



Programmable Logic Controllers Type: LX



LARSEN & TOUBRO LIMITED

LX 7 Series Micro Logic Controller



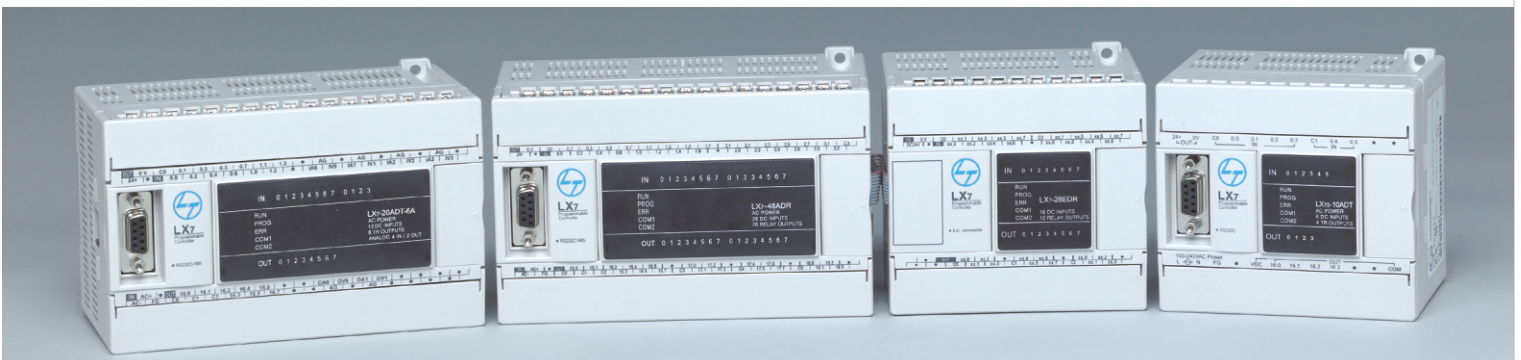
Features of LX7S

- Control 10,14,20,28,40,48 digital I/O points
- 2 serial ports (1 RS-232C, 1 RS485 with Modbus RTU)
- Program memory size up to 2K words
- Built-in backup flash memory
- Built-in HSC, Pulse output(for TR output module only)

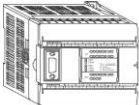
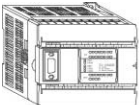
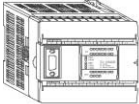
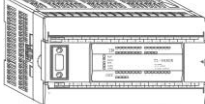
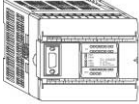
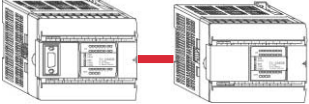
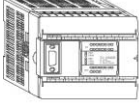
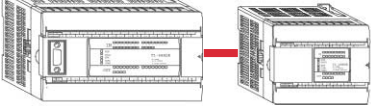
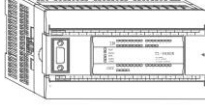
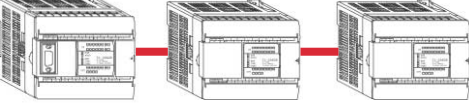
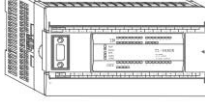
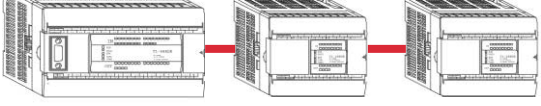
Features of LX7

- Basic control to 28, 48 points and up to 104 digital I/O points
- Expansion upto two modules each of 28 points
- 2 serial ports (2 RS232C/RS485 with Modbus RTU)
- Program memory size up 9K words
- Built-in HSC, Pulse catch, Pulse output (for TR output module)
- Built-in real-time clock, PID function

The perfect controller for simple applications. This little powerhouse is compact yet it's big on performance--providing high-speed advanced networking and a full suite of control capabilities.



