COELBO

PUMP DRIVERS

Constant evolution of the industrial age during last century, has inducted a process or progressive specialization in all the scopes. During last 25 years due to the irruption of the electronics and computers in the industry, this process has increased exponentially.

COELBO was born in this period (1988), with the business target of the appliance of these new technologies to the field of the electric pumps.

From its beginning, with a constant technological evolution, we have developed devices for its automation, control and protection, becoming and industrial speciality world-wide pioneer, being one of their most significant leaders.

Constant efforts in R&D&I, have done as result the obtaining of international patents that confer valuable “know how” recognized in the specific scope of the pumping.

With a business philosophy based on concepts as constant technological investigation, innovative design, reliability of the product, rigor in quality control, constant investment in productive processes and commercial seriousness, COELBO and their product, enjoys an international prestige and has obtained the confidence of the most important producers of electric pumps. Its success in the worldwide market has turned it into a datum point, has created tendencies and it has originated multiple imitations of its more significant products.

Our 3500 m^2 facilities, lodge today, the present spread of this industrial reality.

In this catalog we present, schematically, all our products distributed in next families: pressflow-tech, hi-tech and smart-tech.

Do not hesitate to contact us for further clarifications.

Ind

Pressflow Tech

The range of devices PRESSFLOW-TECH it is formed by all traditional pressure and flow dependant electronic pump controllers, invented by COELBO, that have made become us world leaders throughout last 30 years.
All the models can be completed with options like pressure gauges, adjustable pressure, threaded adaptors, integrated Schuko sockets, or the option of being cabled.

CONTROLPUMP

Electronic pump controller through internal flow and pressure sensors with internal accumulation membrane. Inlet and outlet at 90 degrees.

CONTROLMATIC

Electronic pump controller through internal flow and pressure sensors with internal accumulation membrane. Indication led lights. Inlet and outlet at 90 degrees. Optional adjustable starting pressure.

DIGIMATIC

Digital pump driver for the control and protection of electric pumps. It has the same features and functions of the traditional pressflow electronic controller and also incorporates additional features through inner current and pressure sensors. The starting pressure can be adjusted with high precision, it has a digital pressure gauge and adjustable over current protection.

ONEMATIC SERIES

ONEMATIC: Electronic pump driver for a singlepump (single-phase or 3-phase supplied) with 2 operation modes: pressure-dependent or pressure/flow-dependent. Inner flow sensor, inner pressure transmitter with digital indicator, inner current sensor and control and information panel with LCD display.

ONEMATIC EASY: Same characteristics as Onematic for just one single-phase pump up to 16A.

COMPACT SERIES

COMPACT 1: Electronic pump controller through internal flow sensor, the pump is started when flow is detected and stopped when there is not flow. Inlet and outlet at 180 degrees.

COMPACT 2: Electronic pump controller through internal flow and pressure sensors with an small internal accumulation membrane. Indication led lights. Automatic reset. Inlet and outlet at 180 degrees. Optionally, adjustable starting pressure.

COMPACT 22: Same characteristics than Compact 2 but up to 3 HP. Adjustable starting pressure.

COMPACT 3: Electronic pump controller through internal flow and pressure sensors with an internal accumulation membrane. Indication led lights. Automatic reset. Inlet and outlet at 180 degrees.

OPTIMATIC SERIES

OPTIMATIC: Electronic pump controller through internal flow and pressure sensors with an internal accumulation membrane. Indication led lights. Inlet and outlet at 180 degrees. Optionally, adjustable starting pressure.

OPTIMATIC 22: Electronic pump controller up to 3 HP through internal flow and pressure sensors with an internal accumulation membrane. Indication led lights. Automatic reset. Inlet and outlet at 180 degrees. Adjustable starting pressure.

OPTIPLUS: Same characteristics than OPTIMATIC 22 but with inlet and outlet G 1 1/4". Low pressure loss.

OPTIMATIC DC NAUTICAL: Electronic pump controller DC supplied (12 V - 24 V) for nautical applications. It incorporates internal flow and pressure sensors, internal accumulation membrane, indication led lights. Automatic reset. Inlet and outlet at 180 degrees. Optionally, adjustable starting pressure.

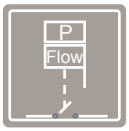
	Type	Hydraulic Connection	Max. Power	Inlet/Outlet	Starting Pressure	Optional Integrated Schuko Socket
	Controlpump	G1" M > G1" F	2 HP (1,5 kW)	90°	1,2 bar 1,5 bar 2,2 bar 1,5-2,5 bar	NO
	Controlmatic	G1" M > G1" M	2 HP (1,5 kW)	90°	1,2 bar 1,5 bar 2,2 bar 1,5-2,5 bar	YES
	Optimatic	G1" M > G1" M	2 HP (1,5 kW)	180°	1,5 bar 2,2 bar 1,5-3 bar	YES
	Optimatic 22	G1" M > G1" M	3 HP (2,2 kW)	180°	1,5-3 bar	YES
	Optimatic DC 12V	G1" M > G1" M	0.25 HP (0,19 kW)	180°	1,5 bar	NO
	Optimatic DC 24V	G1" M > G1" M	0.5 HP (0,38 kW)	180°	1,5 bar	NO
	Optiplus	G1 1/4" M > G1 1/4" M	3 HP (2,2 kW)	180°	1,5-3 bar	NO
	Digimatic 1	G1" M > G1" M	~1x110-230 V (16 A)	180°	R	NO
	Digimatic 2	G1" M > G1" M	~1x110-230 V (16 A)	180°	R	NO
	Onematic	G1 1/4" M > G1 1/4" M	~3x400 V (10 A) ~3x230 V (10 A) ~1x230 V (10 A)	180°	R	NO
	Onematic easy	G1 1/4" M > G1 1/4" M	~1x230 V (16 A)	180°	R	NO
	Compact 1	G1" M > G1" M	2 HP (1,5 kW)	180°	1,5 l/min	NO
	Compact 2	G1" M > G1" M	2 HP (1,5 kW)	180°	1,0 bar 1,5 bar 1,5-4,5 bar	NO
	Compact 22	G1" M > G1" M	3 HP (2,2 kW)	180°	1,0 bar 1,5 bar 1,5-4,5 bar	NO
	Compact 3	G1" M > G1" M	2 HP (1,5 kW)	180°	1,5 bar 2,2 bar	NO

Controlpump

Automatic Device for electric pump integral control

The Controlpump are a compact device for the automatic control and protection of electric pumps, its patented system includes special electronic sensor of flow and pressure, integrated in electronic circuit that guides the electric pump operation and keeps pressure and flow accordingly. Moreover, it has a safety system to avoid the dry-running operation.

The Controlpump replace the system of hydrosphere, pressure-switch, check-valve and level switches, with the advantage of smaller dimensions and periodic maintenance elimination. The unit automatically starts the electric pump when any point of use is open and stop it –after a 10 seconds programmed time– when closing the consumption point.



Controlpump F12

Controlpump F15

Controlpump F22

Controlpump R

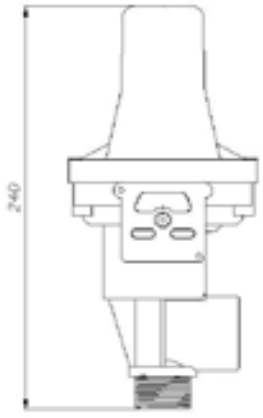
OPERATING CHARACTERISTICS

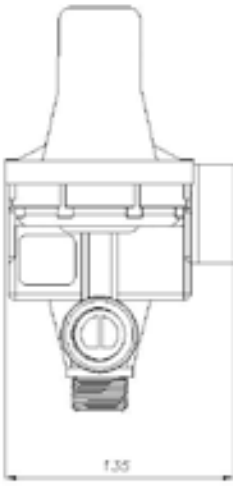
- No maintenance.
- Installation time saving.
- Protection against water hammer effect.
- Compact and reduced dimensions.
- Removal of protecting devices (level switches).
- Avoids the pump oversizing using integratelly their flowpressure curve.
- Integrated protection system again dry running operation.
- Tactile push button for manual start.
- Electronic circuit group with protection cover easily replaceable.
- Reserve against leaks in the installation.
- Other options like pressure gauge, connecting cables, adjusting starting pressure, etc
- EMC and electrical safety certified.

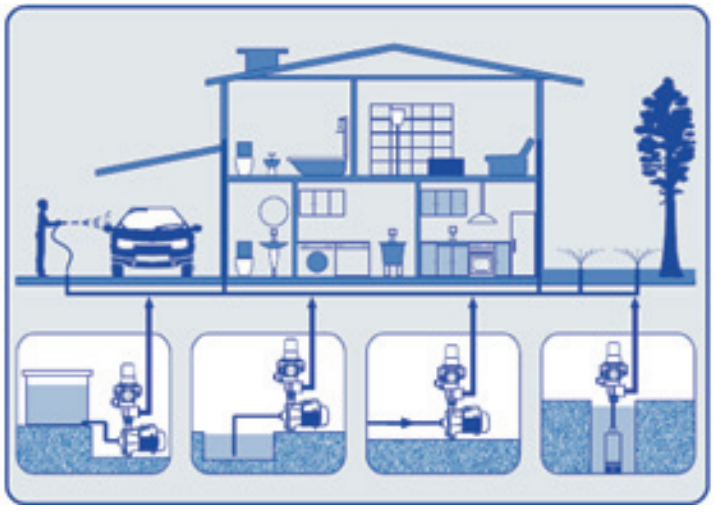
TECHNICAL CHARACTERISTICS

	F12	F15	F22	R
Start pressure	1,2 bar	1,5 bar	2,2 bar	1,5-2,5 bar
Power	1,5kW	1,5kW	1,5kW	1,5kW
Voltage	1~230 V / 1~120 V	1~230 V /1~120 V	1~230 V/1~120 V	1~230 V/1~120 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max peak of current	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6
Protection degree	IP54	IP54	IP54	IP54
Maximum temperature	50 ºC	50 ºC	50 ºC	50 ºC
Maximum pressure	10 bar	10 bar	10 bar	10 bar
Maximum flow	6.000 l/h	6.000 l/h	6.000 l/h	6.000 l/h
Net weight (without cables)	1,15 Kg	1,15 Kg	1,15 Kg	1,15 Kg

DIMENSIONS AND INSTALLATION





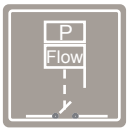


Controlmatic

Automatic Device for electric pump integral control.

The Controlmatic are a compact device for the automatic control and protection of electric pumps, its patented system includes special electronic sensor of flow and pressure, integrated in electronic circuit that guides the electric pump operation and keeps pressure and flow accordingly. Moreover, it has a safety system to avoid the dry-running operation.

The Controlmatic replace the system of hydrosphere, pressure-switch, check-valve and level switches, with the advantage of smaller dimensions and periodic maintenance elimination. The unit automatically starts the electric pump when any point of use is open and stop it –after a 10 seconds programmed time– when closing the consumption point.



Controlmatic F12

Controlmatic F15

Controlmatic F22

Controlmatic R

OPERATING CHARACTERISTICS

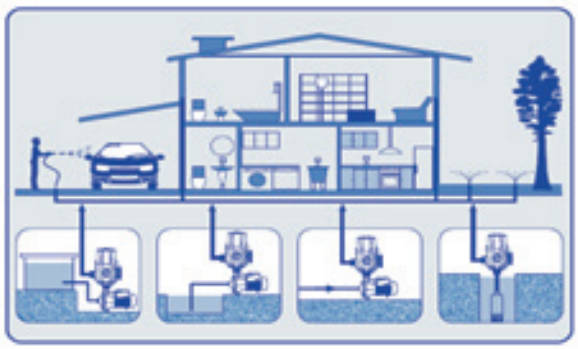
- No maintenance.
- Installation time saving.
- Protection against water hammer effect.
- Compact and reduced dimensions.
- Removal of protecting devices (level switches).
- Avoids the pump oversizing using integratelly their flowpressure curve.
- Integrated protection system which stops the pump in case of dry-running operation.
- Control panel:
    - Yellow Led POWER.
    - Green Led ON.
    - Red Led FAILURE.
- Tactile push button for manual start.
- Electronic circuit group with protection cover easily replaceable.
- Reserve against leaks in the installation.
- Other options like pressure gauge, connecting cables, adjustable starting pressure.
- EMC and electrical safety certified.
- Schuko socket integrated in the cover (optional) - Controlmatic E - IP44

TECHNICAL CHARACTERISTICS

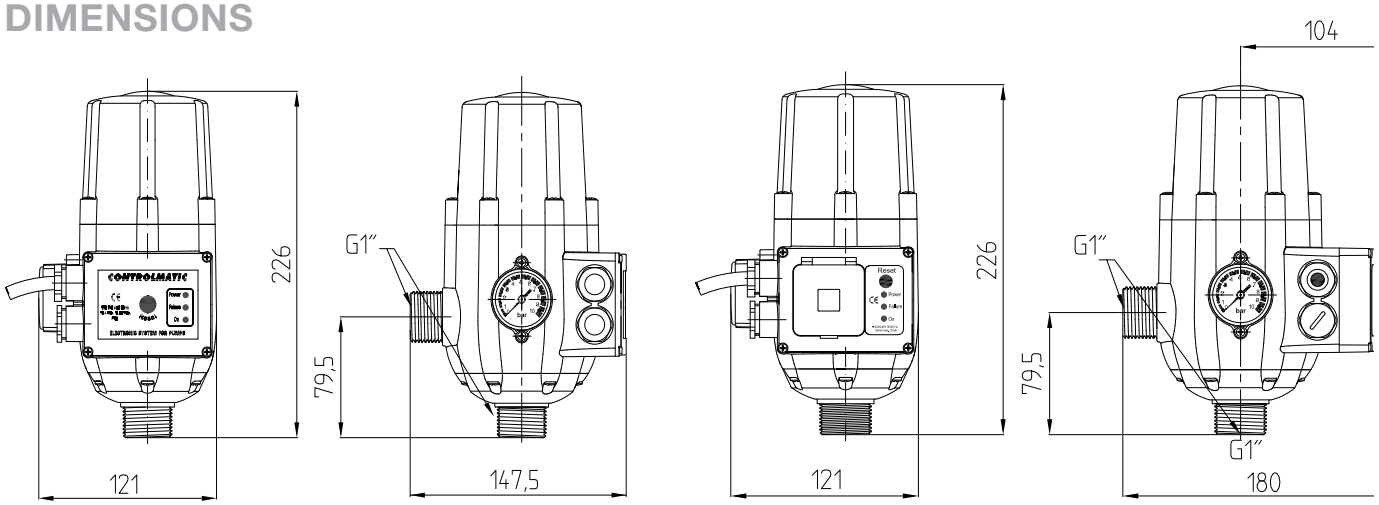
	F12	F15	F22	R
Start pressure	1,2 bar	1,5 bar	2,2 bar	1,5-2,5 bar
Power	1,5kW	1,5kW	1,5kW	1,5kW
Voltage	1~230 V/1~120 V	1~230 V/1~120 V	1~230 V/1~120 V	1~230 V/1~120 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max peak of current	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6
Protection degree	IP65	IP65	IP65	IP65
Maximum temperature	50 ºC	50 ºC	50 ºC	50 ºC
Maximum pressure	10 bar	10 bar	10 bar	10 bar
Maximum flow	8.000 l/h	8.000 l/h	8.000 l/h	8.000 l/h
Net weight (without cables)	1,15 Kg	1,15 Kg	1,15 Kg	1,15 Kg

CONTROL PANEL

INSTALLATION



DIMENSIONS

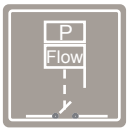


Optimatic & Optimatic 22

Automatic Device for electric pump integral control.

The Optimatic are a compact device for the automatic control and protection of electric pumps, its patented system includes special electronic sensor of flow and pressure, integrated in electronic circuit that guides the electric pump operation and keeps pressure and flow accordingly. Moreover, it has a safety system to avoid the dry-running operation.

The Optimatic replace the system of hydrosphere, pressure-switch, check-valve and level switches, with the advantage of smaller dimensions and periodic maintenance elimination. The unit automatically starts the electric pump when any point of use is open and stop it –after a 10 seconds programmed time– when closing the consumption point.



Optimatic F15

Optimatic F22

Optimatic R

Optimatic 22

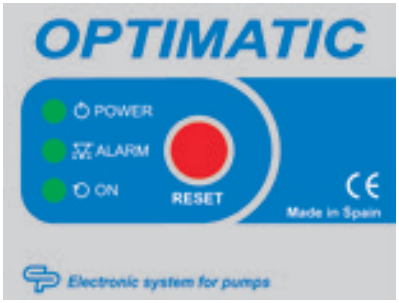
OPERATING CHARACTERISTICS

- No maintenance.
- Installation time saving.
- Protection against water hammer effect.
- Compact and reduced dimensions.
- Removal of protecting devices (level switches).
- Avoids the pump oversizing using integratelly their flowpressure curve.
- Integrated protection system which stops the pump in case of dry-running operation.
- Control panel:
    - Yellow Led POWER.
    - Green Led ON.
    - Red Led FAILURE.
- Tactile push button for manual start.
- Electronic circuit group with protection cover easily replaceable.
- Reserve against leaks in the installation
- Other options like pressure gauge, connecting cables, adjustable starting pressure.
- EMC and electrical safety certified.
- 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 (only OPTIMATIC 22).
- Schuko socket installed (optional) - Optimatic E - IP44.

