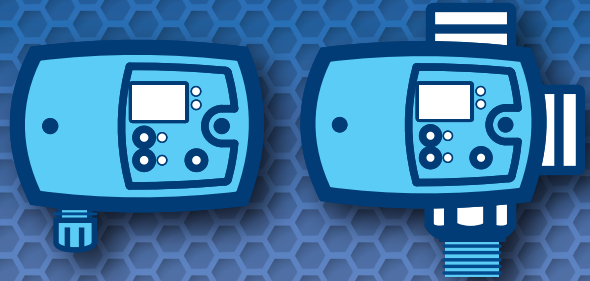
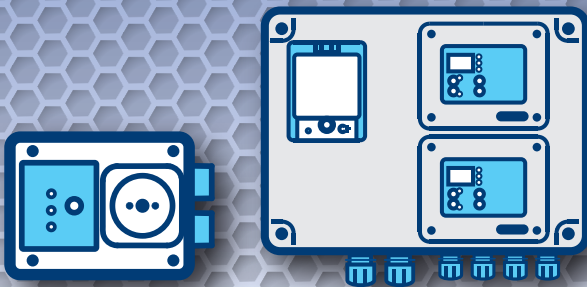




Electronic pressure switches



Electronic panels



COELBO
PUMP DRIVERS



SMART TECH - PANELMATIC
Innovative electronics for pump control



Since the end of the last century, the constant technological evolution has allowed the industry to incorporate new concepts and systems based on electronics, digitalization, and specific software that, properly combined, can be considered under the scope of artificial intelligence. The sophistication required in the use of these new means has induced a willingness to innovate at a business level and a progressive sectorial specialization.

COELBO was founded in 1988 with a business philosophy based on this innovative spirit and with the initial objective of producing a new electronic device (internationally patented) based on a new system for the automatic control of electric pumps for domestic use, which uses a pressure&flow dependent principle that consists of activating the pump by pressure drop to a preset value and deactivating it when the flow or consumption ceases. This technological innovation, based on electronics, basically makes it possible to dispense with traditional pressure switches and accumulators or hydropneumatic tanks, to the benefit of greater system reliability and offering the network greater stability and constant pressure. This innovation has been quickly accepted in the world market and is nowadays adopted by multiple replicas based on the same principle. COELBO has developed multiple variants that make up the most important range of pressure&flow dependent devices on the market, which we call the **Pressflow Tech** range.

The progressive and constant experience and know-how acquired by COELBO has allowed the creation of new **Hi Tech** systems and devices (*Drivers*), with sophisticated hardwares and specific and intelligent software, based on the principle of variable frequency drives (VSD) that confer to the current booster systems and to the fed network, all kinds of functional safety, energy efficiency, pressurization stability and reliability of all their functions. The wide range available offers all types of mounting, such as the SPEEDMATIC series for direct mounting on the hydraulic part of the electric pump, SPEEDBOARD for direct mounting on the electric motor or SPEEDBOX for independent wall mounting.

In addition to the ranges described above, COELBO has created a new range of **Smart Tech** devices and accessories with the same objective of automatic control of single or group electric pumps through single-phase or three-phase SWITCHMATIC electronic pressure switches. The **Smart Tech** family also includes transducers and auxiliary devices to protect the electric pump against water shortage or power supply overcurrent.

COELBO has also developed a range called **Panel Matic** of control panels, which combine its own experienced basic electronics with the software derived from its own know-how, offering excellent versatility and a wide range of features that allows the control of all types of electric pumps, with single or multiple groups, allowing the programming of all the functional inputs attributable to any type of installation.

COELBO through its history and constant technological innovation, supported by multiple patents and internationally registered designs, is today one of the leading specialists in the field of electric pump Drivers and its products are exported to more than seventy countries that guarantee a recognized international prestige.

The success of some of our products has created a trend in the market and are the reason for replicas, but only COELBO original products are distinguished by our brand.

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SMART TECH / PANELMATIC

The family SmartTech includes a wide range of units for control and/or protection of electric pumps whose common denominator is the application of new technologies to traditional systems, with the exception of the variable speed pump drivers that constitute the family HiTech.

This catalog presents many new products, however, we advance our R & D department works frantically in the development of many more in the near future.

SWITCHMATIC 1:

Electronic pressure switch with integrated digital pressure gauge in bar and psi. It manages the cut-in and cut-out pressures of single-phase pumps up to 3HP. Start and stop pressures can be easily adjusted through a user-friendly control panel. Connections are carried out identically to a conventional electro-mechanical switch.

It can also be configured as a low, high or differential pressure switch.

SWITCHMATIC 2:

In addition to all the features of SWITCHMATIC also includes instantaneous current reading. This PATENTED version controls and manages the over-current, dry running operation of the pump and rapid cycling.

SWITCHMATIC 2A: Includes an output for alarms.

SWITCHMATIC 3:

In addition to all the features of SWITCHMATIC it's dry contact output it's ideal for transmitting an open/close signal to an external control panel.

This unit also includes a volt free contact for monitoring the alarms displayed in the screen.

SWITCHMATIC 2 T:

Is a thripasic electronic pressure switch with an integrated digital pressure gauge. It can manage the start and stop of 3-phase electric pumps. General electric supply is 400Vac. Includes also instantaneous current lecture and voltage.

T-KIT SWITCHMATIC:

Is an electronic pressure switch integrated in a 3-ways fitting with a digital pressure gauge. It can manage the start and stop of single-phase electric pumps up to 3 HP (2,2 kW). Cut-in and cut-out pressure implementation can be set easily and accurately through a users friendly control panel. Wiring is carried out identically to a conventional electromechanical switch.

SAFEMATIC SERIES

The SAFEMATIC is a self-learning electronic control system for total protection of the pump.

This device stops the pump when is detected dry-running operation, blocked contacts of the electro-mechanical pressure switch or an overcurrent. Also warns for excessive rapid cycles caused by the loss of air in the hydropneumatic tank. Our traditional ART SYSTEM for periodical restore attempts is also included. Integrates a Schuko socket for pumps connection. It also has a Schuko plug.





There is a wall mounted variant where connections are made through the lateral cable glands, very useful for submersible pumps.


PANELMATIC SERIES


PANELMATIC range includes a serie of electronic panels for the control and protection of an individual pump or groups of two pumps, three-phase or single-phase supplied.

All of them integrate protections against dry-run operation, overcurrent or fast-cycling. Is included an user-friendly interface with 3-digit display and an integrated circuit breaker. Its modular concept, makes suitable an expansion of features or parts replacement.

This family of electronic panels adopts the philosophy of ease configuration for the end user, previously applied to our inverters. By mean of 5 predefined operating modes can be managed whatever application of pressurization, drainage, filling or irrigation. Control elements connection - probes, pressure switches, transducers or level switches - is simple and intuitive.

