

TD700-DL

PROGRAMMABLE TOUCH SCREEN HMI WITH INTEGRATED DATALOGGER

According to Digitron Italia philosophy, TD700-DL data acquisition systems provide solutions based on easy-to-use and easy-to-install hardware and software.

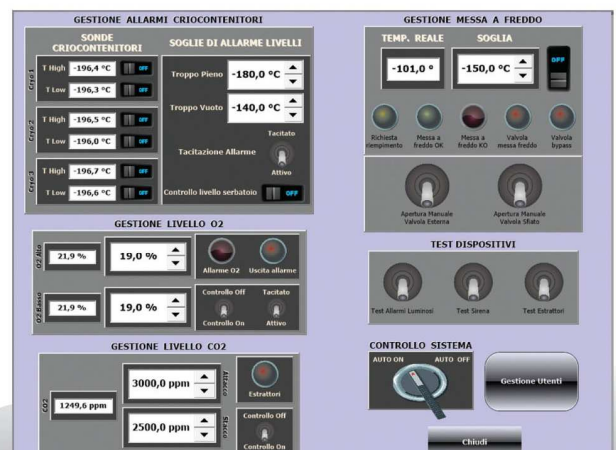
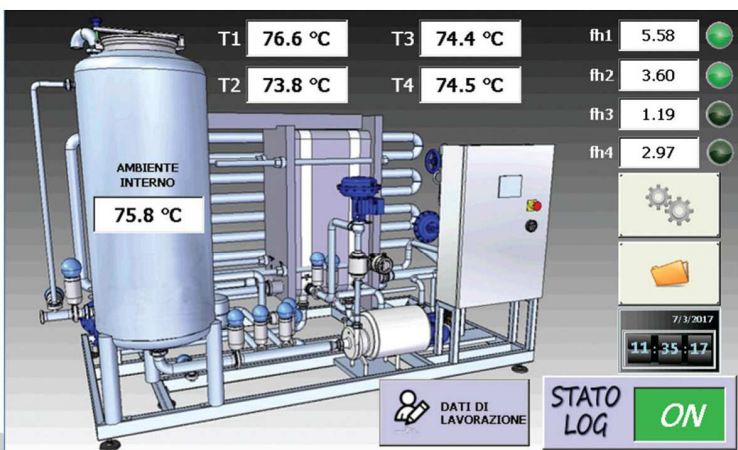
Digitron data acquisition systems accept any kind of sensors that can be easily integrated in already existing measurement and control systems.



What is "Data Acquisition"?

"Data Acquisition" means the sampling of signals that measure real world physical conditions and the following conversion of the resulting samples into digital numeric values that can be manipulated by a computer. Data Acquisition Systems are essential for such a process useful for the comprehension, the control and the management of data.

For example, parameters like temperature, pressure or flow rate are collected by sensors that convert information into electrical signals. Sometimes only one sensor is required, for example when the environmental temperature must be recorded. Sometimes many sensors are required at the same time, as it happens during the monitoring of a complex industrial process. The signals issued by the sensors are transmitted to the device used for their amplification, measurement, visualization and memorization via cable, optical fiber or wireless connection. This is a Data Acquisition System.



Why do we need to collect information about data?