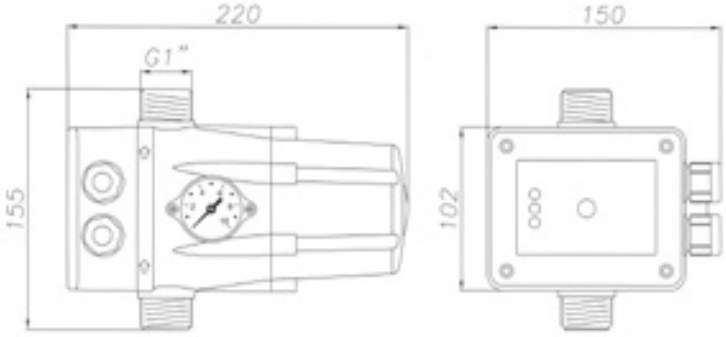
TECHNICAL CHARACTERISTICS

	OPTIMATIC F15	OPTIMATIC F22	OPTIMATIC R	OPTIMATIC 22
Start pressure	1,5 bar	2,2 bar	1,5-3 bar	1,5-3 bar
Power	1,5 kW	1,5 kW	1,5 kW	2,2 kW
Voltage	1~230 V/1~120 V	1~230 V/1~120 V	1~230 V/1~120 V	1~230 V/1~120 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max peak of current	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6	16 A; cos fi ≥0.6
Protection degree	IP65	IP65	IP65	IP65
Maximum temperature	50 °C	50 °C	50 °C	50 °C
Maximum pressure	10 bar	10 bar	10 bar	10 bar
Maximum flow	8.000 l/h	8.000 l/h	8.000 l/h	8.000 l/h
Net weight (without cables)	1,3 Kg	1,3 Kg	1,3 Kg	1,35 Kg

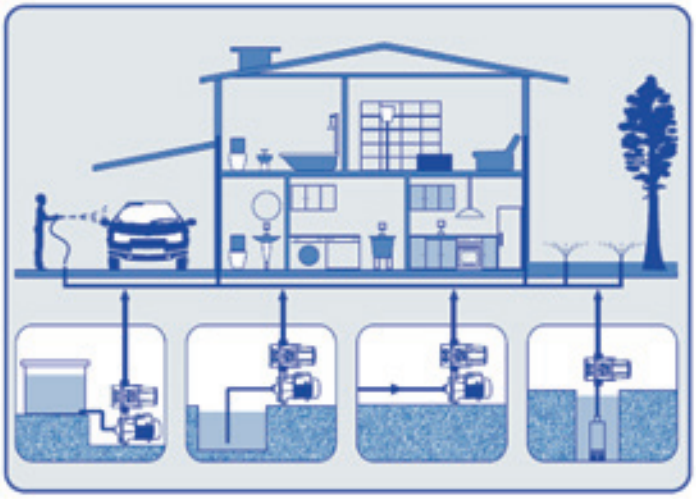
CONTROL PANEL



DIMENSIONS



INSTALLATION



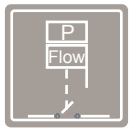
Optimatic DC Nautical

Automatic Device for electric pump at direct current integral control.

The Optimatic DC are a compact device for automatic control and protection of electric pumps with DC power supply. Its patented system includes special electronic sensor of flow and pressure, integrated in electronic circuit that guides the electric pump operation and keeps pressure and flow accordingly. Moreover, it has a safety system to avoid the dry-running operation.

The Optimatic DC replace the system of hydrosphere, pressure-switch, check-valve and level switches, with the advantage of smaller dimensions and periodic maintenance elimination. The unit automatically starts the electric pump when any point of use is open and stop it –after a 10 seconds programmed time– when closing the consumption point.

It can be connected to electric pump 0,38 kW (0,5 HP) or powerfull electric pump with an auxiliary contactor.



Optimatic DC 12 V

Optimatic DC 24 V

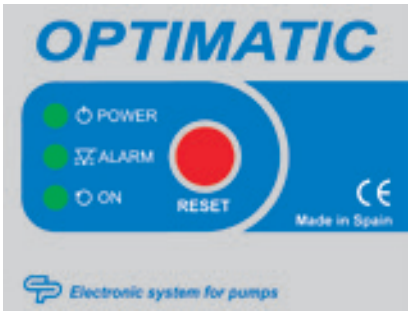
OPERATING CHARACTERISTICS

- No maintenance.
- Installation time saving.
- Protection against water hammer effect.
- Compact and reduced dimensions.
- Removal of protecting devices (level switches).
- Avoids the pump oversizing using integratelly their flowpressure curve.
- Integrated protection system which stops the pump in case of dry-running operation.
- Control panel:
    - Yellow Led POWER.
    - Green Led ON.
    - Red Led FAILURE.
- Tactile push button for manual start.
- Reserve against leaks in the installation.
- Other options like pressure gauge, connecting cables, adjustable starting pressure.
- 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.
- EMC and electrical safety certified.

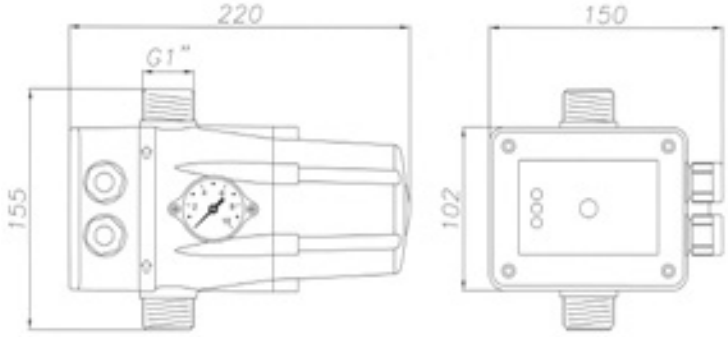
TECHNICAL CHARACTERISTICS

	12 V	24 V
Start pressure	1,5 bar	1,5 bar
Power	12 V	24 V
Max peak of current	16 A	16 A
Protection degree	IP65	IP65
Maximum temperature	50 ºC	50 ºC
Maximum pressure	10 bar	10 bar
Maximum flow	8.000 l/h	8.000 l/h
Net weight (without cables)	1,35 Kg	1,35 Kg

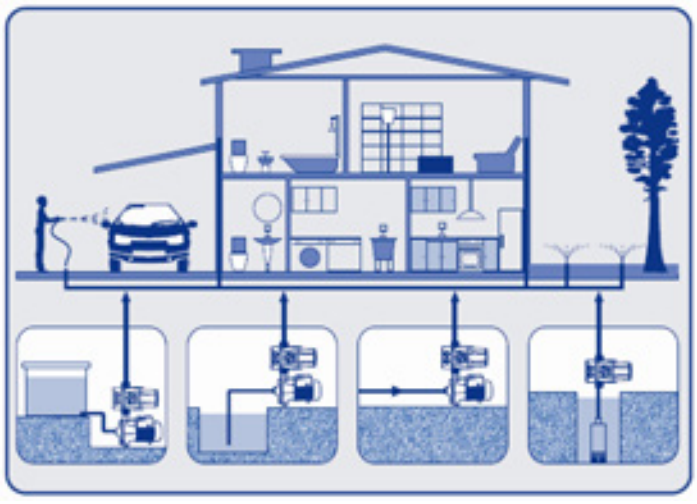
CONTROL PANEL



DIMENSIONS



INSTALLATION

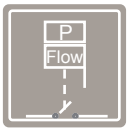


Optiplus

Automatic Device for electric pump integral control. G 1 1/4” - low pressure loss.

The Optiplus are a compact device for the automatic control and protection of electric pumps, its patented system includes special electronic sensor of flow and pressure, integrated in electronic circuit that guides the electric pump operation and keeps pressure and flow accordingly. Moreover, it has a safety system to avoid the dry-running operation.

The Optiplus replace the system of hydrosphere, pressure-switch, check-valve and level switches, with the advantage of smaller dimensions and periodic maintenance elimination. The unit automatically starts the electric pump when any point of use is open and stop it –after a 10 seconds programmed time– when closing the consumption point.



Optiplus

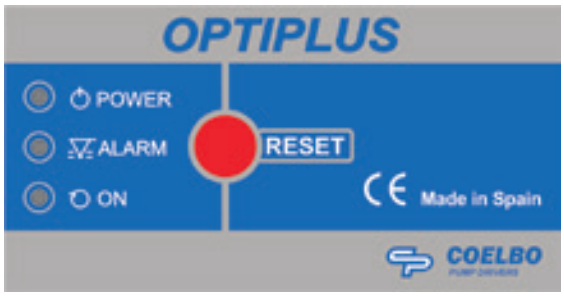
OPERATING CHARACTERISTICS

- No maintenance.
- Installation time saving..
- Protection against water hammer effect.
- Compact and reduced dimensions.
- Removal of protecting devices (level switches).
- Avoids the pump oversizing using integratelly their flowpressure curve.
- Integrated protection system which stops the pump in case of dry-running operation.
- Control panel:
    - Yellow Led POWER.
    - Green Led ON.
    - Red Led FAILURE.
- Tactile push button for manual start.
- Electronic circuit group with protection cover easily replaceable.
- Reserve against leaks in the installation.
- Other options like pressure gauge, connecting cables, adjustable starting pressure.
- 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.
- EMC and electrical safety certified.
- Inlet and outlet thread G1 1/4”.

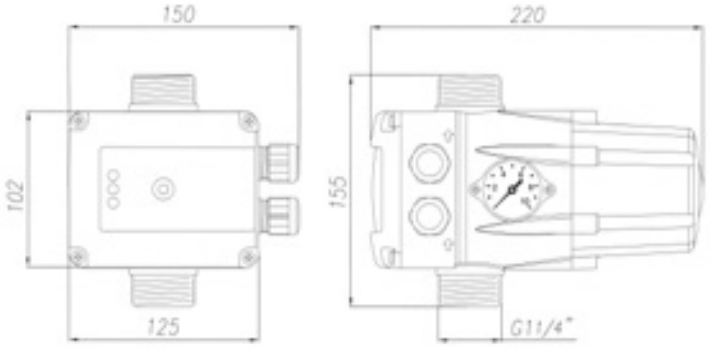
TECHNICAL CHARACTERISTICS

	OPTIPLUS 22
Start pressure	1,5-3 bar
Power	2,2 kW
Voltage	1~230 V/1~120 V
Frequency	50/60 Hz
Max peak of current	16 A; cos fi ≥0.6
Protection degree	IP65
Maximum temperature	50 ºC
Maximum pressure	10 bar
Maximum flow	10.000 l/h
Net weight (without cables)	1,35 Kg

CONTROL PANEL



DIMENSIONS



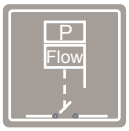
INSTALLATION

Digimatic 1
Digimatic 2 complet pump protection

Automatic digital pump-driver for electric pump integral control and protection.

The DIGIMATIC is a compact device for the automatic control and protection of electric single-phase pumps up to 3 HP (2,2 kW). This unit includes all the characteristics and functions of the traditional electronic pump controllers: electronic flow sensor, integrated accumulation membrane, integrated check-valve, warning led-lights in electronic circuit that guides the electric pump operation and keeps pressure and flow accordingly.

Moreover, it has an internal pressure transmitter and instantaneous current sensor (only Digimatic 2), providing additional features: the starting pressure can be adjusted with high accuracy, there is a digital pressure gauge and over-current protection adaptable to each pump.



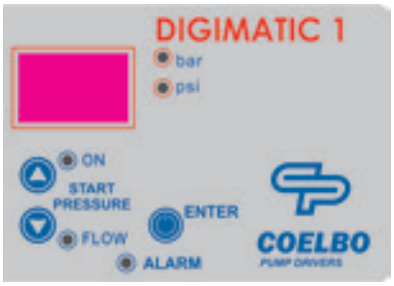
DIGIMATIC 1

DIGIMATIC 2

OPERATING CHARACTERISTICS

- Pump managed by power relay.
- Accumulation membrane and Integrated non-return valve.
- Dry-running protection.
- Digital pressure gauge (bar and psi).
- Inner pressure transmitter
- Inner flow sensor.
- Inner current sensor with instantaneous digital reading.
- Overcurrent protection (only type DIGIMATIC 2).
- Stand-by mode.
- 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.
- Control panel includes 3 digits display.

CONTROL PANEL



Control panel includes 3 digits display, warning leds, push-buttons, START-STOP and configuration system.

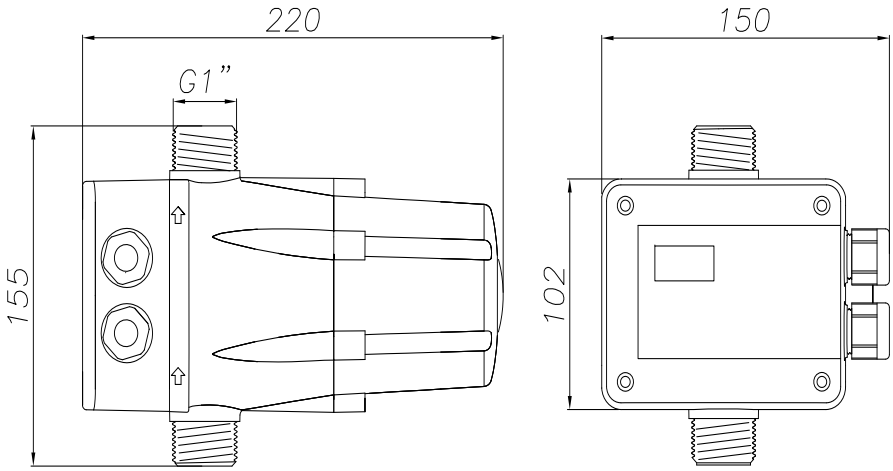
TECHNICAL CHARACTERISTICS

	DIGIMATIC 1	DIGIMATIC 2
Voltage	1~110-230 V (multiVolt)	1~110-230 V (multiVolt)
Frequency	50/60 Hz	50/60 Hz
Maximum Current	16 A	16 A
Power	2,2 kW	2,2 kW
Maximum Pressure	8 bar	8 bar
Start Pressure	0,5 ÷ 4 bar	0,5 ÷ 4 bar
Protection degree	IP65	IP65
Maximum temperature	50 °C	50 °C
Net weight	1,3 kg	1,3 kg
Maximum flow	8.000 l/h	8.000 l/h

SAFETY SYSTEMS

- Electronic control and safety system against dry-running operation.
- Control and safety system against short-circuit (Digimatic 2).
- Over-current protection adaptable to each pump (Digimatic 2).

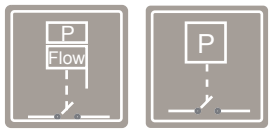
DIMENSIONS AND INSTALLATION



Onematic

Driver for a single-phase or three-phase pump at On-Off or pressure&flow-dependant mode.

Compact automatic control device for the automation of either single-phase and three-phase pumps. The system manages the start and stop of the pump depending on the detected pressure by its internal transducer and the flow detected by the flow sensor. It can operate in pressure dependent mode (start pressure and stop pressure) or on/off mode (start pressure between 1÷5 bar and disconnection by the flow sensor).



111310

REGISTERED DESIGN

OPERATING CHARACTERISTICS

- Pump manager by power delay.
- 2 operating modes: pressure-dependent or on/off mode.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previous state keeping the configuration parametres.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety against dry-operation.
- Inner current sensor with instantaneus digital reading.
- Inner pressure transducer with digital indicator.
- Control and information panel with LCD display.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Volt-free contact for monitoring the alerts displayed in screen, which were caused by irregularities or problems within the system.
- Protection fuse incorporated.

TECHNICAL CHARACTERISTICS

	111310
Power supply voltage	~1 x 230 / ~3 x 230 / ~3 x 400 Vac
Frequency	50/60 Hz
Max. current per phase	10 A
Max. peak of current	+20% 10seg.
Maximum operating pressure	10 bar
Range of start pressure (On/Off mode)	1 ÷ 5 bar
Max. stop pressure (pressure depends mode)	7 bar
Max. start pressure (pressure depends mode)	6,5 bar
Protection degree	IP55
Max. water temperature	40 °C
Max environment temperature	50 °C
Net weight (without cables)	3,3 kg
Inlet and outlet threads	G 1 1/4”
Max flow	15.000 l/h

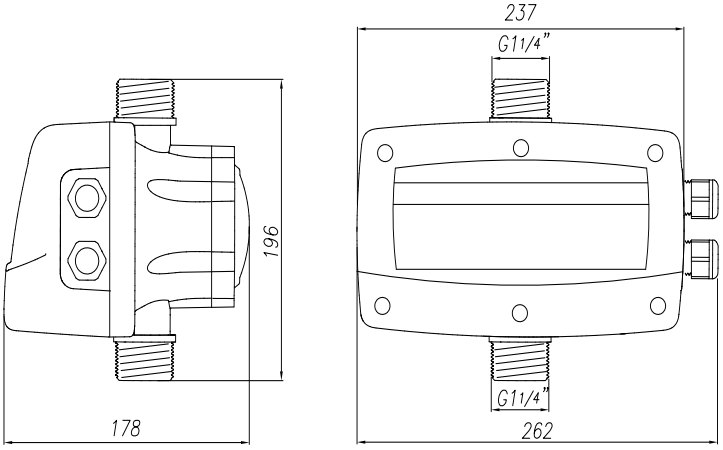
CONTROL PANEL

Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overload.
- Electronic control and safety system against dry operation.
- Control and safety system against short-circuit between output phases.

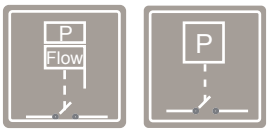
DIMENSIONS



Onematic Easy

Driver for a single-phase at On-Off or pressure&flow-dependant mode.

Compact automatic control device for the automation of single-phase pumps up to 16 A. The system manages the start and stop of the pump depending on the detected pressure by its internal transducer and the flow detected by the flow sensor. It can operate in pressure dependent mode (start pressure and stop pressure) or on/off mode (start pressure between 1÷5 bar and disconnection by the flow sensor).



1116

REGISTERED DESIGN

OPERATING CHARACTERISTICS

- Pump manager by power delay.
- 2 operating modes: pressure-dependent or on/off mode.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previous state keeping the configuration parametres.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety against dry-operation.
- Inner current sensor with instantaneus digital reading.
- Inner pressure transducer with digital indicator.
- Control and information panel with LCD display.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Volt-free contact for monitoring the alerts displayed in screen, which were caused by irregularities or problems within the system.
- Protection fuse incorporated.

