



Programmable Logic Controllers Type:LX

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 Module 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 (forTR 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	 <p>Input 6 points (R0.0 to 0.5) Output 4 points (R16.0 to 16.3)</p>	28	 <p>Input 16 points (R0.0 to 1.7) Output 12 points (R16.0 to 17.3)</p>
14	 <p>Input 8 points (R0.0 to 0.7) Output 6 points (R16.0 to 16.5)</p>	48	 <p>Input 28 points (R0.0 to 3.3) Output 20 points (R16.0 to 18.3)</p>
20	 <p>Input 12 points (R0.0 to 1.3) Output 8 points (R16.0 to 16.7)</p>	56	 <p>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)</p>
28	 <p>Input 16 points (R0.0 to 1.7) Output 12 points (R16.0 to 17.3)</p>	76	 <p>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)</p>
40	 <p>Input 24 points (R0.0 to 2.7) Output 16 points (R16.0 to 17.7)</p>	84	 <p>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)</p>
48	 <p>Input 28 points (R0.0 to 3.3) Output 20 points (R16.0 to 18.3)</p>	104	 <p>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)</p>

LX 70 Series Programmable Logic Controller



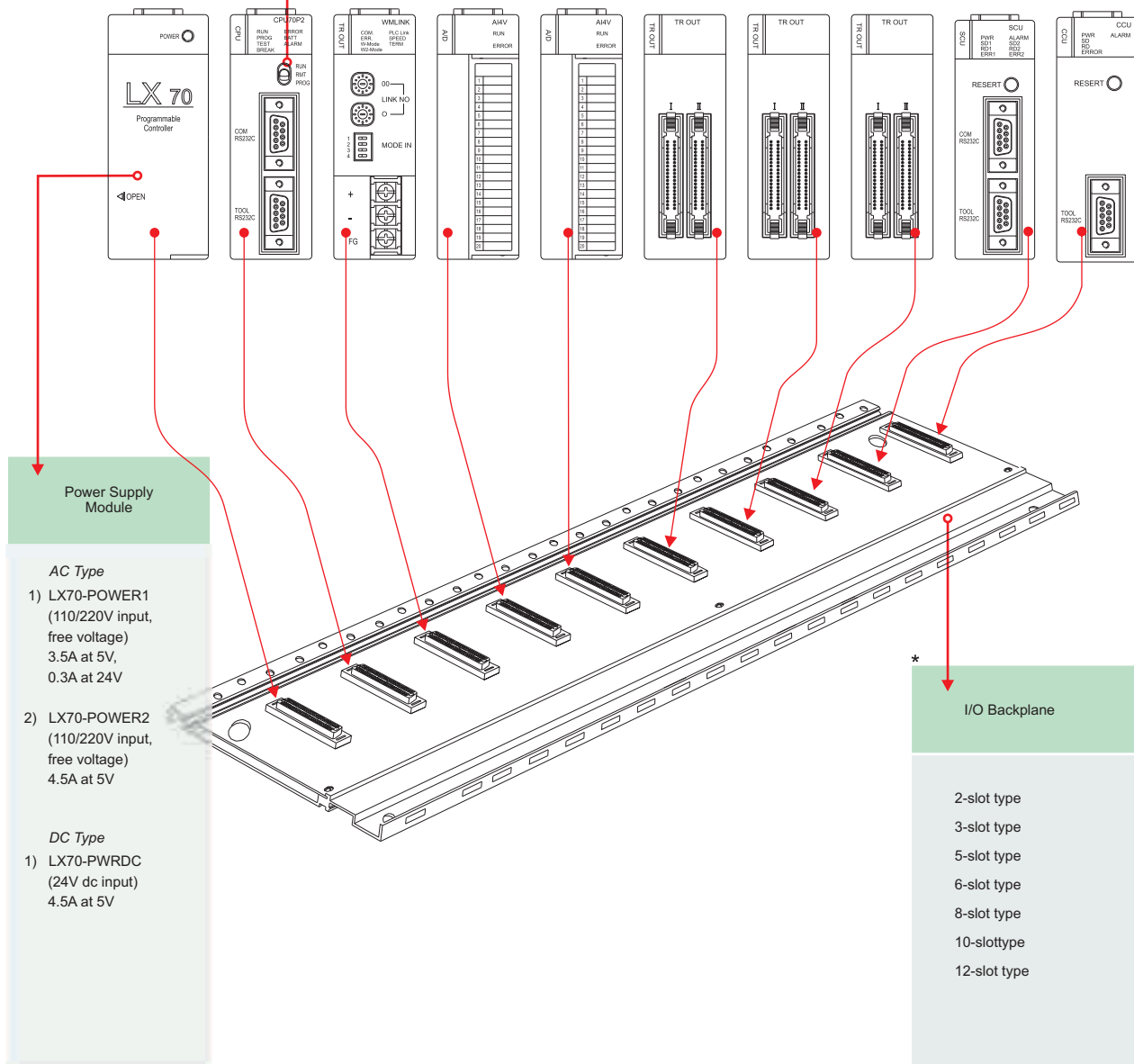
Whatever your control needs are, you will find an answer with the LX70 series. The LX70 is filled with features and options designed to handle an extensive range of applications. Advantages of the LX70 include: Scalable program memory and backplane options to ensure you only buy what you need. A wide 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