| Switchmatic Series | Model | Hydraulic Connection | Power Supply Voltage | Pump Connection |
|---|-------------------------------------|--------------------------|---------------------------|----------------------|
|  | Switchmatic 1 | G 1/4" F / NPT 1/4" F | ~1x110-230 V | ~1x110-230 V (16 A) |
| | Switchmatic 2 | G 1/4" F / NPT 1/4" F | ~1x110-230 V | ~1x110-230 V (16 A) |
|  | Switchmatic 3 Switchmatic 3 24 V | G 1/4" F / NPT 1/4" F | ~1x48-230 V 24 Vac/Vdc | dry-contact |
|  | T-KIT Switchmatic 1 | G 1" M x G 1" F x G 1" F | ~1x110-230 V | ~1x110-230 V (16A) |
| | T-KIT Switchmatic 2 | G 1" M x G 1" F x G 1" F | ~1x110-230 V | ~1x110-230 V (16A) |
|  | Switchmatic 2 T | G 1/4" F / NPT 1/4" F | ~3 x 220-400 V | ~3 x 220-400 V (10A) |

| Safematic Series | Model | Power Supply Voltage | Pump Connection | Assembly |
|---|-------------|----------------------|---------------------|--------------|
|  | Safematic S | ~1x110-230 V | ~1x110-230 V (16 A) | Schuko |
| | Safematic W | ~1x110-230 V | ~1x110-230 V (16 A) | Wall-mounted |

| Panelmatic Series | Model | N° of pumps | Power supply | Pump connection | Assembly |
|--|----------------------------------|-------------|------------------|-----------------------|----------|
|  | Panelmatic Uno M / Easy M | 1 | ~1x110-230 V | ~1x110-230 V (16 A) | Mural |
| | Panelmatic Duo M | 2 | ~1x110-230 V | ~1x110-230 V (16 A) | Mural |
| | Panelmatic Uno T / Easy T | 1 | ~3 x 230-400 Vac | ~3 x 230-400 V (10 A) | Mural |
| | Panelmatic Duo T | 2 | ~3 x 230-400 Vac | ~3 x 230-400 V (10 A) | Mural |

Switchmatic 1

Switchmatic 2

complet pump protection

Electronic pressure switch. Patented model.

This unit **SWITCHMATIC 1** is an electronic pressure switch with an integrated digital pressure gauge. It can manage the start and stop of single-phase electric pumps up to 3 HP (2,2 kW). Cut-in and cut-out pressure implementation can be set easily and accurately through user friendly control panel. Wiring is carried out identically to a conventional electromechanical switch. It can operate as a differential pressure switch or as an inverted pressure switch. **SWITCHMATIC 2** also includes instantaneous current lecture and it can be mounted individually or in groups of 2 pumps synchronized and operating in cascade mode with alternated sequence of operation. This patented version controls and manages the overcurrent, the dry-run protection of the pump and fast cycling protection.

The unit **SWITCHMATIC 2/in-out** includes an output for alarms and an input for external level connection.



SWITCHMATIC 1
SWITCHMATIC 2
SWITCHMATIC 2/in-out

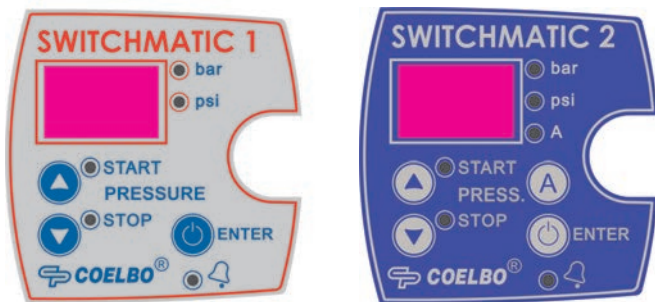
OPERATING CHARACTERISTICS

- Operation modes: differential, inverted and synchronized (only **SWITCHMATIC 2**).
- Inner pressure transmitter.
- Integrated pressure gauge with bar and psi instantaneous display.
- User friendly control panel including manual start push-button, 3-digits display, led-lights and push-buttons.
- Dry-running protection by current (**SWITCHMATIC 2**) and by minimal pressure (for type **SWITCHMATIC 1**).
- **ART** function (Automatic Reset Test). If the device has been stopped due the action of the safety system against dry operation, the ART tries to connect the pump, with a programmed periodicity because the water supply could have been restored.
- Rapid-cycle alarm: when the hydropneumatic tank has lost the air and frequent start-stops are produced an alarm is activated and is delayed the start.
- Overload alarm (only type **SWITCHMATIC 2**).
- Sleep mode with low power consumption.
- Advanced configuration menu: differentials, delay settings and other parameters.
- **SWITCHMATIC 2/in-out** also includes:
 - Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system.
 - Float switch connection, for minimum level detection in the suction tank, its use is optional. This system is independent of the dry-running safety system.
- **Register of operational parameters.** Information about: operating hours, counter of starts, counter of connections to the power supply.
- **Register of alarms.** Information about type and number of alarms.



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 Electromagnetic Compatibility 2014/30/EC
 RoHS 2011/65/EC + 2015/863/EC

CONTROL PANEL



- 3 digits display:
 - Operating mode: Instantaneous pressure.
 - Set mode: Cut in and cut out pressure.
- Bar-psi led-lights (green):
 - Operating mode: Bright bar or psi.
 - Pump on: Flashing bar or psi.
- Star-Stop led-light (green):
 - Bright: displayed Pressure start or Pressure stop.
 - Flashing: Setting Pstart or Pstop.
- Push Buttons ▲▼: Increase or decrease configuration parameters.
- ENTER push-button:
 - Manual start and stop.
 - Confirm configuration value.
- Alarm led-light (red): dry-run and fast cycling.

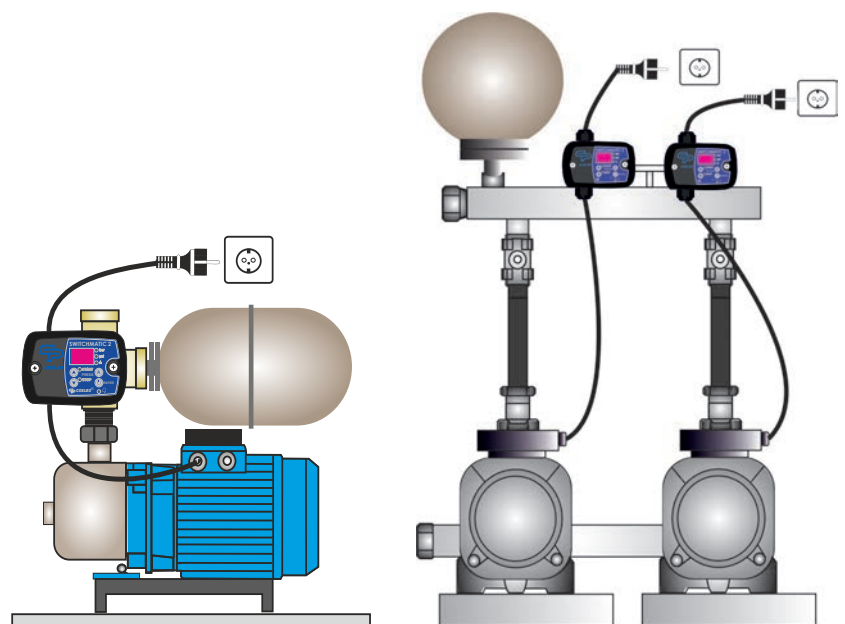
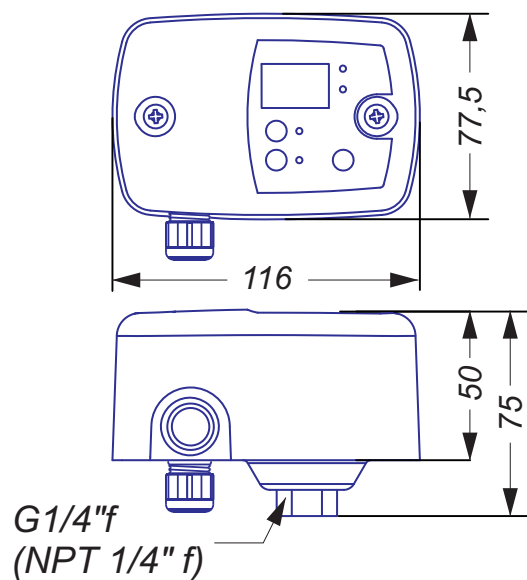
Only for SWITCHMATIC 2

- "A" led-light (yellow):
 - Bright: Displayed instantaneous current consumption of the pump.
 - Flashing: Setting maximum current of the pump.
- Alarm led-light (red): dry-run, over current, fast cycling
- "A" push-button: set and display current intensity.