TECHNICAL CHARACTERISTICS

	1116
Power supply voltage	~1 x 230 Vac
Frequency	50/60 Hz
Max. current per phase	16 A (~1 x 230 Vac)
Max. peak of current	+20% 10seg.
Maximum operating pressure	10 bar
Range of start pressure (On/Off mode)	1 ÷ 5 bar
Max. stop pressure (pressure depends mode)	7 bar
Max. start pressure (pressure depends mode)	6,5 bar
Protection degree	IP55
Max. water temperature	40 ºC
Max environment temperature	50 ºC
Net weight (without cables)	3,3 kg
Inlet and outlet threads	G 1 1/4”
Max flow	10.000 l/h

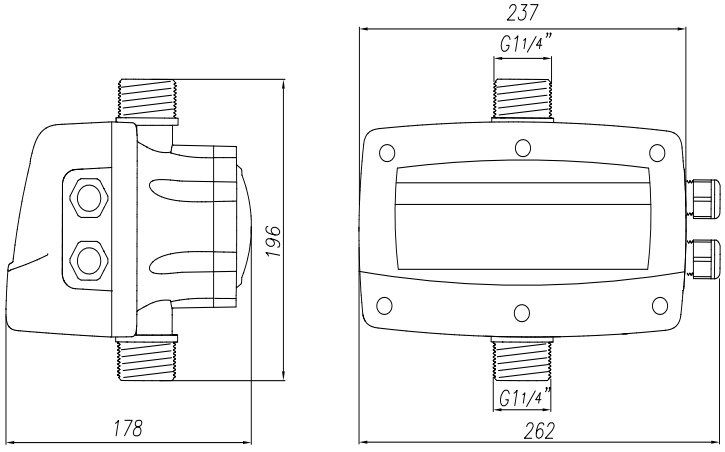
CONTROL PANEL

Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overload.
- Electronic control and safety system against dry-running operation.
- Control and safety system against short-circuit between output phases.

DIMENSIONS



Compact 1

Automatic Device for electric pump integral control by flow.

The electronic controller COMPACT 1 orders the automatic start and stop of the water pump when opening or closing any tap or valve of the installation. One of its special features is to keep the installation without pressure when the flow finishes. (It supplies pressure only when the water pump works).

When the water pump starts, it keeps running while there is any tap opened in the system, giving a constant flow and pressure to the network.

The operation automatically starts the electric pump when any point of use is open and close it– after a 10 seconds programmed time– when closing the consumption pont.

REGISTERED DESIGN

OPERATING CHARACTERISTICS

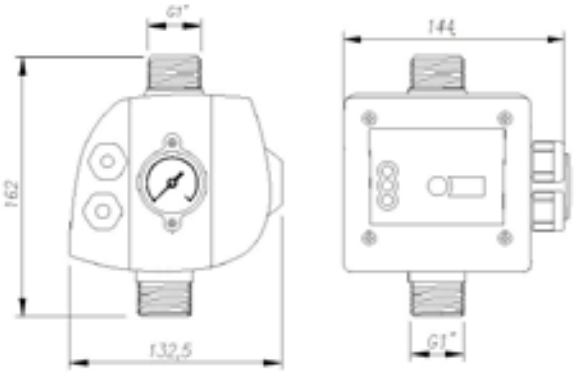
- Electronic circuit easily replaceable.
- Security system against dry running operation.
- Manual Start push-button (RESET).
- EMC and electrical safety certified.

TECHNICAL CHARACTERISTICS

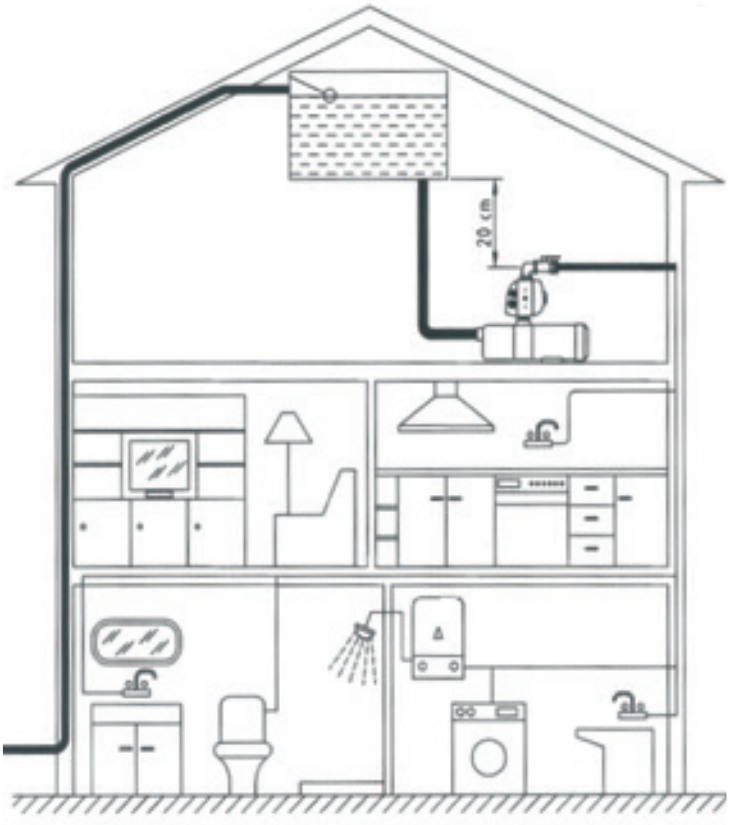
	COMPACT 1
Power	1,5 kW (2 HP)
Voltage	~1x120 / ~1x230 Vac
Frequency	50/60 Hz
Max peak of current	10 A; cos fi ≥0.6
Protection degree	IP44
Maximum temperature	50 ºC
Maximum pressure	10 bar
Maximum flow	8.000 l/h
Net weight (without cables)	0,8 Kg

CONTROL PANEL

DIMENSIONS



INSTALLATION

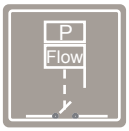


Compact 2 & 22

Automatic Device for electric pump integral control.

The COMPACT 2 & 22 are a compact device for the automatic control and protection of electric pumps, its patented system includes special electronic sensor of flow and pressure, integrated in electronic circuit that guides the electric pump operation and keeps pressure and flow accordingly. Moreover, it has a safety system to avoid the dry-running operation.

The COMPACT 2 & 22 replace the system of hydrosphere, pressure-switch, check-valve and level switches, with the advantage of smaller dimensions and periodic maintenance elimination. The unit automatically starts the electric pump when any point of use is open and stop it –after a 10 seconds programmed time– when closing the consumption point.



COMPACT 2 F10

COMPACT 2 F15

COMPACT 2 R

COMPACT 22 F10

COMPACT 22 F15

COMPACT 22 R

REGISTERED DESIGN

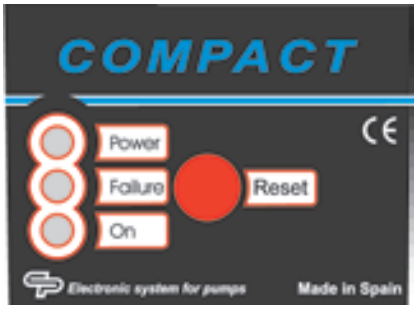
OPERATING CHARACTERISTICS

- No maintenance.
- Installation time saving.
- Protection against water hammer effect.
- Compact and reduced dimensions.
- Removal of protecting devices (level switches).
- Avoids the pump oversizing using integratelly their flowpressure curve.
- Integrated protection system which stops the pump in case of dry-running operation.
- Control panel:
    - Yellow Led POWER.
    - Green Led ON.
    - Red Led FAILURE.
- Tactile push button for manual start.
- Electronic circuit group with protection cover easily replaceable.
- Small reserve against leaks in the installation.
- Other options like pressure gauge, connecting cables, adjustable starting pressure.
- EMC and electrical safety certified.
- 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

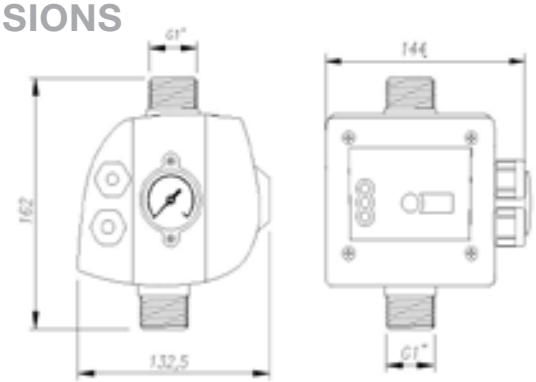
TECHNICAL CHARACTERISTICS

	COMPACT 2 F10	COMPACT 2 F15	COMPACT 2 R	COMPACT 22 F10	COMPACT 22 F15	COMPACT 22 R
Start pressure	1 bar	1,5 bar	1,5-3,5 bar	1 bar	1,5 bar	1,5-4,5 bar
Power	1,5 kW	1,5 kW	1,5 kW	2,2 kW	2,2 kW	2,2 kW
Voltage	~1x120 V ~1x230 V	~1x120 V ~1x230 V	~1x120 V ~1x230 V	~1x120 V ~1x230 V	~1x120 V ~1x230 V	~1x120 V ~1x230 V
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Max peak of current	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6	16 A; cos fi ≥0.6	16 A; cos fi ≥0.6	16 A; cos fi ≥0.6
Protection degree	IP65	IP65	IP65	IP65	IP65	IP65
Maximum temperature	50 ºC	50 ºC	50 ºC	50 ºC	50 ºC	50 ºC
Maximum pressure	10 bar	10 bar	10 bar	10 bar	10 bar	10 bar
Maximum flow	8.000 l/h	8.000 l/h	8.000 l/h	8.000 l/h	8.000 l/h	8.000 l/h
Net weight (without cables)	0,719 Kg	0,719 Kg	0,719 Kg	0,719 Kg	0,719 Kg	0,719 Kg

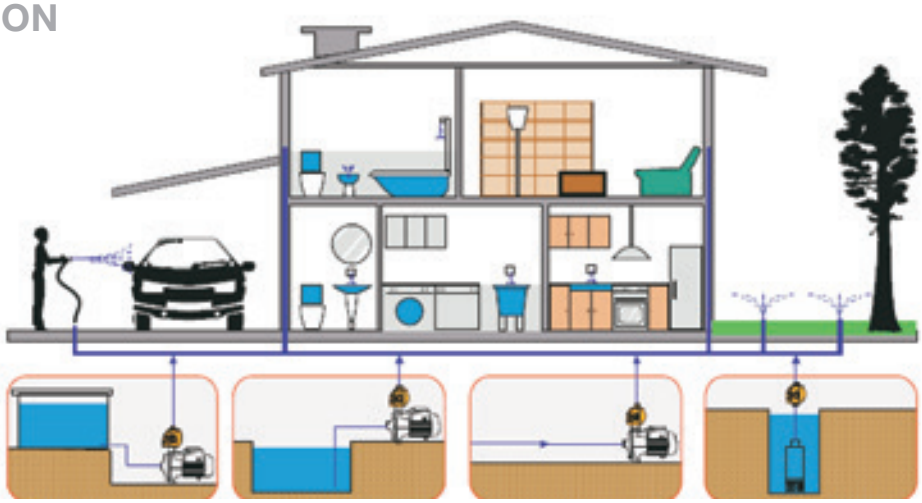
CONTROL PANEL



DIMENSIONS



INSTALLATION

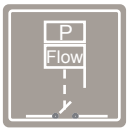


Compact 3

Automatic Device for electric pump integral control

The COMPACT 3 are a compact device for the automatic control and protection of electric pumps, its patented system includes special electronic sensor of flow and pressure, integrated in electronic circuit that guides the electric pump operation and keeps pressure and flow accordingly. Moreover, it has a safety system to avoid the dry-running operation.

The COMPACT 3 replace the system of hydrosphere, pressure-switch, non-returnvalve and level switches, with the advantage of smaller dimensions and periodic maintenance elimination. The unit automatically starts the electric pump when any point of use is open and stop it –after a 10 seconds programmed time– when closing the consumption point.



COMPACT 3 F15

COMPACT 3 F22

REGISTERED DESIGN

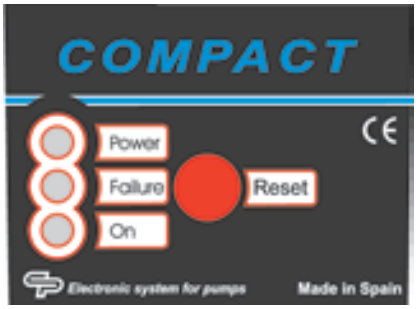
OPERATING CHARACTERISTICS

- No maintenance.
- Installation time saving.
- Protection against water hammer effect.
- Compact and reduced dimensions.
- Removal of protecting devices (level switches).
- Avoids the pump oversizing using integratelly their flowpressure curve.
- Integrated protection system which stops the pump in case of dry-running operation.
- Control panel:
    - Yellow Led POWER.
    - Green Led ON.
    - Red Led FAILURE.
- Tactile push button for manual start.
- Electronic circuit group with protection cover easily replaceable.
- Reserve against leaks in the installation.
- Other options like pressure gauge, connecting cables.
- EMC and electrical safety certified.
- 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.

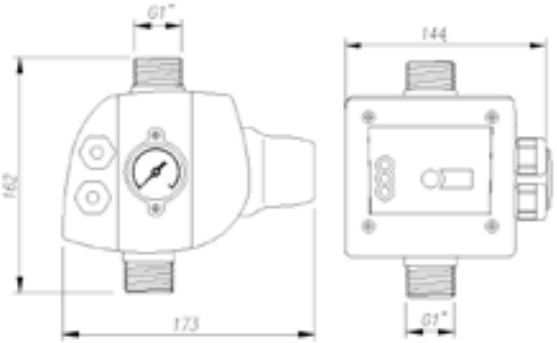
TECHNICAL CHARACTERISTICS

	F15	F22
Start pressure	1,5 bar	2,2 bar
Power	1,5kW	1,5kW
Voltage	~1x127V/ ~1x230 Vac	~1x127V/ ~1x230 Vac
Frequency	50/60 Hz	50/60 Hz
Max peak of current	12 A; cos fi ≥0.6	12 A; cos fi ≥0.6
Protection degree	IP65	IP65
Maximum temperature	50 °C	50 °C
Maximum pressure	10 bar	10 bar
Maximum flow	8.000 l/h	8.000 l/h
Net weight (without cables)	0,873 Kg	0,873 Kg

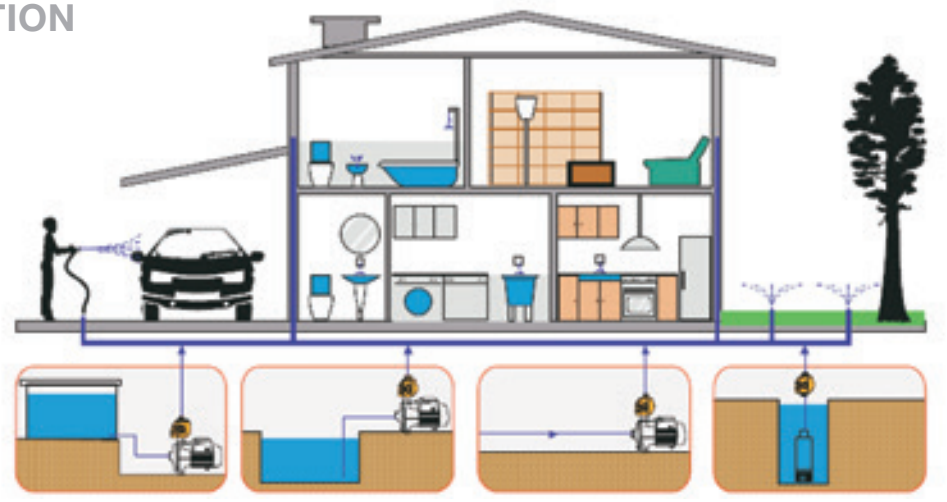
CONTROL PANEL



DIMENSIONS



INSTALLATION



Hi Tech

The pump drivers family HI TECH covers a full range of inverters for single-phase and 3-phase pumps assembled in-line, wall-mounted or on-board. These devices integrate all the necessary hydraulic, electrical and electronic elements such as flow sensors, pressure switches, transducers, sensing elements of pressure, frequency or current intensity, LED lights, displays, push-buttons buttons, ... etc

SPEEDMATIC SET (in-line)

This patented device manages the main pump by inverter (frequency converter) allowing to keep a constant pressure, regulating the speed and adapting the electrical consumption of the pump independently of the required flow. When the main pump reaches its maximum efficiency, it starts the auxiliary pump. At this point, the main pump, decrease its speed just to continue modulating and offering its potential, depending on the required flow. Obviously, if the required flow decreases until the situation where a single pump is enough, the auxiliary pump will stop and the main pump will keep regulating self-sufficiently.
This system guarantees a permanent intervention of the inverter, modulating the speed and energetic consumption.
The electric supply can be either single-phase or three-phase.

SPEEDMATIC SET ALT (in-line)

It is a compact automatic control device designed for the automation of pressure groups with 2 pumps. It includes a frequency inverter for the main pump control regulating the speed in order to keep constant the pressure independently of the flow given, the auxiliary pump is managed by mean of power relay. There is alternated operating sequence.

SPEEDMATIC ALT (in-line)

SPEEDMATIC ALT is designed for a booster system of two pumps, manages each one with inverter, programming its intervention alternatively, never simultaneously.
This system is frequently used for feeding installations for a single pump, but using two of them with the intention to increase their durability and assuring the flow supply in case of failure of one of them. In some countries this system is considered in the standards.
It operates with single-phase power supply, the electric pumps can be either single-phase or three-phase, and it just must be chosen during the initial configuration.

SPEEDMATIC MASTER (in-line)

The Speedmatic MASTER manages, with inverter, an electric pump designated as master or main pump, being part of a group composed of 2, 3 or 4 slaves or dependent units, these pumps are also managed by their respective Speedmatic, all of them are communicated between them and with the master. This system allows to rationalize the operation of the system thanks to its alternate and staggered intervention, besides the own advantages of the INVERTER as far as the maintenance of the constant pressure by power consumption and speed modulation.
The booster set is configured through the master that manages the alternation, the pressure, temporizations, etc. while each slave is configured according to the specifications of their own pump. In case of damages in the master, another unit automatically becomes master. All the devices are identical; they are defined as master or slave during the configuration process.
The communication between sets of 2 units is carried out by mean of a communication cable.
For booster sets of 3 or 4 pumps communication is carried out through an station called Speedcenter.
The Speedmatic is the same unit than the Speedmatic MASTER but without the option of being communicated to another unit.

