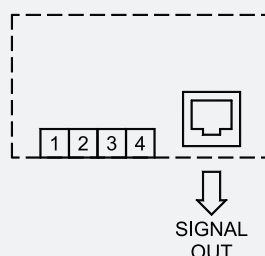
Example of a bidirectional wireless system run by a BMS/PLC

Seitron wireless products for home automation are an efficient solution to equip the buildings with a BMS (Building Management System) control system for the management of heating and cooling installations, also when the needed electrical connections are missing. When structural modifications are not possible, Seitron wireless products for the home automation help with the connection between the BMS control system and the areas that require the thermoregulation.

The described system in this case study is made up with:

- One or more thermostats/wireless bidirectional probe TRD03B

- Antenna/gateway 868MHz <> Bidirectional Modbus® DA0311

DA0311 represent the BMS/PLC control system interface expansion towards Seitron wall-mounted bidirectional wireless thermostats. It is a transceiver acting as gateway between radio inputs 868MHz and inputs on serial port with protocol Modbus® RTU. It receives the parameters set in each wall-mounted thermostat TRD03B (room temperature, Set-Point, Heating/Cooling mode, battery status, radio signal intensity and so on) and it make them available on Modbus ® in specific records that can be read or written by BMS or PLC system.

This system design allows to connect up to 50 TRD03B thermostats to one single antenna/gateway DA0311.

PLC or BMS system, equipped with serial port with Modbus® RTU protocol, acts as Master by questioning the DA0311 and by acquiring all parameters of the single devices on site, but, considering that the communication system is bidirectional, the Master can also write the values in dedicated Modbus® records in order to transfer these set-ups, via radio, to the wireless thermostats installed in the rooms.

This system allows then to get the complete control of a group of thermoregulation devices, not only for the acquisition of the information in the single rooms, but also to remotely and centrally set-up the single devices in order to show them on the thermostat display.

DA0311 has a self-learning procedure that can be activated by pressing the button or through Modbus® RTU input to connect the wall-mounted thermostats TRD03B. During this very simple operation, a control ON / OFF is emitted every 2 sec in order to test the radio connection and to confirm the coupling between the devices.

DIAMOND

SEITRON PRESENTS THE COMPLETE RANGE OF FAN COIL THERMOSTATS

Diamond New Line renews completely its design, while maintaining completeness and technological versatility.
The New Line range consists of 10 different wall-mounted thermostats, 1 recessed-mounted thermostat and 2 power interfaces. Fan Coil thermostats are the result of 30 years of experience. The range offers from the simplest and cheapest devices up to the most sophisticated ones, reaching 32 digital programmable functions, suitable for driving 2 0-10 Vdc actuators and fan.

DIAMOND RANGE COMPARISON CHART

Codice	Power	LCD	3 Speed Selector	Summer Winter	On Off	Fan Thermostat	Valves Thermostat	Program-mable Special Functions
TFD01M	230V/24V	No	Manual	Manual	Manual	On-Off	2 On-Off	No
TFM01M	230V/24V	No	Auto Manual	Manual	Manual	On-Off	2 On-Off	No
TFA01M	230V/24V	No	Manual	Manual	Manual	On-Off 0..10V	2 On-Off	No
TFF01M	230V/24V	Si	Auto Manual	Manual Auto Remote	Adjustable Manual	On-Off	2 On-Off PWM a 3 punti	Si
TFZ01M	230V/24V	Si	Auto Manual	Manual Auto Remote	Adjustable Manual	On-Off 0..10V	2 0..10V	Si

DIAMOND *new line*

TFD01M
230V~

Room Temperature Probe
STLD01

ELECTRONIC FAN COIL THERMOSTAT

Thermostat with cooling/off/heating switch and fan speed slide selector. Fan can be either controlled by thermostat or always running. Facility for external temperature probe and for a bimetal thermostat for the "cutoff thermostat" function. By means of the mechanical pins the angle of rotation of the knob can be limited.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50/60Hz (TFD01M)
	24V~ -15/+10% 50/60Hz (TFD012)
Working range	5 .. 35°C
Differential	< 0.5 °C
Internal sensor	NTC (10k Ohm @ 25°C)
Output (relay)	5(1)A @ 250V~ SPDT
Slide switch 1	3 speeds
Slide switch 2	Heating/off/cooling
Dimensions	H87 W132 D37mm
IP rating	IP20
Class Reg.2013/811/EC	I = 1,0%
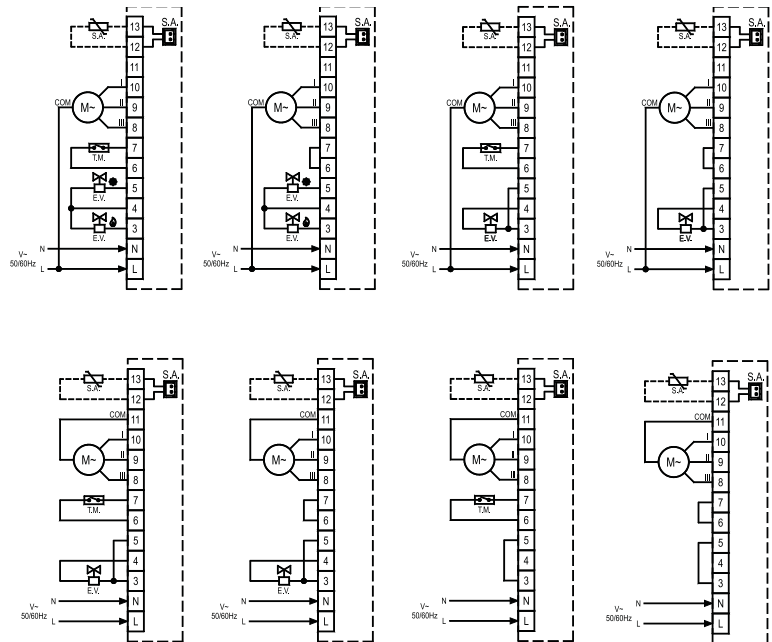
Notes: In order to select the external or internal sensor mode, a jumper is located on the p.c. board. The remote NTC sensor is to be ordered separately (i.e.: STLD01).

DIAMOND *new line*

TFM01M
230V~

ELECTRONIC FAN COIL THERMOSTAT

Electronic thermostat with heating/off/cooling selector and manual or automatic three-speed selector. Operation with 2 or 4 tubes and anti-stratification function. Operation with internal sensor, remote sensor or with "cutoff thermostat". Input for connecting a window contact.
By means of the mechanical pins the angle of rotation of the knob can be limited.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz (TFM01M)
	24V~ -15/+10% 50Hz (TFM012)
Working range	5 .. 35°C
Internal sensor	NTC (10k Ohm @ 25°C)
Differential	< 0.5 °C
Slide switch 1	I / II / III / auto
Slide switch 2	Cooling/off/heating
Output (relay)	3(1)A @ 250V~ SPDT
Dimensions	H87 W132 D37mm
IP rating	IP30
Class Reg.2013/811/EC	V = 3,0%

Room Temperature Probe
STLD01
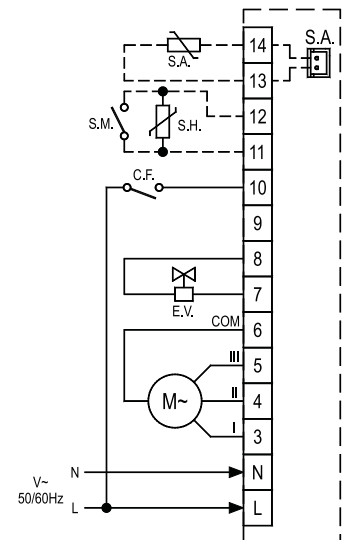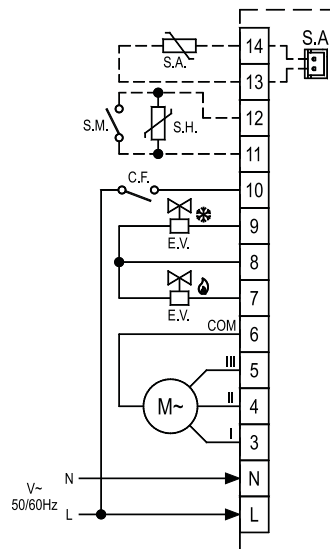
DIAMOND *new line*

TFF01M

Room Temperature Probe
STLD01

FAN COIL DIGITAL THERMOSTAT

Digital configurable thermostat with automatic or manual fan speed selection. Manual, automatic or centralised heating/cooling with an external input selection; dead band function and changeover based on supply water. Possibility to control valves or fan or both.
LCD showing all set functions. Suitable for On/Off, PWM, Floating actuators, resistor and heat pump control. Special functions: Economy, Dirty Filter Warning, Window contact. Facility for remote sensor and supply water pipe sensor.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz or
	230V~ ±10% 60Hz or
	24V~ -15/+10% 50/60Hz
Working range	Adjustable: 5 .. 35°C
Internal sensor	NTC (10k Ohm @ 25°C)
Outputs (N.O. relay): 3x fan speed	3A @ 230V ~
Outputs: 4x valves	4x0,3A (cosfi=1)
(on/off or floating), servomotor, electric heater and heat pump	
Speed control	Automatic/manual
Differential	0,2 .. 1,0°C
LCD display	Multifunction
Dimensions	H87 W132 D23,6mm
IP rating	IP30
Class Reg.2013/811/EC	V = 3,0%

A   Opens
C   Closes
Sc Floating actuator
SA Room sensor
SM Supply water sensor
EI   Remote Heat/Cool

DIAMOND *new line*

TFZ01M

Room Temperature Probe
STLD01
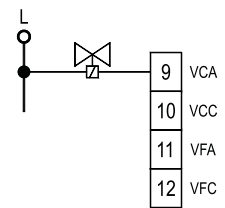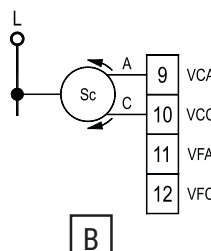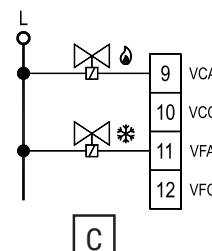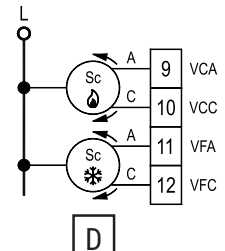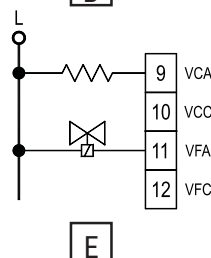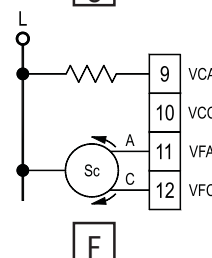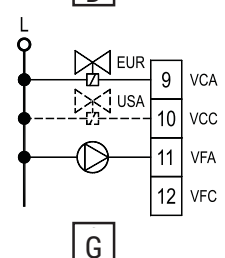
FAN COIL DIGITAL THERMOSTAT
DRIVING 0-10V FOR MOTORIZED VALVES AND FAN

Digital configurable thermostat like TFF01M, but suitable for driving of 0-10V actuators. Driving of fan motor via 3 relays or proportional via 0-10V signal. Possibility to supply the fan motor with 230V~, thermostat and actuators with 24V~. Temperature indication in °C or °F.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz or
	230V~ ±10% 60Hz or
	24V~ -15/+10% 50/60Hz
Working range	Adjustable: 5 .. 35°C
Internal sensor	NTC (10k Ohm @ 25°C)
Proportional outputs	0 .. 10 Vdc
Speed control	Automatic/manual
Differential	0.2 .. 1,0°C
LCD display	Multifunction
Dimensions	H87 W132 D23,6mm
IP rating	IP30
Class Reg.2013/811/EC	V = 3,0%

JP2	230/24V~ selection
V Heat	0..10V heating signal output
V Cool	0..10V cooling signal output
V Fan	0..10V fan signal output
Heat	Heating valve output
Cool	Cooling valve output
E/I	Remote input to activate "centralised Heating/Cooling" function
RDC	Remote input to activate "Economy" function
M	Fan motor
Sc	0..10V Floating actuator
S.M.	Supply water sensor
S.A.	Room sensor
CF	Remote input to activate "Window contact" function
RS	Connector for remote room temperature sensor connection. See "Electric connections"

Top left diagram:
24V~
a b
L
N
E / I
RDC
3
4
5
L
230V~
6
COM
7
N M
8
9
Sc 0..10V S 0..10V
b a
V HEAT
10
V COOL
Sc 0..10V S 0..10V
b a
11
V FAN
12
GND
SM
13
14
SA
15
CF
16
RS
JP2

Top right diagram:
24V~
a b
L
N
E / I
RDC
3
4
5
6
7
8
b Sc 0..10V S 0..10V
a
9
V HEAT
10
V COOL
L ECM 0..10V S 0..10V
N GND
230V~
11
V FAN
12
GND
SM
13
14
SA
15
CF
16
RS
JP2

a
N L
5 COM
6 HEAT
7 COOL
8

b
N L
Sc 0..10V
9 V HEAT
10 V COOL
11 V FAN
12 GND

c
N L
5 COM
6 HEAT
7 COOL
8

d
N L
Sc 0..10V
Sc 0..10V
9 V HEAT
10 V COOL
11 V FAN
12 GND

e
N L
5 COM
6 HEAT
7 COOL
8

f
N L
5 COM
6 HEAT
7 COOL
8
Sc 0..10V
9 V HEAT
10 V COOL
11 V FAN
12 GND

g
N L
S 0..10V
ECM 0..10V GND
9 V HEAT
10 V COOL
11 V FAN
12 GND

h
N L
COM M
I
II
III
5 COM.M
6 I.M
7 II.M
8 III.M

DIAMOND *new line*

TFA01M

ANALOG FAN COIL THERMOSTAT 230Vac or 24Vac

Analog regulator for fan-coils with 0..10 Vdc output for proportional drive of fans equipped with E.C. motor. Combined temperature sensor (internal or external). Four positions fan speed switch, with range selectable through internal trimmers. Power supply: 230Vac or 24Vac selectable with internal jumpers. Fan and valves operation selectable with internal jumpers.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50/60Hz (TFD01M)
	24V~ -15/+10% 50/60Hz (TFD012)
Working range	5 .. 35°C
Differential	< 0.5 °C
Internal sensor	NTC (10k Ohm @ 25°C)
Output (relay)	5(1)A @ 250V~ SPDT
Slide switch 1	4 speeds
Slide switch 2	Heating/off/cooling
Dimensions	H87 W132 D37mm
IP rating	IP20
Class Reg.2013/811/EC	V = 3,0%

Room Temperature Probe
STLD01
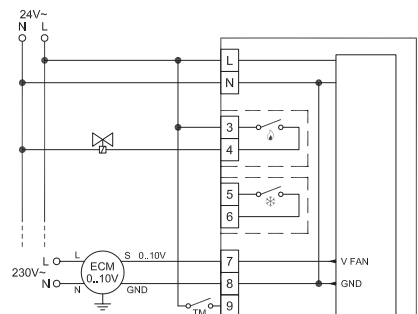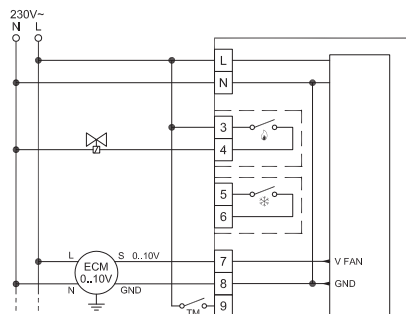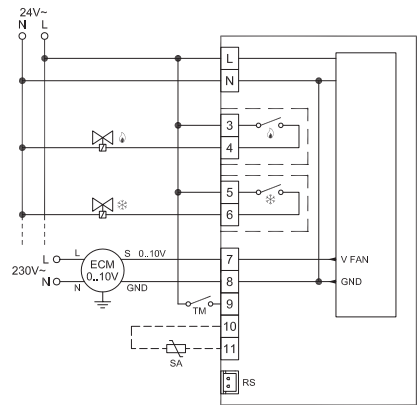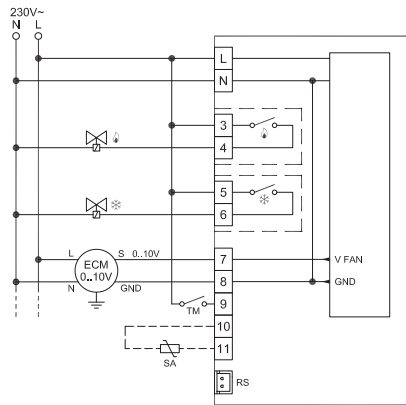
POWER INTERFACE

This unit, which is not a thermostat, performs the useful function of controlling up to 4 fan coils in parallel starting from a single thermostat, for example by a TFD01M.
The device has on board all the necessary relays power. The most common application is in the open spaces.


