



#### MAIN CHARACTERISTICS

- Flow and temperature measurement on open channels with ultrasound or radar or piezo 4-20mA probe (Temperature only with ultrasonic sensors)
- Programming key pad with 5 keys
- "CAL" Function Key to direct access to the calibration menu
- "GRAPH" Function Key to direct access to the graphs of measure
- "USB" Function Key for data download on USB support
- "MODE" Function Key for self-recognition probes
- LCD Graphic color display 480(R.G.B.) (W) x 272(H)
- Internal Data Logger (flash 32 Mbit) with the possibility of graphic and table visualisation of measurement trends
- PID adjustment
- Serial output RS485 MOD BUS RTU
- Serial output PROFI BUS (Optional)
- Serial output ETHERNET Modbus TCP/IP (Optional)
- ETHERNET IP (on request)
- Data download on USB support
- 4 Programmable Analogical Outlets
- 4 Relay Outlets for intervention thresholds
- 1 Relay Outlet for Instrument Anomaly Alarm
- 1 Digital Input for disabling of doses

➤ **Main hardware characteristics of the electronic device**

The hardware structure of this periphery is based on the adoption of extremely new CPU CMOS with 32 bits developed specifically for the execution of the so-called “embedded” applications.

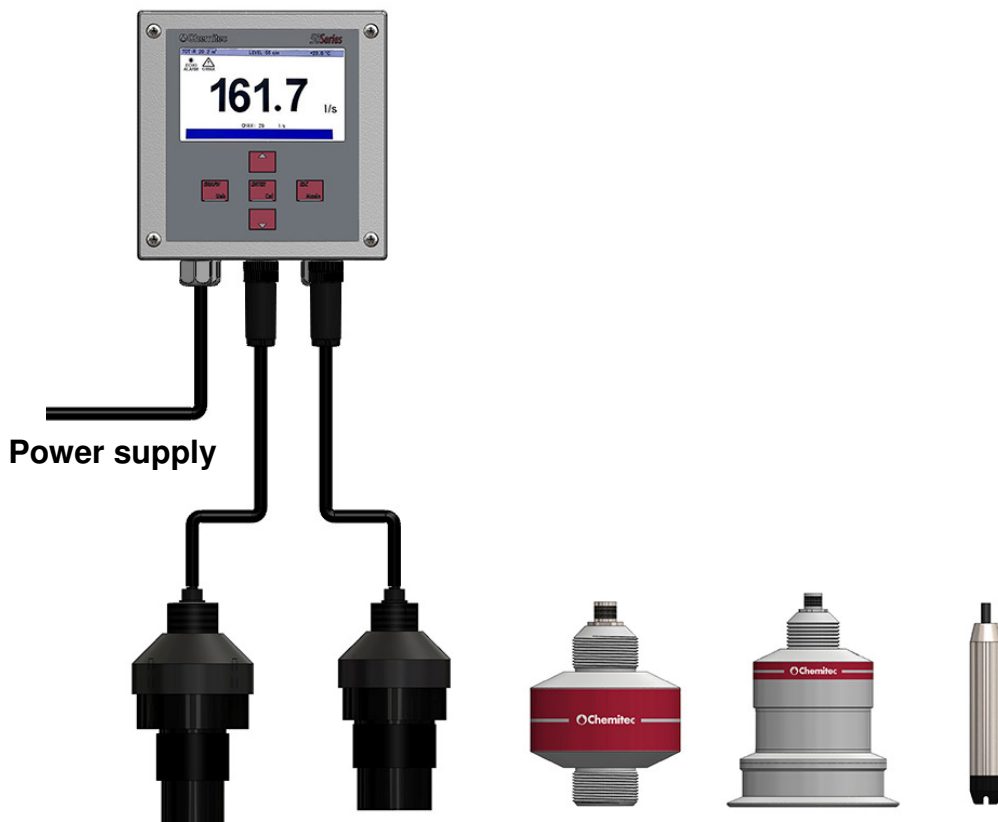
The card uses flash memories to store archives of historical data and LOG files of events.