SPEEDMATIC EASY MASTER(in-line)

Speedmatic EASY is a simplified version of the pump driver Speedmatic, has a 2-digit display. It is designed as a “plug and play” device, so that when we have connected the device to the water mains and electricity is only necessary to select the set pressure.

SPEEDBOARD (on-board)

Frequency inverter ON-BOARD for single and three phase pumps, the power supply can be single-phase or three-phase depending on the model. It can be mounted individually or in groups of two pumps communicated and operating in MASTER-SLAVE mode. It is installed on the terminal box of the electric pump via an intermediate adapter piece.

SPEEDBOX (wall mounted)

SPEEDBOX is a wall-mounted automatic electronic control device designed for the single and three-phase pump´s automation. It includes a frequency inverter that regulates the speed of the pump in order to keep constant the pressure independently of the flow given.
The system incorporates an LCD screen where the parameters configuration is very easy and intuitive. Once the configuration parameters are set, the SPEEDBOX manages the start-up of the pump and the frequency inverter. It assures a constant pressure and an important costs reduction because at any time the control will feed the system with the right and necessary output, obtaining a maximum energetic efficiency.
Speedbox is cooled by forced or natural convection depending on model and there is no water circulation inside.
All the models are single-phase supplied and there are single and 3-phase outputs for different powers.
Like our unit Speedmatic, the SPEEDBOX can be communicated directly to another identical unit or through the Speedcenter for a group of 3 or 4 units operating in master-slave mode.

SPEEDBOX SUB: Ideal device for submersible pumps because of his integrated circuit breaker and an internal housing for the start capacitor required in single-phase pumps.

SPEEDBOX DUO: Wall-mounted pump driver for the control of two pumps both with variable speed.

SPEEDBOX DUO SET: Wall-mounted pump driver for the control of two three-phasic electropumps. It includes a frequency inverter for the main pump control regulating the speed in order to keep constant the pressure independently of the flow given, the auxiliary pump is managed by mean of power relay. There is alternated operating sequence.

In-line units	Model	Power Supply Voltage	Pumps Connection		Pumps No.
			Main	Aux.	
	Speedmatic SET 2010	~3x400 V (+N)	~3x230 V (Δ) (10 A)	~3x400 V (5 A)	2
	Speedmatic SET 3010				3
	Speedmatic SET 2110	~1x230 V	~3x230 V (Δ) (10 A)	~1x230 V (10 A)	2
	Speedmatic SET 3110				3
	Speedmatic SET 21110	~1x230 V	~1x230 V (10 A)		2
	Speedmatic SET 31110				3
	Speedmatic SET ALT	~1x230 V	~1x230 V (12 A)	~1x230 V (12 A)	2
	Speedmatic ALT	~1x230 V	~1x230 V o ~3x230 V (10 A)	~1x230 V o ~3x230 V (10 A)	2
	Speedmatic easy 09 MM	~1x230 V	~1x230 V (9 A)	-	1
	Speedmatic easy 12 MM		~1x230 V (12 A)	-	1
	Speedmatic easy 06 MT		~3x230 V (Δ) (6 A)	-	1
	Speedmatic easy 10 MT		~3x230 V (Δ) (10 A)	-	1
	Speedmatic Master 101165	~1x230 V	~1x230 V (5 A) o ~3x230 V (Δ) (6 A)	-	1-4
	Speedmatic Master 101110		~1x230 V (10 A) o ~3x230 V (Δ) (10 A)	-	1-4
	Speedmatic 1305	~3x400 V	~3x400 V (5 A)	-	1-4
	Speedmatic 1309		~3x400 V (9 A)	-	1-4
	Speedmatic 1314		~3x400 V (14 A)	-	1-4

Wall-mounted units	Model	Power Supply Voltage	Pumps Connection	Pumps No.
	Speedcenter	12 Vcc	-	3-4
	Speedbox 1006 MT	~1x230 V	~3x230 V (Δ) (6 A)	1-4
	Speedbox 1010 MT		~3x230 V (Δ) (10 A)	
	Speedbox 1106 MM		~1x230 V (6 A)	
	Speedbox 1112 MM		~1x230 V (12 A)	
	Speedbox 1305 TT	~3x400 V	~3x400 V (5 A)	
	Speedbox 1309 TT		~3x400 V (9 A)	
	Speedbox 1314TT		~3x400 V (14 A)	
	Speedbox SUB		~1x230 V (12 A)	
	Speedbox Duo	~1x230 V	2 x 3x230 V (10A)	2
	Speedbox Duo Set	~3x400 V	2 x ~3x400 V	2

On-board units	Model	Power Supply Voltage	Pumps Connection	Pumps No.
	Speedboard 1006 MT	~1x230 V	~3x230 V (Δ) (6 A)	1-4
	Speedboard 1010 MT		~3x230 V (Δ) (10 A)	
	Speedboard 1106 MM		~1x230 V (6 A)	
	Speedboard 1112 MM		~1x230 V (12 A)	
	Speedboard 1305 TT	~3x400 V	~3x400 V (5 A)	
	Speedboard 1309 TT		~3x400 V (9 A)	
	Speedboard 1314 TT		~3x400 V (14 A)	

Speedmatic Set

PATENTED International Patent ALL RIGHTS RESERVED

Driver for two (2010, 2110 & 21110) or three (3010, 3110 & 31110) electric pumps. Patented system.
Main pump managed by INVERTER and the auxiliary pump managed by a power relays. Models 2010, 3110 and 31110 have 2 auxiliary pumps with alternated operating sequence. General supply for devices 2010 and 3010 is three-phase, and for 2110, 21110,3110 and 31110 is single-phase. On models 2010 ad 3010 all pumps are three-phase. On models 21110 and 31110 al pumps are single-phase. On models 2110 and 3110 the main pump is three-phase and the auxiliary ones are single-phase.

SET 2010
SET 3010
SET 2110
SET 3110
SET 21110
SET 31110

REGISTERED DESIGN

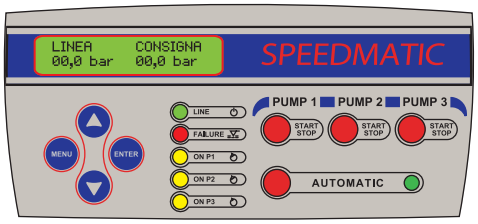
OPERATING CHARACTERISTICS

- Main pump managed by frecuency converter (inverter).
- Auxiliary pumps managed by independent power relays.
- ART function (Automatic Reset Test). If the device has been stopped due to the action of the safety system against dry running operation, the ART tries to connect the pump, with a programmed periodicity because the water supply could have been restored.
- Automatic restore system after an interruption of power supply. System restores the previous mode keeping the configuration parameters.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. Optional.
- Electronic input for detection of minimum water level in aspiration tank- optional-. This system is independent of the safety system against dry-running operation.
- Inner pressure transducer with digital indicator.
- Inner current sensor with instantaneous digital reading.
- Control and information panel with LCD display.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.

TECHNICAL CHARACTERISTICS

		2010-3010	2110-3110	21110-31110
Power supply voltage		~3x400 Vac	~1x230 Vac	~1x230 Vac
Frequence		50/60 Hz	50/60 Hz	50/60 Hz
Max current main pump		10A(~3x230 V) Δ	10A(~3x230 V) Δ	10A(~1x230 V)
Max current auxiliary pump		5A (~3x400 V) Y	10A(~1x230 V)	10A(~1x230 V)
Max operating pressure		16 bar	16 bar	16 bar
Range of set pressure		0,5 ÷ 12 bar	0,5 ÷ 12 bar	0,5 ÷ 12 bar
Protection Index		IP55	IP55	IP55
Max water temperature		40 °C	40 °C	40 °C
Max environment temperature		50 °C	50 °C	50 °C
Net weight (without cables)		3,6-4 kg	3,6-4 kg	3,6-4 kg
Innet and outlet threads		G 1 1/4”	G 1 1/4”	G 1 1/4”
Max flow:	Speedmatic Set	15.000 l/h	15.000 l/h	15.000 l/h
	Auxiliary pumps	Q l/h	Q l/h	Q l/h
	Total group (2/3 pumps)	(15.000 + Q) l/h	(15.000 + Q) l/h	(15.000 + Q) l/h

CONTROL PANEL

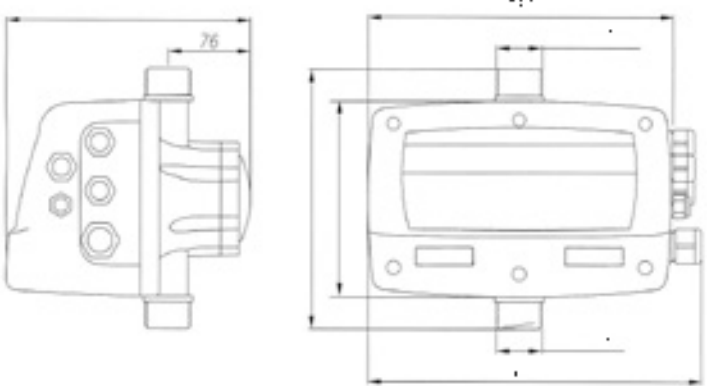


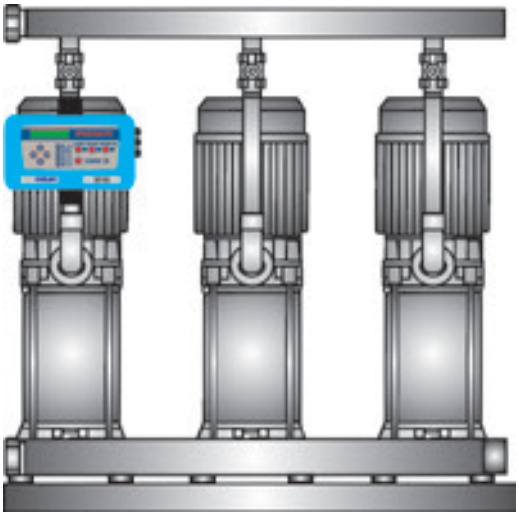
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overloads.
- Electronic control and safety system against dry running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases.

DIMENSIONS





Speedmatic Set Alt

PATENTED International Patent ALL RIGHTS RESERVED

Driver for two monophasic electropumps. Patented system.

SPEEDMATIC SET ALT is a compact automatic control device designed for the automation of pressure groups with 2 pumps, with an electronic system managed by a software responding to the rigorous requirements of efficiency and safety of the most important builders of pumps. It includes a frequency inverter for the main pump control regulating the speed in order to keep constant the pressure independently of the flow given, the auxiliary pump is managed by mean of power relay. There is alternated operating sequence, these means that the pump managed by the inverter is changed in each operating cycle and it is always the first to start.

SET ALT 21110 MM

REGISTERED DESIGN

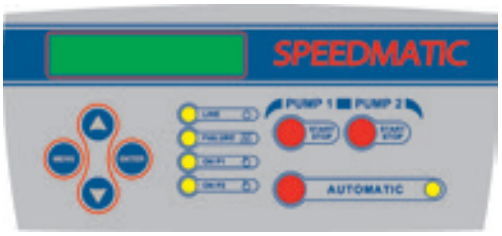
OPERATING CHARACTERISTICS

- Pump managed by frecuency converter (inverter).
- Power relay for the auxiliary pump control.
- Alternated operative sequence.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previous mode keeping the configuration parameters.
- The relay switches for the pump works at 100% of power while the other pump it's been controled by the inverter.
- Free potencial switch to reed the alarms caused by irregularities or thouse problems systems indicated on the screen. This option optional.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety against dry-operation.
- Inner pressure transducer with digital indicator,
- Inner current sensor with instantaneus digital reading.
- Control and information panel with LCD display.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Posibility to act over the PID.

TECHNICAL CHARACTERISTICS

		SET ALT MM
Power supply voltage		~1 x 230 Vac
Frequence		50/60 Hz
Max current main pump		12A(~1 x 230 Vac)
Max current auxiliary pump		12A (~1 x 230 Vac)
Max operating pressure		16 bar
Range of set pressure		0,5 ÷ 12 bar
Protection Index		IP55
Max water temperature		40 °C
Max environment temperature		50 °C
Net weight (without cables)		3,6-4 kg
Innet and outlet threads		G 1 1/4”
Max flow:	Speedmatic Set	15.000 l/h
	Auxiliary pumps	Q l/h
	Total group (2 pumps)	(15.000 + Q) l/h

CONTROL PANEL

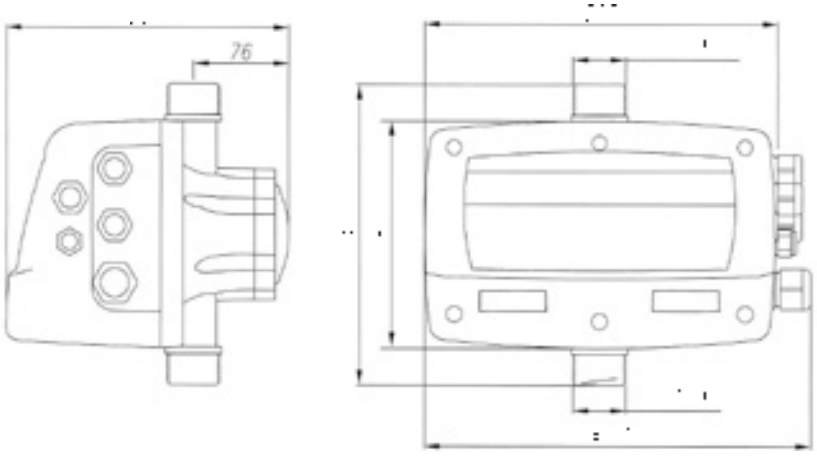


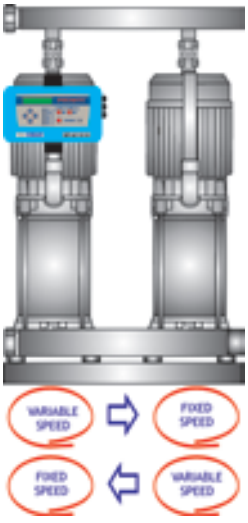
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against over-intensities.
- Electronic control and safety system against dry operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases.

DIMENSIONS





Speedmatic Alt

Driver for two single-phase or three-phase electric pumps with variable speed and alternated operating sequence. Patented system.

Both pumps are managed by the same inverter (frequency converter) with alternated sequence - never simultaneously - in each operating cycle. This system guarantees the flow supply in case of failure of one of the electric pumps and also increase their durability. The electrical supply of the pumps -single phase or 3-phase- it's choosen through the configuration menu.

ALT 202110

REGISTERED DESIGN

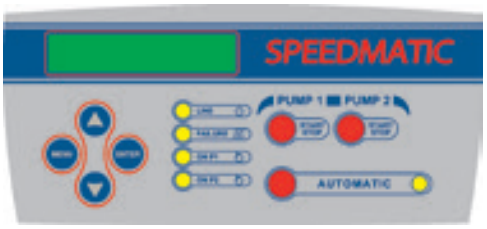
OPERATING CHARACTERISTICS

- Both pumps managed by frecuency converter (inverter).
- Alternated operating sequence.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previous mode keeping the configuration parameters.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. This use is optional.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety against dry-running operation.
- Inner pressure transducer with digital indicator,
- Inner current sensor with instantaneus digital reading.
- Control and information panel with LCD display.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.

TECHNICAL CHARACTERISTICS

	ALT
Power supply voltage	~1 x 230 Vac
Frequence	50/60 Hz
Max current per phase	10A(~3 x 230 V) o 10A(~1 x 230 V)
Max operating pressure	10 bar
Range of set pressure	05 ÷ 12 bar
Protection degree	IP55
Max water temperature	40 °C
Max environment temperature	50 °C
Net weight (without cables)	3,7 kg
Inlet and output thread	G 1 1/4”
Max flow	15.000 l/h

CONTROL PANEL

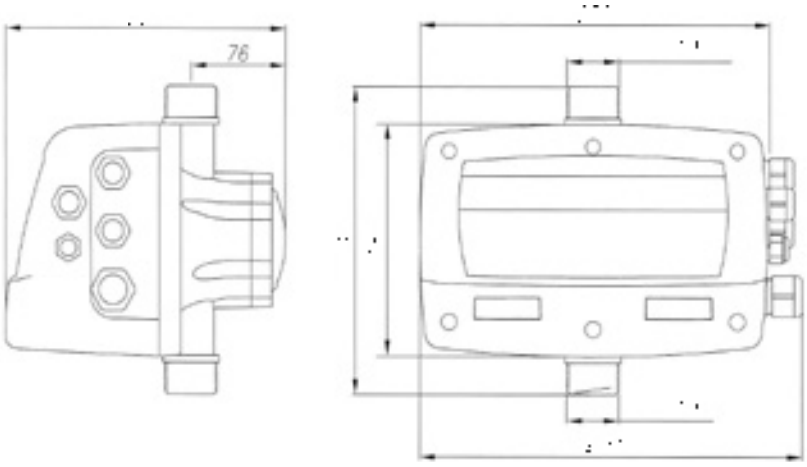


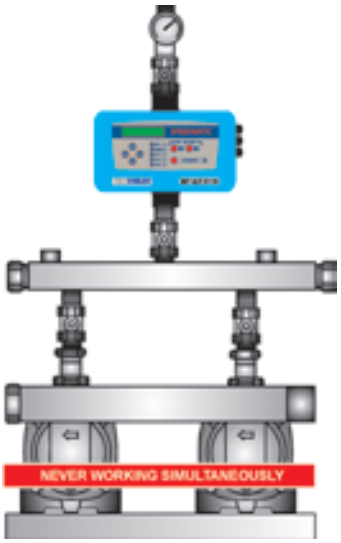
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overload.
- Electronic control and safety system against dry operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases.