Basic I/O Configuration

Point	LX7S	Point	LX7
10	 Input 6 points (R0.0 to 0.5) Output 4 points (R16.0 to 16.3)	28	 Input 16 points (R0.0 to 1.7) Output 12 points (R16.0 to 17.3)
14	 Input 8 points (R0.0 to 0.7) Output 6 points (R16.0 to 16.5)	48	 Input 28 points (R0.0 to 3.3) Output 20 points (R16.0 to 18.3)
20	 Input 12 points (R0.0 to 1.3) Output 8 points (R16.0 to 16.7)	56	 Input 32 points (R0.0 to 1.7) (R8.0 to 9.7) Output 24 points (R16.0 to 17.3) (R2.4 to 25.3)
28	 Input 16 points (R0.0 to 1.7) Output 12 points (R16.0 to 17.3)	76	 Input 44 points (R0.0 to 3.3) (R8.0 to 9.7) Output 32 points (R16.0 to 3.3) (R24.0 to 25.3)
40	 Input 24 points (R0.0 to 2.7) Output 16 points (R16.0 to 17.7)	84	 Input 48 points (R0.0 to 1.7) (R8.0 to 9.7) (R12.0 to 14.7) Output 36 points (R16.0 to 17.3) (R24.0 to 25.3) (R28.0 to 29.3)
48	 Input 28 points (R0.0 to 3.3) Output 20 points (R16.0 to 18.3)	104	 Input 60 points (R0.0 to 1.7) (R8.0 to 9.7) (R12.0 to 13.7) Output 44 points (R16.0 to 18.3) (R24.0 to 25.3) (R28.0 to 29.3)

LX 70 Series Programmable Logic Controller

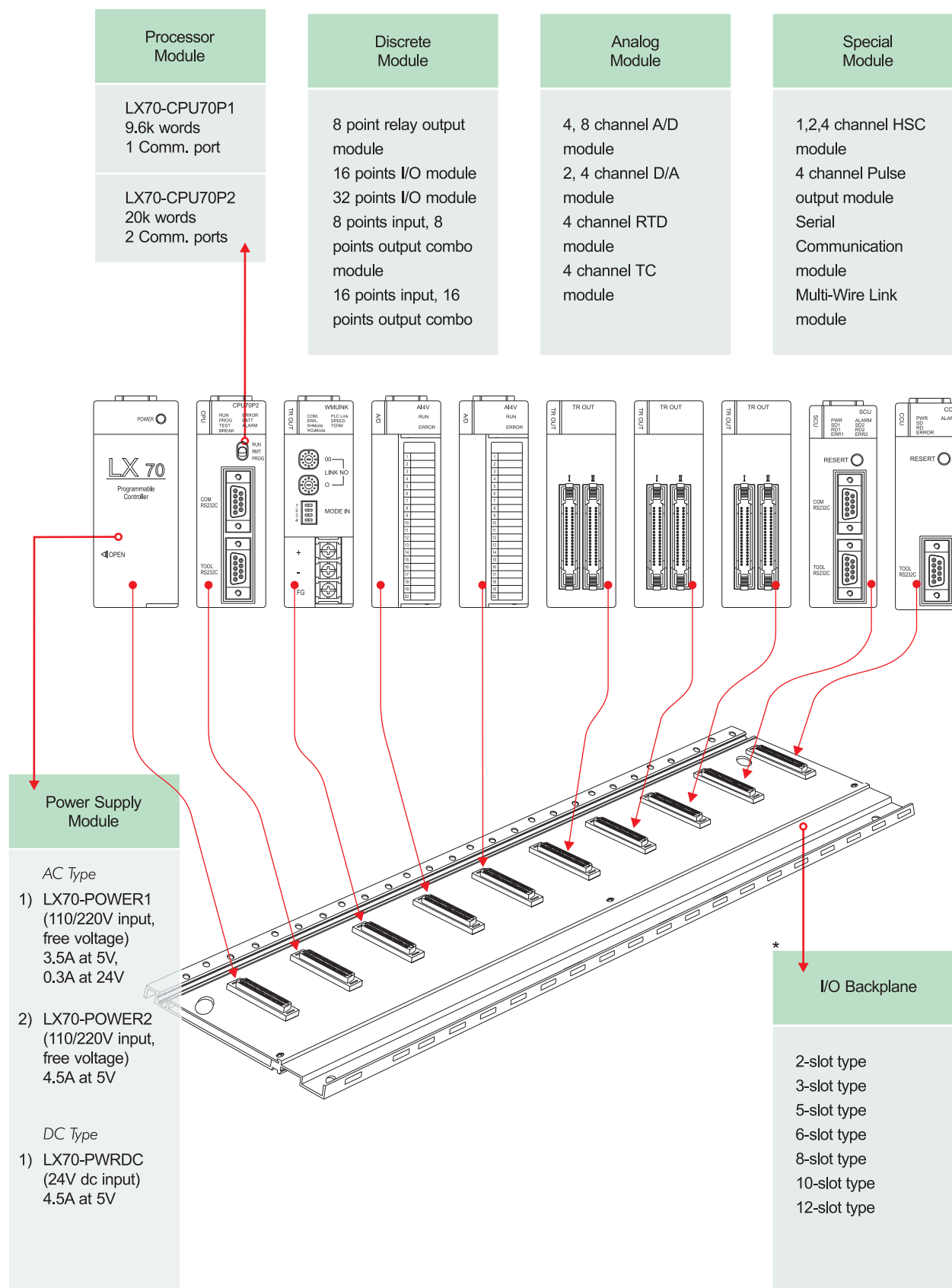


Whatever your control needs are, you will find an answer with the LX70 series. The LX70 is filled with features and options designed to handle an extensive range of applications. Advantages of the LX70 include: Scalable program memory and backplane options to ensure you only buy what you need. A wide range of optional I/O modules to match your machines' unique specifications. Run time editing for faster machine start-up, commissioning and process improvements, without costly down-time.