The Card has 1 RS485 gate for sensors and 1 RS485 gate (opto-isolated) for local networks used for connections with local communication devices (configuration computer, terminals and remote controls etc). As optional it is possible to install a PROFIBUS or ETHERNET serial port for connection with the communication devices PROFIBUS and ETHERNET respectively.

The card integrates a Real Time Clock (clock with date) that allows the software to storage figures in a chronological order.

➤ **The device has been designed to be fitted onto a panel, and is built with IP66 protection panel.**

➤ **Controller maximum capability**



**Characteristics of the Measure**

<b>Measurement Ranges (depending on the connected sensor)</b>	0-99999m <sup>3</sup> /h For resolution and accuracy see the characteristics of the connected sensor
<b>Temperature Compensation</b>	Automatic – only for ULTRASONIC probes
<b>Visualization</b>	Simultaneous flow rate, resettable and non-resettable totalizer, temperature (with ultrasound probes)

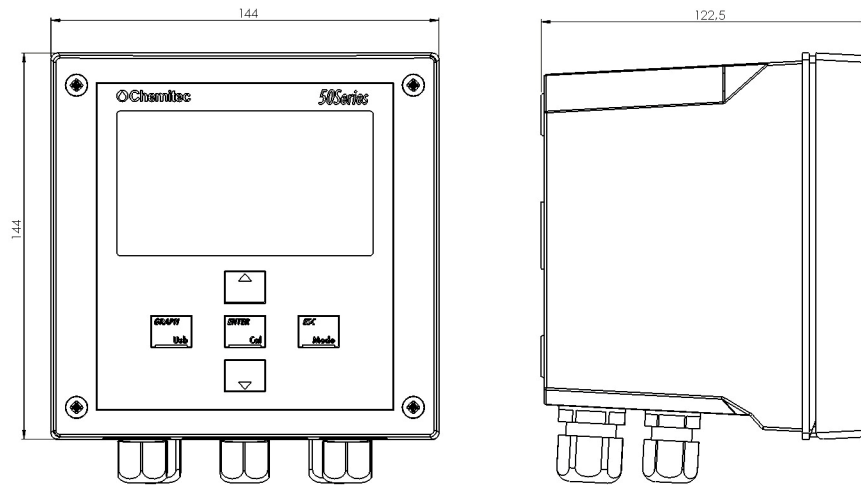
## Software features and functions

<b>Data storage</b>	Internal Flash 32Mbit Memory (near to 128000 records). Records interval: 01:00 ÷ 99:99 min Type: Circular (F.I.F.O.) or Filling Storage of: - instant flow - totalizers - alarms With minimum storage interval of 1 min. Possibility of visualization of the stored data in tabular and graphic form, with indication of max, min and average values of the selected period. Zoom function
<b>4 Analogue Outputs</b> 4 Uscite digitali di Comando Max 2 uscite per misura	1 for each measure with possibility of PID management Set Point ON - OFF: setting of the working range (hysteresis / direction) and pulses for totalizer
<b>Uscita digitale di Allarme / Digital input</b>	Reporting: Instrumental anomalies, lack of ultrasound echo-probe To disable dosages or activate washing cycle
<b>RS485 Serial output</b>	For set-up and real-time data acquisition from remote or for stored data download (using a dedicate-SW) . MODBUS RTU communication protocol
<b>Manual controls</b>	Possibility to simulate all the analogue and digital outputs using the keyboard
<b>Possible open weirs</b>	Rectangular – Thomson – Bazin – Venturi – Palmer Bowlus – 30 points table
<b>Totalizers</b>	Nr 2 1 resettable, 1 non-resettable , totalizer has 10 digits