DIMENSIONS





Speedmatic Easy Master

Driver for one single-phase or 3-phase pump with variable speed. Plug and play unit.
General electric supply is single-phase 230 Vac. Easy to setup and operate, as it's only necessary to connect and select the setpoint pressure. It can be mounted individually (only one pump) or in group of 2 pumps communicated and operating in MASTER-SLAVE mode with alternated sequence of operation.

EASY 09 MM

EASY 12 MM

EASY 06 MT

EASY 10 MT

REGISTERED DESIGN

OPERATING CHARACTERISTICS

- Pump managed by frecuency converter (inverter).
- 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.
- Posibility of being mounted next to another identical device operating in mode MASTER-SLAVE. The group will be formed by a main device configured like MASTER and the rest of devices configued like SLAVES. The operating system is alternated, the divice configurade as MASTER is the responsible of the control but it does not imply that is first in starting up when there is flow demand in the network.
- Automatic restore system after an interruption of power supply. System restores the previous mode keeping the configuration parameters.
- Inner pressure transducer with digital indicator,
- Inner current sensor with instantaneus digital reading.
- Control and information panel with 2 digits.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.

TECHNICAL CHARACTERISTICS

	09MM	12MM	06MT	10MT
Power supply voltage	~1 x230 Vac	~1 x230 Vac	~1 x230 Vac	~1 x230 Vac
Frequence	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Output	~1 x230 Vac	~1 x230 Vac	~3 x230 Vac	~3 x230 Vac
Max. current	9 A	12 A	6 A	10 A
Max. peak of current	20% 10”	20% 10”	20% 10”	20% 10”
Range of set pressure	0,5 ÷ 8 bar	0,5 ÷ 8 bar	0,5 ÷ 8 bar	0,5 ÷ 8 bar
Protection degree.	IP55	IP55	IP55	IP55
Max water temperature.	40 °C	40 °C	40 °C	40 °C
Max environment temperature.	50 °C	50 °C	50 °C	50 °C
Net weight (without cables)	2,5 kg	2,5 kg	2,5 kg	2,5 kg
Innet and outlet threads	G 1 1/4”M	G 1 1/4”M	G 1 1/4”M	G 1 1/4”M
Max flow	10.000 l/h	10.000 l/h	10.000 l/h	10.000 l/h
	i/o: ~1/~1		i/o: ~1/~3	

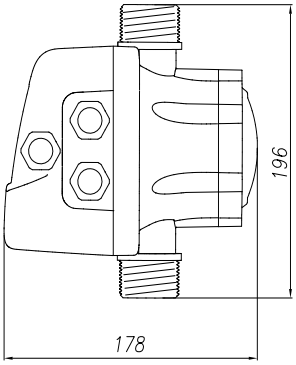
CONTROL PANEL

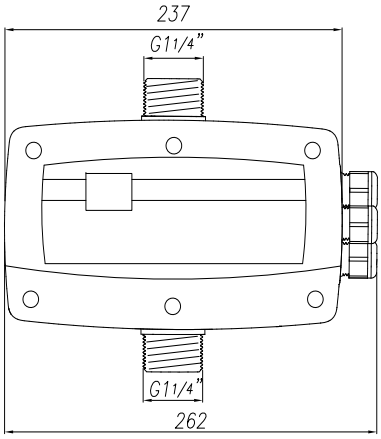
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety against overload.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit.
- Control and safety system against dry-running opration.

DIMENSIONS





Speedmatic 101110 & 101165

Driver for a single pump with variable speed, it can be communicated to other identical devices managing a maximum of 4 pumps. Comunication can be carried out using cables.

Driver for single-phase or three-phase pump managed by INVERTER. General electric supply is 230 Vac. It can be mounted individually (only one pump) or in group of 2, 3 or 4 pumps communicated and operating in MASTER-SLAVE mode with alternated sequence of operation. The communication of 2 devices is direct -using cables. The communication of 3 or 4 units is carred out through of the communication center SPEEDCENTER

101110

101165

REGISTERED DESIGN

OPERATING CHARACTERISTICS

- Pump managed by frecuency converter (inverter).
- 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.
- Posibility of being mounted next to other identical devices -up to 4- operating in mode MASTER-SLAVE. The group will be formed by a main device configured like MASTER and the rest of devices configued like SLAVES. The operating system is alternated, the divice configurade as MASTER is the responsible of the control but it does not imply that is first in starting up when there is flow demand in the network.
- Automatic restore system after an interruption of power supply. System restores the previous mode keeping the configuration parameters.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. Optional.
- Electronic input for detection of minimum water level in aspiration tank- optional-. This system is independent of the safety system against dry-running operation.
- Inner pressure transducer with digital indicator,
- Inner current sensor with instantaneous digital reading.
- Control and information panel with LCD screen.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.

TECHNICAL CHARACTERISTICS

	101110	101165
Power supply voltage	1 x 230 Vac	1 x 230 Vac
Frequence	50/60 Hz	50/60 Hz
Max current per phase pump	10A(~3x230 Vac) o 9A (~1 x 230 Vac)	6A(~3x230 Vac) o 5A (~1 x 230 Vac)
Max peak of current	+20% 10seg	+20% 10seg
Max operating pressure	15 bar	15 bar
Range of set pressure	05 ÷ 12 bar	05 ÷ 12 bar
Protection degree	IP55	IP55
Max water temperature	40 °C	40 °C
Max environment temperature	50 °C	50 °C
Net weight (without cables)	2,5 kg	2,5 kg
Inlet and outlet threads	G 1 1/4"	G 1 1/4"
Max flow	10.000 l/h	10.000 l/h

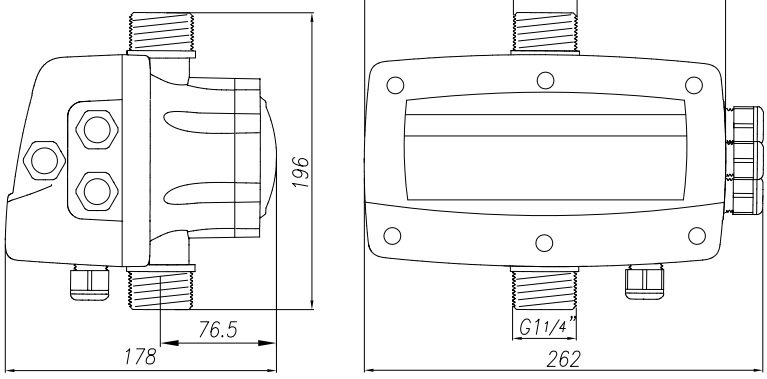
CONTROL PANEL

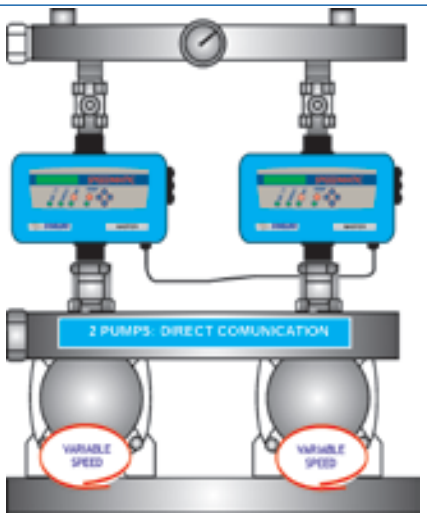
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overloads.
- Electronic control and safety system against dry-running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases.

DIMENSIONS





Speedmatic 1305 & 1309

Driver for a one 3-phase pump with variable speed, it can be communicated to other identical devices managing a maximum of 4 pumps.

Three-phase pump managed by INVERTER. General electric supply is 400 Vac. It can be mounted individually (only one pump) or in group of 2, 3 or 4 pumps communicated and operating in MASTER-SLAVE mode with alternated sequence of operation. The communication of 2 devices is direct using cables. The communication of 3 or 4 units is carred out through the communication center SPEEDCENTER.

1305 MASTER

1309 MASTER

REGISTERED DESIGN

OPERATING CHARACTERISTICS

- Pump managed by frecuency converter (inverter).
- 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.
- Posibility of being mounted next to other identical devices -up to 4- operating in MASTER-SLAVE mode: the group will be formed by a main device configured like MASTER and the rest of devices configued like SLAVES. The operating system is alternated, the divice configurade as MASTER is the responsible of the control but it doesn't imply that is first in starting up when there is flow demand in the network.
- Automatic restore system after an interruption of power supply. System restores the previous mode keeping the configuration parameters.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. Optional.
- Electronic input for detection of minimum water level in aspiration tank- optional-. This system is independent of the safety system against dry-running operation.
- Inner pressure transducer with digital indicator,
- Inner current sensor with instantaneous digital reading.
- Control and information panel with LCD screen.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.

TECHNICAL CHARACTERISTICS

	1305	1309
Power supply voltage	~3 x 400 Vac	~3 x 400 Vac
Frequence	50/60 Hz	50/60 Hz
Max current per phase	5A(~3 x 400 Vac)	9A(~3 x 400 Vac)
Máx. peak of current	20% 10 seg	20% 10 seg
Max operating pressure	16 bar	16 bar
Range of set pressure	05 ÷ 12 bar	05 ÷ 12 bar
Protection degree	IP55	IP55
Max water temperature	40 °C	40 °C
Max environment temperature	50 °C	50 °C
Net weight (without cables)	3,5 kg	5 kg
Inlet thread	G1 1/4 " M	G1 1/4" M
Outlet thread	G1 1/4" M	G1 1/4" M
Max flow	15.000 l/h	15.000 l/h

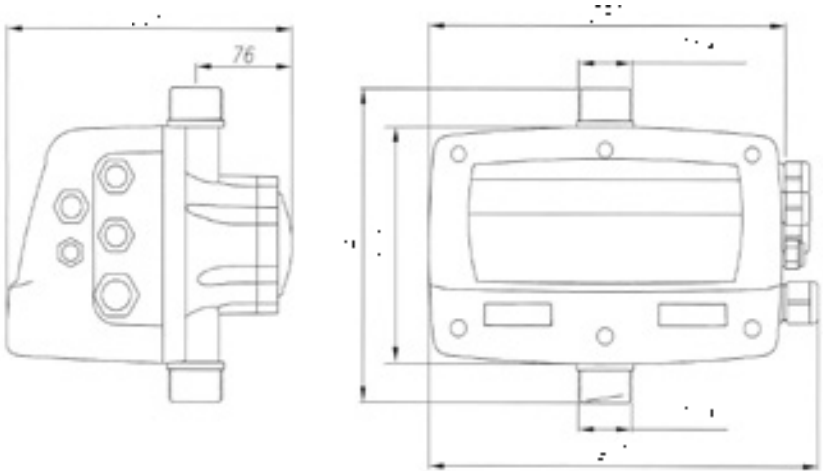
CONTROL PANEL

Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overloads.
- Electronic control and safety system against dry-running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases.

DIMENSIONS



Speedmatic 1314

Driver for a single three-phase pump with variable speed, it can be communicated to other identical devices managing a maximum of 4 pumps.

Three-phase pump managed by INVERTER. General electrical supply is 400 Vac. It can be mounted individually (only one pump) or in groups of 2, 3 or 4 pumps communicated and operating in mode MASTER-SLAVE with alternated sequence of operation. The communication of 2 devices is direct using cables. The communication of 3 or 4 units is carred out through the communication center SPEEDCENTER.

1314 MASTER

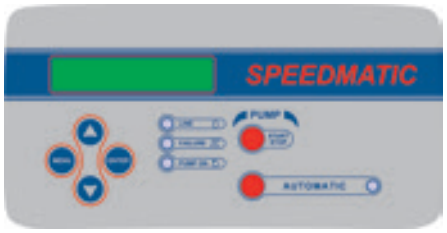
OPERATING CHARACTERISTICS

- Main pump managed by frequency converter (inverter).
- ART function (Automatic Reset Test). If the device has been stopped due to the action of the safety system against dry-running operation, the ART tries to connect the pump, with a programmed periodicity because the water supply could have been restored.
- Posibility of being mounted next to other identical devices -up to 4- operating in mode MASTER-SLAVE. The group will be formed by a main device configured like MASTER and the rest of devices configued like SLAVES. The operating system is alternated, the divice configurade as MASTER is the responsible of the control but it doesn't imply that is first in starting up when there is flow demand in the network.
- Automatic restore system after an interruption of power supply. System restores the previous mode keeping the configuration parameters.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. This option is only on one-phase divices.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety against dry-running operation.
- Inner pressure transducer with digital indicator.
- Inner current sensor with instantaneous digital reading.
- Control and information panel with LCD screen.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu

TECHNICAL CHARACTERISTICS

	1314
Power supply voltage	~3 x 400 Vac
Frequence	50/60 Hz
Max current per phase	14 A (~3 x 400 Vac)
Max operating pressure	16 bar
Range of set pressure	0,5 ÷ 12 bar
Protection degree	IP55
Temperatura máxima del agua	40 ºC
Temperatura ambiente máxima	50 ºC
Net weight (without cables)	5 kg
Inlet thread	G 2" M
Outlet thread	G 2" F
Max flow	25.000 l/h

CONTROL PANEL

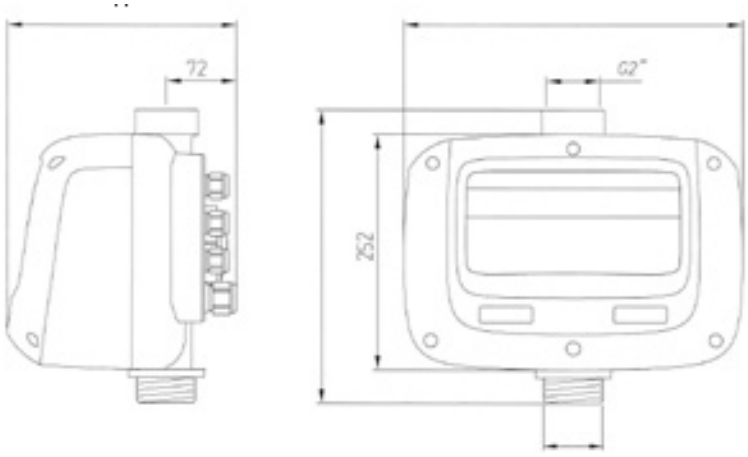


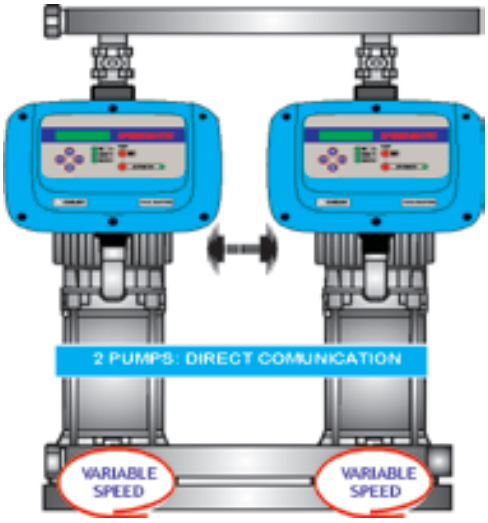
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overloads.
- Electronic control and safety system against dry-running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases.

DIMENSIONS





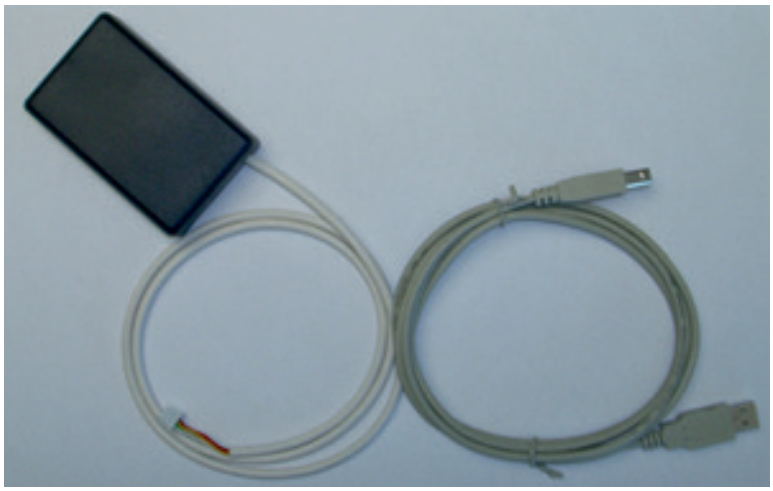
Speedcenter & Interface USB

Comunication center between units Speedmatic.
It can be comunicated up to 4 units Speedmatic 101110, 1305, 1309 and 1314 MASTER operating in MASTER-SLAVE mode, managing the start and stop of these devices. Speedcenter includes a control panel with LCD screen, warning led-lights, push-buttons for configuration and manual start-stop. It is electricaly supplied directly from the Speedmatic through the comunication cables.

