

## High-Performance Communications Gateway

### Flexibility and Expansion

The L3000G™ is a cost effective **communications gateway device** with the ability to bridge multiple communication protocols across Ethernet and RS232 ports. With the Modbus TCP and Modbus RTU protocols, combined with multiple communication ports, the fully programmable L3000g offers the flexibility to utilize a wide range of equipment such as PLCs, OITs, instrumentation, power monitors, and radios. With remote I/O expansion module, the L3000g becomes a perfect fit for remote I/O sites.



For efficient and effective water/wastewater systems, the L3000g **provides automation, remote access monitoring, and control of vital systems**. TESCO's fully-automated PLC Gateway also includes information management and the delivery of data, reports, and trends.

The L3000g features up to 32GB of flash memory, Ethernet, integrated security and an extended Tesco PLC feature set.

The controller (and optional display) can operate in the harshest environments with temperatures in excess of 185° F, ideal characteristics for SCADA RTU and small pump station applications.

### Enhanced PLC Technology

The L3000g 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.

TESCO's L3000g has unique built-in features and leading advancements designed for reliability, ease-of-use, and cost effectiveness. The fully-programmable L3000g, 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 L3000g becomes a perfect fit for remote standalone applications.

- » Multi-protocol conversion via any serial or Ethernet port
- » Remote I/O modules
- » Anodized aluminum enclosure for industrial strength durability
- » 185°F Ambient temperature operation.
- » Pull-Apart terminal blocks

### 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.

### 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 remote I/O modules allow for system growth

### Features

- » DIN rail mountable with durable enclosure
- » Small Footprint
- » 32GB flash memory
- » 3 high speed RS-232 serial ports
- » 1 Ethernet port
- » All ports RJ45 with XMT / RCV lights indicators
- » 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 (ISAGRAF, Modbus)
- » USB and flash drive upload/download capability
- » Sophisticated data logger
- » Winbench64™ programming software
- » Multiple protocols
- » IEC 61131-3 compatible

### Protocols

- » Data Express® over Ethernet
- » Data Express Plus® over Ethernet
- » Modbus RTU, Modbus TCP/IP
- » ASCII

### Options

- » Single 5V DIN rail mountable power supply
- » Touchscreen color HDMI display
- » EMAS® service agreements
- » 10-year warranty



## L3000g Gateway 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	
32GB 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 Serial ports	Full-handshake

### 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	DGH
Tesco protocols	Data Express®, Data Express Plus®
Tesco	TESCODE™, Winbench64™
ASCII	

### OPERATOR INTERFACE TERMINALS (OPTIONAL)

HDMI Touchscreen Color Display	IP62 NEMA 3, 4 and 4X waterproof and dust tight. Optional sunlight-visible unit. Various sizes. Touchscreen rated at 150° F. Various sizes available
--------------------------------	--

### 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

© 2016 Tesco Controls, Inc. TESCO®, TESCODE™, Winbench64™ and L3000® are registered trademarks of Tesco Controls, Inc.  
DN: B-L3000g-PLC\_012216



**TESCO**  
CONTROLS, INC.

100% Employee Owned

#### Corporate Headquarters

8440 Florin Road  
Sacramento, CA 95828  
(916) 395-8800

#### Regional Offices

42015 Remington Ave. Suite 102  
Temecula, CA 92590  
(951) 308-6450

1315-B Dayton St.  
Salinas, CA 93901  
(831) 754-6838

213 Sage St.  
Carson City, NV 89706  
(800) 94-TESCO

10699 Airline Hwy. Suite B  
Baton Rouge, LA 70816  
(800) 94-TESCO

[www.TescoControls.com](http://www.TescoControls.com)