TECHNICAL CHARACTERISTICS

| | SWITCHMATIC 1 SWITCHMATIC 2 |
|----------------------------------|-----------------------------------|
| Power supply voltage | ~1 x 110-230 Vac |
| Frequency | 50/60 Hz |
| Max. current | 16 A |
| Maximum pump power | 2,2 kW (3 HP) |
| Starting pressure range (cut-in) | 0,5 ÷ 11,5 bar |
| Stop pressure range (cut-out) | 1 ÷ 12 bar |
| Maximum differential | 11,5 bar |
| Minimum differential | 0,3 bar (SW1) 0,5 bar (SW2) |
| Factory setting (cut-in/cut-out) | 3 / 4 bar |
| Protection degree | IP55 |
| Max. water temperature | 40 °C |
| Max. environment temperature | 50 °C |
| Net weight (without cables) | 0,4 kg |
| Inlet thread | G1/4" F rotative nut NPT1/4" F |

DIMENSIONS



Switchmatic 3

Electronic pressure switch with dry contact output for control panels.

SWITCHMATIC 3 is an electronic pressure switch with integrated digital pressure gauge. Cut-in and cut-out pressure implementation can be set easily and accurately. Wiring is carried out identically to a conventional electromechanical switch. Its dry contact output is ideal for transmitting an open/close signal to an external control panel. Version **in-out** also includes a volt free contact for monitoring the alarms displayed in the screen.



SWITCHMATIC 3
SWITCHMATIC 3 24V
SWITCHMATIC 3/in-out

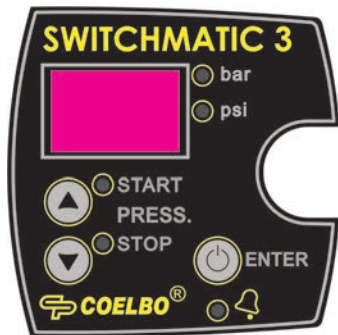
OPERATING CHARACTERISTICS

- Dry contact output for control panels.
- ART function (Automatic Reset Test). If the device has been stopped due to the action of the safety system against dry operation, the ART tries to connect the pump, with a programmed periodicity because the water supply could have been restored.
- Sleep mode with low power consumption.
- Inner pressure transmitter.
- Integrated pressure gauge with bar and psi instantaneous display.
- User friendly control panel with 3-digits display, led-lights and pushbuttons.
- Manual start.
- Two operation modes:
 - Differential.
 - Inversed differential.
- **SWITCHMATIC 3/in-out** also includes:
 - Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system.
 - Float switch connection, for minimum level detection in the suction tank, its use is optional. This system is independent of the dry-running safety system.



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CONTROL PANEL

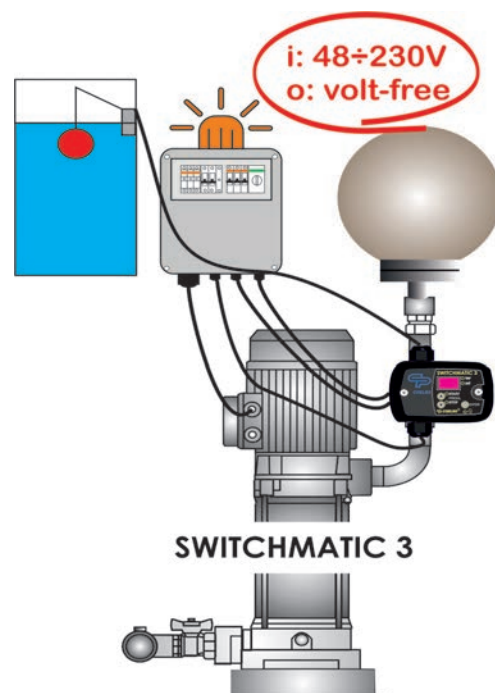
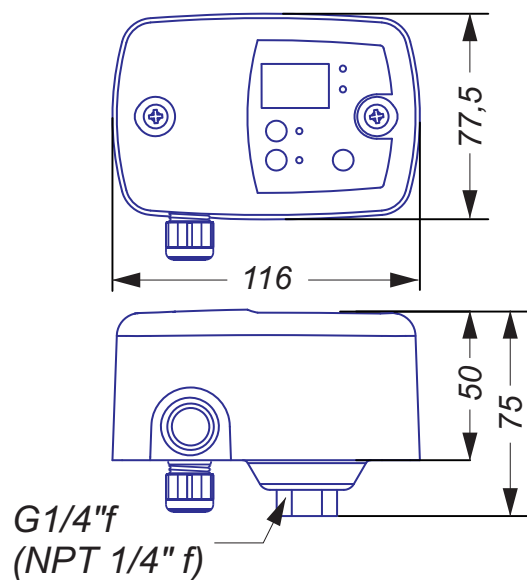


- 3 digits display:
 - Operating mode: Instantaneous pressure.
 - Set mode: Cut in and cut out pressure.
- Bar-psi led lights (green):
 - Operating mode: Bright bar or psi.
 - Pump on: Flashing bar or psi.
- Star-Stop Led (green):
 - Bright: displayed Pressure start or Pressure stop.
 - Flashing: Setting Pstart or Pstop.
- Push Buttons ▲▼: Increase or decrease configuration parameters.
- ENTER push-button:
 - Manual start and stop.
 - Confirm configuration value.
- Alarm red light 🔔: dry-run, fast cycling, pressure sensor.

TECHNICAL CHARACTERISTICS

| | SWITCHMATIC 3 | SWITCHMATIC 3 24V |
|----------------------------------|-------------------|-------------------|
| Power supply voltage | ~1x48-230 Vac/Vdc | 24 Vac/Vdc |
| Frequency | 50/60 Hz | |
| Max. current | 16 A | |
| Output | dry-contact | |
| Starting pressure range (cut-in) | 0,5 ÷ 11,5 bar | |
| Stop pressure range (cut-out) | 1 ÷ 12 bar | |
| Maximum differential | 11,5 bar | |
| Minimum differential | 0,3 bar | |
| Factory setting (cut-in/cut-out) | 3 / 4 bar | |
| Protection degree | IP55 | |
| Max. water temperature | 40 °C | |
| Max. environment temperature | 50 °C | |
| Net weight (without cables) | 0,4 kg | |
| Inlet thread | G 1/4" F | |

DIMENSIONS



T-KIT Switchmatic

Electronic pressure switch + 3 ways fitting + non-return valve + complet pump protection. Patented Model.

T-KIT Switchmatic is an electronic pressure switch integrated in a 3-ways fitting with a digital pressure gauge. It can manage the start and stop of single-phase electric pumps up to 3 HP (2,2 kW). Cut-in and cut-out pressure implementation can be set easily and accurately through a users friendly control panel. Wiring is carried out identically to a conventional electromechanical switch.

It can operate as a differential pressure switch and as an inverted pressure switch.

There is an internal non-return valve.

T-KIT Switchmatic 2 includes also instantaneous current lecture. This patented version controls and manages the overcurrent, the dry-running protection of the pump and fast cycling protection.