4 fan-coil
Power Interface
(TFEINF)

Fan coil Thermostat
(TFD01M)
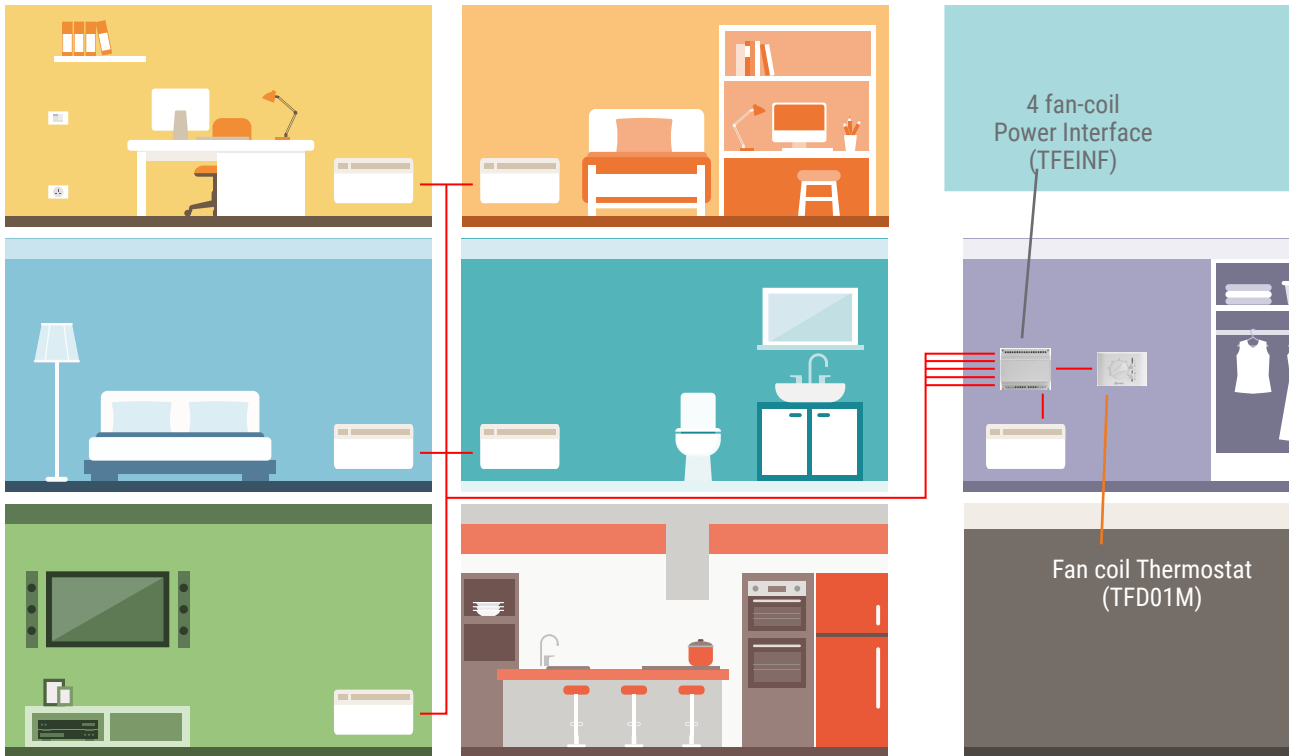
TFEINF
3 relays for 4 motors (3A)
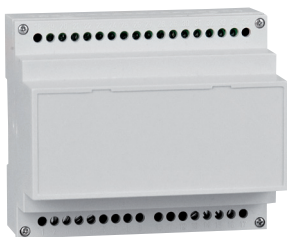
FAN COILS POWER INTERFACE

Power interface: it allows driving up to 4 fan-coils through a single thermostat. 6 modules case for DIN rail mounting.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Contact rating (for code)	1 x 16A @ 250V~ SPDT
	2 x 10A @ 250V~ SPDT
	4 x 3A @ 250V~ SPDT
IP rating	IP30
Dimensions	H90 W105 D70mm
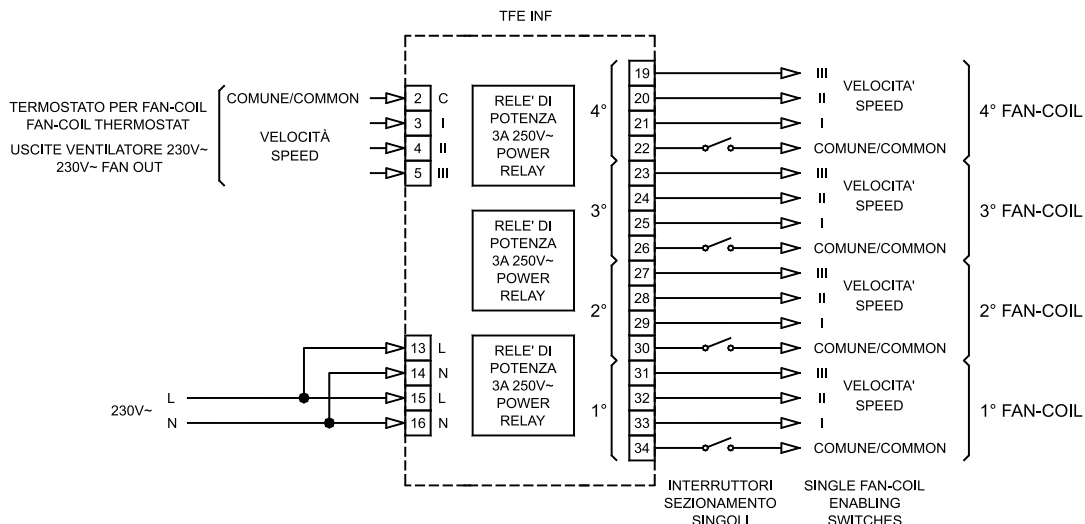
TTM003MI
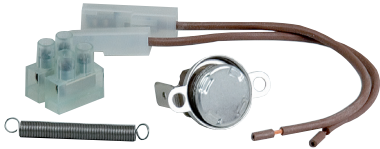
STRAP-ON MICROTHERMOSTAT

Strap-on microthermostat on-off N.O., working temperature: @ 42°C ± 3.5°C, breaks @ 31°C. Supplied with 200 mm cable, faston and terminals.

TECHNICAL FEATURES

Sensor type	Bimetallic
Accuracy	±3,5°C
Contacts rating	10(1,66)A @ 250V~ n.a.
Dimensions	H30,3 W20,8 D19,3mm

IFMEI1M

REMOTE CONTROL FOR FAN-COIL

Remote control for fan-coils with 3-speed slide switch and heating/off/cooling switch.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Contact rating	5A @ 250V~
Slide switch	3 speeds
Slide switch	Heating/off/cooling
IP rating	IP30
Dimensions	H80 W79 D37mm
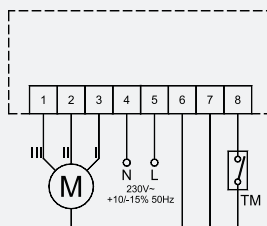
RESIDENTIAL GAS LEAK DETECTORS

Seitron designs and manufactures gas detectors for civil or domestic use since more than twenty years. From the beginning the choice was limited to 3 gases (2 explosive gases, methane and LPG, and 1 toxic gas, carbon monoxide - CO) and to produce gas leak detectors that deliver the maximum guarantees to those who use them for their own safety:
- Only detectors with acoustic alarm
- Relay output to activate normally closed (N.C.) and normally open (N.O.) electrovalve
- Only detectors powered with 230V mains voltage

DEFEND AGAINST DANGEROUS CARBON MONOXIDE (CO) POISONING

Carbon monoxide (CO) has been named the silent killer: it is odorless, colorless and tasteless. It is also slightly less dense than air, so it tends to accumulate slowly in the upper part of the rooms. Its most dangerous characteristic is that humans cannot detect its presence without proper testing. The most insidious fatal cases concern people who fall asleep with a slight headache and never wake up again. This should make clear to all the usefulness of CO alarms.

BEAGLE & SEGUGIO COMPARISON CHART

FEATURES	BEAGLE	SEGUGIO
Zone Number	1	2
Natural Gas	RGDME5MP1R, RGDME5MP1T	RGDMETMP1R
LPG	RGDGP5MP1R, RGDGP5MP1T	RGDGPLMP1R
CO	RGDCK5MP1S, RDCBA1	RGDCOKMP1
Kit With 3/4" Gas Electrovalve (NO/NC)	✓	✓
Power Supply	230 V~	230 V~
Acoustic Alarm	✓	✓
Output for 230V~ Gas Ev	✓	✓
Output for 12V= Gas Ev	-	✓
Sensor Life	5 Years	5 Years
Precalibrated replaceable sensor	✓	✓
Instrument Warranty	3 Years	3 Years
Alarm Test Button	✓	✓
Yellow LED for Fault Alarm	✓	✓
Red LED for Gas Alarm	✓	✓
Green LED for Working Unit	✓	✓
Dimensions	L85 x A107 x P38 mm	L148 x A84 x P40 mm

BEAGLE *plus* METANO

RGDME5MP1R

RGDME5MP1T
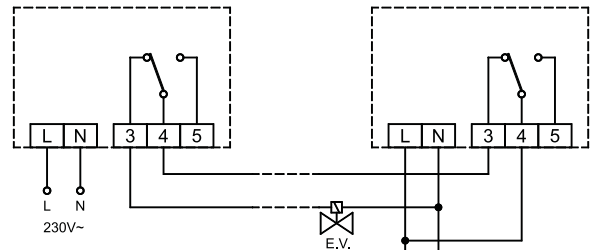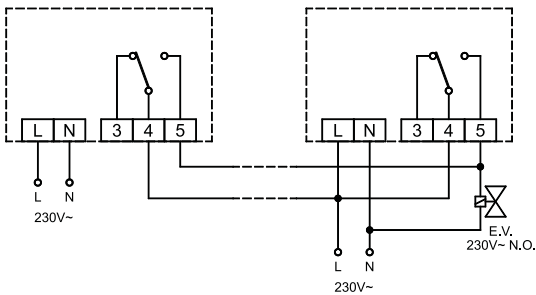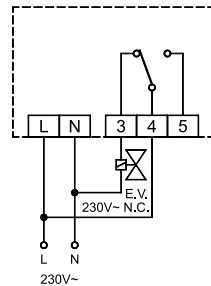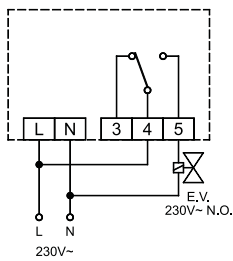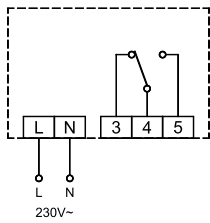with 2m cable and plug

GAS LEAKAGE DETECTOR - METHANE -

Domestic methane gas detector with output for driving 230V~ cut-off valves. Test button. In compliance with CEI-EN 50194-1 standard.
IMQ quality mark and compliance with CEI-EN 50194-1certify the absolute reliability and efficiency of the device. Precalibrated sensor, directly replaceable by user.

Pre-calibrated sensor (ACMM01), replaceable directly by the user.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Sensor type	SnO2 Semiconductor
	Precalibrated sensor, directly replaceable by user
Alarm threshold	10% L.E.L.
Output (relay)	5(2)A @ 250V~ SPDT
Sensor life	5 years
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
IP rating	IP42
Dimensions	H107 W85 D38mm

BEAGLE *plus* GPL

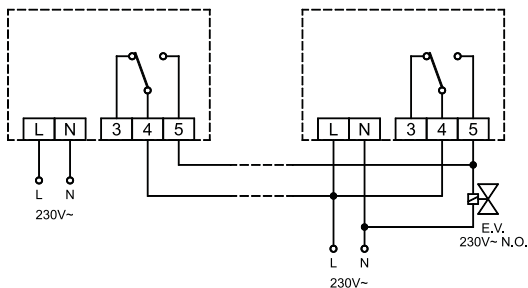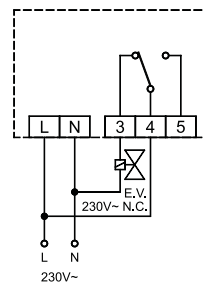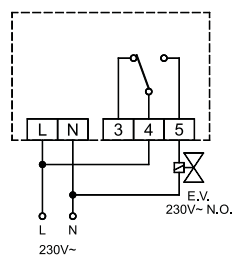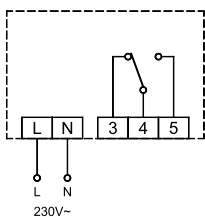## RGDGP5MP1R

RGDGP5MP1T
with 2m cable and plug

GAS LEAKAGE DETECTOR - LPG -

Domestic LPG gas detector with output for driving 230V~ cut-off valves. Test button. In compliance with CEI-EN 50194-1 standard. IMQ quality mark and compliance with CEI-EN 50194-1 certify the absolute reliability and efficiency of the device. Precalibrated sensor, directly replaceable by user.

Pre-calibrated sensor (ACMG01), replaceable directly by the user.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Sensor type	SnO2 Semiconductor
	Precalibrated sensor, directly
	replaceable by user
Alarm threshold	10% L.E.L.
Output (relay)	5(2)A @ 250V~ SPDT
Sensor life	5 years
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
IP rating	IP42
Dimensions	H107 W85 D38mm

BEAGLE
CO BUILD UP TECNOLOGY

RGDCK5MP1S

### RDCBA1
with 2m cable and plug
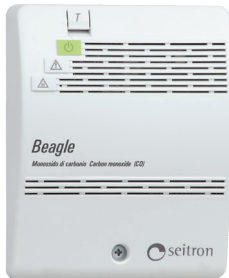
GAS LEAKAGE DETECTOR - CO -

Microprocessor based domestic carbon monoxide detector with output for cut-off valves, fans or any other electrical actuators with 230V power supply. Carbon monoxide detection with accumulation mode: it simulates the gas accumulation in the human body according to standard EN 50291-1.

Pre-calibrated sensor (ACMC01), replaceable directly by the user.

TECHNICAL FEATURES

Power supply	230V~ -±10% 50Hz
Internal sensor	Precalibrated chemical cell on module, directly replaceable by user
First alarm threshold	~30ppm CO lasting for >120 minutes
Output (relay)	5(2)A @ 250V~ SPDT
Button	Test/Alarm reset
Alarm Buzzer	Buzzer 85dB(A)@ 1m
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
IP rating	IP42
Dimensions	H107 W85 D38mm
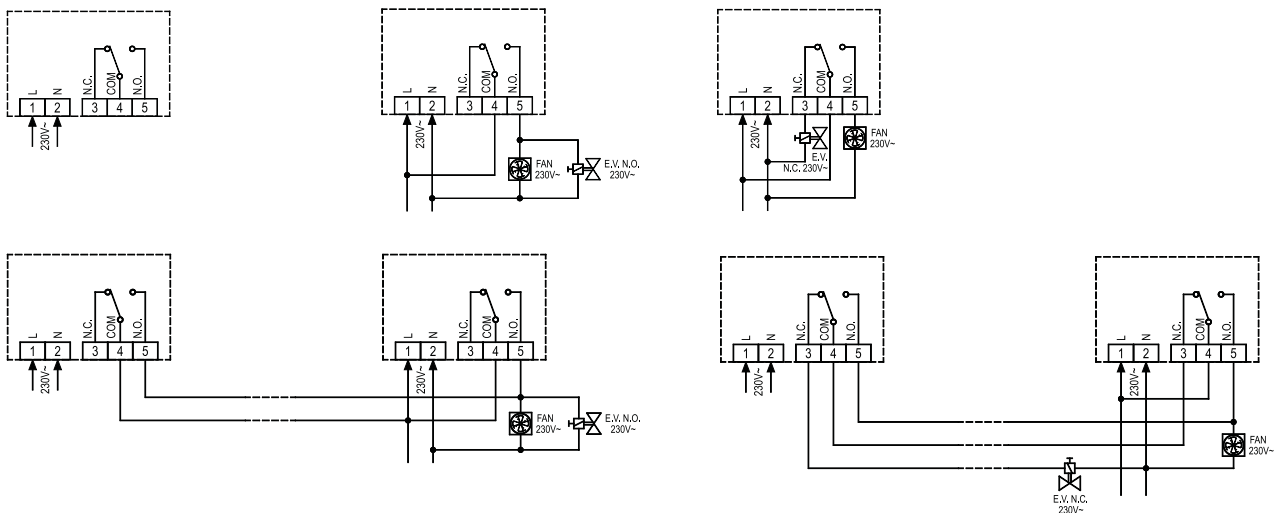
BEAGLE DOUBLE

RGDCM0MP1

GAS LEAKAGE DETECTOR - METHANE AND CO -

Domestic methane (CH4) gas and carbon monoxide (CO) detector with facility for driving 230V~ cut-off valves or fans. Test button. Not compliant with EN 50291.

TECHNICAL FEATURES

|	
Power supply	230V~ -15/+10% 50Hz
Sensor type	SnO2 Semiconductor
Alarm threshold	10% L.E.L. CH4 80ppm CO
Output (relay)	5A @ 250V~ SPDT
Sensor life	5 years
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Multicolor LED indicator	red: CH4 alarm - blue: CO alarm - red-blue: both
IP rating	IP42
Dimensions	H107 W85 D38mm

KIT BEAGLE METANO

KD M5R 00021
Kit with N.O. electrovalve
KD M5R 00022
Kit with N.C. electrovalve
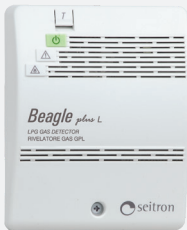
Kit including 1 BEAGLE METHANE (RGDME5MP1R) gas detector with 230V~ power supply, 1 230V~ cut-off valve (EVGPAFM020 N.O. - EVGPCFM020 N.C.) with manual reset, 2 x 3/4" to 1/2" nipples.

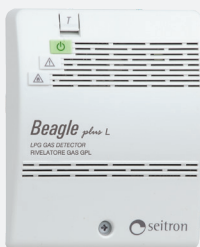**Pre-calibrated sensor (ACMM01), replaceable directly by the user.**

KIT BEAGLE GPL

KD G5R 00019
Kit with N.O. electrovalve
KD G5R 00020
Kit with N.C. electrovalve

Kit including 1 BEAGLE LPG (RGDGP5MP1R) gas detector with 230V~ power supply, 1 230V~ cut-off valve with manual reset (EVGPAFM020 N.O. - EVGPCFM020 N.C.), 2 x 3/4" to 1/2" nipples.

Pre-calibrated sensor (ACMG01), replaceable directly by the user.

WIRED RESIDENTIAL DETECTION SYSTEM

This system uses the Beagle or Segugio wired version gas detectors.
The gas detectors installed in each apartment are connected to one or more concentrators positioned on the floor.
Each concentrator can receive eight different alarms. Each concentrator, can be connected with the MOD BUS system (2 wires) to the next, and all the concentrators can transmit the alarms received from the single apartment to a control unit (normally located in a service room on the ground floor) The control unit can be connected to 32 concentrators for a total of 256 apartments or 4 zones of up to 8 concentrators each.
Each zone is combined at a relay that closes the gas solenoid valve of that area if an alarm go on (each zone could refer to a building scale).
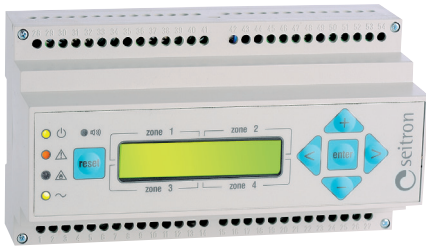On the control unit display it is possible to display:

 - Gas leak alarm;
 - Failure;
 - Lack of tension

For each of these events it is possible to identify the detector that generated the alarm (therefore the apartment number), the concentrator to which it is connected, the time and the date on which the alarm occurred.

