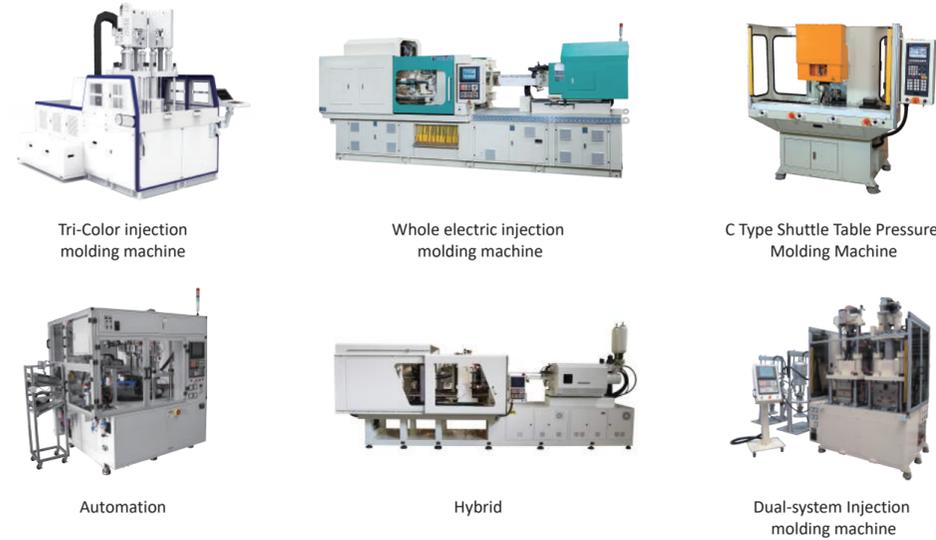
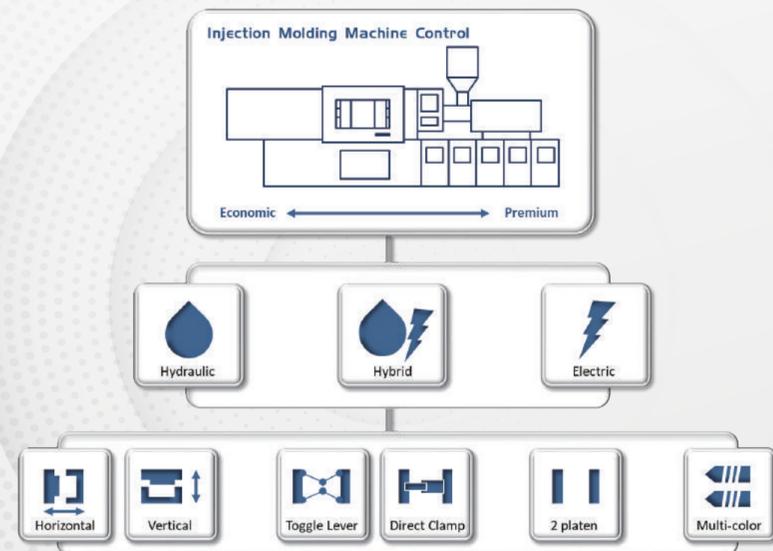


Product Application

LCN's control system of plastic machine not only support the world communication protocol EtherCAT, but apply on diversity machines in market, which includes casting machine, blow moulding Machine and plastic machine ...etc. For further, it can be used for both vertical and horizontal types, as well as multiple color machines such as single color , dual color and three color. When combine with LNC's controller of gantry robot, it is able to operate automatic baiting, taking and stacking..etc diversity functions to implement automatic processing.



Optimized Control Platform



Specification

Selection Table



Product model	IN2000A	IN5800A	IN6800A	IN7800A	IN6800D3	IN7900D3
Communication interface	Pulse		EtherCAT			
Axial direction terminal(Optional)	2	2	6	6	6	6
Screen size	7"	8"	10.4"	15"	10.4"	15"
Storage interface	1G CF Card	1G CF Card	1G SD Card	1G CF Card	1G CF Card	1G CF Card
Number of input points	24	24	24	24	48	48
Number of output points	28	28	28	28	48	48
Number of relay output terminals	5	5	5	5	8	8
Analog input	8	8	8	8	8	8
Analog output	4	4	8	8	8	8
current output	2	2	2	2	4	4
Temperature input (Expansion)	9+1(ambient temperature)					
Front USB port	●	●	●	●	●	●
Front network port			●	●	●	●
Number of input expansion points	16	16	16	16	2048	2048
Number of output expansion points	16	16	16	16	2048	2048
Number of communication input points	22(Max.176)					
Number of communication output points	21(Max.168)					
Ethernet	●	●	●	●	●	●
RS232	●	●	●	●	●	●
RS422	●	●	●	●	●	●
RS485	●	●	●	●	●	●
USB	●	●	●	●	●	●
Number of cores	3	3	3	3	3	3
Accumulator control		●	●	●	●	●
Servo valve close-loop control	--	●	●	●	●	●
Electrical servo closed-loop control	--	●	●	●	●	●
Injection compression function	--	●	●	●	●	●