T-KIT Switchmatic 1

T-KIT Switchmatic 2

T-KIT Switchmatic 2/in-out

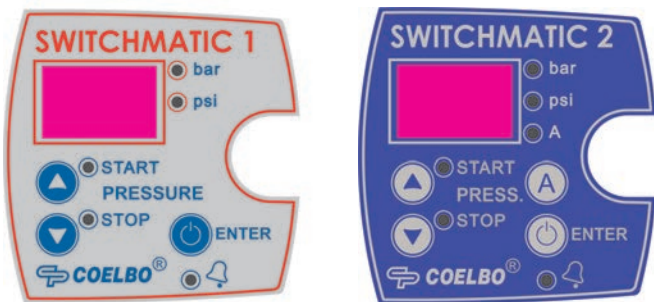
OPERATING CHARACTERISTICS

- Electronic pressure switch integrated in a 3 ways fitting.
- Inner non-return valve.
- Sleep mode with low power consumption.
- Inner pressure transmitter.
- Integrated pressure gauge with bar and psi instantaneous display.
- User friendly control panel with 3-digits display, led-lights and pushbuttons.
- Dry-running protection by current (for type T-KIT Switchmatic 2) and for minimal pressure (for type T-KIT Switchmatic 1).
- **ART function** (Automatic Reset Test). If the device has been stoped due the action of the safety system against dry operation, the ART tries to connect the pump, with a programmed periodicity because the water supply could have been restored.
- Overload protection (only type T-KIT Switchmatic 2).
- Rapid-cycle alarm: when the hydropneumatic tank has lost the air and frequent start-stops are produced an alarm is activated and is delayed the start.
- Manual start.
- Operation modes: differential, inversed differential and synchronized (only for T-KIT Switchmatic 2).
- Advanced MENU with complementary settings.
- **Register of operational parameters.** Information about: operating hours, counter of starts, counter of connections to the power supply.
- **Register of alarms.** Information about type and number of alarms.
- **T-KIT SWITCHM 2/in-out** also includes:
 - Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system.
 - Float switch connection, for minimum level detection in the suction tank, its use is optional. This system is independent of the dry-running safety system.



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CONTROL PANEL



- 3 digits display:
 - Operating mode: Instantaneous pressure.
 - Set mode: Cut in and cut out pressure.
- Bar-psi led lights (green):
 - Operating mode: Bright bar or psi.
 - Pump on: Flashing bar or psi.
- Star-Stop Led (green):
 - Bright: displayed Pressure start or Pressure stop.
 - Flashing: Setting Psart or Pstop.
- Push Buttons ▲▼: Increase or decrease configuration parameters.
- ENTER push-button:
 - Manual start and stop.
 - Confirm configuration value.
- Alarm red light 🔔: dry-run and fast cycling.

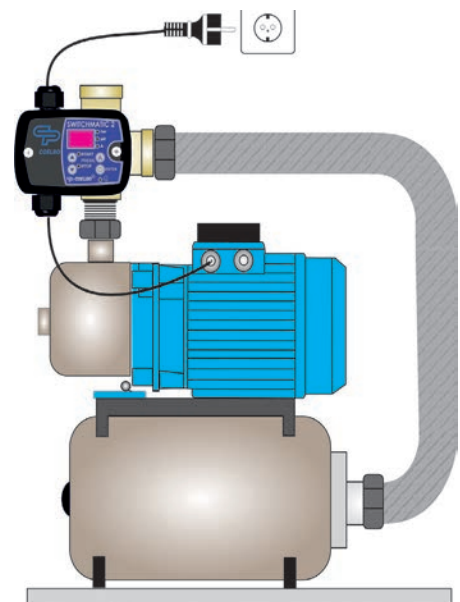
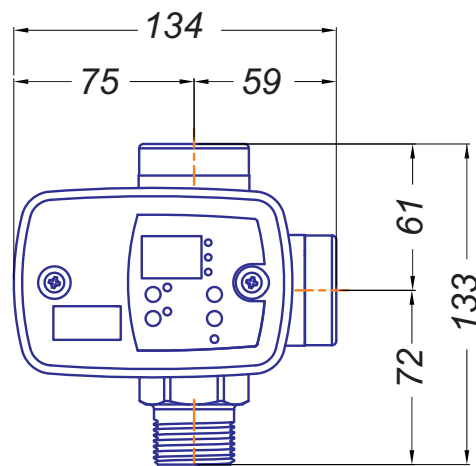
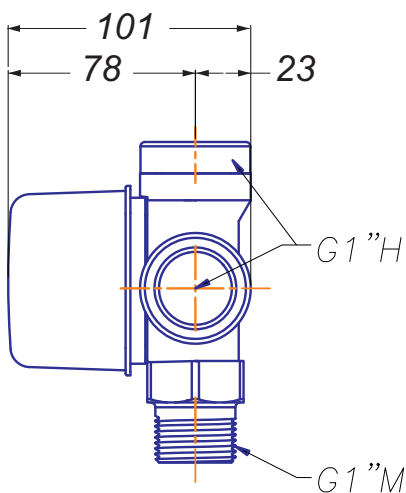
Only for SWITCHMATIC 2

- "A" led light (green):
 - Bright: Displayed instantaneous current consumption of the pump.
 - Flashing: Setting maximum current of the pump.
- Alarm red light 🔔: dry-run, over current, fast cycling
- "A" push-button: Set and display current intensity.

TECHNICAL CHARACTERISTICS

| | T-KIT Switchmatic 1 T-KIT Switchmatic 2 |
|----------------------------------|--|
| Power supply voltage | ~1 x 110-230 Vac |
| Frequency | 50/60 Hz |
| Max. current | 16 A |
| Maximum pump power | 2,2 kW (3 HP) |
| Starting pressure range (cut-in) | 0,5 ÷ 11,5 bar |
| Stop pressure range (cut-out) | 1 ÷ 12 bar |
| Maximum differential | 11,5 bar |
| Minimum differential | 0,3 bar (SW1) 0,5 bar (SW2) |
| Factory setting (cut-in/cut-out) | 3 / 4 bar |
| Protection degree | IP55 |
| Max. water temperature | 40 °C |
| Max. environment temperature | 50 °C |
| Net weight (without cables) | 0,6 kg |
| Inlet thread | G 1" M |
| Outlet thread | G 1" F |
| Pneumatic tank thread | G 1" F |

DIMENSIONS AND INSTALLATION



Switchmatic 2 T

Thriphasic electronic pressure switch. Patented Model.

SWITCHMATIC 2T is a three-phase electronic pressure switch with integrated digital manometer. It manages the start and stop of a three-phase pump up to 4kW (5,5 HP). Cut-in and cut-out pressures are easily adjustable through the users control panel. SWITCHMATIC 2T includes also instantaneous current lecture and voltage. It can be mounted individually or in groups of 2 pumps synchronized and operating in cascade mode with alternated sequence of operation. This patented version controls and manages the overcurrent, voltage out of range protection, the dry-running protection of the pump and fast cycling protection.



SWITCHMATIC 2T

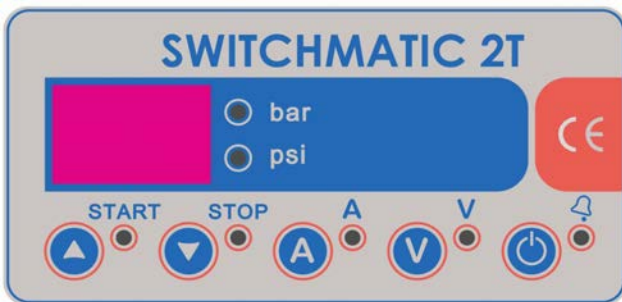
OPERATING CHARACTERISTICS

- Operation modes: differential, inverted and synchronized.
- ART function (Automatic Reset Test). If the device has been stoped due the action of the safety system against dry operation, the ART tries to connect the pump, with a programmed periodicity because the water supply could have been restored.
- Sleep mode with low power consumption.
- Inner pressure transmitter.
- Integrated pressure gauge with bar and psi instantaneous display.
- User friendly control panel with 3-digits display, led-lights and pushbuttons.
- **Overcurrent** and **Dry-running** protection by instantaneous current reading.
- **Rapid-cycle alarm**: when the hydropneumatic tank has lost the air and frequent start-stops are produced an alarm is activated and is delayed the start.
- **Overload alarm**.
- Manual start push button.
- **Register of operational parameters**. Information about: operating hours, counter of starts, counter of connections to the power supply.
- **Register of alarms**. Information about type and number of alarms.