Gas Leak
Detector
Beagle

Concentrator

Concentrators
(each control
up to 6 Detectors)

Central Unit

Electovalves
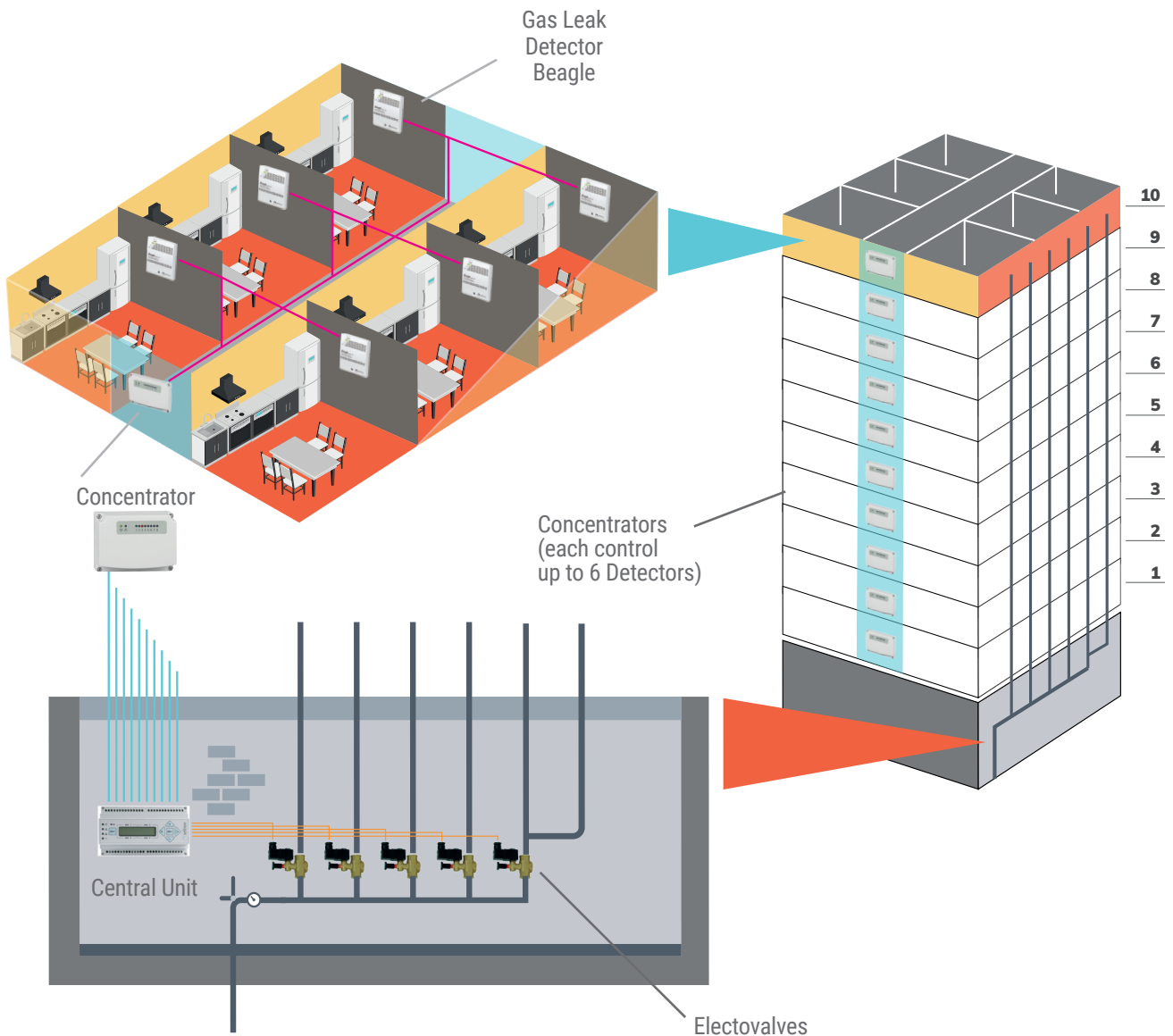
RYB01M
**4 zone 256 output Control Unit**

MODBUS® CONTROL UNIT
4 ZONES AND UP TO 256 INPUTS (WITH ACIM01)

Central Unit for gas detection system in apartment buildings.
The unit, which interfaces with the ACIM01 concentrator modules via Modbus® is able to acquire the status of n. output relay contacts of domestic gas detectors. Microcontroller circuit and backlit LCD display 16x2 characters.
DIN rail mounting 8 modules. It allows to control up to 32 concentrators type ACIM01. 4 + 1 output relays with "column" management. Installer parameter management protected by password.

TECHNICAL FEATURES

|	
Power supply:	230Vac 50/60 Hz
Outputs:	5 x 8 A @ 250V SPDT
	1 ..4: Column gas cut-off valve control
	5: Common auxiliary function
Physical layer:	RS485
Settings:	9600, 8, N, 1
Communication protocol:	Modbus® RTU
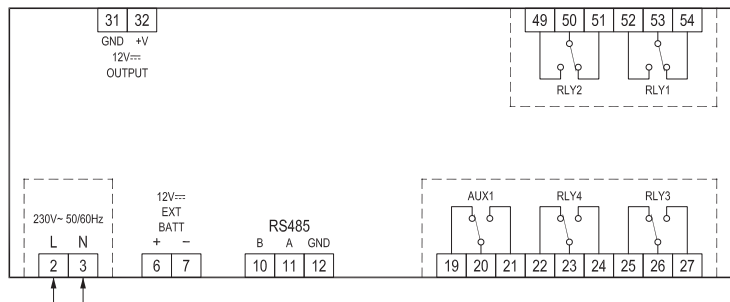
ACIM01

**CONCENTRATOR MODULE 8 INPUTS
FOR GAS DETECTION SYSTEM**

Modbus® interface module with 8 optoisolated inputs.
230Vac power supply The inputs are able to accept voltages in the range
indicated in Technical Specifications. Setting of the address of the module
from 01 to 32 by means of rotary switches.

TECHNICAL FEATURES

Power supply:	230Vac 50/60 Hz
Inputs:	8 optoisolated
Range Vin:	10.8V .. 26.4V
Physical layer:	RS485
Settings:	9600, 8, N, 1
Communication protocol:	Modbus ® RTU
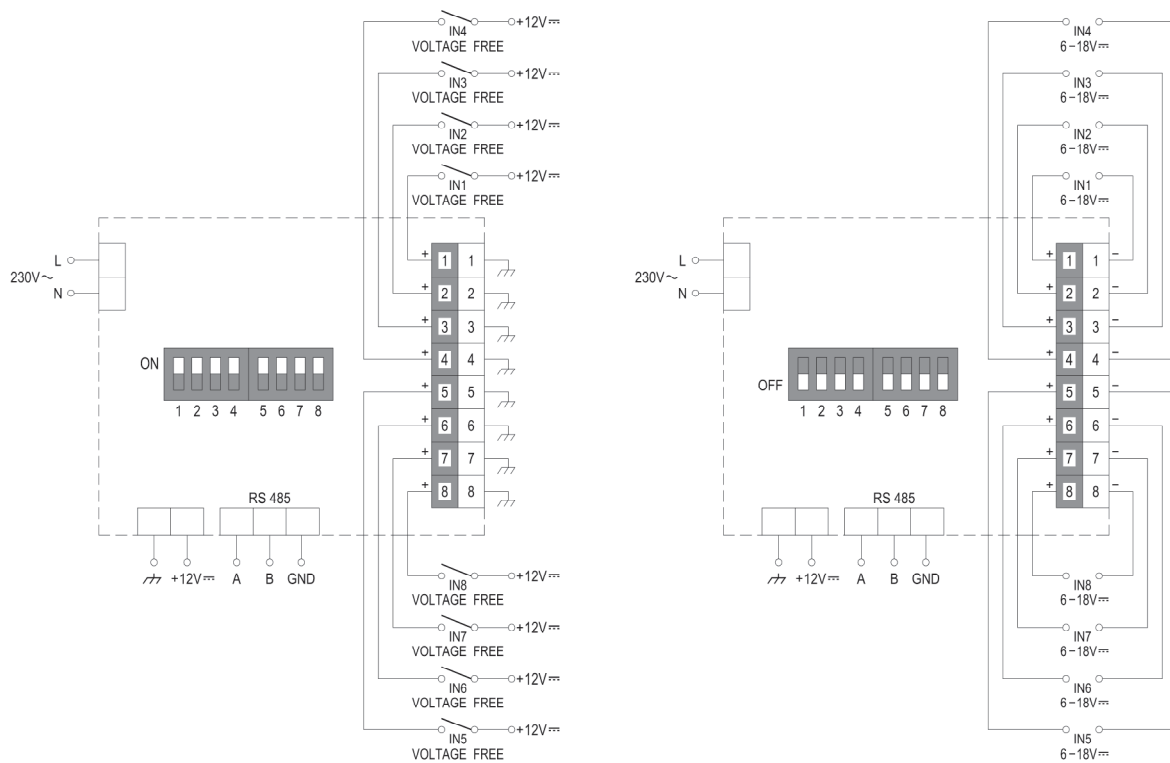
SEGUGIO *plus* METANO

RGDMETMP1R

GAS LEAKAGE DETECTOR - METHANE -

Microprocessor based domestic methane gas detector with output for both 230V~ and 12V~/= cut-off valves. Test function. Precalibrated sensor, directly replaceable by user.IMQ quality mark and compliance with CEI-EN 50194-1 certify the absolute reliability and efficiency of the device.

**Pre-calibrated sensor (ACMM01), replaceable directly by the user.**

TECHNICAL FEATURES

Power supply	230V~ ±10% 50Hz
Output (relay)	6(2)A @ 250V~ SPDT
Sensor type	SnO2 Semiconductor
	Precalibrated sensor, directly replaceable by user
Sensor life	5 years
Alarm threshold	10% L.E.L.
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
Alarm buzzer	85dB (A) @ 1m
IP rating	IP42
Dimensions	H84 W148 D40mm
Product mark	IMQ

Notes: (1) Facility for a remote sensor (SGA ***), for the control of a further zone.   (2) Depressed button test for one sec.: it silences the buzzer for 10 minutes; depressed for at least 5 sec.: checks all internal functions and electrovalve activation.
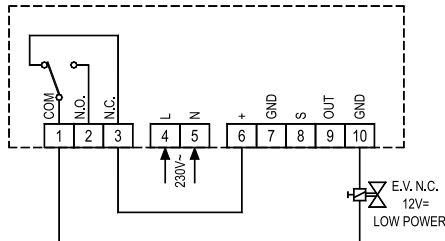
12V~/= NORMALLY CLOSED LOW CONSUMPTION ELECTROVALVE
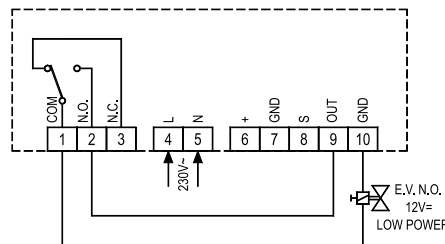
12V~/= NORMALLY OPEN LOW CONSUMPTION ELECTROVALVE
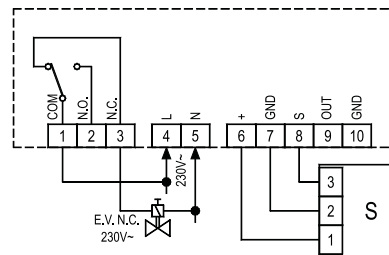
230V~ NORMALLY CLOSED ELECTROVALVE AND REMOTE SENSOR
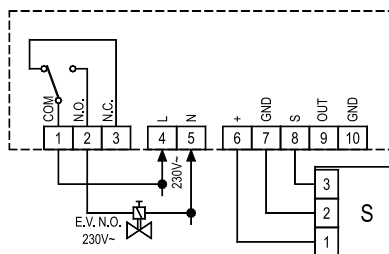
230V~ NORMALLY OPEN ELECTROVALVE AND REMOTE SENSOR
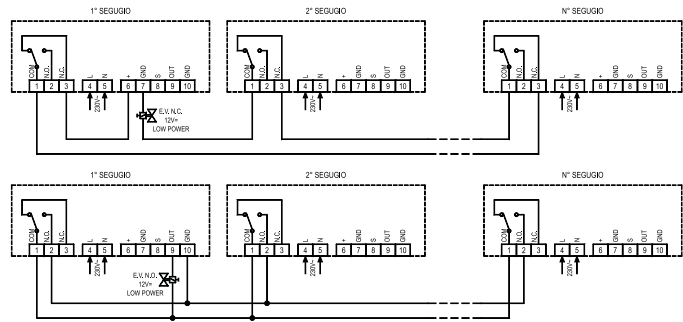
EXAMPLES OF WIRING DIAGRAM WITH SEVERAL SEGUGIO DETECTORS AND ONE SINGLE 12 V ELECTROVALVE
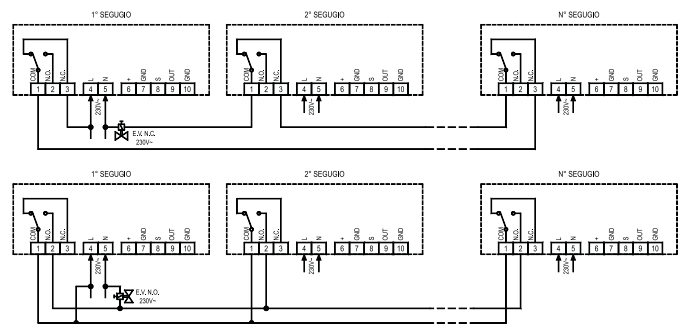
EXAMPLES OF WIRING DIAGRAM WITH SEVERAL SEGUGIO DETECTORS AND ONE SINGLE 230V~ ELECTROVALVE

Notes: (1) The remote sensors to be used are: SGA MET, SGA GPL.

THRESHOLD SEGUGIO CO

RGDCOHMP11

GAS LEAKAGE DETECTOR - CO -

Microprocessor based domestic carbon monoxide detector with output for cut-off valves, fans or any other electrical actuators with 230V~ power supply. Carbon monoxide detection with threshold mode. Not compliant with EN 50291.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Output (tight relay)	6(2)A @ 250V~ SPDT
Internal sensor(1)	Electrochemical cell
Button	Alarm Test-Reset
Alarm	Buzzer 85dB(A) @ 1m
Pre alarm threshold	16ppm
Alarm threshold	80ppm
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
Dimensions	H84 W148 D40mm
IP rating	IP42

SEGUGIO *plus* GPL

RGDGPLMP1R

GAS LEAKAGE DETECTOR - LPG -

Microprocessor based domestic LPG gas detector with output for both 230V~ and 12V~/= cut-off valves. Test function. Precalibrated sensor, directly replaceable by user. IMQ quality mark and compliance with CEI-EN 50194-1 certify the absolute reliability and efficiency of the device.

Pre-calibrated sensor (ACMG01), replaceable directly by the user.

TECHNICAL FEATURES

Power supply	230V~ ±10% 50Hz
Output (relay)	6(2)A @ 250V~ SPDT
Sensor type	SnO2 semiconductor
	Precalibrated sensor, directly replaceable by user
Sensor life	5 years
Alarm threshold	10% L.E.L.
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
Alarm buzzer	85dB (A) @ 1m
IP rating	IP42
Dimensions	H84 W148 D40mm

Notes: (1) Facility for a remote sensor (SGA ***), for the control of a further zone. (2) Depressed button test for one sec.: it silences the buzzer for 10 minutes; depressed for at least 5 sec.: checks all internal functions and electrovalve activation. (3) Back-up battery: ACC SGB 6A.