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Injection Molding Machine Controller

High-performance Injection Molding Machine Controller

In response to the trend of diversified molds, machine models and peripheral automation integration are also changing constantly. Electronic control systems must possess sufficient flexibility in both software and hardware in order to quickly build customized controllers. LNC utilizes a PC-based platform based on real-time Linux core technology in coordination with high resolution, high response analog and digital chips such that the reaction time can be as little as 1 ms. By using an CF and SD card, parameters and mold files can be saved permanently without being affected by battery capacity. The entire controller series is equipped with full-color TFT-LCD display for a better user experience.

Easy maintenance

- All software versions can be upgraded via USB import without switching or burning the IC.
- Simple wiring with quick ports for all connectors.
- RS232/RS422/RS485/EtherNet/USB interface are included as standard accessories for connecting to various peripheral equipment.

Secondary development

- Qui-Designer: Can be used to modify the human-machine display based on user requirements
- PLC Programmer: Adjust the process flow of machine action for quickly responding to diversified requirements of operators or machine models

Stable and reliable

- The enhanced anti-jamming capability of temperature/resistance scale/pressure sensors can make machine operation more stable
- Fanless heat dissipation design allows normal operation under a harsh environment

Features

Product Overview

- USB interface for saving recipes and supporting various USB devices
- Ethernet port for performing remote maintenance or collecting cloud-based data
- Servo axis port - used for hydraulic electrical composite model or peripheral automation integration
- Quick group - for quickly switching to a specific user menu
- Quick language switching
- Provide special operation panel for single and dual color injection molding machines



- Support touch panel.
- Full-color TFT display.
- High-speed CPU core.
- Real-time Linux OS.
- Provide RS232/RS422/RS485/EtherCAT interface (optional) for equipment integration.
- Procedures, process parameters, and mold files are saved permanently.
- Pressure flow full closed-loop of pressure and flow control allows direct control over servo valve components.
- Supports various neutron core functions as well as various actions of the mold clamping unit such as direct, toggle, and two-plate type.

New Arrival

All in one touched injection molding control system



IN7900 All-electric Injection molding

- 15" TFT touch LCD, simple design and excellent operation experience.
- Support EtherCAT communication protocol.
- Support Hydraulic, hybrid and all-electric control system.



- Dual-core high performance CPU
- Optional OP2200, operation panel for users' requirements.

EtherCAT communication controller



IN7900



ELC-6200D3



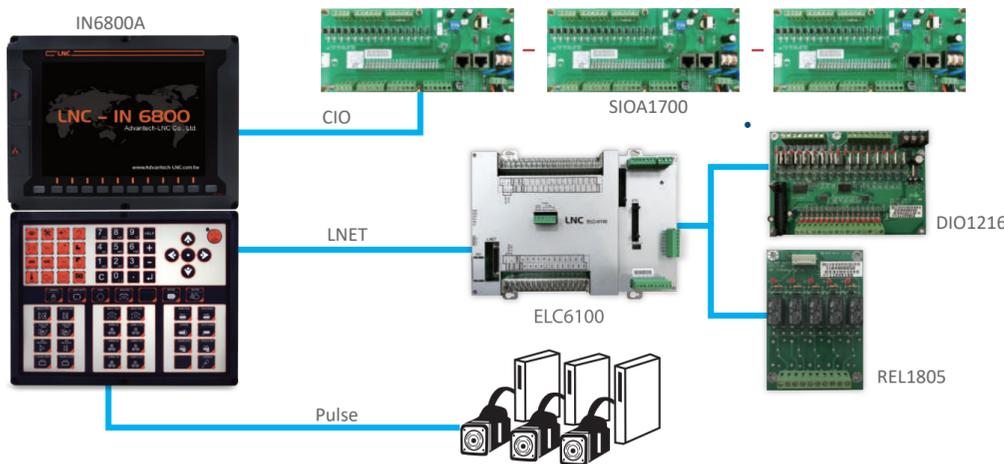
ETS Module



EtherCAT Servo Motor

System Config.

