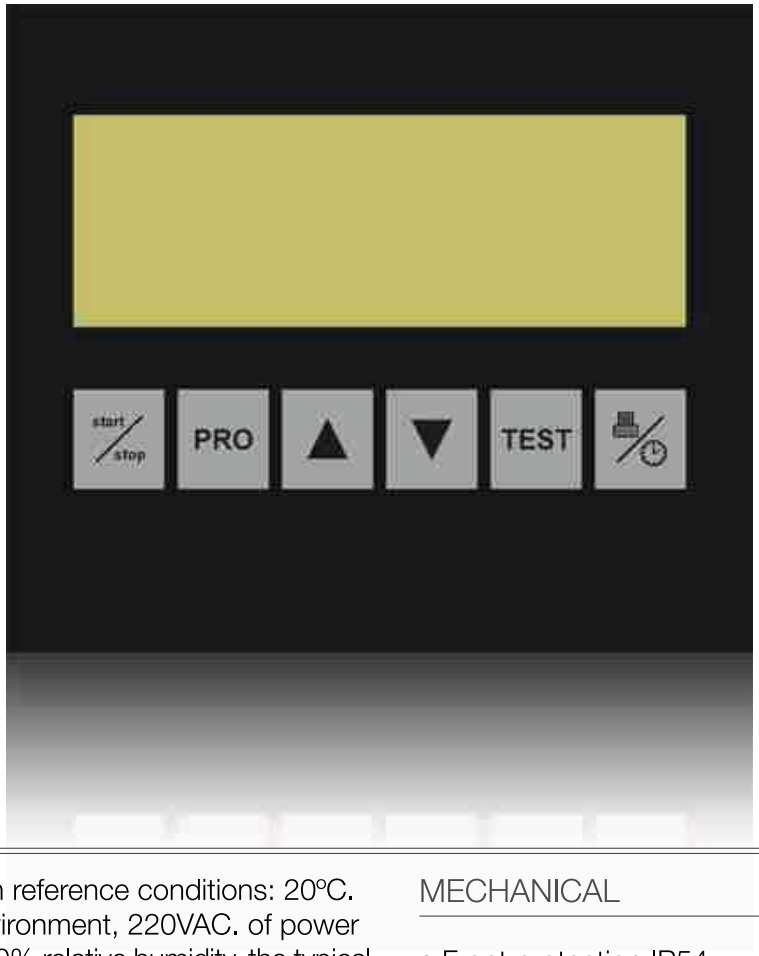
CONTROL FOR STERILIZATION AUTOCLAVES

THE CONTROL IS A PIECE OF EQUIPMENT DESIGNED TO CONTROL A DISTILLED WATER AUTOCLAVE. CARRIES OUT S, N AND B TYPE STERILIZATION CYCLES CONFORMING TO PREN-13060/2002.
THE CONTROL OF THE STERILIZATION CYCLE IS DONE BY MEANS OF A MICROPROCESSOR WHICH CONDUCTS A CONTINUOUS EVALUATION OF ALL THE THERMODYNAMIC VARIABLES OF THE PROCESS.
THIS WAY A PRACTICALLY PERFECT CONTROL OF THE PROCESS IS ACHIEVED. THE CONTROLLER HAS 10 PREDEFINED STERILIZATION PROGRAMS AND 4 PROGRAMS WHICH CAN BE MODIFIED BY THE USER.



ELECTRICAL CHARACTERISTICS

- Power: 220VAC. +/-20% (50 60Hz.).
- Electrical consumption: 10VA.
- Environmental operating temperature between 0 and 50ºC.
- Relative humidity of operation between 0 and 80% without condensation.
- Pt100 type temperature inputs.
- Range of measurement between 0,...,250ºC.
- Protection against the breakage of the PT100 incorporated.
- With reference conditions: 20ºC. of environment, 220VAC. of power and 50% relative humidity, the typical error is less than or equal to +/-1 digit +/-0.5% of the measurement indicated.
- Inputs in mA, type 4 to 20 mA.
- Chamber pressure in mA1: range of measurement between -1.00 to 3.00bar.
- Chamber pressure in mA2: range of measurement between 0.00 to 6.00bar.
- Communications by means of a RS 232 series port.

MECHANICAL

- Front protection IP54.
- Polycarbonate front with an integrated tactile keyboard.