SEGUGIO CO ACCUMULO

RGDCOKMP1

GAS LEAKAGE DETECTOR - CO -

Microprocessor based domestic carbon monoxide detector with output for cut-off valves, fans or any other electrical actuators with 230V~ power supply. Carbon monoxide detection with accumulation mode: it simulates the gas accumulation in the human body according to standard EN50291.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Output (tight relay)	6(2)A @ 250V~ SPDT
Internal sensor(1)	Electrochemical cell
Button	Alarm Test-Reset
Alarm	Buzzer 85dB(A) @ 1m
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
Dimensions	H84 W148 D40mm
IP rating	IP42
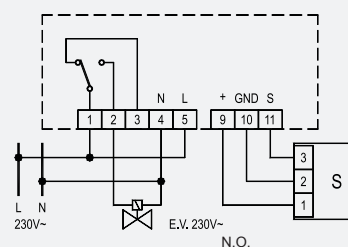
Notes: (1) Facility for a remote sensor (SGA ***), for the control of a further zone. (2) Depressed button test for one sec.: it silences the buzzer for 10 minutes;depressed for at least 5 sec.: checks all internal functions and electrovalve activation. (3) The remote sensor to be used are: SGA MET, SGA GPL.
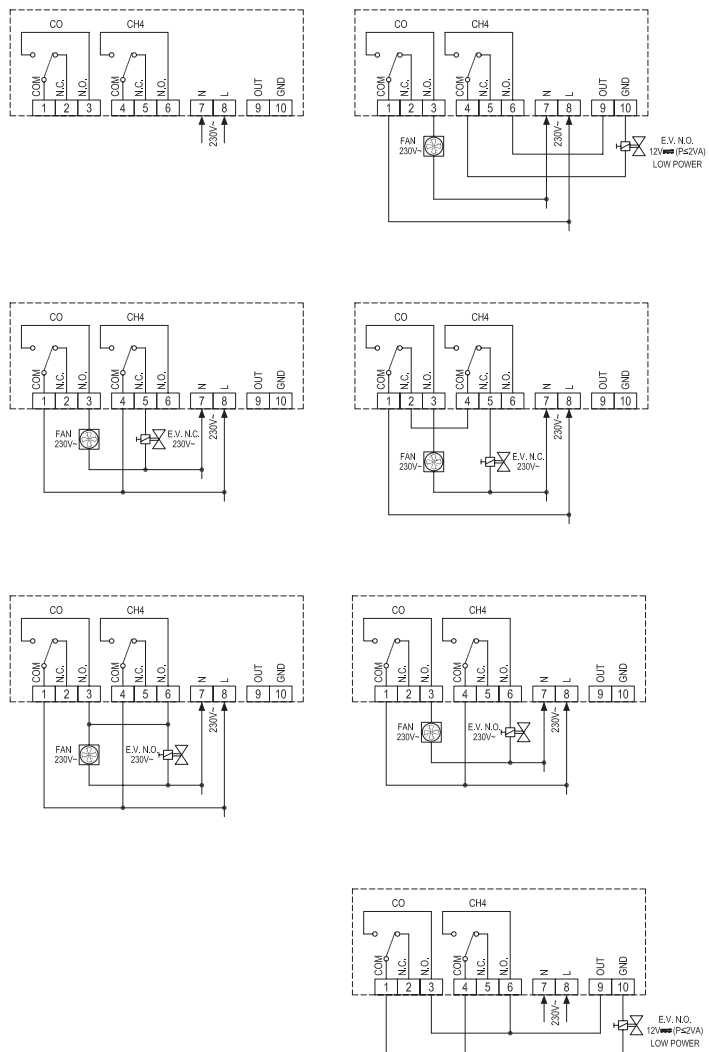
SEGUGIO DOUBLE

RDXSM1

GAS LEAKAGE DETECTOR - METHANE + CO

Microprocessor based domestic methane and carbon monoxide detector equipped with two separated output relays with output for driving 230V~ cut-off valves. Sensors assembled on precalibrated modules replaceable by user. Carbon monoxide detection with accumulation mode: it simulates the gas accumulation in the human body according to standard EN 50291-1. Methane detection according to standard EN 50194-1.

Pre-calibrated sensor (ACMC01 CO, ACCM01 METANO), replaceable directly by the user.

TECHNICAL FEATURES

Power supply	230V~ ±10% 50Hz
CH4 sensor type	SnO2 semiconductor. Precalib. sensor, directly replaceable by user
CO sensor type	Precalibrated sensor on module replaceable by user
CH4 Alarm threshold	10% L.E.L.
First CO alarm threshold	~30ppm CO lasting for >120 minutes
Output (relay)	5(2)A @ 250V~ SPDT
CH4 sensor life	5 years
Alarm	Buzzer 85dB(A)@ 1m
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
IP rating	IP42
Dimensions	H84 W148 D40mm

GAS DETECTORS FOR RESIDENTIAL USE

Example of installation of the SEGUGIO DOUBLE that simultaneously controls a fan for the carbon monoxide alarm and a solenoid valve for the methane alarm.

Fan

Gas Leck Detector
Segugio Double

Elettrovalve
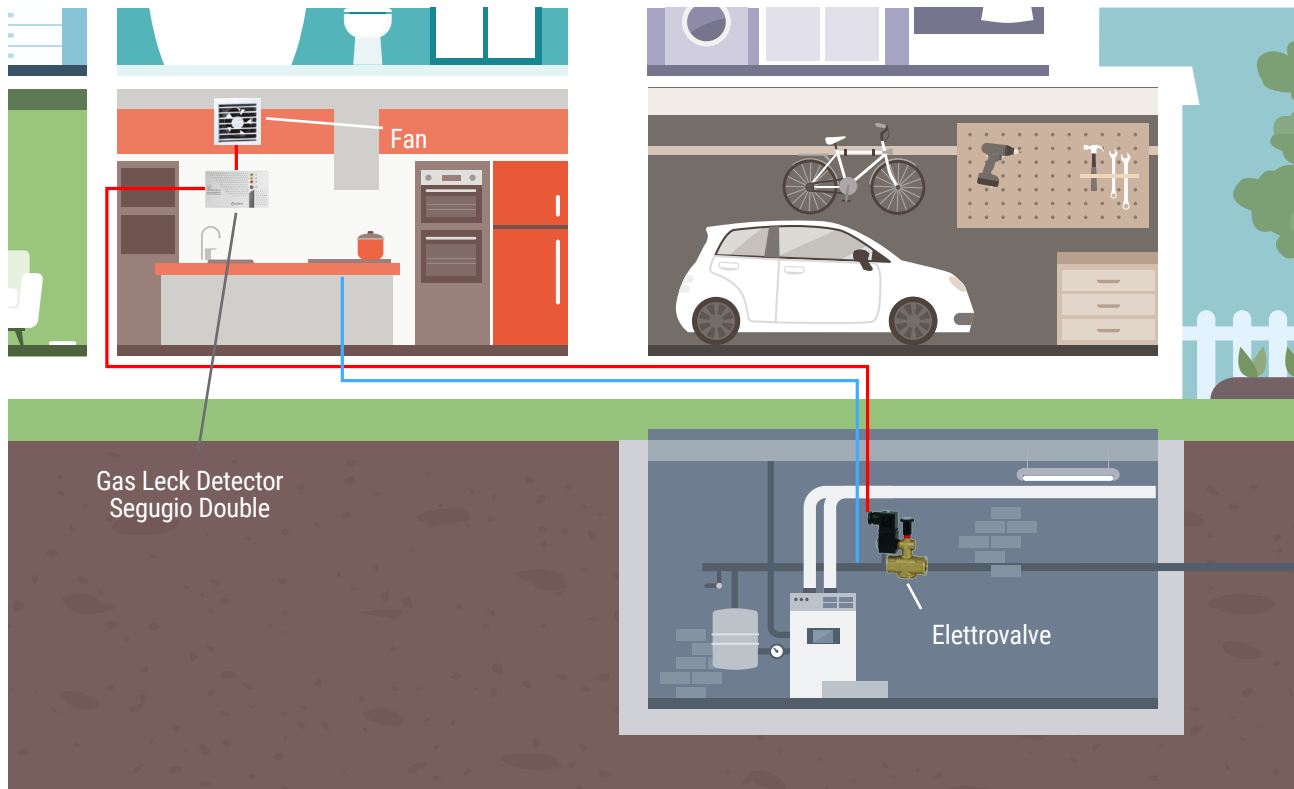
KIT SEGUGIO METANO

KDMER00014
Kit with N.O. 230V electrovalve

KDMER00015
Kit with N.C. 230V electrovalve

KDMER00008
Kit with N.O. 12 V low power electrovalve

KIT SEGUGIO METHANE

Kit including SEGUGIO METHANE (RGDMETMP1R) gas detector with 230V~ power supply, 1 230V~ or 12V~ cut-off valve (EVGPAFM020 N.O. 230V - EVGPCFM020 N.C. 230V - EVGBAF1020 N.O. 12V) with manual reset, 2 x 3/4"to 1/2" nipples.

KIT SEGUGIO GPL

KDGPR00017
Kit with N.O. 230V electrovalve

KDGPR00018
Kit with N.C. 230V electrovalve

KDGPR00016
Kit with N.O. 12V low power electrovalve

KDGPR00002
Kit with N.C. 12 low power electrovalve

KIT SEGUGIO LPG

Kit including SEGUGIO LPG (RGDGPLMP1R) gas detector with 230V~ power supply, 1 230V~ or 12V~ cut-off valve (EVGPAFM020 N.O. 230V - EVGPCFM020 N.C. 230V - EVGBAF1020 N.O. 12V - EVGRCF1020 N.C. 12V) with manual reset, 2 x 3/4"to 1/2" nipples.

WIRELESS RESIDENTIAL DETECTION SYSTEM

The DR G02M can receive the alarm signal from up to 100 detectors, each installed in a different apartment.
The receiver, in the presence of a gas leak intercepted by one of the detectors installed, commands a solenoid valve that will block the gas supply. However, the number of detectors that can transmit the signal to a receiver depends on the distance (maximum 50 meters) and how the structure of the building was built.
The cement and iron present in the constructions have a decisive influence on the transmission distance and therefore on the number of detectors that can be connected to a single receiver. We recommend installing one receiver every 2 floors.
In any case, the display can show the signal intensity, a feature that is extremely useful for correctly positioning the receiver and deciding how many detectors can be associated with a single receiver. The receiver, thanks to the combination of the 2 keys on the front and the 3-digit display, allows you to program and / or view the following functions:
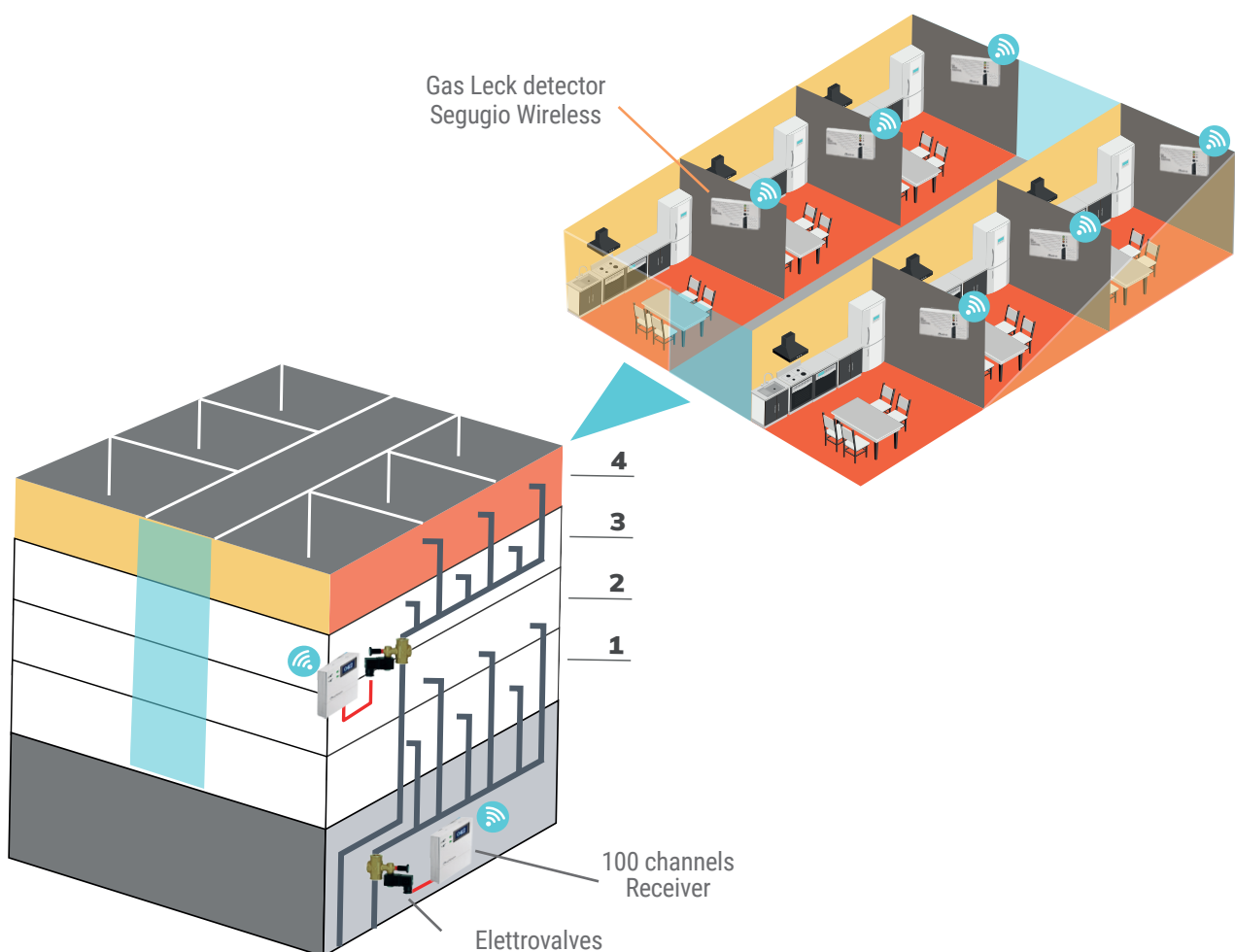
RADIO TRANSMISSION
- Intensity of the received signal
- Analysis of received commands
- Signaling of malfunction in reception
- Possibility to display alarms or faults related to a specific apartment

ADDRESSES
- Possibility of associating a 3-digit address to each detector / transmitter that can indicate the building plan and the apartment number
- Ability to delete a learned address

DIAGNOSTICS
- Display of the channels (apartments) in which an alarm or fault has occurred, which will remain stored even in the absence of electricity
- Possibility to check the most common causes of receiver malfunction

Gas Leck detector
Segugio Wireless

100 channels
Receiver

Elettrovalves

SEGUGIO WIRELESS

### DDMSM1
Metano

DDGSM1
GPL

WIRELESS ENABLED GAS LEAKAGE DETECTOR METHANE or LPG

Version of SEGUGIO plus METANO/GPL equipped with a wireless radio transmitter. Microprocessor based domestic methane gas detector with output for both 230V~ and 12V~/= cut-off valves. Mute and test functions. Precalibrated sensor, directly replaceable by user. Compliance with CEI-EN 50194-1 certify the absolute reliability and efficiency of the device. The wireless transmitter module allows to transmit "failure" and "alarm" states to the receiver for gas alarm DRG01M.

Pre-calibrated sensor (ACMM01 METHANE, ACMG01 LPG), replaceable directly by the user.

TECHNICAL FEATURES

Power supply	230V~ 50Hz
Output (relay)	6(2)A @ 250V~ SPDT
Sensor type	SnO2 Semiconductor
	Precalibrated sensor, directly replaceable by user
Sensor life	5 years
Alarm threshold	10% L.E.L.
Green LED indicator	Detector active
Yellow LED indicator	Detector failure
Red LED indicator	Alarm
Alarm buzzer	85dB (A) @ 1m
IP rating	IP42
Dimensions	H84 W148 D40mm
Transmission frequency	868,150 MHz
Max distance receiver	50 m
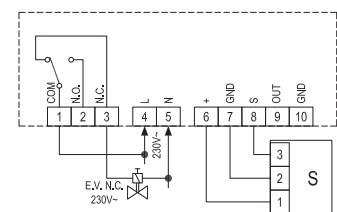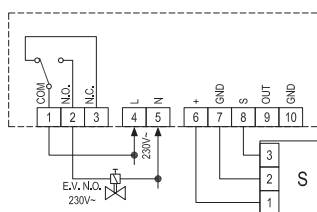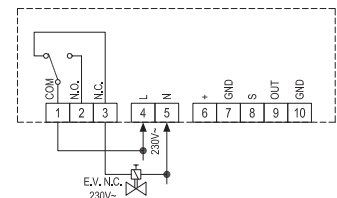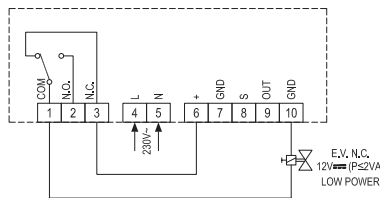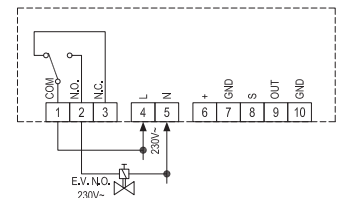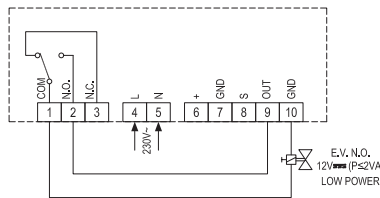
DRG01M

1 OUTPUT GAS ALARM RECEIVER

Wireless receiver for SEGUGIO WIRELESS, it features two SPDT relay outputs to activate a load in the event of a gas alarm and in the event of a sensor failure or other failure. Two multicolor LEDs provide "alarm" and "fault" status display as well as quality of radio communication display. The DRG01M can be associated by means of the self-learning procedure to more than one SEGUGIO WIRELESS, up to a maximum of 12.

TECHNICAL FEATURES

Power supply	230V~ 50Hz
Power absorption	11VA
Output (relay)	2x6A 250V~
Transmission frequency	868,150 MHz
Antenna type	Internal stylus
Bicolour LED indicators	Gas status/ transmission quality
IP rating	IP4X
Dimensions	H125 W78 D30,5mm
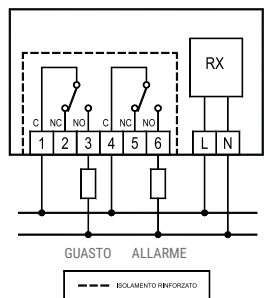
DRG02M

2 OUTPUT GAS ALARM RECEIVER

This device is a receiver equipped with an OLED display, designed for the activation of loads (specifically solenoid valves and / or acoustic signalers) in gas detection systems via radio for domestic environments. The receiver is able to manage up to 100 channels each of which is associated with a gas detector via radio. Furthermore the receiver has two relays: an alarm relay and a fault relay. Operating on the 868.150 MHz (LPD) frequency, it provides the user with all the advantages of this band such as greater freedom from interference and greater efficiency in signal propagation.

TECHNICAL FEATURES

Power supply	230V~ 50Hz
Power absorption	11VA
Output (relay)	2x6A 250V~
Transmission frequency	868,150 MHz
Antenna type	Internal stylus
Bicolour LED indicators	Gas status/ transmission quality
IP rating	IP4X
Dimensions	A125 L78 P30,5mm
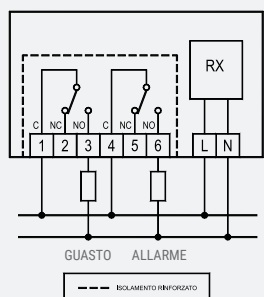
WIRELESS GAS DETECTION SYSTEM

In order to simplify the installation of gas detectors in domestic or commercial living environments where significant numbers of detection points are also present, Seitron has developed a reliable and competitive range of products.