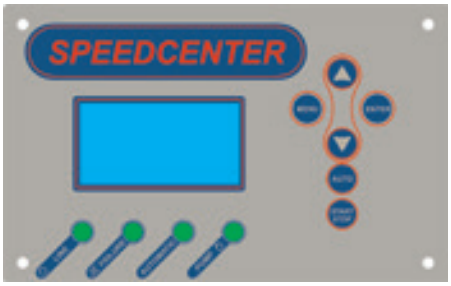
S101040

INTERFACE USB

The interface USB allows software updating, data collection and optimitation of the device operation. It is connected to the USB port of the PC on one side and in the other side to the JST connector on the control board Speedmatic. It includes driver and software application



CONTROL PANEL

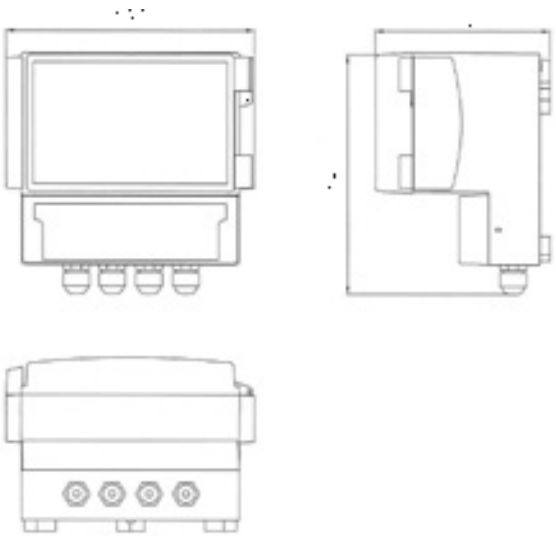


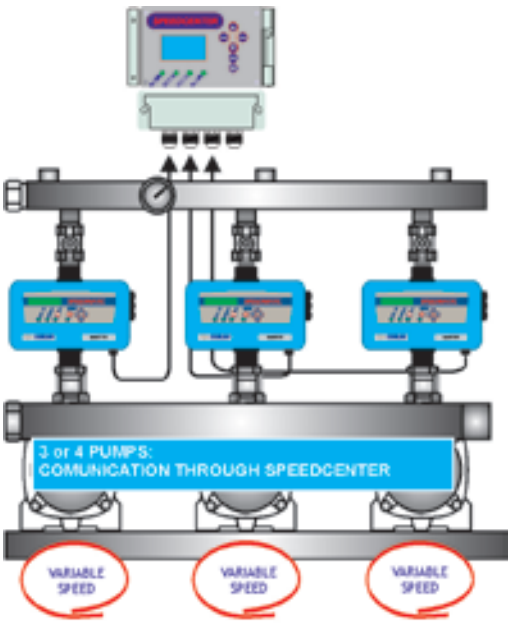
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

TECHNICAL CHARACTERISTICS

	S101040
General supply voltage	12 Vcc throught Speedmatic's communication cable
Communication points	4
Wiring	4 x 0,25
Protection index	IP65
Max environment temperature	55 °C
SCREEN	STN- GRAFIC 64 X 128 digits

DIMENSIONS





Speedbox

Wall-mounted pump driver for a single pump with variable speed.

Designed for the automation of single-phase and 3-phase pumps managed by inverter. General electrical supply is ~1x230 or ~3x400 Vac -depending on model. It can be mounted individually or in groups of 4 pumps communicated and operating in MASTER-SLAVE mode with alternated sequence of operation.

1006 MT

1010 MT

1106 MM

1112 MM

1305 TT

1309 TT

1314 TT

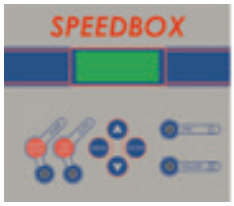
OPERATING CHARACTERISTICS

- Frequency inverter for the pump control.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previousmode keeping the configuration parameters.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety system against dry-running operation.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. This option is only on one-phase divices.
- STC function (Smart Temperature Control): when temperature of electronic circuit is over 85 ºC reduce automatically the frequency of the pump and decrease the generation of heat but keeping the flow of water.
- Control and information panel with LCD screen.
- External pressure transducer 0-10 bar or 0-16 bar (under request) with 4-20 mA input.
- Inner current sensor with instantaneus digital reading.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.
- Cooling by natural or forced convection depending on the model.
- Optional thermal-magnetic circuit breaker (except model 1314 TT)
- EMC certified residential class C1 or C2.

TECHNICAL CHARACTERISTICS

	1006 MT	1010 MT	1106 MM	1112 MM	1305 TT - 1309TT - 1314TT
Power supply voltage	~1 x 230 Vac	~1 x 230 Vac	~1 x 230 Vac	~1 x 230 Vac	~3 x 400 Vac
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Output voltage	~3 x 230 Vac	~3 x 230 Vac	~1 x 230 Vac	~1 x 230 Vac	~3 x 400 Vac
Max current	6 A	10 A	6 A	12 A	5 A - 9 A - 14A
Max peak current	20% 10”	20% 10”	20% 10”	20% 10”	20% 10”
Range of set pressure	0,5 ÷ 16 bar	0,5 ÷ 16 bar	0,5 ÷ 16 bar	0,5 ÷ 16 bar	0,5 ÷ 16 bar
Protection degree	IP65	IP55	IP65	IP55	IP55
Input transducer	4-20 mA	4-20 mA	4-20 mA	4-20 mA	4-20 mA
Max environment temperature	50 °C	50 °C	50 °C	50 °C	50 °C
Net weight (without cables)	4 kg	4,5 kg	3 kg	3,5 kg	4,5 kg
Cooling system	Natural Convection	Forced Convection	Natural Convection	Forced Convection	Forced Convection
	i/o: ~1/~3		i/o: ~1/~1		i/o: ~3/~3

CONTROL PANEL

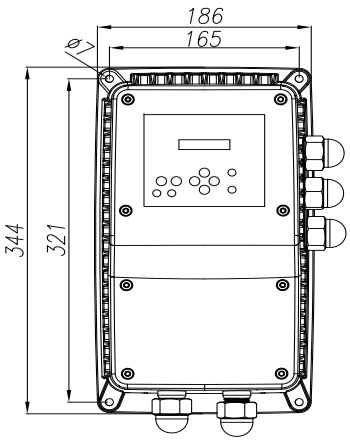


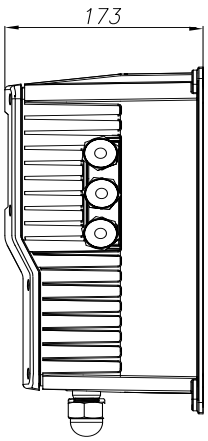
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

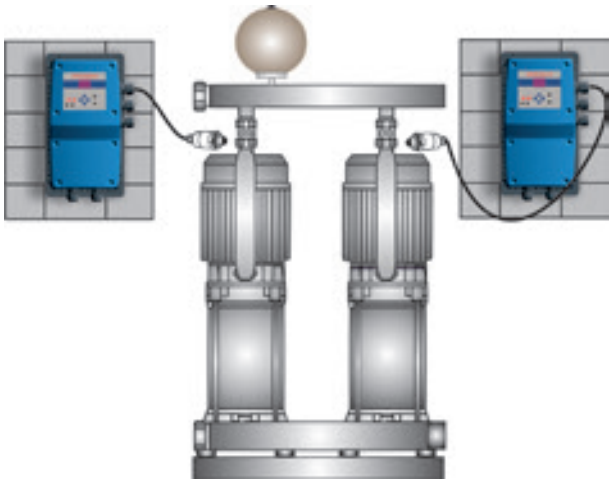
SAFETY SYSTEMS

- Control and safety system against overload.
- Electronic control and safety system against dry-running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases

DIMENSIONS







Speedbox SUB

Wall-mounted pump driver for a single pump with variable speed.

Single-phase pump managed by an inverter. General electrical supply is ~1x230Vac. Ideal device for submersible pumps because of his integrated circuit breaker and an internal housing for the start capacitor required in single-phase pumps.

SUB 1112 MM

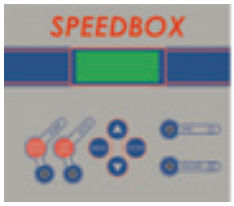
OPERATING CHARACTERISTICS

- Frequency inverter for the pump control.
- Thermal-magnetic circuit breaker C 16A.
- Internal housing for the start capacitor until Ø50mm.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previousmode keeping the configuration parameters.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety system against dry-running operation.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. This option is only on one-phase divices.
- STC function (Smart Temperature Control): when temperature of electronic circuit is over 85 °C reduce automatically the frequency of the pump and decrease the generation of heat but keeping the flow of water.
- Control and information panel with LCD screen.
- External pressure transducer 0-10 bar or 0-16 bar (under request) with 4-20 mA input.
- Inner current sensor with instantaneus digital reading.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.
- Cooling by natural or forced convection depending on the model.
- EMC certified residential class C1 or C2.

TECHNICAL CHARACTERISTICS

	1112 MM
Power supply voltage	~1 x 230 Vac
Frequency	50/60 Hz
Output voltage	~1 x 230 Vac
Max current	12 A
Max peak current	20% 10”
Range of set pressure	0,5 ÷ 16 bar
Protection degree	IP55
Input transducer	4-20 mA
Max environment temperature	50 °C
Net weight (without cables)	4,0 kg
Cooling system	Forced Convection
	i/o: ~1/~1

CONTROL PANEL

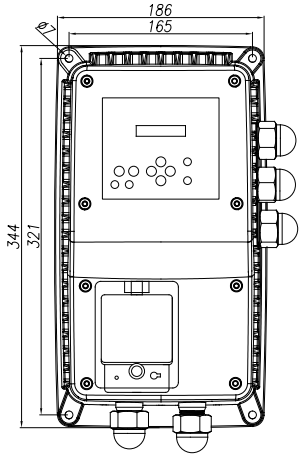


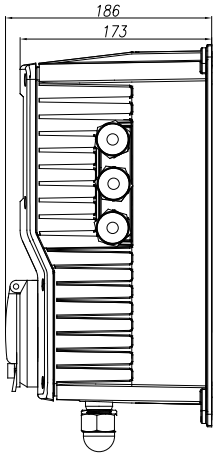
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system. Thermal-magnetic circuit breakers integrated.

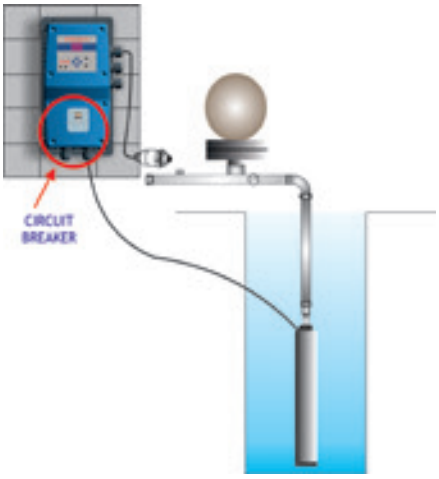
SAFETY SYSTEMS

- Control and safety system against overload.
- Electronic control and safety system against dry-running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases

DIMENSIONS







Speedbox Duo

Wall-mounted pump driver for the control of two pumps both with variable speed.
Single-phase or 3-phase pumps managed by two INVERTERS. General electrical supply is single-phase 230V. The device makes work in cascade and in alternance both pumps. Each pump is controlled by an inverter.

Duo

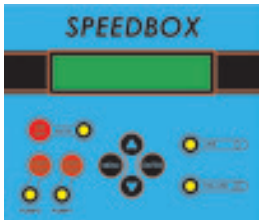
OPERATING CHARACTERISTICS

- Two frequency inverters controlled by a single control for the management of two electropumps.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previousmode keeping the configuration parameters.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety system against dry-running operation.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. This option is only on one-phase divices.
- STC function (Smart Temperature Control): when temperature of electronic circuit is over 85 ºC reduce automatically the frequency of the pump and decrease the generation of heat but keeping the flow of water.
- Input 4-20 mA for external pressure transducer.
- Control and information panel with LCD screen.
- External pressure transducer 0-10 bar or 0-16 bar (under request).
- Inner current sensor with instantaneus digital reading.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.

TECHNICAL CHARACTERISTICS

	Duo
Power supply voltage	~1 x 230 Vac
Frequency	50/60 Hz
Max current pump 1	10A (~3 x 230 Vac) o 12A (~1 x 230 Vac)
Max current pump 2	10A (~3 x 230 Vac) o 12A (~1 x 230 Vac)
Max peak current	20% 10”
Range of set pressure	0,5 ÷ 16 bar
Protection degree	IP55
Input transducer	4-20 mA
Max environment temperature	50 °C
Net weight (without cables)	4,8 kg
Cooling system	Forced Convection
	i/o: ~1/~3

CONTROL PANEL

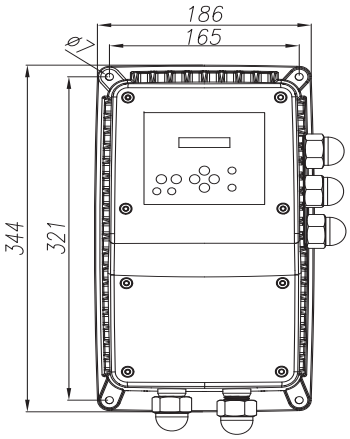


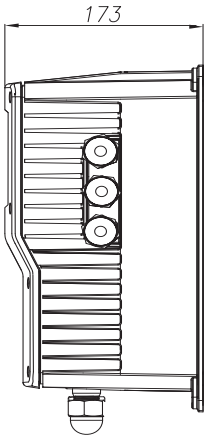
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

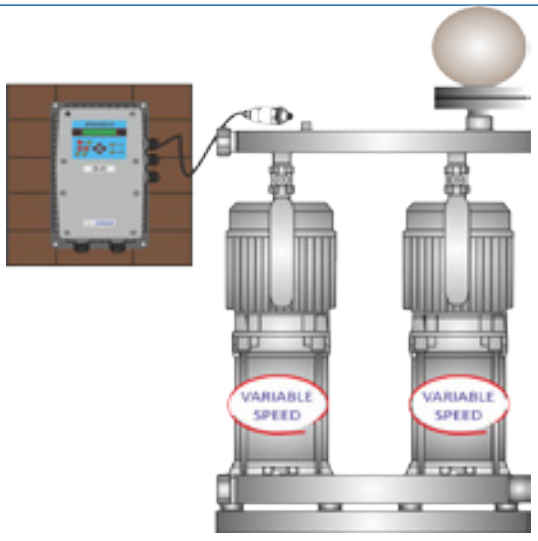
SAFETY SYSTEMS

- Control and safety system against overload.
- Electronic control and safety system against dry-running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases

DIMENSIONS







Speedbox Duo Set

Wall-mounted pump driver for the control of two three-phasic electropumps. Patented system.

SPEEDBOX DUO SET is a compact automatic control device designed for the automation of pressure groups with 2 pumps, with an electronic system managed by a software responding to the rigorous requirements of efficiency and safety of the most important builders of pumps. It includes a frequency inverter for the main pump control regulating the speed in order to keep constant the pressure independently of the flow given, the auxiliary pump is managed by mean of power relay. There is alternated operating sequence, these means that the pump managed by the inverter is changed in each operating cycle and it is always the first to start.

Duo Set

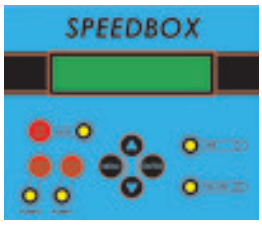
OPERATING CHARACTERISTICS

- Pump managed by frecuency converter (inverter).
- Power relay for the auxiliary pump control.
- Alternated operative sequence.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previousmode keeping the configuration parameters.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety system against dry-running operation.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. This option is only on one-phase divices.
- STC function (Smart Temperature Control): when temperature of electronic circuit is over 85 °C reduce automatically the frequency of the pump and decrease the generation of heat but keeping the flow of water.
- Input 4-20 mA for external pressure transducer.
- Control and information panel with LCD screen.
- External pressure transducer 0-10 bar or 0-16 bar (under request).
- Inner current sensor with instantaneus digital reading.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.

TECHNICAL CHARACTERISTICS

	Duo Set
Power supply voltage	~3 x 400 Vac
Frequency	50/60 Hz
Max current main pump	9 A (~3 x 400 Vac)
Max current auxiliary pump	9A (~3 x 400 Vac)
Max peak current	20% 10”
Range of set pressure	0,5 ÷ 16 bar
Protection degree	IP55
Input transducer	4-20 mA
Max environment temperature	50 °C
Net weight (without cables)	4,8 kg
Cooling system	Forced Convection
	i/o: ~3/~3

CONTROL PANEL

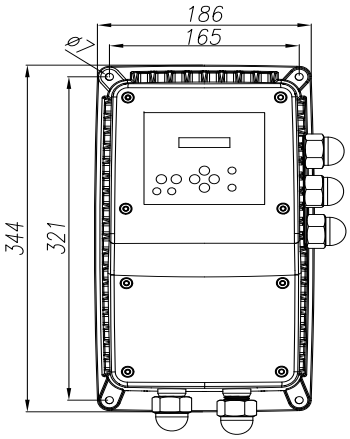


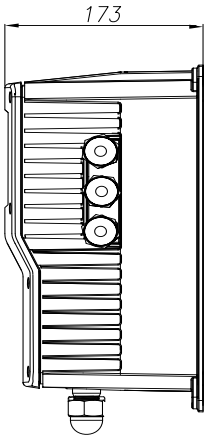
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overload.
- Electronic control and safety system against dry-running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases

DIMENSIONS





Speedboard

Pump driver ON-BOARD assembled for a single pump with variable speed.

Single-phase or 3-phase pumps managed by INVERTER. General electrical supply is single-phase and 3-phase ~3x230 or ~3x400 Vac -depending on model. It can be mounted individually or in groups of 4 pumps communicated and operating in MASTER-SLAVE mode with alternated sequence of operation. It will be installed over connection box of the motor through a wide range of fastenings.

1006 MT

1010 MT

1106 MM

1112 MM

1305 TT

1309 TT

1314 TT

OPERATING CHARACTERISTICS

- Frequency inverter for the pump control.
- Adaptable to any connection box of the motor through a wide range of fastenings.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previous state keeping the configuration parametres.
- Electronic input for detection of minium water level in aspiration tank. This system is independent of the safety system against dry-running operation.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system (optional).
- Control and information panel with LCD screen.
- Input 4-20 mA for an external pressure transducer.
- External pressure transducer 0-10 bar or 0-16 bar (under request).
- Inner current sensor with instantaneus digital reading.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.
- Open PID in the expert menu.
- Aluminium heat exchanger.
- Cooling by forced convection by the fan of the motor with an intelligent temperature management system.