Features

1. Fast, powerful processors
High speed basic instructions-performance-0.2μsec/STEP
2. Control up to 384 digital I/O points
The 12-slot LX70 allows up to 384 points (192 points using terminal blocks)
3. Various I/O types and specialty modules
Digital In : 24V dc (16 point, 32 point), 110V ac, 220V ac
Digital Out : relay, transistor (16 point, 32 point), SSR, combo I/O
Special I/O: A/D (8Ch,4Ch), D/A (4Ch, 2Ch), RTD (4Ch), TC (4Ch), PULSE (4Ch HSC)
SCU (2Ch Serial Data Comm.) and link network
4. Range of I/O base options (up to 12 slot)
When configuring a system, PLC LX Series enables you to choose a backplane from 2, 3, 5, 6, 8, 10, and 12 slots
5. High capacity programming and memory backup option
Program memory size is from 9.6k words (LX70-CPU70P1) up to 20k words (for LX70-CPU70P2). Built-in flash EEPROM retains all ladder logic
6. Built-in PID capabilities
Supports 8-loop PID controls (Only for LX70-CPU70P2 module)
7. Built-in RTC (Real Time Clock)
Built-in real time clock supports programming by time and date. (Only for LX70-CPU70P2 module)
8. Built-in RS 232C and RS 485, 2port (LX70-CPU70P2 module)
Two communication channels for simple connectivity to computers, operator interface, modem and other controllers to exchange large volumes of data with high speed. COM2 port supports user defined communications to connect you to barcode readers, inverters, modbus slave, or servos. (Binary communications available)
9. Superior diagnostics
Self-diagnostics to minimize system errors and to maximize diagnostic efficiency
10. LX Soft programming software
LX Soft programming software lets you create, modify and monitor CPU, forced I/O, I/O configuration. It is a powerful, easy-to-use tool for program upload/download
11. Data memory up to 4K words
12. 28 basic and 147 advanced instructions

Summary of Product Specifications



LX 700 Series Programmable Logic Controller

The LX700 series give you the capability to control a medium scale system with ease. With Its remote I/O and various networking configurations, it is best suited for applications combining multiple devices spread over a large installation.



Hardware Features:

1. Control up to 1600 Digital I/O points
2. Flexible and specialty I/O modules
3. Range of I/O base options (from 3 to 12 slots)
4. Built-in Real Time Clock (RTC). & 8 loop PID control
5. Up to 96 slave nodes can be connected using Remote I/O Master and Remote I/O slave
6. Peer -Peer communications for data sharing and remote programming possible with MW-LINK module
7. Serial Communication Unit (SCU) comes with 2 serial ports for additional communication requirements
8. 2 serial ports (RS232C/RS485 with Modbus RTU/User defined protocol) with baud rate up to 38400 bps

Performance features:

Fast, powerful processors. High-speed basic instruction execution 0.2 micro-sec. Program memory of 20K with built-in flash EEPROM backup. Data memory of 7K. Built-in PID control.

General Specifications for LX series PLCs

Temperature (Operating) (Storage)	0 to 55 degree C -20 to 70 degree C
Humidity (Operating)	10 to 90 % RH (Non-condensing)
Withstand voltage	1500 V ac for 1 min between external terminal(ac) & FG 500 V ac for 1 min between external terminal (ac) & FG
Allowed momentary power failure	20 ms or less
Noise Immunity	1500 Vp-p pulse width 50 ns, 1 microsec (by noise gen.)
Insulation resistance	10 MΩ
Vibration immunity	10 to 55 Hz/min, amplitude 0.75mm, each direction of X,Y,Z for 10 min
Dust conduction	No conductive dust
Chemicals	No cutting oil and organic solvents
Corrosive gas	No corrosive gases
Shock immunity	98 m/s ² or more, 4 times X,Y,Z each direction
Grounding	Class 3 grounding (100 Ω or less)
Case material	PC/ABS
Cooling method	Natural air cooling
Ingress protection	IP20

For selection and product demonstration, please contact any of our branch offices listed below:

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