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CONTROL PANEL



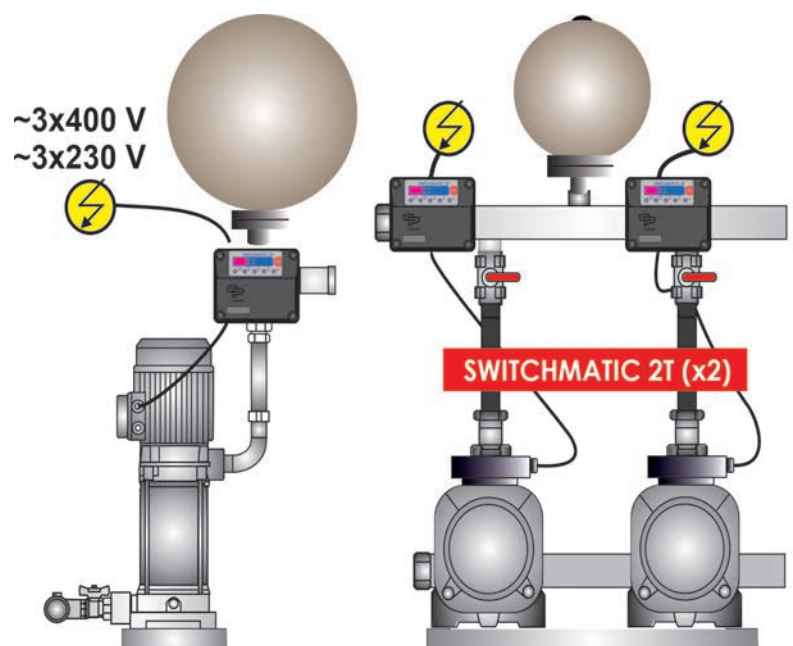
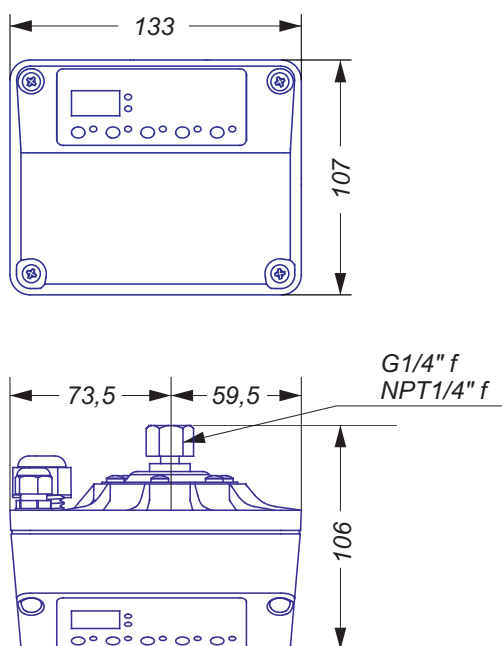
- 3 digits display:
 - Operating mode: Instantaneous pressure.
 - Set mode: Cut in and cut out pressure.
- Bar-psi led lights (green):
 - Operating mode: Bright bar or psi.
 - Pump on: Flashing bar or psi.
- Star-Stop Led (green):
 - Bright: displayed Pressure start or Pressure stop.
 - Flashing: Setting Psart or Pstop.
- Push Buttons ▲▼: Increase or decrease configuration parameters.
- ENTER push-button:
 - Manual start and stop.
 - Confirm configuration value.
- "A" led light (green):
 - Bright: Displayed instantaneous current consumption of the pump.
 - Flashing: Setting maximum current of the pump.
- Alarm red light 🔔: dry-run, over current, fast cycling
- "A" push-button: Set and display current intensity.
- "V" push-button: Set and display the voltage

TECHNICAL CHARACTERISTICS

| | SWITCHMATIC 2T |
|----------------------------------|---|
| Power supply voltage | ~3 x 230-400 Vac (~3 x 230-440 Vac*) |
| Frequency | 50/60 Hz |
| Max. current | 10 A |
| Maximum pump power | 4 kW (5,5 HP) |
| Starting pressure range (cut-in) | 0,5 ÷ 11,5 bar |
| Stop pressure range (cut-out) | 1 ÷ 12 bar |
| Maximum differential | 11,5 bar |
| Minimum differential | 0,5 bar |
| Factory setting (cut-in/cut-out) | 3 / 4 bar |
| Protection degree | IP55 |
| Max. water temperature | 40 °C |
| Max. environment temperature | 50 °C |
| Net weight (without cables) | 0,654 kg |
| Inlet thread | G1/4" F |

*Under request

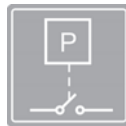
DIMENSIONS AND INSTALLATION



Safematic

Electronic pump protection

This unit stops the pump when is detected a dry-running operation or an overload. It has an integrated Schuko socket for the pump connection. It has also a Schuko plug for the power supply connection, in case of other socket shapes there is a wall-mounted variant where the connection is performed through the lateral PG's.



SAFEMATIC S SAFEMATIC W

OPERATING CHARACTERISTICS

- Dry-running protection without configuration.
- Overload protection.
- ART function (Automatic Reset Test). If the device has been stopped due to the action of the safety system against dry operation, the ART tries to connect the pump, with a programmed periodicity because the water supply could have been restored.
- Rapid-cycle alarm: when the hydropneumatic tank has lost the air and frequent start-stops are produced an alarm is activated.
- Manual start push-button.
- Failure, power and pump on led-lights.
- Integrated Schuko socket for the pump connection.
- 2 possible connections to the power supplier:
 - Integrated Schuko plug.
 - Cable with plugs type G or B in wall mounted applications.



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USERS INTERFACE



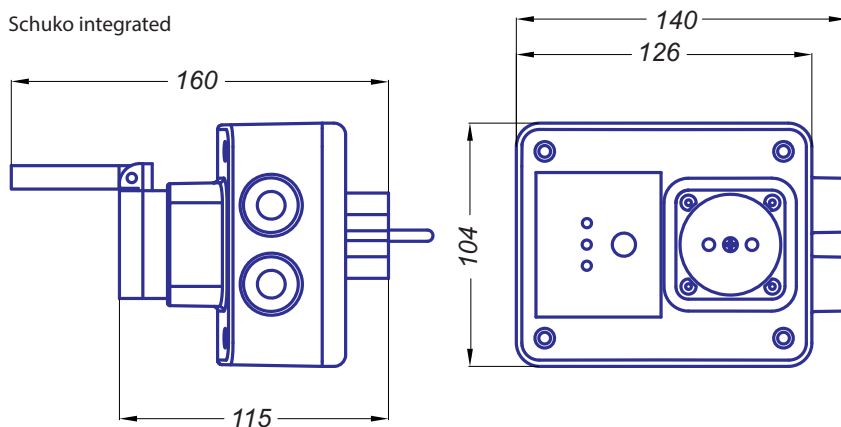
- POWER light (Green)
 - Alarm light (red)
 - Bright: "OVERLOAD"
 - Slow flashing: "ART MODE"
 - Fast flashing: "DRY RUN"
 - Led ON (yellow)
 - Bright: "PUMP ON"
 - Slow flashing: "LEARNING"
 - Fast flashing: "FAST CYCLE WARNING"
- RESET push-button.