The detector, installed in the room where it is necessary to detect the gas leak, in addition to performing the local safety functions (optical and acoustic alarm, test function, fault detection), also transmits the alarm signal to the receiver via a 868MHz radio signal (ISM band). This makes it possible to do without the cables normally required between the detector and the point where it is necessary to perform the interception of the gas through a suitable electromechanical valve.

The radio transmission is carried out on the devices through Hardware components and extremely reliable Firmware functions, responding to the current European regulations on the use of ISM (Industrial, Medical and Scientific) radio bands and able to guarantee the remote transmission function even at distances very high. If some detectors are particularly distant from the receiver, it is possible to use the appropriate repeater device which then extends, by doubling or tripling, the operating distance between the elements of the system. The antenna of the radio system, both in the detector / transmitter and in the receiver of the system, is incorporated inside the plastic container.

In this architecture, a high number of Segugio Plus Radio gas detection units can coexist and transmit any alarm and fault signals to the radio receiver, which in turn is equipped with exchange relays which will activate the relative actuators.

The DRG02M receiver version can collect the radio signals coming from up to 100 units Segugio Plus Radio, just enough to satisfy the needs of a commercial activity or a medium-sized residential condominium. In order to simplify the installation and configuration of the system, the DRG02M receiver has an OLED graphic display that allows the coupling of each radio gas detector in a quick and safe way. The same display provides information of a diagnostic nature should one wish to check the status of the system or of the individual detectors that constitute it. In particular, the receiver provides the following functions:
- Coupling of a detector.
- Elimination of a detector.
- Indication of the intensity level of the radio signal (this function is of great importance to ensure that the radio connection is functional and efficient.
- Indication of the last alarms received

The receiver is housed in a plastic case that makes the work of the installer extremely simple since it requires only the wiring of the mains power supply and the controlled devices (solenoid valve and fault indicator).

SEGUGIO WIRELESS

DDMSM1
Segugio Wireless Methane

DDMSM1
Segugio Wireless LPG

DRG01M
Receiver up to 12 detectors

Electovalve

DRG02M
Receiver up to 100 detectors

Electovalve
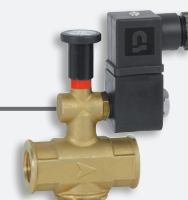
KGM001
Kit Segugio Metano via radio

KIT SEGUGIO METHANE WIRELESS
KIT includes 1 detector Segugio wireless DDMSM1 and 1 receiver DRG01M

KGG001
Kit Segugio GPL via radio

KIT SEGUGIO LPG WIRELESS
KIT includes 1 detector Segugio wireless DDGSM1 and 1 receiver DRG01M

DDMSM1 / DDGSM1

DRG01M
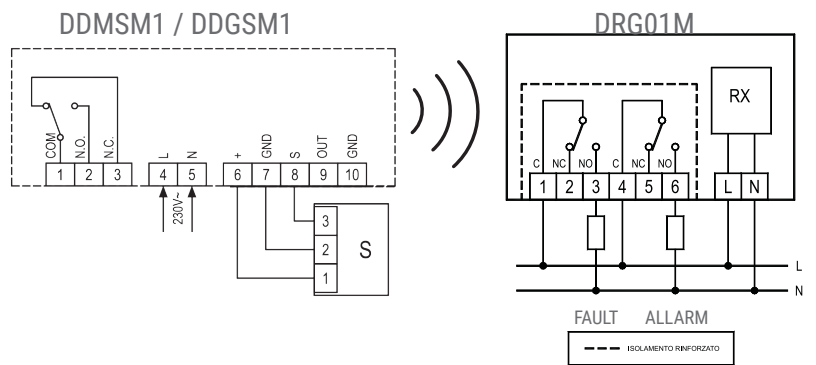
SGAMET
Methane

SGAGPL
LPG

METHANE or LPG REMOTE SENSOR (ONLY FOR SEGUGIO)

Remote sensor for natural gas or LPG leaks. Semiconductor sensitive element. Sensor life: 5 years. IP30 container.

TECHNICAL FEATURES

Power supply	6V = .. 12V = from the control unit
Power consumption	1W
Output Signal voltage	on / off
	SnO2 semiconductor sensor type
Sensor life	5 years
Detectable gas	Methane or LPG
Sensitivity set	10% L.E.L.
Degree of protection	IP30
Dimensions	A90 L65 P30mm
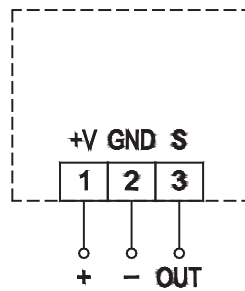
ACCESSORIES

ACMM01
Replaceable pre-calibrated sensor for Methane gas detectors. Suitable for Segugio and Beagle plus.
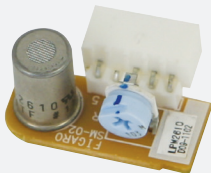
ACMG01
Replaceable pre-calibrated sensor for LPG gas detectors. Suitable for Segugio and Beagle plus.
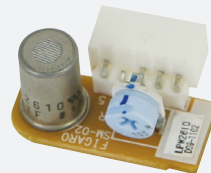
ACMC01
Replaceable pre-calibrated sensor for accumulation and threshold CO detectors. Suitable for Segugio Double and Beagle plus.
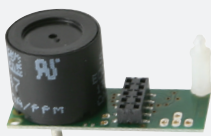
CHM1580001
Test for checking the operation of LPG and methane gas detectors, with untitrated gas, for approx. 70 tests.

INDUSTRIAL GAS DETECTORS

Seitron designs and manufactures detectors for methane gas, LPG, gas vapors and CO (Carbon Monoxide) for use in commercial premises and the process industry.

Definitions
- **v/v**: Is a way to express the concentration of a gas as a percentage of gas volume with respect to the total volume occupied by the mixture. Example: 1 liter of gas in 1 cubic meter (1000 liters) has a concentration of 1/1000 = 0.001 = 0.1% v/v (see fig. **A**)
- **LEL** (Lower Explosive Limit): Is the gas concentration value below which the mixture cannot explode due to physical reasons. Since'the gas concentration transmitters and gas detectors are designed for use in a concentration range which is LOWER than the LEL, their measuring range is usually expressed as a percentage of the LEL (see fig. **B**)
  LEL CH4 (G20 mixture) = 4.4% v/v = 100% LEL CH4   -   LEL LPG (G30 mixture) = 1.35% v/v = 100% LEL LPG
- **ppm** (parts per million): is a way to express the gas concentration as a fraction of the total volume occupied by the mixture (in 1 cubic meter 1 ppm is equivalent to 1 cm cube).

Full Range: Is the maximum concentration of gas measured by the device. It is usually expressed either in %LEL or in ppm (parts per million)
- **50% LEL**: for use in commercial premises or in thermal power plants, where such concentration is unlikely to occur.
- **100% LEL**: for use in industrial process plants, often even in ATEX classified areas.
- **500 ppm**: is the usual measurement range for toxic gases such as CO (Carbon Monoxide).

Signal output: Describes the type of electrical signal delivered by the device in order to communicate the measured concentration to the control device connected to it.
- **4..20 mA**: Is an analog standard widely used in industrial devices. The device sets on the output 'loop' a current value that ranges from 4 mA (0% of the Full Range) to 20 mA (100% of the Full Range). Other current values set in the loop may have different meanings (eg .: 2 mA = Fault Device). The advantages of this system are mainly:
- Great immunity to electrical noise
- Possibility to detect the status of interrupted 'loop' (equivalent to 0 mA).
- **Modbus ®**: Is a digital standard for transmitting data simply and easily and is adaptable to any control systems based on PLC or PC. The measured values are available in special 'registers' that are polled in 'master-slave' fashion by the PLC or PC.

Housing: Describes the material and the features of the device housing.
- **Plastic**: Polycarbonate (PC) housing for industrial use. Suitable for commercial or light industrial premises where no ATEX classified areas are present.
- **Metal:** Sintered stainless steel container for industrial use. Suitable for light commercial or industrial environments where there are no ATEX classified areas.
- **ATEX Metal**: Assembly featuring both the container and the 'nose' as ATEX Certified and therefore are provided with the proper certificate that allows installation in ATEX classified areas (usually Zone 1). Even the production is subject to specific controls and surveillance acted by a certified body (IMQ in case of Seitron).

This picture shows the concentration of gas in% v/v (volume over volume), with highlighted the concentration range within which the explosion might happen. For gas methane (CH4), this range is from 4.4% v/v (LEL) to 15.0% v/v (UEL – Upper Explosive Limit)

A
v/v
100%
LSE CH4 15%
LIE CH4 4,4%
0%

B
% LIE
100% LIE CH4
50% LIE CH4
0% LIE CH4
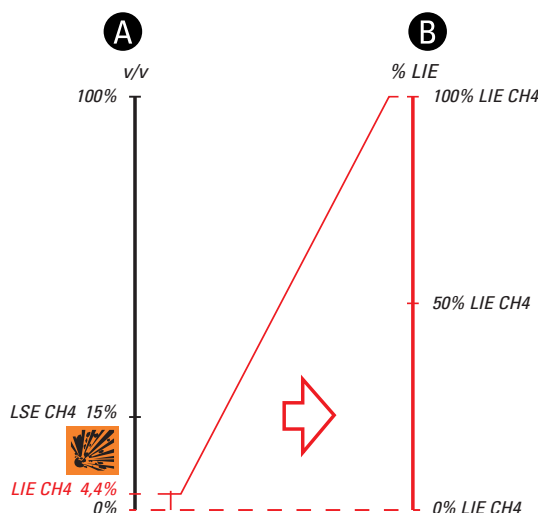
The picture in red highlights, zooming it to 100%, only the range of gas concentration below the Lower Esplosive Limit (LEL) for methane gas (CH4).
This scale is normally used for gas detectors because it focuses only to the range of concentration to be monitored for the purpose of the explosion hazard control.

INTERFACES

4..20mA

Fault in current loop:	0.0 mA
ZERO:	4.0 mA
Full range:	20.0 mA

Maximum resistance applicable as load at current loop output (4..20 mA) when supply voltage is 12V= -15% is 350 ohm.

Relays

Supply voltage:	12 Vdc
Maximum absorption:	80 mA @ 12 Vdc
Contact rating:	3 x 2 A 250 V~ (voltage free)

Modbus ®

|	
Interface:	RS485.
Parameters:	19200, 8, N, 1.
Communication protocol:	Modbus® RTU (rif.: www.modbus.org)

CASE

PLASTIC HOUSING

Filter:	Sinterised PE
Case:	ABS V0 - ABS HB
Dimensions:	W5.3 H4.8 D2.5 in W134 H124 D67 mm
Protection rating:	IP54

ATEX METAL FOR N.C. ZONES

Filter:	Sinterised stainless steel
Case:	Die-cast Aluminum
Dimensions:	W6.5 H4.6 D3.5 in W165 H117 D90 mm
Protection rating:	IP6X

ATEX METAL FOR C.A. ZONES

Filter:	Sinterised stainless steel
Case:	Die-cast Aluminum
Dimensions:	W6.5 H4.6 D3.5 in W165 H117 D90 mm
Protection rating:	IP6X
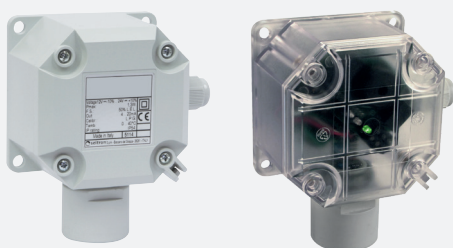
CE 0051

Ex II 2GD

Ex db IIB+H_2 T6 Gb
Ex tb IIIC T85°C Db
IMQ 15 ATEX 0003 X

LABELLING
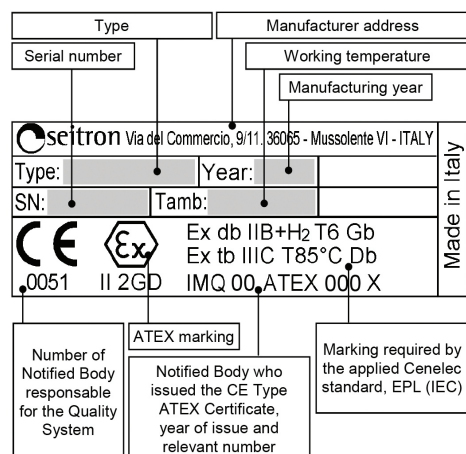
0051: Number of the Notified Body responsible for the Quality System (IMQ).

II 2GD: Equipment for surface plants (II) with the presence of gas (G) or dust (D) of Category 2 suitable for zone 1 or 21 and, with redundance, for zone 2 or 22.

Ex d: Equipment with ATEX Ex d protection mode (flameproof housing).

IIB+H2: Equipment of group IIB suitable for all gas substances of group IIB as well as for H2 (Hydrogen). A device of group IIB + H2 is also suitable for areas with gas of group IIA and IIB.

T6: Temperature class of equipment (maximum surface temperature 85° C). A device with temperature class T6 is also suitable for substances with higher temperature class (T5 .. T1).

Gb: EPL: Equipment Protection Level according to IEC. 'Gb' stands for 'high protection level (b) for areas with Gas (G)'.

Ex tb: Equipment with ATEX Ex tb's type of protection for dusts (with housing - high level of protection).

IIIC: Equipment suitable for the use in presence of conductive powder of the group IIIC.

85°C: Temperature class of the equipment for use with powders: maximum surface temperature: 85 ° C.

Db: EPL: Equipment Protection Level. 'Db' stands for 'high level of protection (b) for areas with dust (D)'.

IMQ 00: Notified Body that issued the Certificate of Compliance of the Type (IMQ) and year of issuance.

ATEX 0000: Number of certificate in the year of issue.

X: Special conditions of use (see Safety Instructions).

INDUSTRIAL RANGE TRANSMITTERS

CE 0051 IMQ 15 ATEX 0003 X

Ex II 2G Ex db IIB+H$_2$ T6 Gb
II 2D Ex tb IIIC T85°C Db

Gas	Working Range	Output signal	Certificate	Cod
Methane	50% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXMX14M1Y
	100% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXMX16M1Y
LPG	50% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXGX14M1Y
	100% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXGX16M1Y
Gas Vapor	50% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXVX14M1Y
	100% L.E.L.	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXVX16M1Y
CO	0 .. 500 ppm	4..20mA + Modbus	IMQ 15 ATEX 003 X	SXCX11M1Y

CE 0051 IMQ 20 ATEX 0006

Ex II 2G Ex db IIC T6 Gb
II 2D Ex tb IIIC T85°C Db

Gas	Working Range	Output signal	Certificate	Cod
Methane	50% L.E.L.	4..20mA	IMQ 20 ATEX 006	SWMX1411
LPG	50% L.E.L.	4..20mA	IMQ 20 ATEX 006	SWGX1411
Gas Vapor	50% L.E.L.	4..20mA	IMQ 20 ATEX 006	SWVX1411
Hydrogen	20% L.E.L.	4..20mA	IMQ 20 ATEX 006	SWHX1211

COMMERCIAL RANGE TRANSMITTERS

Gas	Working Range	Output signal	Certificate	Cod
Methane	50% L.E.L.	4..20mA + Modbus	metallic	SYMN54B
LPG	50% L.E.L.	4..20mA + Modbus	metallic	SYGN54B
Gas Vapor	50% L.E.L.	4..20mA + Modbus	metallic	SYVN54B
CO	0 .. 500 ppm	4..20mA + Modbus	metallic	SYCN51B

www.seitron.com

BASE RANGE TRANSMITTERS
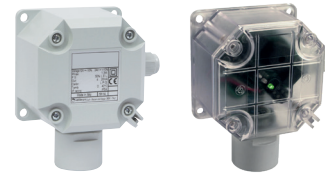
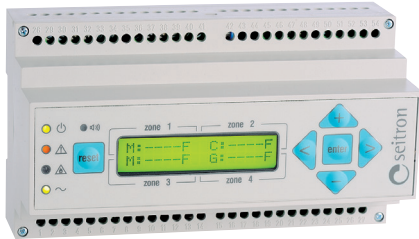| Gas	Campo Misura	Output signal	Certificate	Cod
Methane	50% L.E.L.	4..20mA + Modbus	grey plastic	SYMN24B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYMN04R
	100% L.E.L.	4..20mA + Modbus	grey plastic	SYMN26B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYMN06R
LPG	50% L.E.L.	4..20mA + Modbus	grey plastic	SYGN24B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SY GN 04R
	100% L.E.L.	4..20mA + Modbus	grey plastic	SY GN 26B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYGN06R
Gas Vapor	50% L.E.L.	4..20mA + Modbus	grey plastic	SYVN24B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYVN04R
	100% L.E.L.	4..20mA + Modbus	grey plastic	SYVN26B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYVN06R
CO	0 .. 500 ppm	4..20mA + Modbus	grey plastic	SYCN21B
		4..20mA + Modbus + Relè + Buzzer + LED	transparent plastic	SYCN01R

All transmitters are compatible with the RYM02M0, RYM02M1, RYM02M2, RYK01M control units.
There is only one exception: SW-X transmitters do not work with the RYK01M control unit.

RY M02M2
2 channel control unit

RY M02M1
4 channel control unit

RY M02M0
8 channel control unit

CE 0051   IMQ 20 ATEX 004 X

II (2)G [Ex Gb] II

- **ACCESSORIES**
  AC AL010
  Power Supply 100 .. 240V 50 .. 60Hz

AC IV01
Interface 0..12V => 0..5V

INDUSTRIAL CONTROL UNIT WITH 2 .. 8 ZONES - 4..20 mA

Industrial gas detection control unit in 9-module DIN container, capable of monitoring the concentration of gas up to a maximum of 8 zones. A 4 .. 20 mA transmitter can be connected indiscriminately for each zone for the detection of LPG, Natural Gas, Carbon Monoxide (CO) or gas vapor.