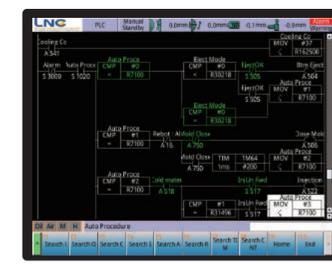
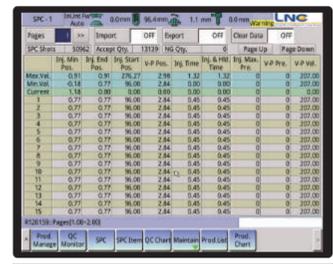
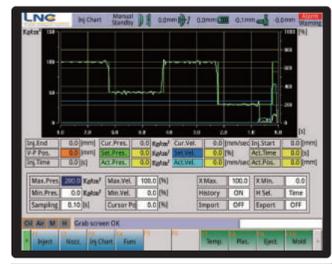
System Configuration Pulse type controller



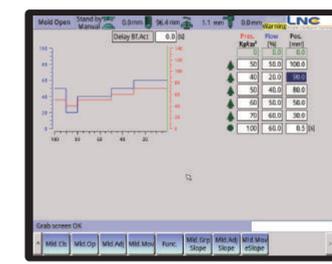
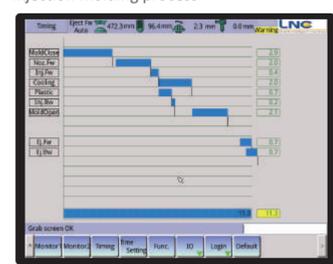
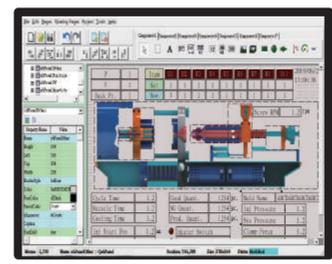
Software

Software Features

- Support close-loop control of MOOG, BOSCH, and VICKERS servo valves.
- Provide production-related statistical data for nearly 1,000 molds.
- Capable of conducting up to 50 quality monitoring analysis procedures NG product alert.
- Ladder diagrams can be used to detect the process flow of the current operation.
- The built-in PLC software function allows quick planning of customized functions.
- Simulating PLC process flow in PC.



- The Qui-Designer tool can be used to quickly customize the display.
- The monitoring page is displayed graphically for conducting intuitive analysis of time sequences of actions of various parts during a complete injection molding process.
- The graphical display of set values of the pressure flow allows users to adjust the setting intuitively.



100% Browser-Based development of HMI/SCADA Graphic control software

LNC SCADA is a software platform which is completely based on browsers developed by HMI/SCADA graphic control software and also equipped with excellent networking capability and supports several communication protocols and drivers. Users can use LNC SCADA and regular web browsers to access data or collect information and monitor all connecting devices. LNC SCADA provides powerful remote management functions, real time data acquisition, and capability of integration with other management system, such as ERP/MES/Shop floor...etc. Since remote monitoring solution is a trend of smart manufacturing, LNC SCADA is no doubt an easy, quick and high CP value solution to help customers to build up their own cloud system.

Integration of Intelligent Devices Information

Provide users with graphical tools through LNC SCADA, system integrators can customize the information display menu to let users to view information on different browsers.

- Software platform is fully developed based on the browser
- HMI/SCADA graphic controlled software platform
- Support rich communication protocol and drivers
- Equipped with excellent networking capability
- Support powerful monitoring function

Functions

Standard Pages



Machine Overview

Graphic type enable users to view production and machine status quickly.



Maintenance

Show maintenance information for tracking maintenance status.



Program Management

Remote machine's process program, and it's able to upload and download program.



Production Overview

Particular machine production and operating rate can be viewed by different conditions.



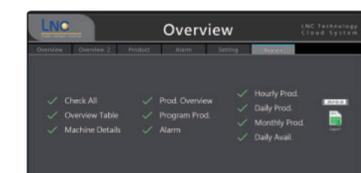
Production/Operation Ratio

Graphic display production and operation ratio, also can be view by different conditions.



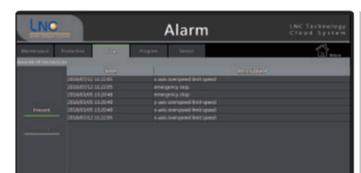
Intelligent Data

Manage the information recorded by sensor, and view abnormal vibration quickly.



Statistics statement

Provide multiple report output, which decreases paper and labour cost.



Alarm

Show machine's real-time alarm messages, and records alarm history efficiently.



Mobile Devices

Users are able to check machine's real-time information on mobile devices.

Modeling Rules

Industry	Panel size	Communication	Path	Axis	Number of injection	Type
• INV (Hydraulic Vertical Injection Molding Machine)	• 2000(7"LCD)	A : Pulse	S1:Single path	V0(0 axis)	R1(single color)	T1(toggle)
• INH (Hydraulic Horizontal Injection Molding Machine)	• 5800(8"LCD)	D3 : EtherCAT	S2:Duo paths	V2(2 axis)	R2(dual color)	T2(direct)
• INEV (All Electric Vertical Injection Molding Machine)	• 6800(10.4"LCD)			V6(6 axis)	R3(three color)	
• INEH (All Electric Horizontal Injection Molding Machine)	• 7800(15"LCD)					
• INBX (Dedicated Model)	• 7900(15" Dual core)					