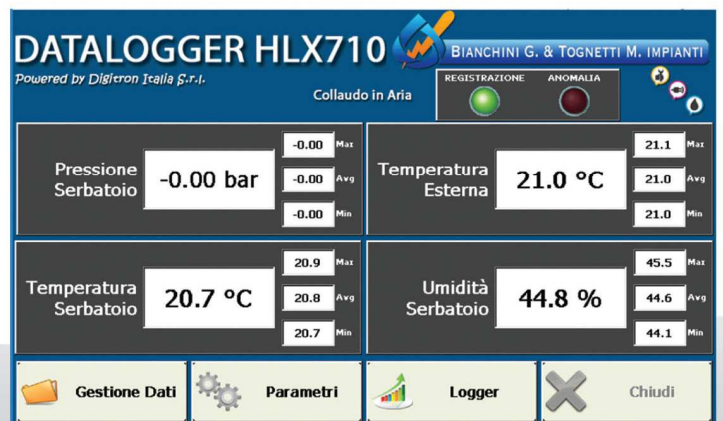
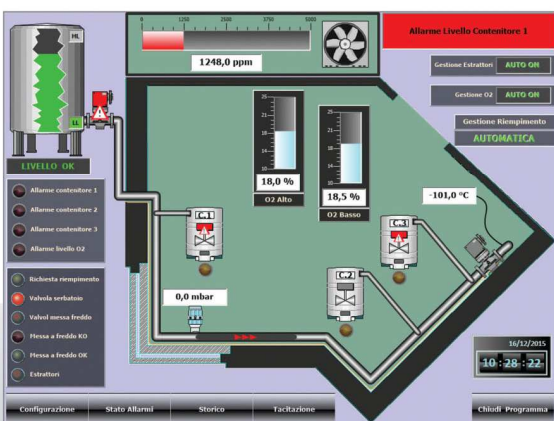
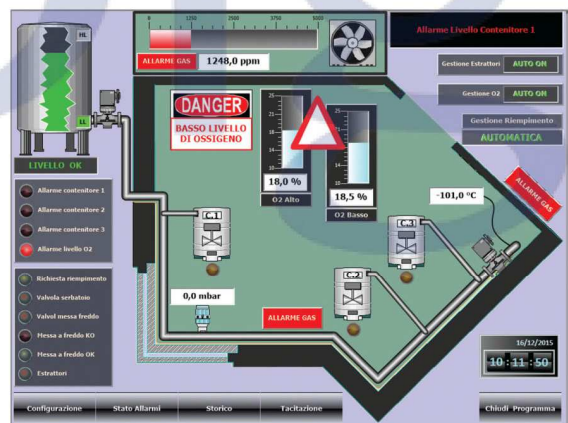
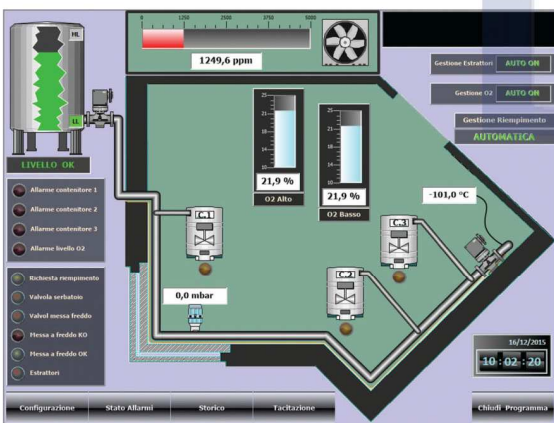
First of all, thanks to the collection of information, everyone can recall historical data and compare them with the new ones. This process helps to identify the area of interest and to enhance the production process, facilitating cost and energy savings (energy efficiency and white certificates). Thanks to the analysis of past events, some features can easily be improved:

- Efficiency
- Performance
- Accuracy
- Reliability
- Energy consumption
- Warranty of quality



HMI Evolved

Datarecon® data acquisition software performance, together with analogue/digital acquisition modules and with the latest wireless transmission technology, have contributed to the realization of measurement and test systems for sensitive areas. In fact, these systems can be used in hospitals, pharmaceutical and food sectors and research centers; they are useful to ensure the continuous monitoring of local or remote equipments used for the manufacturing, the processing and the storage of organic material.



TD700-DL HMI panels are available with **3.5" 4.3" 7" 10.4" 12.1" touchscreens.**

Moreover, those panels are provided with Windows CE operating system, ARM CORTEX A8 processor and a solid state built-in memory. They can be used in every industrial field, even in those where mechanical stresses are contemplated (e.g. vibrations).

Two serial buses (RS232 and RS485), one 10/100 Ethernet port and CAN Open ensure the connection with the main fieldbuses. Furthermore, digital I/O can be easily connected (up to two 16+16 DI DO expansions or four AI +2AO expansions); in this way, a complete and compact control system can be realized. One USB port on the front part of the device allows easy exportation, programs updating and peripherals connection.