TECHNICAL FEATURES

Power supply:	12..24 V o 100..240 V , 50..60 Hz
Versions:	2/4/8 outputs
Manages transmitters:	CO, LPG, Methane (CH4) and Gas Vapors (n-octane)
Display:	LCD 2 x 16
Mounting:	Din bar 9 modules
Outputs:	1 Relay Pre-Alarm
	1 Relay Alarm 1
	1 Relay Alarm 2
	2 Relays auxiliary
Contacts rating:	5 x 8A 250V~ $\cos\phi$ =1
Events:	Open, Fault, Pre-Alarm, Alarm 1, Alarm 2
Pre-Alarm threshold range:	Methane, L.P.G. and Gas vapor OFF / 1%..100% LEL
	CO OFF / 1 .. 999 ppm
Alarm 1 threshold range:	Methane, L.P.G. and Gas vapor OFF / 1%..100% LEL
	CO OFF / 1 .. 999 ppm
Alarm 2 threshold range:	Methane, L.P.G. and Gas vapor OFF / 1%..100% LEL
	CO OFF / 1 .. 999 ppm
Fault:	activate the buzzer and the yellow blinking.
Pre-Alarm:	activate the buzzer, the yellow and red blinking leds.
Alarm 1:	activate the buzzer, the yellow and red fixed light leds.
Alarm 2:	activate the buzzer, the yellow and red fixed light leds.
Dimensions:	6.2L x 3.5A x 2.8P in - 158L x 90A x 71P mm
Compliant with performance std:	EN 60079-29-1: 2016
ATEX Certificate:	IMQ 20 ATEX 004 X
Protection grade:	IP20
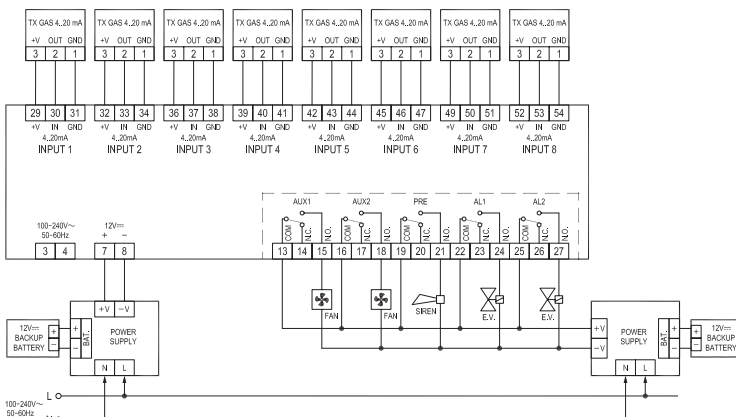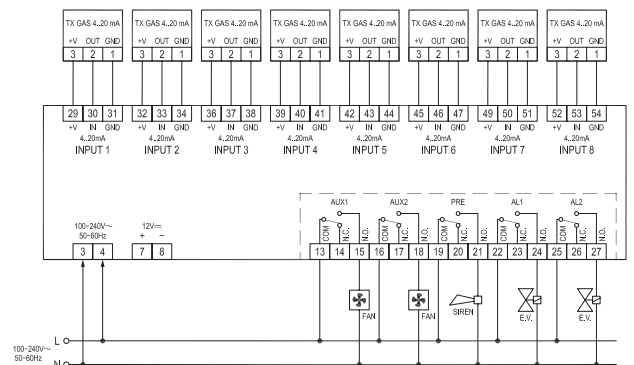
RY K01M
32 channel Modbus® control unit

• **ACCESSORIES**
AC AL010
Power Supply 100 .. 240V 50 .. 60Hz

AC IMB2
Modbus® RTU Interface
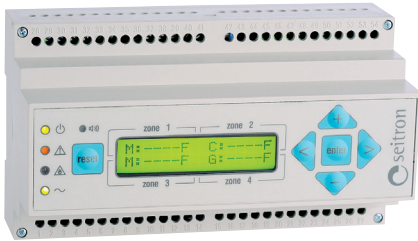
AA SW20
Multizone GAS systems
monitoring software

INDUSTRIAL CONTROL UNIT WITH 32 ZONES

This device is a "MASTER" control unit for detecting gas leaks with MODBUS® RTU communication protocol. Up to 32 transmitters (slaves) can be connected to the control unit. Each transmitter is able to detect a specific gas and can communicate its status via the appropriate MODBUS® registers.

TECHNICAL FEATURES

Power supply	230V~ 50/60 Hz
Outputs	1 Relay Pre-Alarm
	1 Relay Alarm 1
	1 Relay Alarm 2
	2 Relays auxiliary
Contacts rating:	5 x 8A 250V~ cosϕ =1
Events:	Open, Fault, Pre-Alarm, Alarm 1, Alarm 2
Pre-Alarm threshold range:	Methane, L.P.G. and Gas Vapors
	OFF / 1%..100% LEL
	CO OFF / 1 .. 999 ppm
Alarm 1 threshold range:	Methane, L.P.G. and Gas Vapors
	OFF /1%..100% LEL
	CO OFF / 1 .. 999 ppm
Alarm 2 threshold range:	Methane, L.P.G. and Gas Vapors
	OFF / 1%..100% LEL
	CO OFF / 1 .. 999 ppm
Fault:	activate the buzzer and the yellow blinking.
Pre-Alarm:	activate the buzzer, the yellow and red blinking leds.
Alarm 1:	activate the buzzer, the yellow and red fixed light leds.
Alarm 2:	activate the buzzer, the yellow and red fixed light leds.
Dimensions:	6.2L x 3.5A x 2.8P in - 158L x 90A x 71P mm
Protection grade:	IP20

RY K01M
(Master)

Modbus® RTU
Interface
AC IMB2

Monitoring and
control software

Transmitters
Modbus® RTU
(Slave)

..up to 32
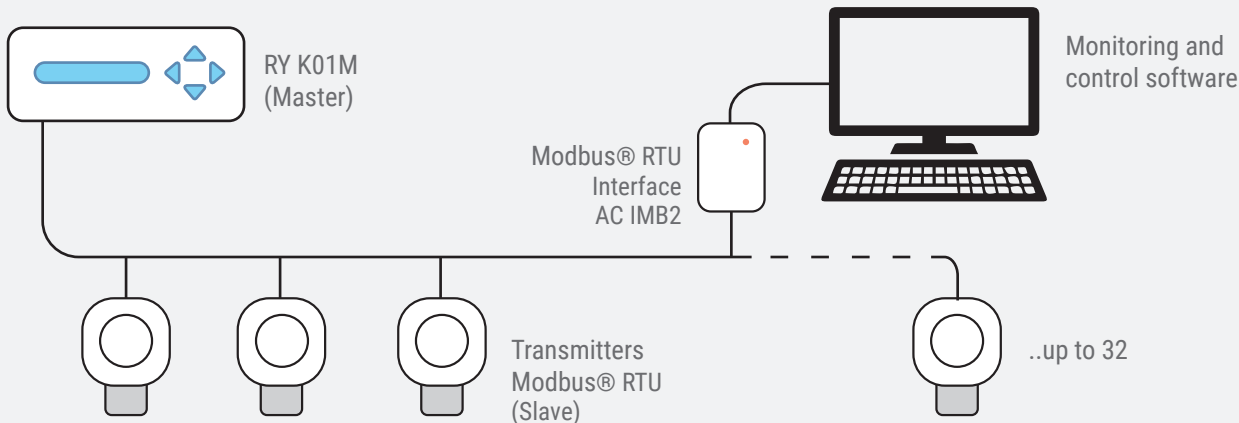
Multizone Gas Systems monitoring software

Windows software for the management and monitoring of RYK01M control units connected through ACIMB2 gateways. The user-friendly interface allows to display each control unit as a stand-alone tab. Here the user can find the configuration parameters of the unit and visualize the data collected by the detectors connected to that specific unit.

RXA01M

INDUSTRIAL CONTROL UNIT FOR 8 ZONES

Industrial control unit for gas detection with 8 zones fit in IP44 capable of monitoring gas concentration up to maximum 8 zones.
Possibility of connecting a 4 .. 20 mA transmitter in each zone for the detection of LPG, methane, carbon monoxide (CO) or petrol vapours.

TECHNICAL FEATURES

Power supply:	230V~ 50/60 Hz or 12Vdc with backup battery
Absorption:	15W max.
Activation time:	60 s.
Input (4..20mA):	1 for toxic gases
	5 for flammable gases
Contacts rating:	5x3(1)A 250V~ SPDT
Protection rating:	IP 30 (acc. EN 60529)
Humidity limit:	20% .. 80% RH (non condensing)
Dimensions:	245x100x60 mm (LxHxD)

www.seitron.com
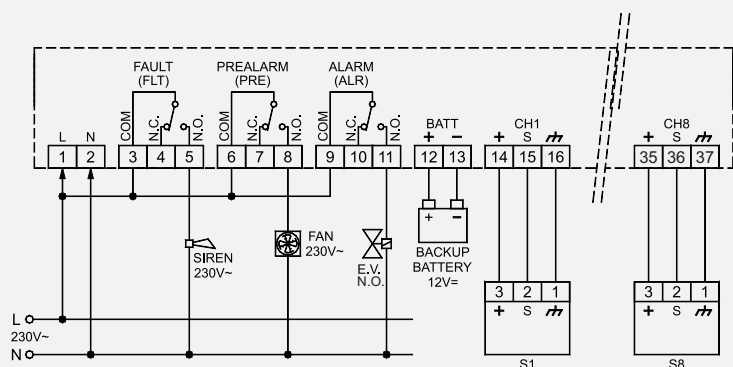
TRANSMITTER ADAPTERS FOR GAS CALIBRATION

CODE	DESCRIPTION
ACAD05	Aluminum adapter for SX-N, SY-N and SW-X transmitters calibration
ACAD06	Aluminum adapter for ATEX SX-X transmitters calibration

INTERFACES and ACCESSORIES FOR TRANSMITTERS

CODE	DESCRIPTION
ACIR01	Interface: 2 Relay, Led, Buzzer for SY transmitters
ACTP01	3/4" NPT PLUG FOR ATEX SX series transmitters

SENSORS FOR TRANSMITTERS

CODE	DESCRIPTION
ACMG04	LPG gas sensor for gas transmitter SXGX14-
ACMM04	Methane gas sensor for gas transmitter SXGX14-
ACMV04	Gas Vapors gas sensor for gas transmitter SXGX14-

REPLACEABLE SENSORS FOR TRANSMITTERS IN PLASTIC CASE

CODE	GAS			
	Gas Vapors	CO	LPG	METHANE
ACMC08	--	0..500 ppm	--	--
ACMG02	--	--	0..50% LIE	--
ACMG07	--	--	0..100% LIE	--
ACMM02	--	--	--	0..50% LIE
ACMM07	--	--	--	0..100% LIE
ACMV02	0..50% LIE	--	--	--
ACMV07	0..100% LIE	--	--	--
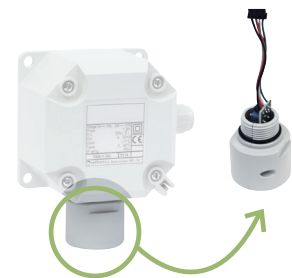
ENTRY LEVEL RANGE

Seitron gas leak detection products in the Entry Level line are specifically designed for use in non classified environments and where the performance requirements are not particularly stringent in terms of concentration range and intervention level or by operating temperature range. It is a whole range of gas leak detectors and related control units designed for use in small boiler rooms, in material stockrooms, small garages and other commercial environments and is effective for detecting any gas leaks and the subsequent actuation of a solenoid valve for gas cut-off.

The intervention levels are factory set at a threshold much lower than the Lower Explosive Limit, typically around 10% of the LEL, thus granting the necessary safety for the countermeasures to be adopted.

The technology used for the sensors can be, depending on the model, both semiconductor and catalytic.
These are available in a wide range that includes:
• Stand-alone detectors, with or without internal sensor.
• Detectors wired to each other for expanding the number of detection zones.
• Detectors with outputs for pre-alarm and alarm.
• Detectors for methane (CH4), LPG and carbon monoxide (CO).
• Detectors with the possibility of wiring external pushbuttons for manual reset and alarm.
• Control unit and display of the status of the wired detectors.
• Control unit both for wall mount and for DIN rail mount.

Some versions have a reset button which allows the use of automatic valves for gas interception, thus granting for reopening of the gas flow only after human intervention. The range is completed by a set of accessories such as gas shut-off valves and optical-acoustic indicators.

RIM01RM
Methane

RIG01RM
LPG

GAS DETECTOR FOR MULTI-POINT SYSTEMS

This gas detector is able to detect different gases:
the RI G01RM version is LPG-sensitive while the RI M01RM version detects Methane (CH4); it is also possible to connect up to 10 detectors in cascade via the 3 dedicated terminals. The device is able to signal gas concentrations far below the hazard thresholds and other conditions relating to the state, via 4 LEDs and an internal buzzer. Possibility to connect one or more external buttons for the activation of a manual alarm. Possibility to connect one or more external buttons for system reset after an alarm.

TECHNICAL FEATURES

Power supply:	100 - 240V ~ 50/60 Hz
Power consumption:	3 VA
Sensor Type:	Catalytic
Contact rating:	Pre-alarm relay: 3 (2) A 250V ~ SPDT
	Relay Alarm: 3 (2) A 250V ~ SPDT
Gas detected:	RIG01M: LPG
	RIM01M: Methane
Degree of protection:	IP 54
Dimensions (including cable glands):	5.2 x 4 x 2.4 in - 134 x 100 x 62 mm (L x H x D)
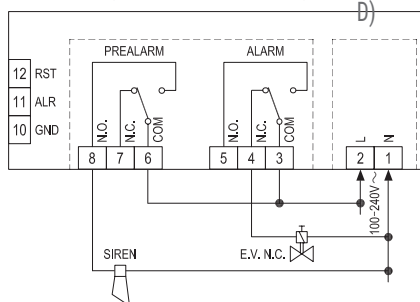
RGIME1MSX2
Methane

RGIGP1MSX2
LPG

1 IN 2 OUT METHANE OR LPG GAS DETECTOR

Detector for methane or LPG gas leakages with two relay outputs, internal sensor and facility for a second remote sensor (1) and for back-up battery (ACCSGB12). Reset button. IP54 case.
For Non-classified ATEX zones.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Output 1 (relay x e.v.)	4(2)A @ 250V~ SPDT
Output 2 (relay x alarm)	4(2)A @ 250V~ SPST
Internal sensor	Semiconductor for natural gas
Alarm threshold	13% L.E.L.
Indicators: active/alarm1/alarm2	Green/red/red LED
Push button	Reset
Delay on e.v. relay	~15 sec.
IP rating	IP54
Dimensions	H79 W134 D62mm
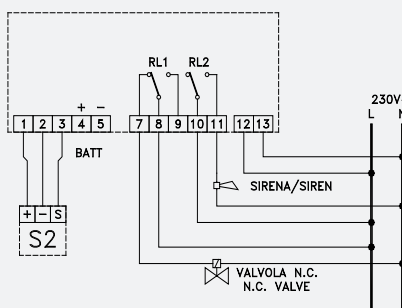
Notes:
(1) The remote sensor to be used are: SGA MET, SGA GPL, SGI ME1, SGI GP1, SGI ME1 M, SGI GP1 M
(2) The back-up battery to be used is ACCSGB12.

RGI000MSX4

4 IN 2 OUT + RESET CONTROL UNIT

Control unit for gas leakage sensors; input for up to 4 remote sensors (1). Reset and test pushbuttons. Memory of the alarm state. 2 relay outputs.
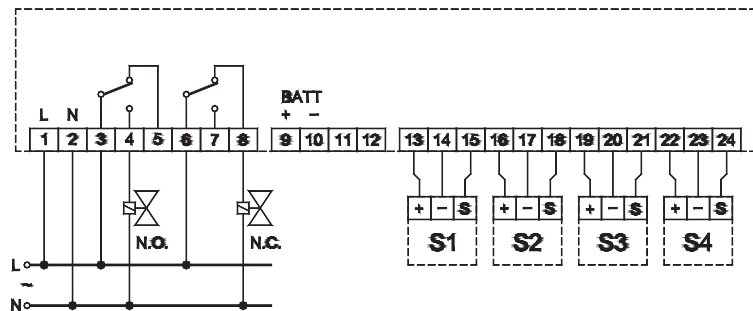
TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Output (relay)	2x6(2)A @ 250V~ SPDT
Indicators:	
active/fault/alarm	4 Green LEDs/blinking LED/4 red LEDs
Delay on e.v. relay	1 .. 90 sec.
Button 1	Test
Button 2	Reset
IP rating	IP54
Dimensions	H188 W230 D114mm

Notes: (1) The remote sensor used are: **SGAMET, SGAGPL, SGIME1, SGIGP1, SGIME1M, SGIGP1M**.. (2) The back-up battery to be used is ACCSGB12.

RGI001MSX2

2 IN 2 OUT + RESET CONTROL UNIT

Control unit for gas leakage sensors with two relay outputs, inputs for 2 remote sensors (1). Reset button. IP54 case. For Non-classified ATEX zones.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Output 1 (relay x e.v.)	4(2)A @ 250V~ SPDT
Output 2 (relay x alarm)	4(2)A @ 250V~ SPST
Indicators: active/alarm1/alarm2	Green/red/red LED
Delay on e.v. relay	~15 sec.
Push button	Reset
Dimensions	H79 W134 D62mm
IP rating	IP 54

Notes: (1) The remote sensor used are: **SGAMET, SGAGPL, SGIME1, SGIGP1, SGIME1M, SGIGP1M**.
(2) The back-up battery to be used is ACCSGB12.

RGI000LBXD

10 IN 1 OUT + RESET CONTROL UNIT

Control unit for gas leakage sensors with alarm buzzer ; input for up to 10 remote 230V~ powered sensors (1). Reset and test pushbuttons and acoustic alarm. For non-classified ATEX zones.