TECHNICAL CHARACTERISTICS

	1006 MT	1010 MT	1106 MM	1112 MM	1305 TT - 1309TT - 1314TT
Power supply voltage	~1 x 230 Vac	~1 x 230 Vac	~1 x 230 Vac	~1 x 230 Vac	~3 x 400 Vac
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Output voltage	~3 x 230 Vac	~3 x 230 Vac	~1 x 230 Vac	~1 x 230 Vac	~3 x 400 Vac
Max current	6 A	10 A	6 A	12 A	5 A - 9 A - 14A
Max peak current	20% 10”	20% 10”	20% 10”	20% 10”	20% 10”
Range of set pressure	0,5 ÷ 16 bar 0,5 ÷ 10 bar	0,5 ÷ 16 bar 0,5 ÷ 10 bar	0,5 ÷ 16 bar 0,5 ÷ 10 bar	0,5 ÷ 16 bar 0,5 ÷ 10 bar	0,5 ÷ 16 bar 0,5 ÷ 10 bar
Protection degree	IP65 (or maximum of engine)				
Input transducer	4-20 mA	4-20 mA	4-20 mA	4-20 mA	4-20 mA
Max environment temperature	50 ºC	50 ºC	50 ºC	50 ºC	50 ºC
Net weight (without cables)	2,1 kg	2,1 kg	2,1 kg	2,1 kg	3,5 kg
Cooling system	Natural Convection	Forced Convection	Natural Convection	Forced Convection	Forced Convection
	i/o: ~1/~3		i/o: ~1/~1		i/o: ~3/~3

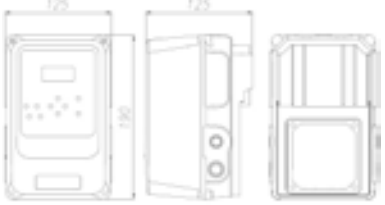
CONTROL PANEL

Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

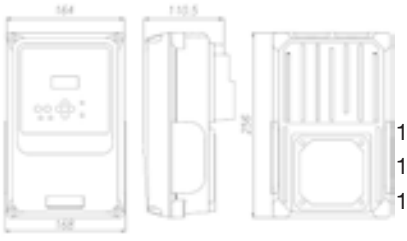
SAFETY SYSTEMS

- Control and safety system against overcurrent.
- Electronic control and safety system against dry-running operation.
- Control and safety system against wrong supply voltage.
- Control and safety system against short-circuit between output phases

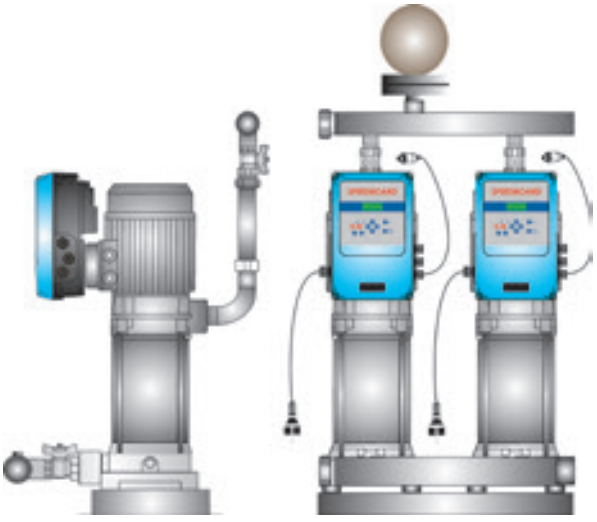
DIMENSIONS



1006
1010
1106
1112



1305
1309
1314



Smart Tech

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.

MULTIMATIC

This system for booster sets of 2 or 3 pumps, depending on model, operates by mean of power relays, according to the traditional pressure-dependent mode. It has an inner pressure transmitter allowing, easily and precisely (1-10 bar), to set, during the configuration process: start and stop pressures, maximum current intensity of the electrical pumps, time delays, etc. Being showed, all this parameters, in the LCD multifunction screen.
Like Speedmatic units, it has an inner flow sensor, protecting the booster set against dry running. Its special software, allows the adaptation of its operation to certain anomalies or failures, even not directly related to the MULTIMATIC. These irregularities are identified in real time on the LCD screen and are recorded, if necessary, for analysis. There are different models for the operation with single phase or 3-phase powe supply.

SWITCHMATIC SERIES

SWITCHMATIC: Electronic pressure switch with integrated digital pressure gauge in bar and psi. It manages the cut-in and cut-out presssures 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 SWITCHMATI 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

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 over-current. Also warns for excessive rapid cycles caused by the loss of air in the hydropneumatic tank. Our traditonal 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.

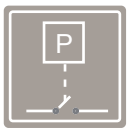
Multimatic Series	Model	Power Supply Voltage	Pumps Connection		Pumps No.
			Main	Aux.	
	Multimatic 2309	~3x400 V ~3x230 V	~3x400 V (9A) ~3x230 V (9A)	~3x400 V (9A) ~3x230 V (9A)	2-3
	Multimatic 3309				
	Multimatic 2110	~1x230 V	~1x230 V (10 A)	~1x230 V (10 A)	
	Multimatic 3110				

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

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	G 1/4" F / NPT 1/4" F	~1x48-230 V	dry-contact
	T-KIT Switchmatic 1	G 1" M x G 1" F x G 1" F	~1x110-230 V	~1x110-230 V
	T-KIT Switchmatic 2	G 1" M x G 1" F x G 1" F	~1x110-230 V	~1x110-230 V
	Switchmatic 2 T	G 1/4" F / NPT 1/4" F	~3 x 220-400 V (12 A)	~3 x 220-400 V

Multimatic 2309 & 3309

Pump driver for two or three electric pumps (pressure-dependent system).
Electronic system for the control of 2 or 3 three-phase electric pumps managed by means of contactors. It includes an inner pressure transducer and inner flow transducer.
Alternated operating sequence.



2309

3309

REGISTERED DESIGN

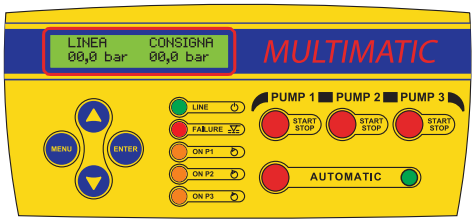
OPERATING CHARACTERISTICS

- Pump manager by independent contactors.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previous state keeping the configuration parametres.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety against dry-operation.
- Volt-free contact for monitoring the alarms displayed in screen origined by irregularities or problems of the system.
- Inner current sensor with instantaneus digital reading.
- Inner pressure transducer with digital indicator.
- Control and information panel with LCD display.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.

TECHNICAL CHARACTERISTICS

		2309 - 3309
Power supply voltage		~3 x 230 Vac ; ~3 x 400 Vac
Frequency		50/60 Hz
Máx. current main pump		9A(~3 x 230 Vac o ~3 x 400 Vac)
Máx. current auxiliar pump		9A(~3 x 230 Vac o ~3 x 400 Vac)
Max operating pressure		10 bar
Max. start pressure		6,5 bar
Max. stop pressure		7 bar
Protection degree		IP55
Max water temperature		40 ºC
Max environment temperature		50 ºC
Net weight (without cables)		3,6-4 kg
Inlet and outled threads		G 1 1/4”
Max flow:	Multimatic	15.000 l/h
	Auxiliary pump	Q l/h
	Total group	(15.000 + Q) l/h

CONTROL PANEL

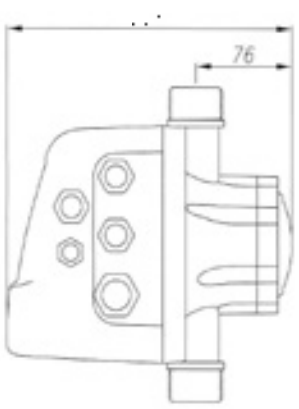


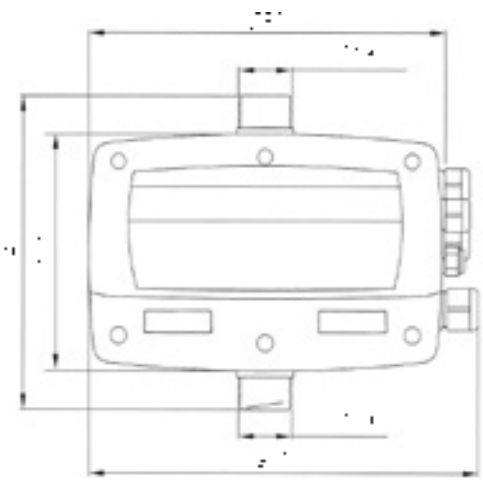
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

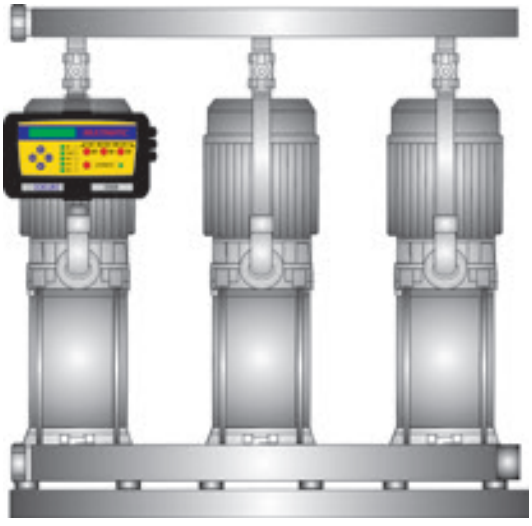
SAFETY SYSTEMS

- Control and safety system against overloads.
- Electronic control and safety system against dry operation.
- Control and safety system against short-circuit between output phases.

DIMENSIONS







Multimatic 2110 & 3110

Pump driver for two or three electric pumps (pressure-dependent system).
Electronic system for the control of 2 or 3 single-phase electric pumps managed by means of contactors. It includes an inner pressure transducer and inner flow transdeucer.
Alternated operating sequence.

2110

3110

REGISTERED DESIGN

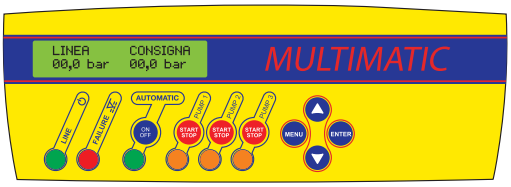
OPERATING CHARACTERISTICS

- Pump managed by independent contactors.
- 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.
- Automatic restore system after an interruption of power supply. System restores the previous state keeping the configuration parametres.
- Electronic input for detection of minium water level in aspiration tank- optional-. This system is independent of the safety against dry-running operation.
- Volt-free contact for monitoring the alarms displayed in screen origined by irregularities or problems of the system.
- Inner current sensor with instantaneous digital reading.
- Inner pressure transducer with digital indicator.
- Control and information panel with LCD display.
- Register of operational controls. Infomation about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms since the starting up of the device.

TECHNICAL CHARACTERISTICS

		2110 - 3110
Power supply voltage		~1 x 230 Vac
Frequency		50/60 Hz
Máx. current main pump		10A(~1 x 230 Vac)
Máx. current auxiliar pump		10A (~1 x 230 Vac)
Max operating pressure		10 bar
Max. start pressure		6,5 bar
Max. stop pressure		7 bar
Protection degree		IP55
Max water temperature		40 ºC
Max environment temperature		50 ºC
Net weight (without cables)		3,6 kg
Inlet and outled threads		G 1 1/4”
Max flow:	Multimatic	10.000 l/h
	Auxiliary pump	Q l/h
	Total group	(10.000 + Q) l/h

CONTROL PANEL

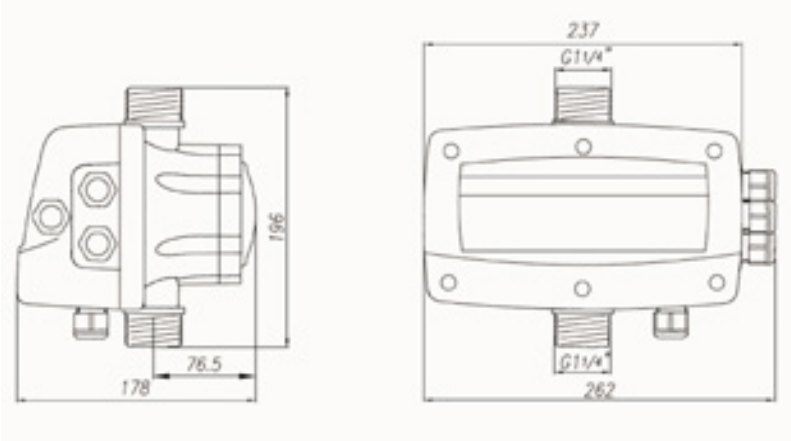


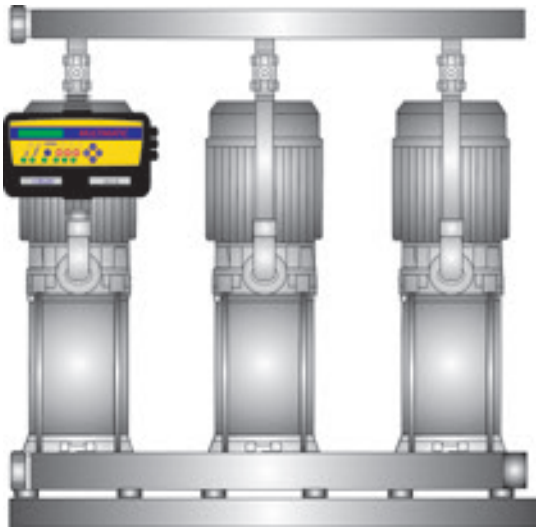
Control panel includes LCD screen, warning leds, push-buttons, START-STOP, AUTOMATIC and configuration system.

SAFETY SYSTEMS

- Control and safety system against overloads.
- Electronic control and safety system against dry-running operation.
- Control and safety system against short-circuit between output phases.

DIMENSIONS





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.
- RoHS and WEEE compliant.
- EMC certified and Electrical Safety certifed.

USERS INTERFACE

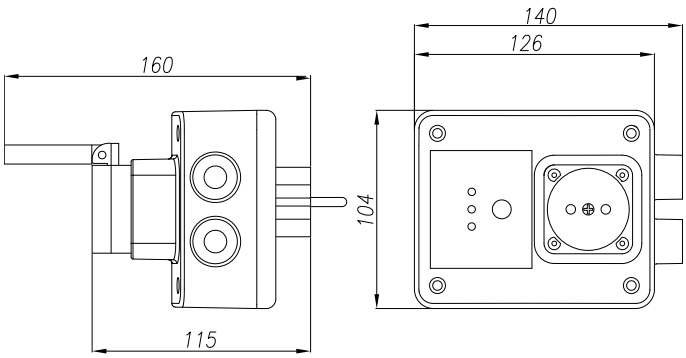
- POWER light (Green)
- Alarm light (red)
  - Bright: “OVERLOAD”
  - Slow flashing: “ART MODE”
  - Fast flashing: “DRY RUN”
- Led ON (yellow)
  - Bright: “PUMP ON”
  - Slow flashing: “LEARNING”
  - Fast flashing: “FAST CYCLE WARNING”
- RESET push-button.

TECHNICAL CHARACTERISTICS

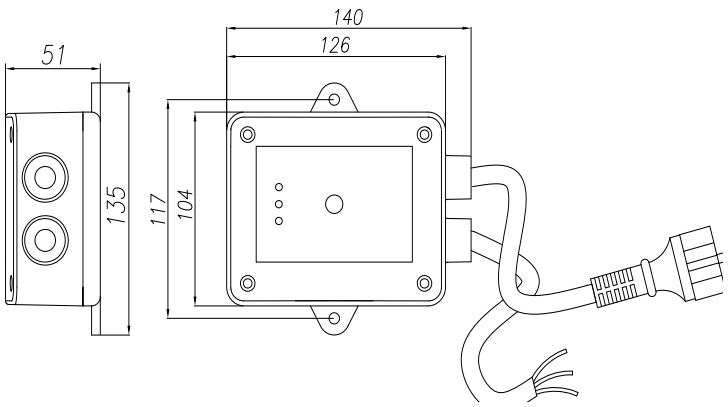
	SAFEMATIC
Power	0,37- 2,2 kW
Voltage	~1 x 110-230 Vac
Frequency	50/60 Hz
Maximum current	16 A
Protection degree	IP65 (IP44)
Max environment temperature	50 ºC
Net weight (without cable)	0,4 kg

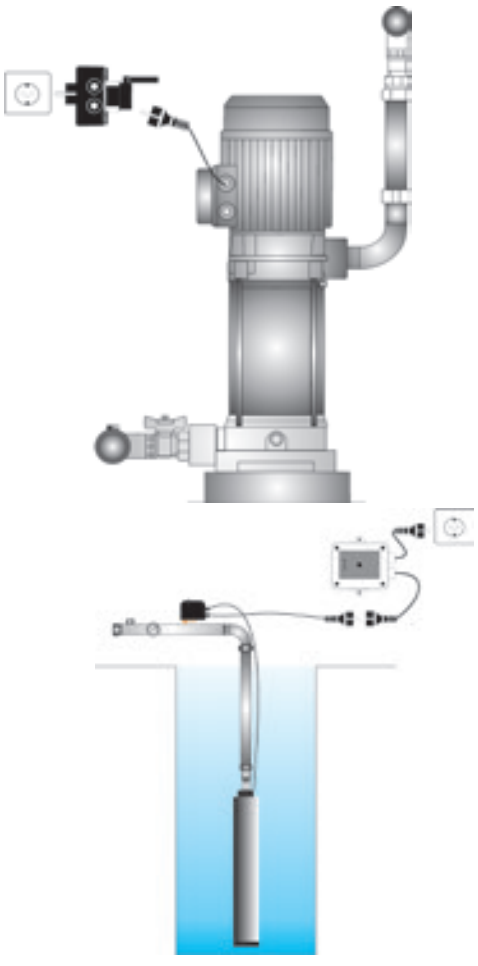
DIMENSIONS AND INSTALLATION

Schuko integrated



Wall Style





Switchmatic 1
Switchmatic 2 complet pump protection

PATENT filed for international patent PENDING

Electronic pressure switch. Patented model.

This unit SWITCHMATIC 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 includes also 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-running protection of the pump and fast cycling protection. The unit SWITCHMATIC 2A includes an output for alarms.

SWITCHMATIC 1

SWITCHMATIC 2

SWITCHMATIC 2A

REGISTERED DESIGN

OPERATING CHARACTERISTICS

- 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.
- Dry-running protection by current (for type Switchmatic 2) and for minimal pressure (for type Switchmatic 1).
- 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).
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system (only type SWITCHMATIC 2A).
- Manual start.
- Operation modes: differential, inversed differential and synchronized (only for Switchmatic 2).
- EMC certified and Electrical Safety certifed.
- RoHs and WEEE compliant.