TECHNICAL CHARACTERISTICS

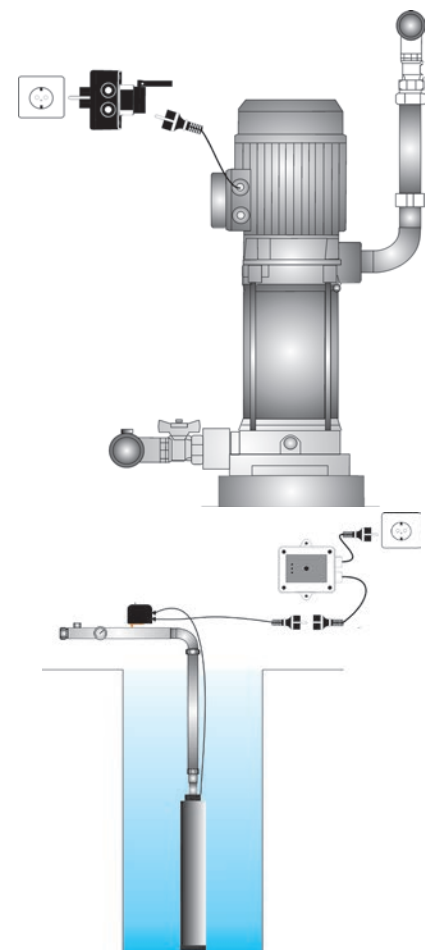
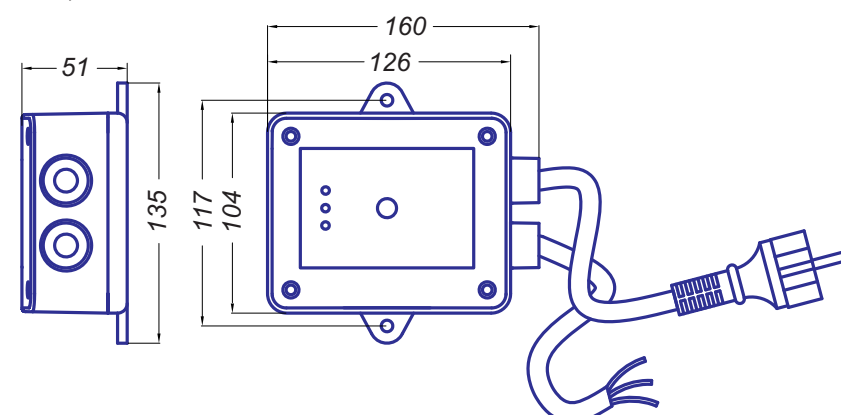
| | SAFEMATIC |
|-----------------------------|------------------|
| Power | 0,37- 2,2 kW |
| Voltage | ~1 x 110-230 Vac |
| Frequency | 50/60 Hz |
| Maximum current | 16 A |
| Protection degree | IP65 (IP44) |
| Max environment temperature | 50 °C |
| Net weight (without cable) | 0,4 kg |

DIMENSIONS AND INSTALLATION

Schuko integrated



Wall Style



PANELMATIC

Modular electronic panels, intended for the control and protection of 1 or 2 electric pumps.

Panelmatic range includes a serie of electronic panels for the control and protection of an individual pump or groups of two pumps, three-phase or single-phase supplied.

All of them integrate protections against dry-run operation, overcurrent or fast-cycling. Is included an user-friendly interface with 3-digit display and an integrated circuit breaker.

Its modular concept, makes suitable an expansion of features or parts replacement.

This family of electronic panels adopts the philosophy of ease configuration for the end user, previously applied to our inverters. By mean of 5 predefined operating modes can be managed whatever application of pressurization, drainage, filling or irrigation. Control elements connection - probes, pressure switches, transducers or level switches - is simple and intuitive.



Panelmatic Easy M - Panelmatic Uno M - Panelmatic Duo M
Panelmatic Easy T - Panelmatic Uno T - Panelmatic Duo T

OPERATING CHARACTERISTICS

- Models for one pump (**Easy/Uno**) or two pumps (**Duo**), single-phase supplied (**M**) o 3-phase supplied (**T**).
- **Easy** type has 2 inputs for the control elements, only contacts (pressure switch or float switch).
- Types **Uno** and **Duo** have 4 inputs for control elements, an additional input for a pressure transducer (4-20 mA) and a relay output for alarm monitoring.
- The logic of the contacts (nc/no) can be reversed from de configuration menu.
- 6 operating modes covering all possible applications: **drainage, wastewater, booster, transfer** and **timed**.
- **Duo** models can operate in **duty-assist** and **duty-standby**.
- User-friendly control panel with 3-digit display showing operational parameters, LED light indicators and push buttons.
- Pump protection by instantaneous reading of maximum power consumed - *overcurrent* - and minimum - *dry running*.
- Voltage instantaneous measuring with maximum and minimum protection.
- Fast-cycling alarm in pressurization applications: when the hydropneumatic tank has lost too much air and, consequently, there are frequent starts and stops, this alarm is activated.
- **Automatic reset system** after any alarm.
- Integrated MCB.
- Reserved location for the single-phase pumps capacitor.
- Protection degree IP65.



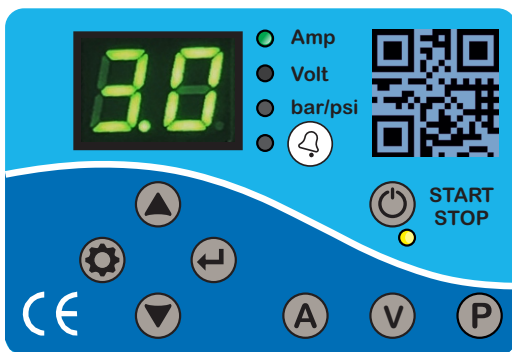
Low Voltage Directive 2014/35/EC
Electromagnetic Compatibility 2014/30/EC
RoHS 2011/65/EC + 2015/863/EC

TECHNICAL CHARACTERISTICS

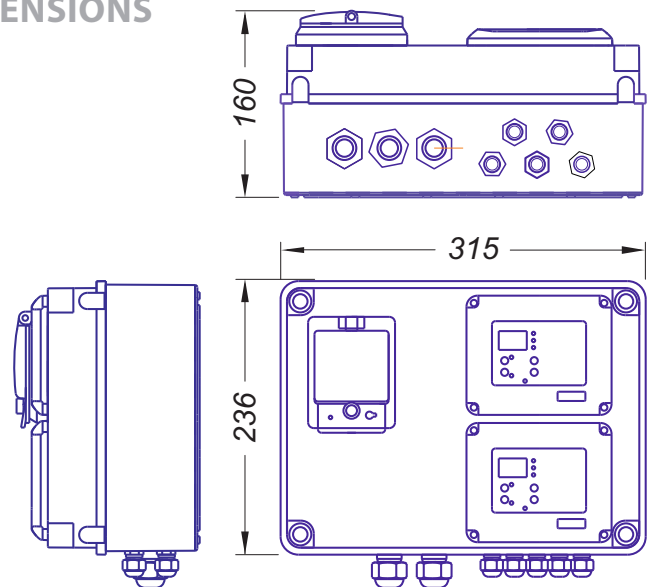
| Panelmatic Series | Model | N° of pumps | Power supply | Pump connection | Assembly |
|-------------------|----------------------------------|-------------|---|---|----------|
| | Panelmatic Uno M / Easy M | 1 | ~1x110-230 V | ~1x110-230 V (16 A) | Mural |
| | Panelmatic Duo M | 2 | ~1x110-230 V | ~1x110-230 V (16 A) | Mural |
| | Panelmatic Uno T / Easy T | 1 | ~3 x 230-400 Vac (~3 x 230-440 Vac*) | ~3 x 230-400 V (10 A) (~3 x 230-440 V)* (10 A) | Mural |
| | Panelmatic Duo T | 2 | | | Mural |