TECHNICAL FEATURES

Power supply	230V~ ±10% 50Hz
Battery	12V ±10%
Output (relay)	5(1)A @ 250V~ SPDT
active/prealarm/alarm	Green/red/red LED
Delay on e.v. relay	>20 sec.
Button 1	Test
Button 2	Reset
Case	6 modules for DIN-rail
IP rating	IP54
Dimensions	H90 W105 D70mm
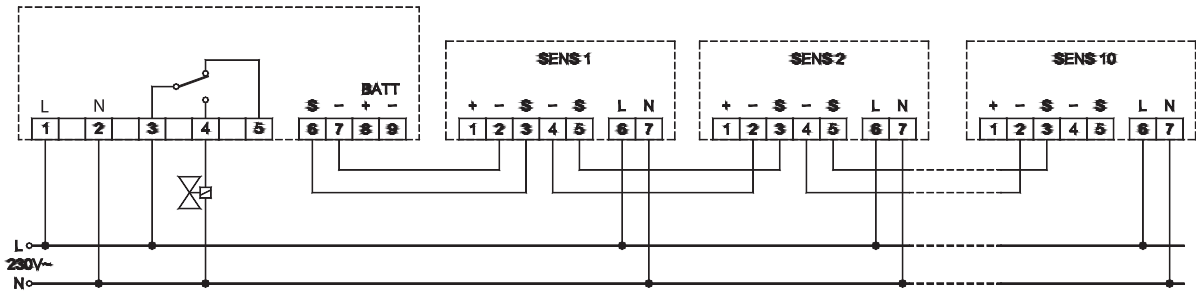
Notes: (1) The remote sensor used are: **SGAMET, SGAGPL, SGIME1, SGIGP1, SGIME1M, SGIGP1M**.
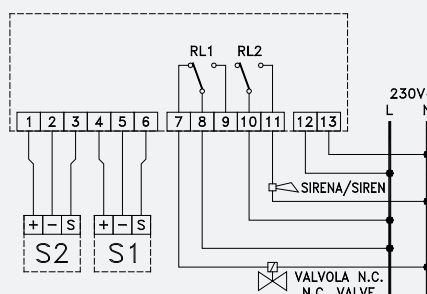(2) The back-up battery to be used is ACCSGB12.

RGI000MBX2

2 IN 2 OUT DIN RAIL MOUNT BASIC CONTROL UNIT

Control unit for gas leakage sensors in 3 module DIN-rail case, with two relay outputs, inputs for 2 remote sensors (1) and for back-up battery (ACCSGB12). Test and reset buttons. For Non-classified ATEX zones.

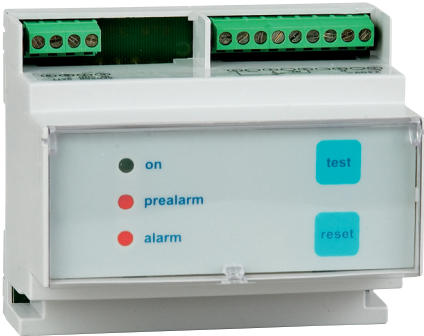### TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Output 1 (relay x e.v.)	4(2)A @ 250V~ SPDT
Output 2 (relay x alarm)	4(2)A @ 250V~ SPST
Indicators: active/alarm1/alarm2	Green/red/red LED
Delay on e.v. relay	~15 sec.
Push buttons	Test/reset
Case	3 modules for DIN-rail
IP rating	IP30
Dimensions	H96 W53 D73mm

Notes: (1) The remote sensor used are: **SGAMET, SGAGPL, SGIME1, SGIGP1, SGIME1M, SGIGP1M**.
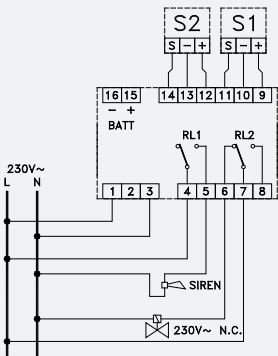(2) The back-up battery to be used is ACCSGB12.

SGIME1
Per gas metano

SGIGP1
Per gas GPL

REMOTE SENSOR

Remote sensor for methane or LPG gas leakages. Semiconductor sensing element. Alarm threshold: 10% L.E.L. . Sensor life: 5 years. IP 54 case. Powered by control unit.

SGIME1M
Per gas metano

SGIGP1M
Per gas GPL

REMOTE SENSOR

Remote sensor for methane or LPG gas leakages. Semiconductor sensing element. Alarm threshold: 10% L.E.L. . Sensor life: 5 years. IP 54 case. 230V~ power supply.

RGICO0L42

CO DETECTOR

Detector for carbone monoxide leakages with two relay outputs and internal sensor. Test and reset button. IP40 case.

TECHNICAL FEATURES

Power supply	230V~ ±10% 50Hz
Output 1 (relay x alarm)	6(2)A @ 250V~ SPDT
Output 2(relay x e.v.)	6(2)A @ 250V~ SPDT
Prealarm threshold	16ppm ±4ppm CO
Alarm threshold	80ppm ±4ppm CO
Indicators: active/fault/alarm	Green/yellow/red LED
IP rating	IP40
Dimensions	H100 W130 D62mm

Sensore precalibrato
ACCRIC0001
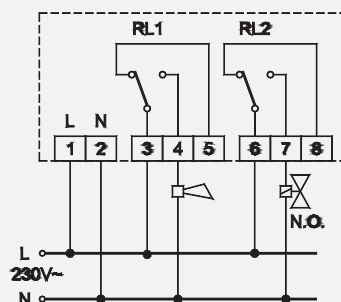
ACCESSORIES

ACSR01
Electronic 76dB whistle with 21W flasher.
12V-24V power supply

ACCSRL220
Electronic 70dB whistle with 25W flasher.
220V~power supply

ACCSGB12
Back-up battery for RGY000MBP4, RXA01M,
RS0021, RGI000MSX4, RGI000LBXD, RGI000MBX2,
RGI001MSX2. 8V-12V outputs. Battery autonomy
~3 hours (depending on the loads connected).

ACAL10
Power supply 100 .. 240V 50 .. 60Hz

N.O. ELECTROVALVES

Cut-off electro-valves for gas with manual reset. Normally open. During normal operation there is no electrical consumption. Power consumption: 19VA. Max working pressure 7.2 PSI - 500mBar.

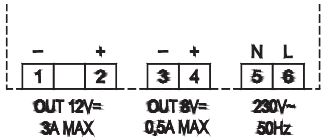| Cod	Coupling	Power supply	Coupling type
EVGPAFM015	DN15 (1/2")	230Vac 19VA	Threaded
EVGPAFM020	DN20 (3 /4")	230Vac 19VA	Threaded
EVGPAFM025	DN25 (1")	230Vac 19VA	Threaded
EVGNAFM032	DN32 (1"1/4)	230Vac 19VA	Threaded
EVGNAFM040	DN40 (1"1/2)	230Vac 19VA	Threaded
EVGNAFM050	DN50 (2")	230Vac 19VA	Threaded

Notes: ALSO AVAILABLE FOR 12V POWER SUPPLY
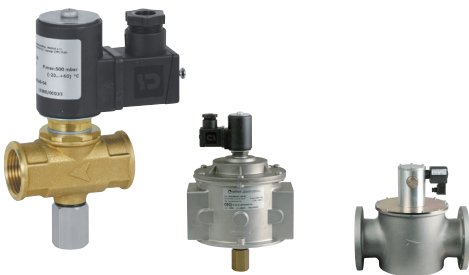
N.C. ELECTROVALVES

Cut-off electro-valves for gas with manual reset. Normally closed: must be continuosly powered to allow the gas flow. Power consumption: 19VA. Max working pressure 7.2 PSI - 500mBar.
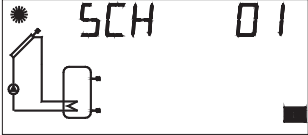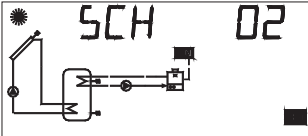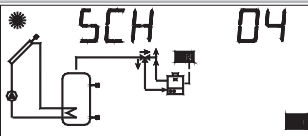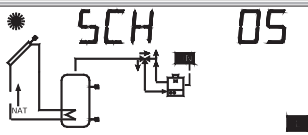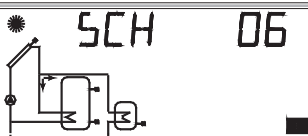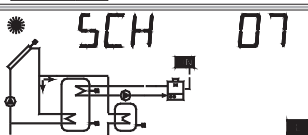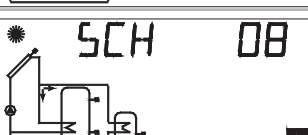
Cod	Coupling	Power supply	Coupling type
EVGPCFM015	DN15 (1/2")	230Vac 19VA	Threaded
EVGPCFM020	DN20 (3/4")	230Vac 19VA	Threaded
EVGPCFM025	DN25 (1")	230Vac 19VA	Threaded
EVGNCFM032	DN32 (1"1/4)	230Vac 19VA	Threaded
EVGNCFM040	DN40 (1"1/2)	230Vac 19VA	Threaded
EVGNCFM050	DN50 (2")	230Vac 19VA	Threaded
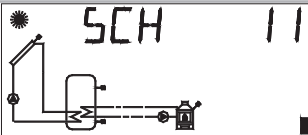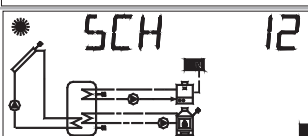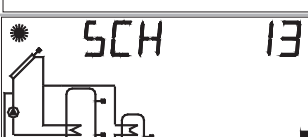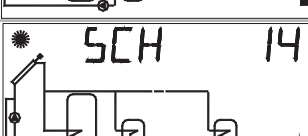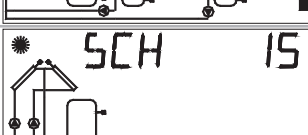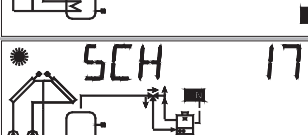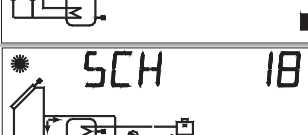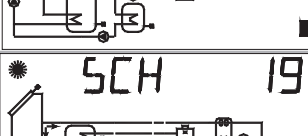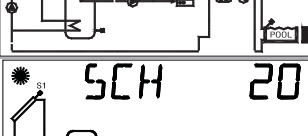
Notes: ALSO AVAILABLE FOR 12V POWER SUPPLY

SOLAR HEATING CONTROLLERS

ELIOS - CONFIGURATION SYSTEM LAYOUTS

	ELIOS BASIC	ELIOS MIDI	ELIOS 25 STD
SCH 01	✓	✓	✓
SCH 02	✓	✓	✓
SCH 03	✓	✓	✓
SCH 04	✓	✓	✓
SCH 05	✓	✓	✓
SCH 06	--	--	✓
SCH 07	--	--	✓
SCH 08	--	--	✓
SCH 09	--	--	✓
SCH 10	--	--	✓

	ELIOS BASIC	ELIOS MIDI	ELIOS 25 STD
SCH 11	--	--	✓
SCH 12	--	--	✓
SCH 13	--	--	✓
SCH 14	--	--	✓
SCH 15	--	--	✓
SCH 16	--	--	✓
SCH 17	--	--	✓
SCH 18	--	--	✓
SCH 19	--	--	✓
SCH 20	--	✓	✓

ELIOS BASIC

TST01M
3 probes included:
1 probe STLDESL150, 2 probes STLDEIM150

ANALOG SOLAR CONTROLLER

Analog differential controller for solar heating plants. Three temperature inputs from NTC sensors and 2 on-off relay outputs SPST.
Additional thermostat for driving auxiliary heat source. LEDs show presence of power and pump activity. Configuration of 5 different system layouts. Adjustable antifrost function. Only for 230Vac Live + Neutral powered circulators (doesn't feature any PWM or 0..10V output) . In case of circulators with either PWM or 0..10V input please use accessory ACIW01.

TECHNICAL FETAURES

Power supply	230V ~ -15% +10% 50Hz
Sensor	NTC 10k Ohm @25°C ±1%
Power absorption	2,3VA
Pump output	5(1)A@250V~(powered)
Integration output	5(1)A@250V~(powered)
Accuracy	±1,5°C
Green LED indicator	Power supply
Red LED indicator	Pump active
IP rating	IP30
Operating temperature range	0°C .. 40°C
Storage temperature range -10°C .. +50°C	
Humidity limits	20% .. 80% non-condensing
Case	ABS VO self-extinguishing
Dimensions	H87 W132 D37mm
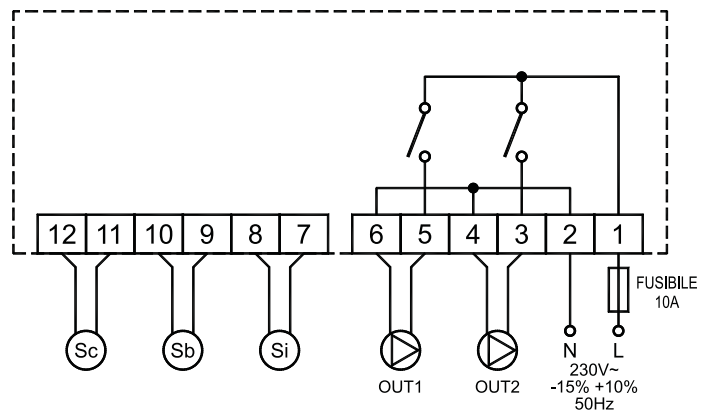
ELIOS MIDI

TDST24M
3 probes included:
1 probe STLDESL150, 2 probes STLDEIM150

SOLAR CONTROLLER

Digital differential controller for solar heating plants. Three temperature inputs from NTC sensors and 2 on-off relay outputs + 1 NO/NC auxiliary output for alarm, 1 PWM output and 1 0..10V output. Additional thermostats for driving auxiliary heat sources. All temperatures are displayed. Configuration of 6 different system layouts. Self diagnostic feature, with visual and acoustic alarms.

TECHNICAL FETAURES

Power supply	230V ~ ±10% 50Hz
Power absorption	<2 VA
Inputs	3 x NTC 10k Ohm @ 25°C
Sensor operating range	2NTC 10K (-50°C÷110°C)
	1NTC 10K (-50°C÷200°C)
Temperature reading range	-20°C .. 180°C
Accuracy	±2°C
Resolution	0,1°C up to 99,9°C/ -20 +144,1°C up to 145 ÷180°C
Offset adjustment	on S1, S2, S3: ±5°C
Acoustic signal	On/Off (default On)
Back light timing	20 sec. from last keypress
Contacts rating	1 x 2(1)A max @ 250V~ (SPST)
(voltage free)	1 x 8(1)A max @ 250V~ (SPST)
	1 x 4(1)A max @ 250V~ (SPDT)
Outputs	PWM, 0..10V
IP rating	IP40
Operating temperature range	0°C .. 40°C
Storage temperature range	-10°C .. +50°C
Humidity limits	20% .. 80% non-condensing
Case	ABS VO self-extinguishing
Dimensions	H108 W156 D47mm

ELIOS 25 STANDARD

TST12M
3 probes included:
1 probe STLDESL150, 2 probes STLDEIM150

SOLAR CONTROLLER

Digital differential controller for solar heating plants.
4 Pt1000 temperature inputs, 2 PWM output, 1 alarm auxiliary relay output SPDT. All temperatures are displayed. Configuration of 20 different system layouts. Self diagnostic feature, with visual and acoustic alarms. Available functions: recooling function, pump/valve kick, calorimeter.

TECHNICAL FETAURES

Power supply	230V ~ 50Hz
Power absorption	4VA
Inputs	4 x Pt1000 Classe B DIN
Sensor operating range	-50 °C .. +200 °C (collector)
	-50 °C .. +110 °C (Boiler)
Offset; adjustable on S1,S2,S3,S4 :	±5.0°C
Output relay contacts rating	
OUT1 - OUT2 - OUT3 - OUT4:	4x2(1)A max 230V~(SPST)
	Contacts powered
Alarm relay contacts rating:	4(1)A max 230V~(SPDT)
Output Signals:	PWM: Ampiezza: 10V ±15%
IP Rating:	IP 40
Action type:	1
Pollution Rating:	2
Operating temperature range:	0°C .. 40°C
Storage temperature range:	-10°C .. +50°C
Dimensions:	H156 W108 D47
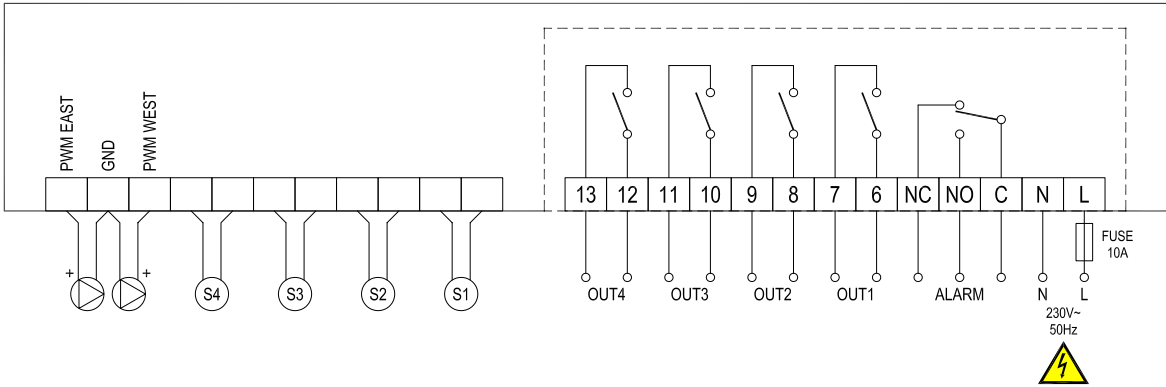
ACCESSORIES

ACIW01
Allow to convert On-Off pump output into a PWM or 0..10V output.

STLMTIM150
Pt1000 probe -50°C .. +110°C B DIN class

STLMTSL150
Pt1000 probe -50°C .. +200°C B DIN class

STLDEIM150
NTC probe: 10K 1% -50°C .. +110°C

STLDESL150
NTC probe: 10K 1% -50°C .. +200°C

STLPTSA150
PTC probe for solar controller (TDS005M, out of production). PTC 2k Ohm @25°C Working range - 25°C + 125°C

ELIOS GPS 9

KCS009

PUMP STATIONS

Two pipes solar kit (supply/return), preassembled and leak tested module for solar plants with thermal insulation case.
High efficiency pump (Erp-2015).

