# Speedbox

#### Wall-mounted pump driver for a single pump at 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.



1010 MT 1112 MM 1305 TT

1309 TT 1314 TT

## **OPERATING CHARACTERISTICS**

- Wall mounted variable speed drive for single-phase and 3-phase pumps 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. This system restores the previous mode keeping the configuration parameters.
- MASTER-SLAVE operation mode. Up to 4 communicated units operating in mode MASTER-SLA-VE: a main device configured as a MASTER and the rest of devices configued as SLAVES. The operating system is alternated, the device configured as MASTER is the responsible of the control but it does not imply that is the first to start when there is flow demand.
- **Programmable electronic input**. It can be configured as: control of an external level detector, assignment of a second pressure setpoint or remote start-stop control.
- Volt-free contact for monitoring the alarms displayed in screen originated by irregularities or problems of the system. Optional accessory.
- **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.
- External pressure transducer 0-10 bar, 0-16 bar or 0-25 bar with 4-20 mA input. Ability to work and display pressure on the LCD in bar or PSI.
- Inner current sensor with instantaneus digital reading.
- Register of operational parameters. Information about: operating hours, counter of starts, counter of connections to the power supply.
- Register of alarms. Information about type and number of alarms.
- Open PID in the expert menu.
- Cooling by forced convection.
- Configurable output frequency at 50 or 60 Hz.



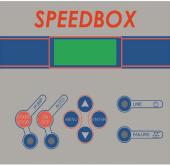
Electromagnetic Compatibility 2014/30/EC RoHS 2011/65/EC + 2015/863/EC



### **TECHNICAL CHARACTERISTICS**

	1010 MT	1112 MM	1305 TT - 1309 TT - 1314 TT
Power supply voltage (Configurable)	~1 x 230 Vac	~1 x 230 Vac	~3 x 230 Vac ~3 x 400 Vac
Frequency (Configurable)	50/60 Hz	50/60 Hz	50/60 Hz
Output voltage	~3 x 230 Vac	~1 x 230 Vac	~3 x 400 Vac
Max. current	10 A	12 A	5A - 9A - 14A
Max. peak current	20% 10"	20% 10"	20% 10"
Range of set pressure	0,5 ÷ 25 bar 7 ÷ 360 PSI	0,5 ÷ 25 bar 7 ÷ 360 PSI	0,5 ÷ 25 bar 7 ÷ 360 PSI
Protection degree	IP55	IP55	IP55
Input transducer	4-20 mA	4-20 mA	4-20 mA
Max. environment temperature	50 °C	50 °C	50 °C
Net weight (without cables)	4,5 kg	3,5 kg	4,5 kg
Cooling System	Forced Convection	Forced Convection	Forced Convection

#### **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**