CONTROL PANEL

- 3 digits display:
  - Operating mode: Instantaneus 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 Psart or Pstop.
- Push Buttons ▲▼: Increase or dicrease configuration parameters.
- ENTER push-button:
  - Manual start and stop.
  - Confirm configuration value.
- Alarm led-light (red): dry-run and fast cyclying.

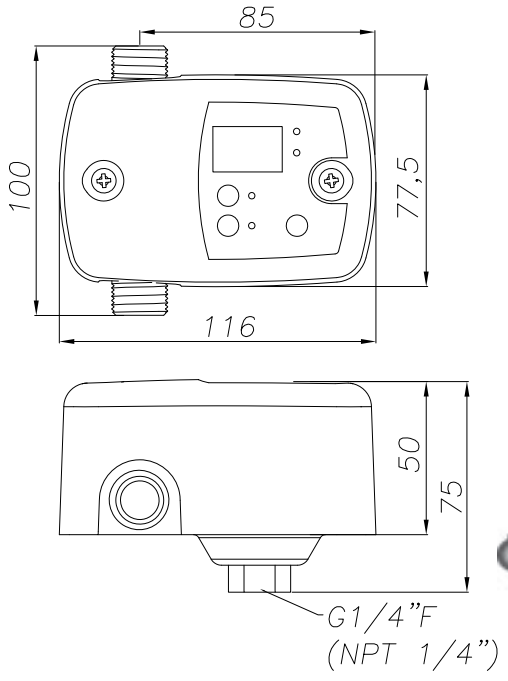
Only for SWITCHMATIC 2

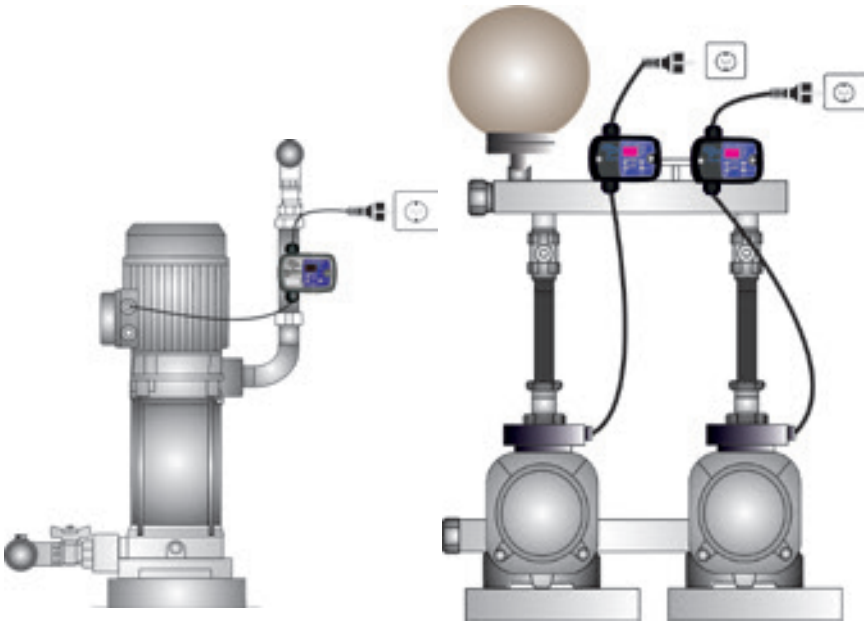
- "A" led-light (yellow):
  - Bright: Displayed instantaneous current consumption of the pump.
  - Flashing: Setting maximum current of the pump.
- Alarm led-light : dry-run, over current, fast cyclying
- "A" push-button: set and display current intensity.

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 ÷ 7 bar
Stop pressure range (cut-out)	1 ÷ 8 bar
Maximum differential	7,5 bar
Minimum differential	0,5 ÷ 1,5 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)	0,4 kg
Inlet thread	G1/4" F / 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. 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. Wiring is carried out identically to a conventional electromechanical switch.
Its 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 3

REGISTERED DESIGN

OPERATING CHARACTERISTICS

- Dry contact output for control panels.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system (Only type Switchmatic 3A).
- 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.
- Manual start.
- Two operation modes:
    - Differential.
    - Inversed differential.
- EMC certified and Electrical Safety certifed.
- RoHs and WEEE compliant.

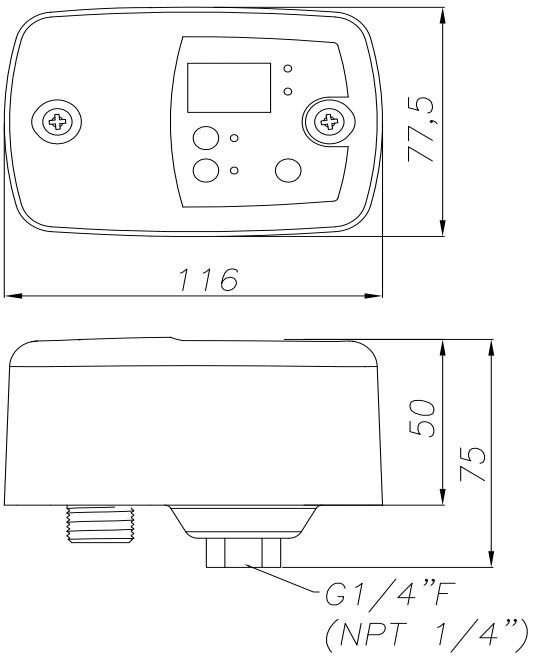
CONTROL PANEL

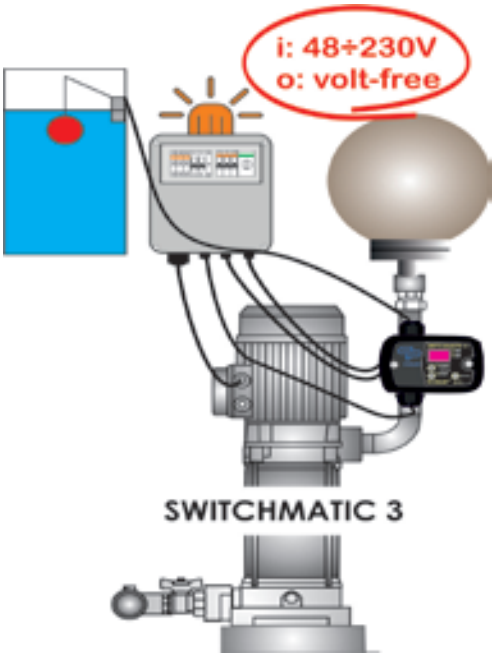
- 3 digits display:
  - Operating mode: Instantaneus pressure.
  - Set mode: Cut in and cut out pressure.
- Bar-psi led lights (green):
  - Operating mode: Bright bar or psi.
  - Pump on: Flashing bar or psi.
- Star-Stop Led (green):
  - Bright: displayed Pressure start or Pressure stop.
  - Flashing: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

TECHNICAL CHARACTERISTICS

	SWITCHMATIC 3
Power supply voltage	~1 x 48-230 Vac / Vdc
Frequency	50/60 Hz
Max. current	16 A
Output	dry-contact
Starting pressure range (cut-in)	0,5 ÷ 7 bar
Stop pressure range (cut-out)	1 ÷ 8 bar
Maximum differential	7,5 bar
Minimum differential	0,5 ÷ 1,5 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)	0,4 kg
Inlet thread	G 1/4" F

DIMENSIONS





T-KIT Switchmatic

PATENT filed for international patent PENDING

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

REGISTERED DESIGN

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.
- EMC certified and Electrical Safety certifed.
- RoHS 2 and WEEE compliant.

CONTROL PANEL

- 3 digits display:
  - Operating mode: Instantaneus 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 dicrease configuration parameters.
- ENTER push-button:
  - Manual start and stop.
  - Confirm configuration value.
- Alarm red light 🔔: dry-run and fast cyclying.

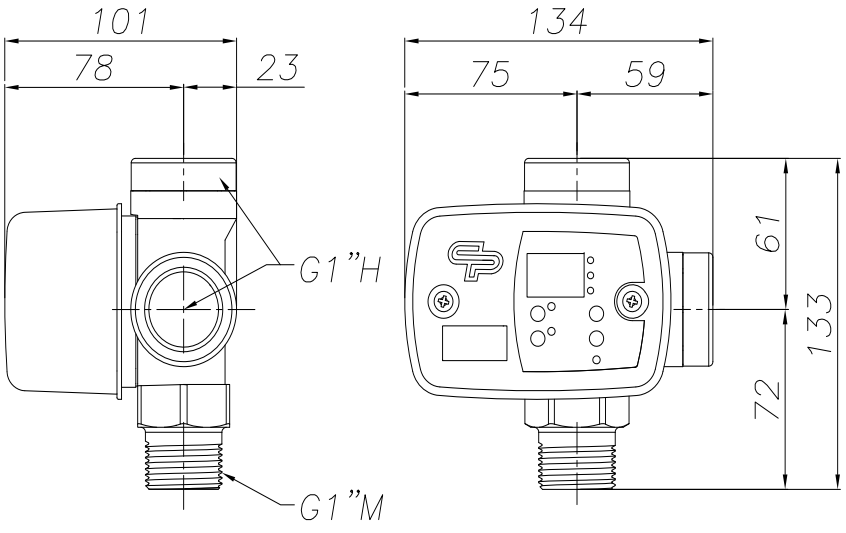
Only for SWITCHMATIC 2

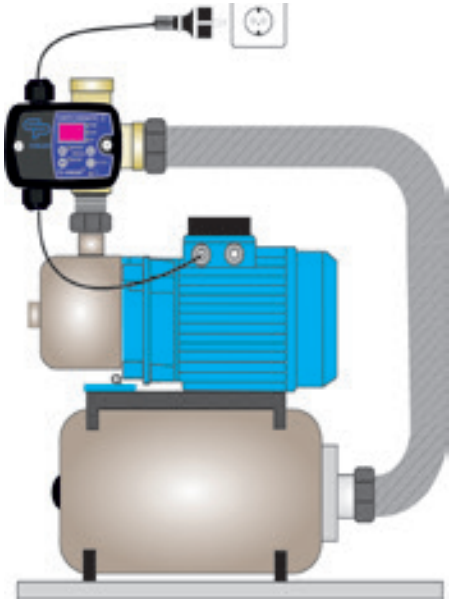
- "A" led light (green):
  - Bright: Displayed instantaneous current consumption of the pump.
  - Flashing: Setting maximum current of the pump.
- Alarm red light 🔔: dry-run, over current, fast cyclying
- "A" push-button: Set and display current intensity.

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 ÷ 7 bar
Stop pressure range (cut-out)	1 ÷ 8 bar
Maximum differential	7,5 bar
Minimum differential	0,5 ÷1,5 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)	0,6 kg
Inlet thread	G 1" M
Outlet thread	G 1" F
Pneumatic tank thread	G 1" F

DIMENSIONS AND INSTALLATION





Switchmatic 2 T

PATENT filed for international patent PENDING

Thripasic electronic pressure switch. Patented Model.

This unit 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. 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.

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.

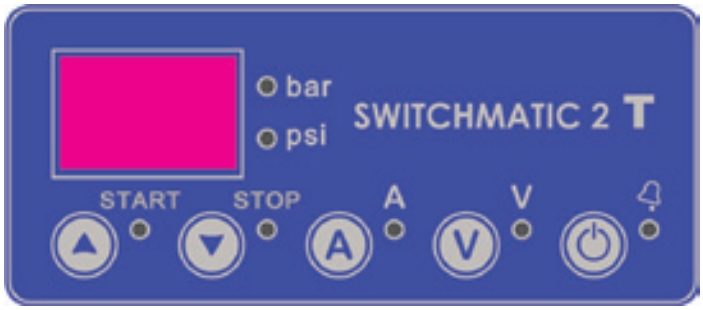
SWITCHMATIC 2T

REGISTERED DESIGN

OPERATING CHARACTERISTICS

- 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.
- Dry-running protection by current.
- 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.
- Operation modes: differential, inversed and synchronized
- EMC certified and Electrical Safety certifed.
- RoHs and WEEE compliant.

CONTROL PANEL

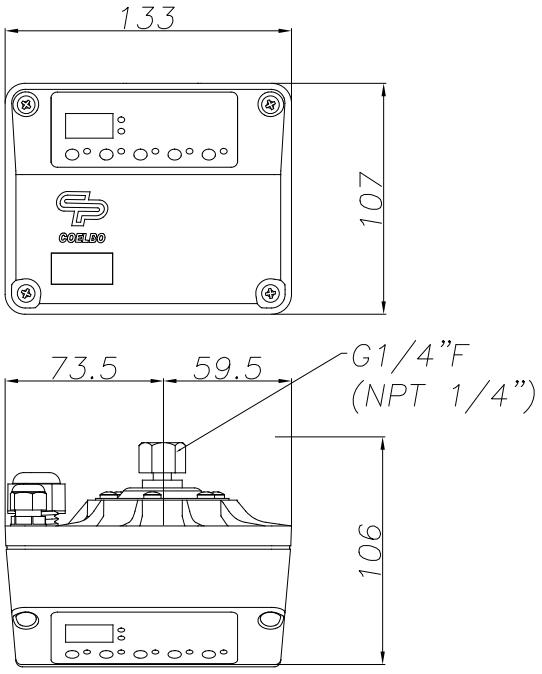


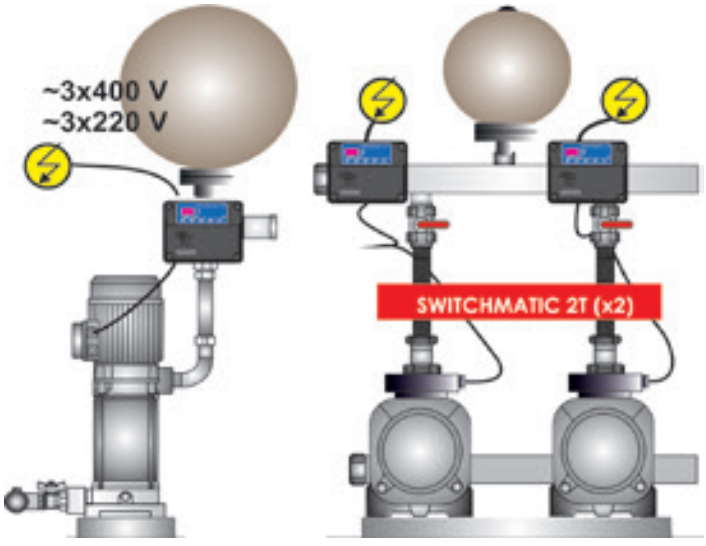
- 3 digits display:
  - Operating mode: Instantaneus pressure.
  - Set mode: Cut in and cut out pressure.
- Bar-psi led lights (green):
  - Operating mode: Bright bar or psi.
  - Pump on: Flashing bar or psi.
- Star-Stop Led (green):
  - Bright: displayed Pressure start or Pressure stop.
  - Flashing: Setting Psart or Pstop.
- Push Buttons ▲▼: Increase or dicrease 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 cyclying
- “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 220-400 Vac
Frequency	50/60 Hz
Max. current	12 A
Maximum pump power	4,4kW (5,5 HP)
Starting pressure range (cut-in)	0,5 ÷ 7 bar
Stop pressure range (cut-out)	1 ÷ 8 bar
Maximum differential	7,5 bar
Minimum differential	0,5 ÷ 1,5 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)	-
Inlet thread	G1/4” F

DIMENSIONS AND INSTALLATION





Accessories

PS2

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+

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 IP55 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

T-kit PS2

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

T-kit PS2+

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
ACT1065	1,4÷2,8 bar	1,0÷6,5 bar

T-kit plus

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"(H) x G1"(H) x G1/4"(H) x G1/4"(H

T-kit Universal

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"(H) x G1"(H) x G1/4"(H)

Pressure transmitter

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”

C box

C box is an enclousure 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

Duo set

Stainless steel manifold suitable for 2 synchronised units SWITCHMATIC 2 or SWITCHMATIC 2T. There are 2 female inlets G1/4” for frontal or lateral assembly, is also included a valve to isolate the system.

Ref.
ACF0001

Fittings

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)

MCB box

Plastic enclosure for motor circuit breakers with built-in DIN rail and led-light for power signalization. Sealing degree IP66. Inlets on the top and the bottom for cable glands assembly - M25 and M32.

Ref.	Nº of poles	Holes with cap	Dimensions
ACB0003	4	M25(2) + M32(1)	200X100x95 mm
ACB0004	8	M25(2) + M32(2)	210x196x95 mm

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)
ACC0002	H07RN-F 3G1.5	2.2 KW (3 HP)

The automation of booster systems, with one or more electric pumps, can be carried out with several basic systems for managing the start, operation and stop of the electric pump, which are briefly described below.

Pressure-dependent

It is the best known method, the electric pump starts (ON) when the flow demand on the installation causes a pressure fall until a previously established minimum value of pressure, and pump stops (OFF) when it reaches another pre established maximum value of pressure.

This system needs an air storage tank and the provided pressure is not constant, but it oscillates between pre-established values.

On-off (pressure+flow dependent)

The electric pump can be started by 2 different ways: when the flow demand on the installation causes a pressure fall until a previously established minimum value of pressure or when the flow sensor is activated by circulation of fluid. When flow demand finishes the electric pump is stopped.

This system does not need the traditional accumulator tank and if the flow is constant, the pressure will keep constant, if there is a flow variation the pressure will change according to the flow curve of the electric pump.

Inverter

Also known as frequency converter, this system is technologically more advanced than the previous ones, as it keeps always constant the pressure independently of the flow demand. The INVERTER is constantly modulating the pump's speed and it consumes only the indispensable amount of energy, in addition to the energy saving, we increase the life expectancy of the electric pump because its mechanism is not always submitted to its maximum regime like in the other systems.

It avoids "water hammer" effect because both start and stop of the pump are carried out progressively, allowing, in some cases, to be installed without the hydro pneumatic expansion tank.

Management System ISO 9001:2008

www.coelbo.es

COELBO
PUMP DRIVERS

03_2018