TECHNICAL FEATURES

The solar kit features:

- Return valve with thermometer (0÷160°C)
- Manual air vent
- Flowmeter (2-12l/min)
- Fill /Drain valve
- Solar pump 15/75, dedicated to solar plants
- Safety group: Pressure Gauge (0 ÷ 10 bar), G Connector ¾" for connection to the expansion vessel, safety valve (6 bar Rp ¾")
- Supply valve with thermometer (0÷160°C)
- Thermoinsulating case

CLIMATE CONTROLLERS

RKP01M

3 accessories included:
STED01, STLD01, ACAD02

CLIMATE REGULATOR

Climate regulator for systems with traditional heating and / or floor heating. It allows to manage 3 outputs (3 + 1 Relays) and 4 inputs Probes, 1 input for the thermostat environment and input 1 for the Remote Controller.

After selecting a plant, the climate regulator automatically manages the inputs and outputs used in the plant chosen.

The types of plants are the following: 1) 3-way valve and circulation pump PI floating valve regulation. 2) 3-way valve and circulation pump, optional use of the recirculation pump PI floating valve regulation. 3) One-stage burner, circulation pump, optional use the recirculation pump, ON - OFF type of management, 2-point control. 4) Two-stages burner and circulation pump, optional use the recirculation pump, type of management ON - OFF, 2-point control.

TECHNICAL FEATURES

Power supply	230V~ ±10% 50/60Hz
Output (relay)	3x2(1)A @ 250V~ SPST
	1x2(1)A @ 250V~ SPDT
Working range	-20 .. +120°C
Working curves	0.5 .. 4 T mand./T est.
LCD display	Backlit
Type of regulation	Comfort/Economy/Antifrost/Off
3 sensors included	3xNTC (10k Ohm @ 25°C)
Sensor input	4
Programming clock	Hourly / Weekly
Dimensions	H108 W156 D47mm
IP rating	IP40
Class Reg.2013/811/EC	VI = 4,0%
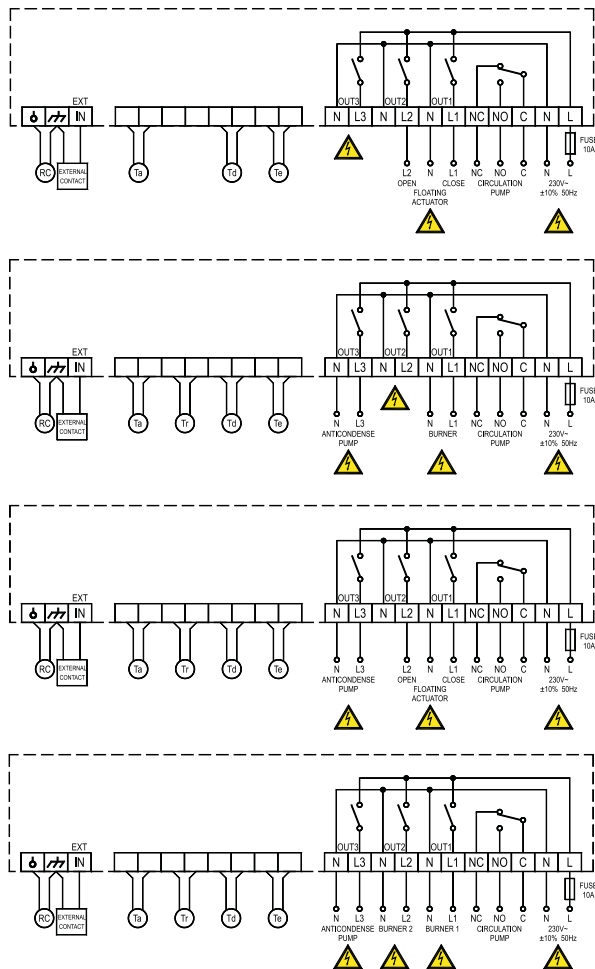
ACCESSORIES RKP01M

STAD01
Room temperature probe

SPARE PARTS FOR RKP01M

STLD01
Temperature probe for liquid and air 10k Ohm, 2 m cable (works with ACAD02)

ACAD02
Pipe clamp for supply and return probe

STED01
External temperature probe

RKP01M CLIMATE REGULATOR: TYPICAL WIRING
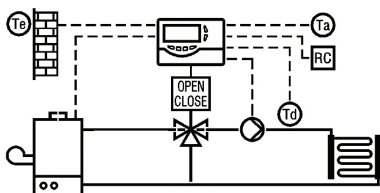
SCH 1
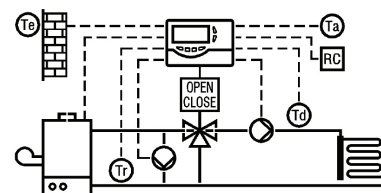
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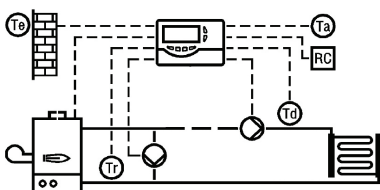
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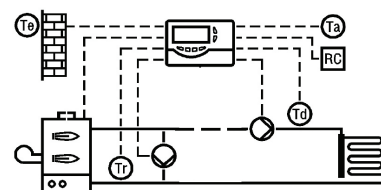
SCH 4

TT401M
Sonde: non incluse

Black bulb probe
STBD01

Room Temperature Probe
STAD01

4 Cannels Reset
ACCRES04

ACAD02
Pipe clamp for supply and return probe

MULTIZONES PROGRAMMABLE THERMOSTAT
CONTROL FOR RADIANT TUBES
UP TO 4 ZONES 8 TUBES IN DIN CASE

Digital microcontroller based regulator for radiant tubes for DIN rail mount: controls up to 8 radiant tubes by regulating according to the temperature acquired from the sensors (zones). Programmable thermostat over 4 adjustable temperature levels (off, antifrost, economy, comfort) and weekly programs up to 7 daily sets. Manual operation allowed for each temperature level.

TECHNICAL FEATURES

Power supply	230V~ -15% +10% 50Hz
Electrical absorption	< 3.2VA
Sensore	NTC (10K Ohm@25°C)
Regulation range	Comfort: +5°C .. +35°C
	Reduced: -5°C .. +25°C
	Antifreeze: -5°C .. +15°C
Accuracy	± 1° C
Resolution	0.2°C
Hysteresis	0.2°C
Contacts rating	8 x 2 (1) A @ 250V~ SPST
Relays rating SPDT)	1 x 5A 250V~ cosφ=1
Protection grade	IP 30 mounted in frame
Operating temperature	0°C .. 40°C
Storage temperature	-10°C .. +50°C
Humidity limits	20% .. 80% RH non condensing
Size	157 x 90 x 71 mm (W x H x D)
Weight	685 g
Class Reg.2013/811/EC	I = 1,0%

FUEGO
000CCI

FIREPLACE CONTROLLERS

Fireplace control for 3 modules junction boxes. Water temperature adjustment with knob. LED indication and acoustic alarm for water overtemperature. Relay outputs driving a circulation pump and a grill. Plastic colour: RAL 7016.

TECHNICAL FEATURES

Power supply	230V~ -15/+10% 50Hz
Output (relay)	5A @ 250V~ SPST (max. tot.)
Sensor	NTC (4k7 0hm @ 25°C)
Working range	30 .. 90°C
Red LED indicator	Pump active
Green LED indicator	Grill on
8 LED thermometer 20 .. 90°C	Water temperature
Buzzer alarm	Temp. H2O>90°C
Anti-frost	5°C
Slide switch	Off/on/grill
IP rating	IP20
Dimensions	H110 W60 D56mm
Class Reg.2013/811/EC	I = 1,0%
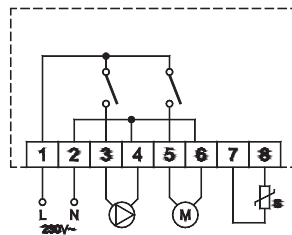
Notes: (2) Delivered with NTC probe with 1,5 m of cable (STL NTS A 150) and POZ 001 pocket.

NON FITTING PLATES:
(B-TICINO)

FITTING PLATES
BRAND
BTICINO®
VIMAR®
AVE®

FUEGO 2
CIE001MD

FIREPLACE CONTROLLERS

Fireplace control for 3 modules junction boxes. Heating and sanitary water temperature adjustment with two knobs. LED indication and acoustic alarm for water overtemperature. Relay outputs driving a circulation pump, a valve and a grill. Plastic colour: RAL 7016.

TECHNICAL FEATURES

Power supply	230V~ ±10% 50..60Hz
Output (relay)	2x 5A @ 250V~ SPST (max. tot.)
Sensor	NTC (4k7 0hm@25°C)
Working range:	
heating/sanitary water	30 .. 90°C/50 .. 70°C
Red LED indicator	Pump active
Green LED indicator	Grill on
Red LED indicator	Valve open
7 LED thermometer 20 .. 90°C	Water temperature
Buzzer alarm	Temp. H2O>90°C
Slide switch	Off/on/grill
Dimensions	H110 W60 D56mm
IP rating	IP20
Class Reg.2013/811/EC	I = 1,0%
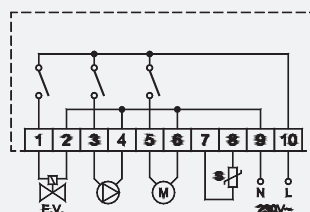
Notes: (2) Delivered with NTC probe with 1,5 m of cable (STL NTS A 150) and POZ 001 pocket.

NON FITTING PLATES:
(B-TICINO)

FITTING PLATES:
MARCA
BTICINO®
VIMAR®
AVE®

TAG02M

WEEKLY DIGITAL CHRONOTHERMOSTAT IP54

230V wall-mounted digital weekly thermostat in IP54 version, with 3-level temperature adjustment (Comfort, Reduced, Off / Antifreeze). Large backlit display. Remote probe. Reset circuit for burners with blocking signal and Reset button electrically separated from the thermostat. 2 relay outputs in sequence plus one fan relay output.
Typical application for greenhouse.

TECHNICAL FEATURES

Power supply	230V ~ -15 / + 10% 50Hz
Working range	0 .. + 85 ° C
Contacts (relays)	3 x 5 (1) A @ 250V ~ SPST
NTC	sensor (10K0 0hm @ 25 ° C Beta 3977)
Differential	1 ° C
Indication	red LED Burner block
Degree of protection	IP54
Class Reg.2013 / 811 / CE	I = 1.0%

Room Temperature Probe
STED01

Room Temperature Probe
STAD01

Black bulb probe
STBD01

Room Temperature Probe
STLD01
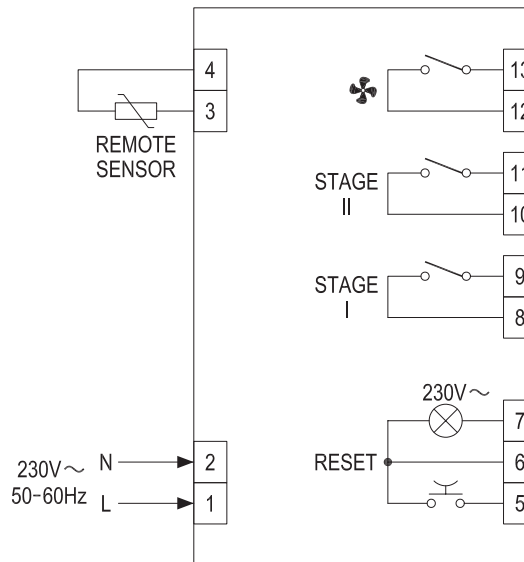
TEMPERATURE PROBES FOR LIQUIDS AND AIR

STLNTSA150
Sensor NTC, Working Range: -25 .. +125°C, Resistance=4k7 Ohm±2% @ 25°C, β25/75=3977 K, Protection: IP65, Dimensions: P6xL25mm

STLOTSA150
Sensor NTC, Working Range: -25 .. +125°C, Resistance=R=100k Ohm±1% @ 25°C, β=4190 K, Protection: IP65, Dimensions: P6xL25mm

STLD01
Sensor NTC, Working Range: -25 .. +125°C, Resistance=10k Ohm±1% @ 25°C, β25/85=3977 K, Protection: IP65, Dimensions: P6xL25mm

STLPTSA150
Sensor PTC, Working Range: -25 .. +125°C, Resistance=R=2k Ohm @ 25°C, Protection: IP65, Dimensions: P6xL25mm

BLACK BULB PROBE, WALL MOUNTING

STBPS003
Sensor PTC, Working Range: -20 .. +70°C, Resistance=2k Ohm @ 25°C, Protection: IP54, Dimensions: A154xL79xP84mm

STBD01
Sensor NTC, Working Range: -20 .. +70°C, Resistance=10k Ohm @ 25°C, β25/85=3977 K, Protection: IP54, Dimensions: A154xL79xP84mm

ROOM TEMPERATURE PROBE, WALL MOUNTING

STANP3
Sensor NTC, Working Range: 0 .. +50°C, Resistance=4k7 Ohm±2% @ 25°C, β25/85=3977 K, Protection: IP30, Dimensions: A85xL85x P31mm

STAOP3
Sensor NTC, Working Range: 0 .. +50°C, Resistance=R=100k Ohm±1% @ 25°C, β25/50=4250 K - β25/85=4315 K, Protection: IP30, Dimensions: A85xL85x P31mm

STAD01
Sensor NTC, Working Range: 0 .. +50°C, Resistance=10k Ohm±2% @ 25°C, β25/85=3977 K, Protection: IP30, Dimensions: A85xL85x P31mm

STAPP3
Sensor PTC, Working Range: 0 .. +50°C, Resistance=R=2k Ohm @ 25°C, Protection: IP30, Dimensions: A85xL85x P31mm

OUTDOOR TEMPERATURE PROBE

STENS
Sensor NTC, Working Range: -20 .. +60°C, Resistance=4k7 Ohm±2% @ 25°C, Protection: IP65, Dimensions: A50xL52xP35mm

STEOS
Sensor NTC, Working Range: -20 .. +60°C, Resistance=100k Ohm±1% @ 25°C, β25/50=4250 K - β25/85=4315 K, Protection: IP65, Dimensions: A50xL52xP35mm

STEPS
Sensor PTC, Working Range: -20 .. +60°C, Resistance=2k Ohm @ 25°C, Protection: IP65, Dimensions: A50xL52xP35mm

SEITRON CUSTOMER CARE AND WARRANTY

Seitron is always at your disposal for any unmatched technical & application assistance, both pre and after-sales support.

Our skilled and experienced personnel are here to provide step-by-step support in every aspect of your application from research, purchase, problem resolution and technical support.

CONTACT US
customer.care@seitron.it

WRITE US ON WHATSAPP
+39 329 1444390

TALK WITH US
+39 0424 567842

RETURN AUTHORIZATION

Contact service@seitron.it to request your **return authorization number (RMA)**, indicating the following details:

- Item code number
- Manufacturing date (see the label on the product)
- Sales invoice number
- Detected malfunctioning and eventual performed tests

Once you get the RMA, please indicate it on the delivery note and ship the goods to our Service Headquarter.
The transport costs will be the responsibility of the sender.

After an accurate technical check, Seitron will repair or replace the products covered by the warranty, shipping them back to the customer free of charge.

EASY RETURN PROCEDURE

With the purpose of a continuous product development , Seitron reserves the right to modify technical and performance details without prior notice. Visit our website www.seitron.com to always find the last release of technical specifications, manuals and catalogues.

WARRANTY TERMS AND CONDITIONS

Seitron offers a variable warranty period, starting from the date the product was sold.

CATEGORY	WARRANTY
Combustion analyzers (Novo)	48 MONTHS
Combustion analyzers (Chemist 100 Be Green)	24 MONTHS
Combustion analyzers (Chemist 500 / 500 Be Green)	48 MONTHS
Combustion analyzers (Chemist 600 / 600 Be Green)	12 MONTHS
Combustion analyzers (Chemist 900 / 900 Rack)	12 MONTHS
Portable instruments	24 MONTHS
Smart Home	36 MONTHS
Thermostats	36 MONTHS
Thermostats / Connection box	36 MONTHS
Via radio	36 MONTHS
Thermostats for fan coil	36 MONTHS
Residential gas safety	36 MONTHS
Industrial gas safety	24 MONTHS
Solar regulators	36 MONTHS
Climate regulators	36 MONTHS

Accidental breaking or damages caused by natural events, transport, inappropriate use or a use non-compliant with the product instructions are not covered by the warranty. Each misuse, repair or any modification not expressly authorized by Seitron void the warranty.

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KDMER00015	122	286	RGDMETMP1R	118	117	SXMX14M1Y	132	414	TM001M	67	24
KGG001	127	243	RGI000LBXD	141	182	SXMX16M1Y	132	506	TM002M	67	31
KGM001	127	243	RGI000MBX2	141	132	SXVX14M1Y	132	414	TM003M	67	32
KTR005	81	166	RGI000MSX4	140	452	SXVX16M1Y	132	506	TM004M	67	41
KTY001	52	269	RGI001MSX2	140	128	SYCN01R	133	271	TRD02B	83	77
KV0001	48	1.161	RGICO0L42	142	226	SYCN21B	133	267	TRD03B	96	88
KV0002	48	976	RGIGP1MSX2	139	188	SYCN51B	132	333	TST01M	147	114
Novo 2	9	2.900	RGIME1MSX2	139	188	SYGN04R	133	295	TST12M	149	245
Novo 2P	9	3.000	RIG01RM	139	233	SYGN06R	133	340	TT401M	156	333
Novo 2ST	9	3.000	RIM01RM	139	233	SYGN24B	133	239	TTM003MI	108	8
Novo 3	9	3.490	RKP01M	154	293	SYGN26B	133	327			
Novo 3P	9	3.590	RXA01M	136	331	SYGN54B	132	355			
Novo 3ST	9	3.590	RYB01M	116	261	SYMN04R	133	295			
Novo 4N	9	5.300	RYK01M	135	266	SYMN06R	133	340			
Novo 4S	9	5.300	RYM02M0	134	504	SYMN24B	133	239			
Novo 4PN	9	5.400	RYM02M1	134	463	SYMN26B	133	327			
Novo 4PS	9	5.400	RYM02M2	134	401	SYMN54B	132	355			