CE MARK

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CONTROL FOR STERILIZATION AUTOCLAVES

IN ADDITION TO ALL THE STERILIZATION CYCLE CONTROL, OTHER NOTABLE FUNCTIONS ARE:
- HEATING OUTSIDE OF THE CYCLE (STAND-BY: ON), FOR GREATER QUICKNESS IN THE EXECUTION OF THE STERILIZATION CYCLES.
- AUTOMATIC REFILL OF DISTILLED WATER.
- AUTOMATIC TESTS OF: EMPTY, HELIX AND BD.
- CYCLE OF FORCED AIR IN THE CASE WHERE THE DOOR OF THE AUTOCLAVE REMAINS CLOSED ONCE A CYCLE HAS FINALIZED. IT AVOIDS CONDENSATION WHILE THE AUTOCLAVE COOLS DOWN.
- PRINTING OF REPORTS ONCE THE TEST OR STERILIZATION CYCLES HAVE FINISHED. THESE REPORTS ARE SAVED IN MEMORY AND THE REPORT OF THE LAST CYCLE OR TEST CAN BE PRINTED AT ANY MOMENT. THE REPORTS INCLUDE THE DATA OF ALL THE ANALOGICAL MEASUREMENTS OF TEMPERATURE AND PRESSURE.
- CONTROL OF THE POWER SUPPLIED TO THE HEATING RESISTORS OF THE STRIP AND THE STEAM GENERATOR, TO REDUCE THE CONSUMPTION OF INSTANT POWER, IN SUCH A MANNER THAT THE TOTAL POWERS OF BOTH NEVER GOES OVER THE POWER VALUE OF A SINGLE RESISTOR.

THE FOLLOWING INPUTS / OUTPUTS ARE AVAILABLE TO CONTROL THE SYSTEM:
- 6 ANALOGICAL INPUTS OF TEMPERATURE AND PRESSURE.
- 8 DIGITAL INPUTS.
- 13 DIGITAL OUTPUTS.
- 1 RS-232 COMMUNICATIONS PORT TO CONNECT A PRINTER OR COMPUTER.

THESE INPUTS/OUTPUTS ARE USED IN THE FOLLOWING CONTROL FUNCTIONS:
- CONTROL OF THE TEMPERATURE-PRESSURE REGULATION LOOP OF THE INTERIOR OF THE CHAMBER.
  -2 ANALOGICAL INPUTS OF TEMPERATURE AND PRESSURE.
  -1 DIGITAL OUTPUT TO OPERATE THE STEAM INJECTOR PUMP.
- CONTROL OF THE STEAM GENERATOR TEMPERATURE REGULATION LOOP.
  -1 ANALOGICAL TEMPERATURE INPUT.
  -1 DIGITAL OUTPUT TO CONTROL THE POWER SUPPLY BY PHASE ANGLE.
- CONTROL OF THE EXTERIOR HEATING STRIP TEMPERATURE REGULATION LOOP.
  -1 ANALOGICAL TEMPERATURE INPUT.
  -1 DIGITAL OUTPUT TO CONTROL THE POWER SUPPLY BY PHASE ANGLE.
- CONTROL OF THE CHAMBER'S EXTERIOR WALL TEMPERATURE.
  -1 ANALOGICAL TEMPERATURE INPUT.
- REGISTER OF SEVERAL TEMPERATURES IN EVALUATIONS AND AUTOCLAVE TESTS.
  -1 ANALOGICAL TEMPERATURE INPUT.
- CONTROL OF THE HYDRAULIC CIRCUIT OF THE AUTOCALVE.
  -6 DIGITAL OUTPUTS TO CONTROL THE SOLENOIDS.
- CONTROL OF THE VACUUM PUMP.
  -1 DIGITAL OUTPUT.
- CONTROL OF THE AUTOCLAVE'S COOLING FANS.
  -1 DIGITAL OUTPUT.
- CONTROL OF INTERIOR AND EXTERIOR WATER TANK LEVELS.
  -4 DIGITAL INPUTS OF THE LEVEL DETECTORS.
  -1 DIGITAL OUTPUT TO ACT ON THE AUTOMATIC WATER FILLING VIBRATING PUMP.
- CONTROL OF THE 24VCC VOLTAGE FOR THE DIGITAL OUTPUTS.
  -1 INTERNAL DIGITAL INPUT TO CHECK FOR THE EXISTENCE OF 24V VOLTAGE.

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