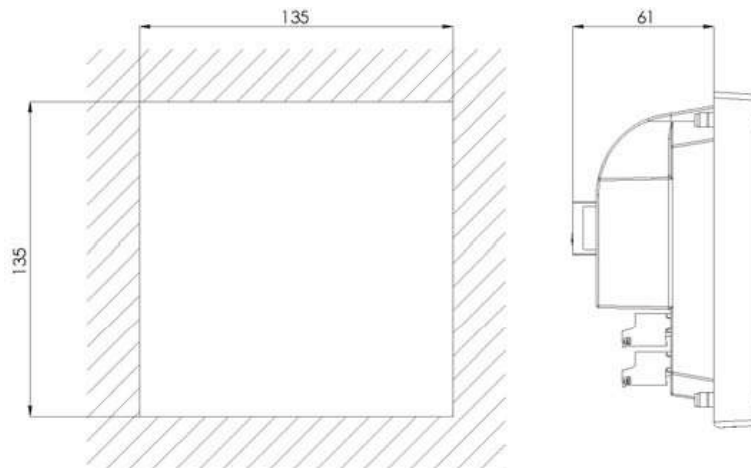
## Hardware Characteristics

<b>Visualization</b>	LCD Graphic color display 480(R.G.B.) (W) x 272(H)
<b>Programming</b>	5 bubble-Keys keyboard
<b>Data Logger</b>	Flash 32Mbit Memory (near to 128000 records).
<b>Analogue Outputs</b>	0 / 4.00 ÷ 20.00 mA Galvanic separation: 1KV Optoisolator Maximum load 500 Ohm Second Alarm output: NAMUR 2.4 mA (with 4/20mA Range)
<b>Digital Outputs</b>	Switching Relays Usable as NO contact Max resistive load 3A a 230Vac
<b>Digital Input</b>	Active and already supplied Possibility to link with a 3 wires - inductive sensor
<b>Analogue Input</b>	4-20mA Analogue Input freely programmable
<b>Serial Output</b>	RS485 with 1200÷38400 Baud Rate programmable speed MOD BUS RTU Protocol
<b>Operating conditions</b>	Operating temperature -20÷65 °C Storage and transport -25÷65 °C Humidity 10-95% (non-condensing)
<b>Power Supply/ Electrical protections</b>	Power supply 100÷240Vac/dc 50- 60 Hz – (Optional 24Vac/dc) - Sensors power supply: - 2-wire: 12Vdc - 4-wire: 24Vdc – Transformer isolation 4KV – Absorbing average < 7W – Electrical Protection: EMI / RFI CEI-EN55011 – 05/99 – According to UL, not connect to relay outputs a voltage exceeding 115V

➤ **Mechanical Dimensions**

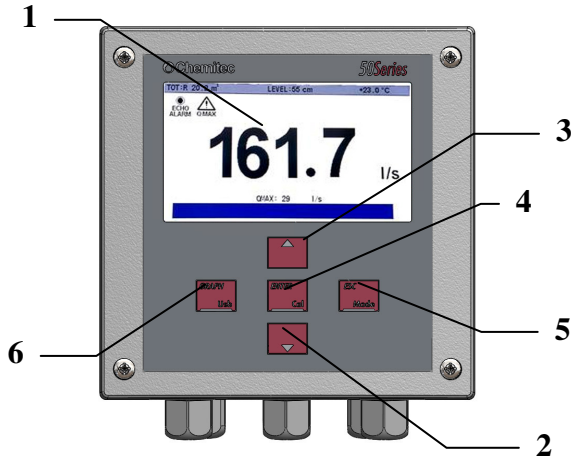


Mechanical Dimensions	50Series Flow Wall IP66
Dimensions (L x H x P)	144x144x122,5mm
Mounting thickness	122,5mm
Material	Grey ABS RAL 7045
Mounting	Wall
Weight	1 Kg
Front Panel	UV resistant Polycarbonate