- Fast, powerful processors
High speed basic instructions-performance-0.2µsec/STEP
- Control up to 384 digital I/O points
The 12-slot LX70 allows up to 384 points (192 points using terminal blocks)
- 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 (4ChHSC)
SCU (2Ch Serial Data Comm.) and link network
- 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
- 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
- Built-in PID capabilities
Supports 8-loop PID controls (Only for LX70-CPU70Pi module)
- Built-in RTC (Real Time Clock)
Built-in real time clock supports programming by time and date. (Only for LX70-CPU70P2 module)
- 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. COM* port supports user defined communications to connect you to barcode readers, inverters, modbus slave, or servos. (Binary communications available)
- Superior diagnostics
Self-diagnostics to minimize system errors and to maximize diagnostic efficiency
- 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
- Data memory up to 4K words
- 28 basic and 147 advanced instructions

Summary of Product Specifications

Processor Module	Discrete Module	Analog Module	Special Module
<p>LX70-CPU70P1 9.6k words 1COM port</p> <p>LX70-CPU70P2 20k words 2COM ports</p>	<p>8 point relay output module</p> <p>16 points I/O module</p> <p>32 points I/O module</p> <p>8 points input, 8 points output combo module</p> <p>16 points input, 16 points output combo</p>	<p>4, 8 channel A/D module</p> <p>2, 4 channel D/A module</p> <p>4 channel RTD module</p> <p>4 channel TC module</p>	<p>1,2,4 channel HSC module</p> <p>4 channel Pulse output module</p> <p>Serial Communication module</p> <p>Multi-Wire Link module</p>



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:

- Control up to 1600 Digital I/O points
- Flexible and specialty I/O modules
- Range of I/O base options (from 3 to 12 slots)
- Built-in Real Time Clock (RTC). & 8 loop PID control
- Up to 96 slave nodes can be connected using Remote I/O Master and Remote I/O slave
- Peer -Peer communications for data sharing and remote programming possible with MW-LINK module
- Serial Communication Unit (SCU) comes with 2 serial ports for additional communication requirements
- 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 M Ω
Vibration immunity	10 to 55 Hz/min,amplitude 0.75mm,each direction of X,Y,Zfor 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

Electrical Standard Products (ESP) Branch Offices:

REGISTERED OFFICE AND HEAD OFFICE

L&T House, Ballard Estate
P. O. Box 278
Mumbai 400 001
Tel: 022-6752 5656
Fax: 022-6752 5858
Website: www.Larsentoubro.com

ELECTRICAL STANDARD PRODUCTS (ESP)

501, Sakar Complex I
Opp. Gandhigram Rly. Station
Ashram Road
Ahmedabad 380 009
Tel: 079-66304007-11
Fax: 079-26580491
e-mail: esp-ahm@LNTEBG.com

38, Cubbon Road, Post Box 5098
Bangalore 560 001
Tel: 080-25020100, 25593613
Fax: 080-25580525
e-mail: esp-blr@LNTEBG.com

131/1, Zone II
Maharana Pratap Nagar
Bhopal 462 011
Tel: 0755-4233906, 4233907
Fax: 0755-2769264
e-mail: esp-bho@LNTEBG.com

Plot No. 559, Annapurna Complex
Lewis Road
Bhubaneswar 751 014
Tel: 0674-6451342, 2436696
Fax: 0674-2537309
e-mail: esp-bbi@LNTEBG.com

SCO 32, Sector 26-D
Madhya Marg, P. O. Box 14
Chandigarh 160 026
Tel: 0172-4646841 to 7
Fax: 0172-4646802
e-mail: esp-chd@LNTEBG.com

