TESCO® CONTROLS, INC.

High-Performance Automation System

Enhanced PLC Technology

The **L3000e®** is a **powerful programmable logic controller specifically designed to meet the critical needs of the water and wastewater industries**. It easily integrates into a wide range of applications, from simple standalone stations to elaborate networked systems.

L3000e rack with 4 I/O cards

The L3000e has unique built-in features and leading advancements designed for reliability, ease-of-use, and cost effectiveness. The fully-programmable L3000e, with multiple protocol compatibility and communication ports, offers the flexibility to utilize a wide range of equipment such as PLCs, OITs, instrumentation, power monitors, and radios. With I/O expansion modules, the L3000e becomes a perfect fit for remote standalone applications.
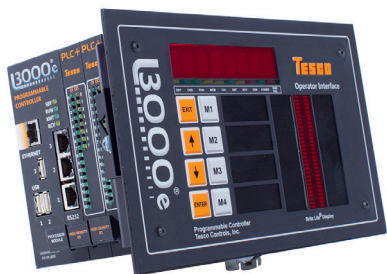
Built for scalability – L3000e® expands to meet your needs

The L3000e® was developed to meet the needs of many types of operations, from small facilities to large multi-station treatment plants. The I/O configurations are customizable to meet facility requirements now and in the future. The L3000e gives you a choice of many I/O card types and chassis models with 3, 5, 12, or 24 card capacity. It supports hundreds of I/O points.

For efficient and effective water/wastewater systems, the L3000e provides automation, remote access monitoring, and control of vital systems. TESCO's fully-automated L3000e also includes information management and the delivery of data, reports, and trends.

L3000e "hat" unit , I/O cards and OIT

Continuous availability – QNX reliability

Equipped with a series of features to ensure continuous availability, the L3000e is a robust system built on the QNX®

Neutrino® real-time operating system (RTOS). This system complies with the POSIX (Portable Operating System for Unix) standard and is the preferred choice for critical systems such as aerospace, air traffic control systems, surgical equipment, and nuclear power plants.

Open protocol – integrate with other PLCs/devices

The L3000g can be used as a gateway device with message pass-through abilities – between Ethernet and serial ports, to connect any combination of TESCO or Modbus® devices. It can be networked in a variety of ways with other third-party PLCs, operator interfaces, and SCADA systems. It supports cellular modem telemetry; Modbus® serial and TCP.

Contact us at 916-395-8800 for more information.

Features

- » Standard 5-year warranty
- » Real-time register data monitoring & trending
- » Choice of Operator interface terminal types
- » Flexible communications built-in
- » Battery backed/protected memory
- » Powerful WinBench64™ programming IDE
- » HDMI video port for Tesco Touchscreen display
- » High performance, integrated web server
- » Fast 1GHz Processor
- » 57,600 Kbs serial port full handshake and 10/100 Mbs Ethernet port
- » Open Architecture (VME Bus, ISAGRAF, hardware, etc.)
- » USB and flash drive upload/download capability
- » Sophisticated data logger
- » Winbench64™ programming software
- » Multiple protocols
- » IEC 61131-3 compatible

Benefits

- » View and modify registers and programs without a laptop
- » Integrate multiple vendor PLCs into one control system
- » Connect PLCs, OITs, instrumentation, power monitors and radios
- » Access and view documents from anywhere, using the integrated Web Server
- » Built-in storage for documentation and drawings
- » View vital information using L3000 remote data login
- » Transfer data from PLC to PLC using flash drive & USB ports
- » Watchdog feature automatically restarts program
- » Data logging capabilities with no SCADA required
- » Expandable I/O modules allow for system growth

Communications

- » Data Express, Data Express Plus
- » Modbus TCP/IP, Modbus Serial, DGH

Options

- » 10-year warranty
- » Compact Brite Lite™ LED display
- » Full-size Brite Lite™ LED display
- » Touchscreen color HDMI display
- » EMASS® service agreements

CSIA CERTIFIED   c UL us   ISA

L3000e Programmable Logic Controller

PROCESSOR

QNX® Neutrino® RTOS (POSIX)	This operating system has been qualified to meet various safety and security standards for use in products with high criticality and low tolerance for failure.
Texas Instruments OMAP 3730 – 1GHz ARM Processor	Able to process 10,000 program lines of code per second
512MB RAM	
64GB Flash Memory	
Battery-backed Memory	10 year lithium battery
Operating Temperature	Industrial rated at 185° F

BUILT-IN WEB SERVER

User Authentication	
Protected Communication Protocols	Telnet (SSH), FTP (SCP, SFTP),
Real-Time Data Access and Control	Real-time read and write register values, Active trending data value screen
Log Entry Feature	Maintenance, site visits, additional functions that require logging

COMMUNICATION PORTS

3 Fast USB 2.0	1 internal
1 10/100 Mbps Ethernet	
3 RS-232	Full-handshake

CHASSIS OPTIONS

3, 5, 12, or 24 Cards	3U VME parallel bus low-power architecture

PROGRAMMING LANGUAGES

IEC 61131-3	Sequential Function Chart (SFC), Structured Text (ST), Instruction List (IL), Function Block Diagram (FBD), Ladder Diagram (LD)

COMMUNICATION PROTOCOLS

Modbus TCP, Modbus RTU	
Tesco protocols	Data Express, Data Express Plus, DGH
Tesco	TESCODE™, Winbench64™

OPERATOR INTERFACE TERMINALS

Compact	Brite Lite™ LED Display, 4-Key Programming Keypad, Industrial rated at 185° F
Full Size	Brite Lite™ LED Display, 32-key Programming Keypad, Industrial rated at 185° F
HDMI Touchscreen (optional)	IP62 NEMA 3, 4 and 4X waterproof and dust tight. Optional sunlight-visible unit. Various sizes. Touchscreen rated at 150° F.

POWER SUPPLY L3000 PSU (OPTIONAL)

2 Outputs	Each output provides the required +12VDC and +5VDC
2 Inputs	Primary and backup
Input Voltage	6VDC to 34VDC
Primary>Backup	1.2V (to prevent L3000e from running on the backup battery)
+12V Total Amperage	4A
+5V Total Amperage	5A

Tesco
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100% Employee Owned

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