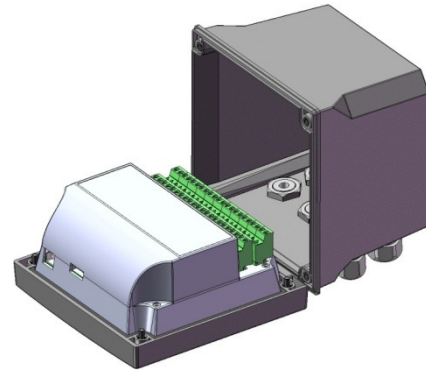


Mechanical Dimensions	50Series Flow Panel 144x144
Dimensions (L x H x P)	144x144x86,5mm
Mounting thickness	61mm
Material	Grey ABS RAL 7045
Mounting	Panel
Weight	0,7 Kg
Front Panel	UV resistant Polycarbonate

➤ **Controls, indicators and connections**



Front panel, wall mounting version

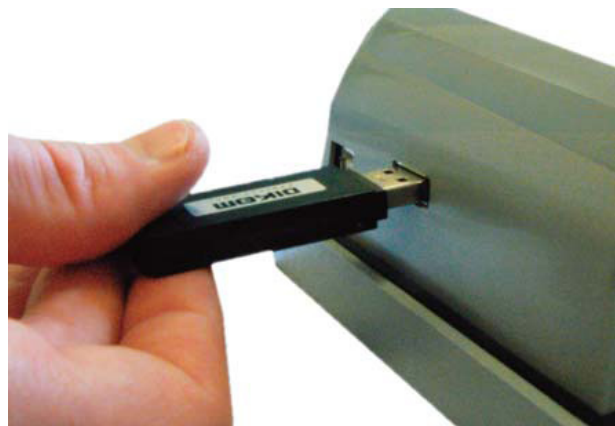
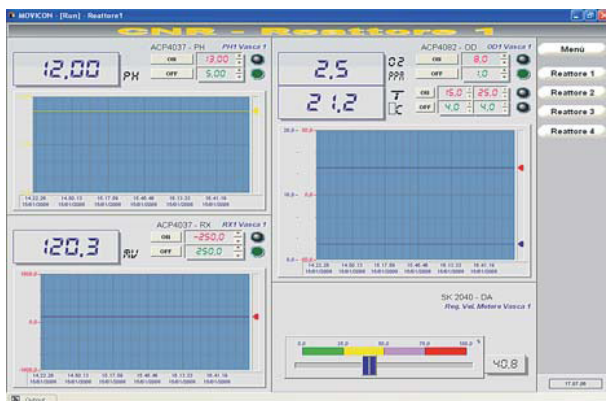


Access to terminal box

- 1. LCD Display
- 2. DOWN
- 3. UP
- 4. ENTER
- 5. ESC
- 6. GRAPH-USB

➤ **Modbus-RTU serial interface**

- Real-time data communication
- Download of the stored data on a PC via SW or directly on an USB support



➤ **Order codes for 50Series F/L Analyzers**

97P0610000A	50Series F/L Dig. plug&play analyser Flow Modbus Panel 220V
97P0610003A	50Series F/L Dig. plug&play analyser Flow Modbus Panel 24Vac
97P0610010A	50Series F/L Dig. plug&play analyser flow Modbus Wall 220V
97P0610013A	50Series F/L Dig. plug&play analyser flow Modbus Wall 24Vac
97P0610100A	50Series F/L Dig. plug&play analyser Flow Profibus Panel 220V
97P0610103A	50Series F/L Dig. plug&play analyser Flow Profibus Panel 24Vac
97P0610110A	50Series F/L Dig. plug&play analyser Flow Profibus Wall 220V
97P0610113A	50Series F/L Dig. plug&play analyser Flow Profibus Wall 24Vac
97P0610210A	50Series F/L Dig. plug&play analyser Flow Ethernet Wall 220V

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