10, Club House Road
Chennai 600 002
Tel: 044-28462072 / 4 / 5
Fax: 044-28462102
e-mail: esp-maa@LNTEBG.com

67, Appuswamy Road
Post Bag 7156
Opp. Nirmala College
Coimbatore 641 045
Tel: 0422-2588120 / 1 / 5
Fax: 0422-2588148
e-mail: esp-cbe@LNTEBG.com

L&T House, Group MIG - 5
Padmanabhpur
Durg 491 001
Tel: 0788-2213833 / 14 / 28 / 29
Fax: 0788-2213820

A1/11, Astronauts Avenue
Bidhan Nagar
Durgapur 713 212
Tel: 0343-2536891 / 8952 / 7844
Fax: 0343-2536493
e-mail: esp-dgp@LNTEBG.com

Milanpur Road, Bamuni Maidan
Guwahati 781 021
Tel: 0361-2651297
Fax: 0361-2551308
e-mail: esp-gau@LNTEBG.com

II Floor, Vasantha Chambers
5-10- 173, Fateh Maidan Road
Hyderabad 500004
Tel: 040-66720250
Fax: 040-23296468
e-mail: esp-hyd@LNTEBG.com

D-24, Prithvi Raj Road, C-Scheme
Jaipur 302 001
Tel: 0141-2385913 / 19
Fax: 0141-2373280
e-mail: esp-jai@LNTEBG.com

Akashdeep Plaza, 2nd Floor
P. O. Golmuri
Jamshedpur 831 003
Jharkhand
Tel: 0657-2340864
Fax: 0657-2341250
e-mail: esp-jam@LNTEBG.com

Skybright Bldg. M. G. Road
Ravipuram Junction, Ernakulam
Kochi 682 016
Tel: 0484-4409420 / 427
Fax: 0484-4409426
e-mail: esp-cok@LNTEBG.com

3-B, Shakespeare Sarani
Kolkata 700 071
Tel: 033-44002572 / 3 / 4
Fax: 033-22822589
e-mail: esp-ccu@LNTEBG.com

A28, Indira Nagar, Faizabad Road
Uttar Pradesh,
Lucknow 226 016
Tel: 0522-2312904 / 5 / 6
Fax: 0522-2311671
e-mail: esp-Lko@LNTEBG.com

Plot No. 518
4th Main Road
K. K. Nagar
Madurai 625 020
Tel: 0452-2537404, 2521068
Fax: 0452-2537552
e-mail: esp-mdu@LNTEBG.com

EBG North Wing Office - 2
Powai Campus
Mumbai 400 072
Tel: 022-67052874 / 2737 / 1156
Fax: 022-67051112
e-mail: esp-bom@LNTEBG.com

8B, Farmland
Ramdaspath
Behind Hotel Radhika
Nagpur 440 010
Tel: 0712-2420641 / 24
Fax: 0712-2420619
e-mail: esp-ngp@LNTEBG.com

32, Shivaji Marg
P. O. Box 6223
New Delhi 110 015
Tel: 011-41419500 / 1, 41419515
Fax: 011-41419600
e-mail: esp-del@LNTEBG.com

L&T House
P. O. Box 119
191/1, Dhole Patil Road
Pune 411 001
Tel: 020-26135048, 26135611
Fax: 020-26129586, 26124910
e-mail: esp-pnq@LNTEBG.com

3rd Floor
Vishwakarma Chambers
Majura Gate, Ring Road
Surat 395 002
Tel: 0261-2473726
Fax: 0261-2477078
e-mail: esp-sur@LNTEBG.com

Radhadaya Complex
Old Padra Road
Near Charotar Society
Vadodara 390 015
Tel: 0265-6613610 / 11 / 12
Fax: 0265-2336184
e-mail: esp-bar@LNTEBG.com

48-8-16, Dwarakanagar
Visakhapatnam 530 016
Tel: 0891-6620411-4
Fax: 0891-6620416
e-mail: esp-viz@LNTEBG.com

Product improvement is a continuous process. For the latest information and special applications, please contact any of our offices listed here.



Electrical Standard Products
Larsen & Toubro Limited
Powai Campus, Mumbai 400 072
Tel: 022-6705 0505
Fax: 022-6705 1746
E-mail: ebg-esp@LNTEBG.com
Website: www.LNTEBG.com