The whole HMI range with Windows CE includes a programmable soft-PLC and a development environment in compliance with IEC-61131 standard that permits the development of control logics on the panel, even without PLC modules.



TD700 – DL technical features

Power supply:	12..24V AC/DC $\pm 15\%$ 50/60 Hz (galvanic insulation 2500V)
Energy consumption:	8,5 W
Display:	12.1" resolution 1280x800 pixel LCD TFT touch screen, 65k colours with 4 wires integrated resistive touch (screen light duration: 12000h @ 25°C)
Environmental cond.:	Temperature: 0° ... 45°C, humidity 35% ... 95 RH% (no condensation)
Material:	Panel: alloy steel; Container: 10/10 Ral 7016 painted metal
Weight:	from 450g to 937g
Degree of Protection:	Front: IP65, Container and terminals: IP20
Expansion:	(max 2) 4 analogue inputs with 16bit resolution, selection among K, J, S, R thermocouples (cold junction automatic compensation 0° ... 50°C, accuracy @25°C $\pm 0,2\%$ F.S. or ± 1 digit), Resistance thermometer PT100, PT500, PT1000, Ni100, PTC1K, NTC10K (B 3435K), linear inputs 0/4..20mA (40000 points), 0..10V (54000 points), 0..40mV (16000points), Potentiometer F.S. 6/150Kohm (50000 points) - 16 programmable digital I/O, PNP- 3 Encoder Push-Pull output 32 bit res. max 80 KHz - 4 programmable analogue outputs mA/Volt
Serial expansions:	External Modbus RTU/TCP or CanOpen devices



Hardware and communication ports features

- ARM Cortex A8 @ 1 GHz Processor
- 4 GB/ RAM 512 MB DDR3 Memory and MMC
- Serial communication ports RS232-RS485 (1200..115200 Baud) galvanically insulated
- Fieldbus CAN (70K..1Mbit) galvanically insulated
- USB port: 1 USB 2.0 on the front + 2 USB 2.0 on the rear
- Ethernet ports: 2 Ethernet 10/100 Base-T on RJ45 connectors (with bridge function)
- SD/MMC Memory card reader

Since 1998 Digitron designs, develops and realizes hardware/software integrated solutions for the supervision of industrial plants (pharmaceutical industry, food industry, engineering industry, petrol-chemical industry and heat treatment) and of research laboratories, hospitals, pharmaceutical laboratories, cryogenic laboratories.

The experience acquired in various fields allows us to cooperate efficiently with clients, finding a common language, understanding the problems and providing the most suitable solutions.

Thanks to our know-how, we are able to offer many services and cooperation opportunities that cover the consultation during the definition of a project, the development of the application, the support from the initial phase to the post-sales phase.

Since 2016, the "measurement and control hardware and software in civil and industrial fields, the maintenance, calibration and test of electromechanical, electrical and electronic devices" possess a ISO 9001:2008 (UKAS and ACCREDIA) certification.

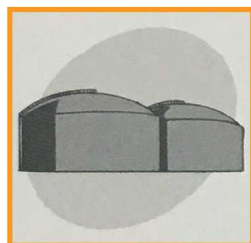
Every single step of the project is carefully complied to provide a great product to those who choose us.



**CHEMICAL
PHARMACEUTICAL
FIELD**



**TELECONTROL
SYSTEM**



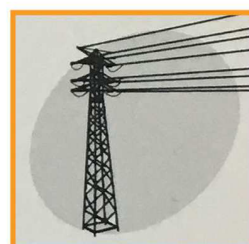
**WATER
TREATMENT**



**CLIMATIC
CHAMBERS**



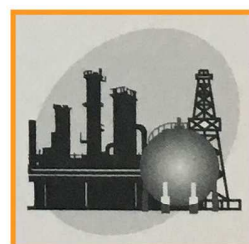
**DATA
REMOTE
VIEW**



**UTILITIES
(ENERGY)**



**BUILDING
AUTOMATION**



**PETROL-CHEMICAL
SECTOR**