*Under request

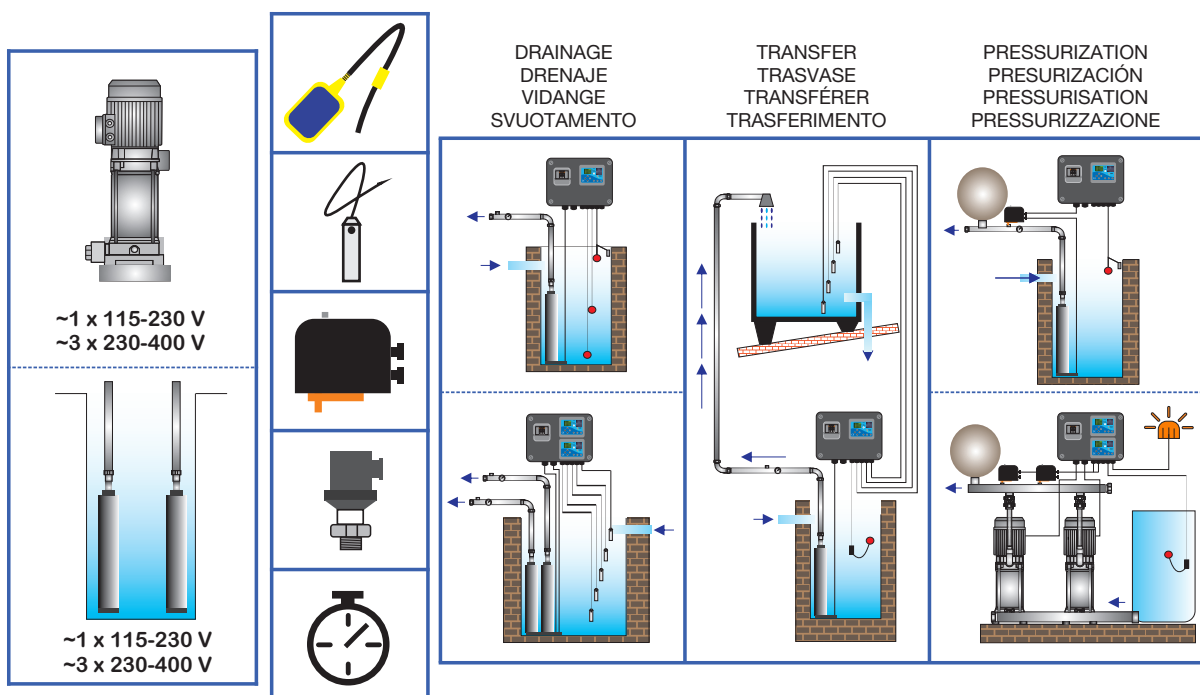
USERS INTERFACE



DIMENSIONS



INSTALLATION



Accessories



PS2 is the traditional mechanical pressure switch for pumps control up to 1,5 kW (2HP), single-phase power supply 110÷230 V, protection degree IP20 and female hydraulic connection G1/4".

| Ref. | Factory setting | Pressure range |
|---------|-----------------|----------------|
| ACP1555 | 1,5÷2,8 bar | 1,5÷5,5 bar |
| ACP2575 | 2,8÷4 bar | 2,5÷7,5 bar |
| ACP4010 | 4÷5,5 bar | 4÷10 bar |



PS2+ is the traditional mechanical pressure switch for pumps control up to 1,5 kW (2HP), single-phase power supply 110÷230 V, protection degree IP54 and swivel female hydraulic connection G1/4" in order to make easier the assembly.

| Ref. | Factory setting | Pressure range |
|---------|-----------------|----------------|
| ACP1065 | 1,4÷2,8 bar | 1,0÷6,5 bar |



Our traditional mechanical pressure switch type PS2 integrated in a 3-ways fitting with inner non-return valve and pressure gauge.

| Ref. | Factory setting | Pressure range |
|---------|-----------------|----------------|
| ACT1555 | 1,5÷2,8 bar | 1,5÷5,5 bar |
| ACT2575 | 2,8÷4 bar | 2,5÷7,5 bar |
| ACT4010 | 4÷5,5 bar | 4÷10 bar |



Stainless steel 5-ways fitting with inner non-return valve. Ideal for systems with hydropneumatic tank, with 2 inlets for pressure gauge and sensor element (transducer, pressure switch, ...).

| Ref. | Dimensions |
|---------|--|
| ACT0001 | G1"(M) x G1"(F) x G1"(F) x G1/4"(F) x G1/4"(F) |
| ACT0005 | G1,25"(M) x G1,25"(F) x G1"(F) x G1/4"(F) x G1/4"(F) |
| ACT0006 | G1,5"(M) x G1,5"(F) x G1"(F) x G1/4"(F) x G1/4"(F) |



4-ways fitting with inner non-return valve and integrated pressure gauge. There is a G1/4" female inlet in brass for the assembly of a pressure switch, a pressure transmitter or any other fitting.

| Ref. | Dimensions |
|---------|-------------------------------------|
| ACT0002 | G1"(M) x G1"(F) x G1"(F) x G1/4"(F) |



Pressure Transducer

Danfoss branded 4..20 mA pressure transducers for pumping applications with 2 m cable. Available different pressure ranges and hydraulic connections.

| Ref. | Pressure range | Hydraulic connection |
|---------|----------------|----------------------|
| ACD0001 | 0÷10 bar | BSP 1/4" |
| ACD0002 | 0÷16 bar | BSP 1/4" |
| ACD0003 | 0÷10 bar | NPT 1/4" |
| ACD0006 | 0÷25 bar | BSP 1/4" |



C box

C box is an enclosure in ABS suitable to locate single-phase submersible pumps capacitors, with IP67 sealing degree, input and output cable glands and connection strips inside. Ideal in combination with SWITCHMATIC for control and protection applications of single-phase submersible pumps.

| Ref. | Dimensions |
|---------|--------------|
| ACB0001 | 180x80x70 mm |



Adapters

Plastic and brass fittings for the hydraulic connection of our devices in various installations.

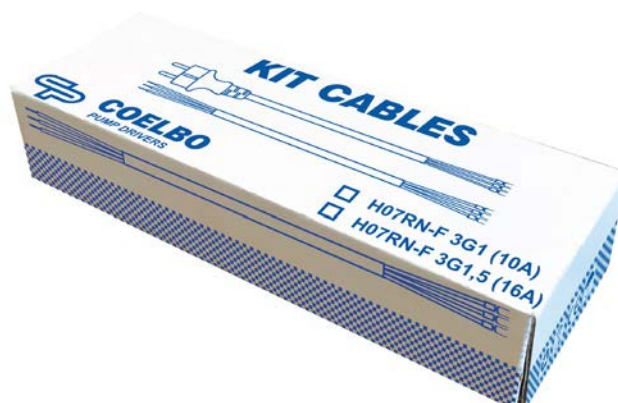
| Ref. | Material | Type | Type of thread |
|---------|----------|-------------------|-------------------------------|
| ACF0002 | Brass | Marseille | NPT 1 1/4"(H) x NPT 1 1/4"(M) |
| ACF0003 | Brass | 2 pieces + O-ring | G 1 1/4"(H) x G1"(M) |
| ACF0004 | PP+GF | 3 pieces + O-ring | G 1"(H) x G1"(M) |
| ACF0005 | PP+GF | 3 pieces + O-ring | G 1 1/4"(H) x NPT 1 1/4"(M) |



Cables set

Set of cables ready to be connected to our pump drivers. Is included: power supply cable with Schuko plug (1,5 m), motor cable with fork terminals (0,5 m) and connection diagram.

| Ref. | Type | Max. power |
|---------|---------------|---------------|
| ACCC001 | H07RN-F 3G1 | 1.5 KW (2 HP) |
| ACCC002 | H07RN-F 3G1,5 | 2.2 KW (3 HP) |



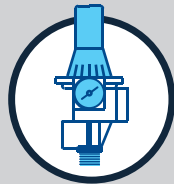
INNOVATING SINCE 1988

With our first **global patent**, COELBO introduced **electronics** and **software** into pump control. The infographic below shows the launch of our **original products**, widely imitated and easily recognized by any industry expert. For four decades we have driven the worldwide evolution of this technology. **COELBO always** leads the way. Others follow.

CONTROLPUMP

We invented the first electronic pump controller.

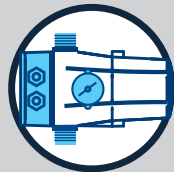
ES Patent 2 006 279
European Patent EP021376B1
US patent 4,879,439



1988

OPTIMATIC

Inlet and outlet at 180 degrees.

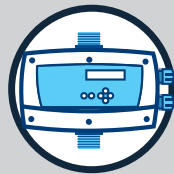


2001

SPEEDMATIC

The water cooled variable speed drive with an internal pressure sensor.

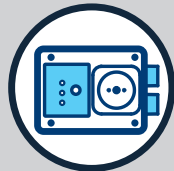
European Patent 205 85 18
European Design Register: 000722871-0001



2005

SAFEMATIC

Total pump protection.



2015

SWITCHMATIC

Much more than a digital pressure switch: full pump protection and synchronization

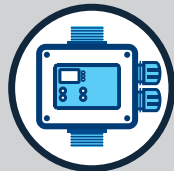
PCT/WO 2018/073477
Mx/a/2019/004296
European Design Register: 002840959-0001
008827166-0001
004753382



2016

DIGIMATIC

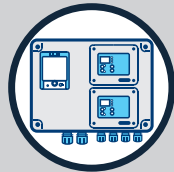
The digital controller with overcurrent protection.



2017

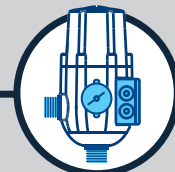
PANELMATIC

The multifunction electronic control panel.



2024

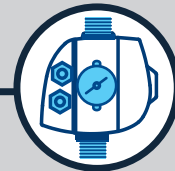
1998



CONTROLMATIC

Dry run and normal pump stop are identified, and LED indicators are added.

2002

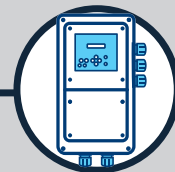


COMPACT

Automatic re-start and compact design.

European Design Register: 000354659-0001
000354659-0002

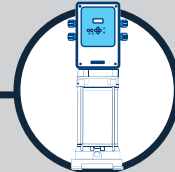
2012



SPEEDBOX

The wall-mounted variable speed drive.

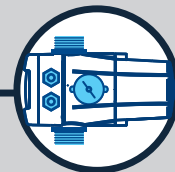
2016



SPEEDBOARD

The VSD installed on top of the motor's terminal box.

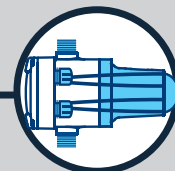
2016



OPTIPLUS

the 1¼ inch pump controller.

2023



EPR / DPR

The controller with an integrated pressure regulator.

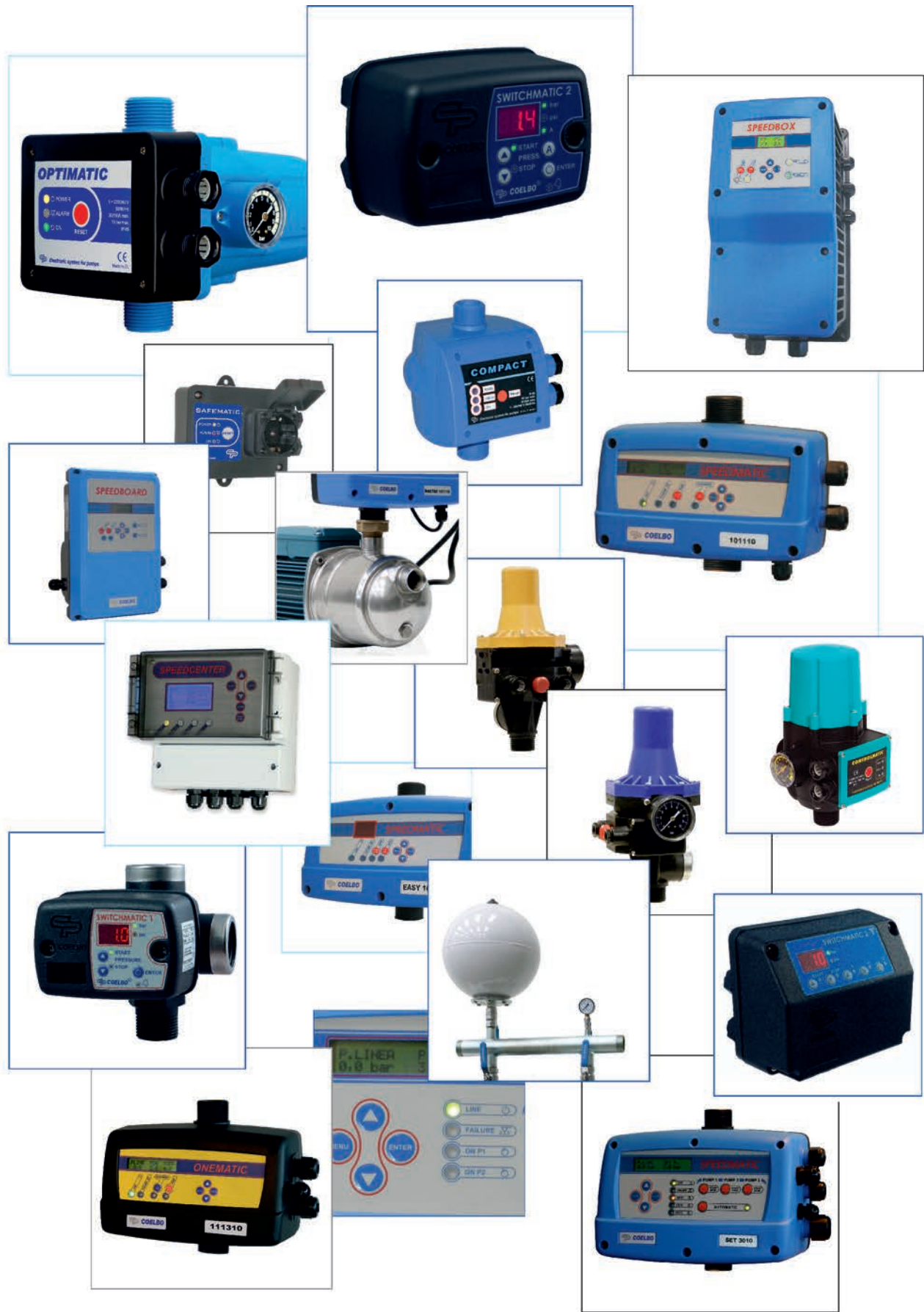
ES Patent 1 275 679 U
PCT WO 2022/207949^a
European Design Register: No 008674865-0001
No 008674865-0002

2026



SPEEDPOOL

The pool pump VSD, for wall or motor mounted installation.



www.coelbo.es



COELBO
PUMP DRIVERS