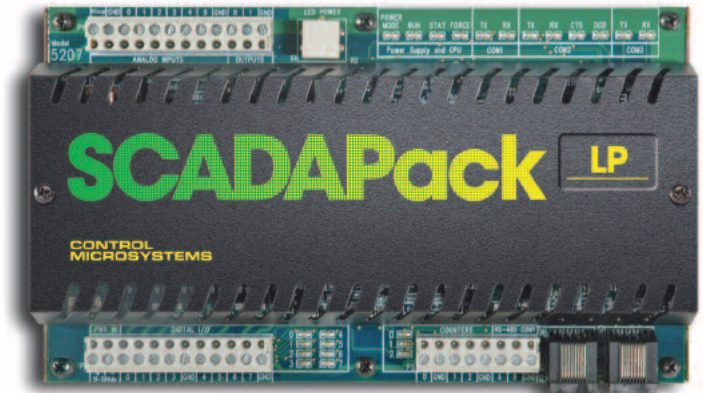


SCADAPackLP

Features:

- Less than 400mW operating power required
- 3 counter inputs, including 2 turbine flow meter
- 6 analog inputs and 8 digital I/O points
- 2 RS-232, 1 RS-232/485 serial port
- Optional integrated spread spectrum radio
- cULus Class 1, Division 2 Hazardous Area Rating
- RealFLO 6 dual run custody transfer flow computer
- 3 year warranty on parts and labor



The Control Microsystems SCADAPackLP is one of five available models in the SCADAPack series of programmable logic controllers. The LP model is a low power controller complete with integrated power supply, analog and digital I/O, serial communications and turbine flow meter counter inputs. The product uses Modbus RTU, Modbus ASCII and DNP3 as native protocols and is remotely programmable through a choice of flexible programming languages. As with all SCADAPack products the SCADAPackLP is based on a multiprocessor architecture with a co-processor used for handling on-board input/output channels.

Overview:

Compact and Powerful - The Control Microsystems SCADAPackLP PLC provides Remote Terminal Unit (RTU) functionality with flexible programming options. The unit is programmable in Relay Ladder Logic, IEC 61131-3 and multitasking C languages and provides an unlimited number of PID controllers for use in feedback control applications. The central processing unit includes a 16-bit CMOS microprocessor with 1 MB of CMOS RAM and 512 kB Flash ROM for use in firmware and application programming. Special power saving features include a Sleep Mode, 24V power shutdown and serial port power control. With 6 analog inputs, 8 digital I/O and 3 high-speed

counter inputs, including two turbine meter inputs, the SCADAPackLP provides for a wide variety of process control and metering connections.

Flexible Communications - The SCADAPackLP provides two RS-232 and one RS-232/485 serial communication ports offering Modbus RTU, Modbus ASCII and DNP3 communication protocols. For those challenging remote applications a fully integrated, license-free spread spectrum wireless module is available at 900 MHz and 2.4 GHz. The SCADAPackLP also supports external radios and modems using Hayes AT commands, and can be programmed using powerful C tools for application specific protocols.

Applications and Benefits:

With a special design focus on power efficiency the SCADAPackLP controller is a natural choice for applications that require low power along with a mix of analog and digital I/O and multiple communication ports. Coupled with real time communications using industry standard Modbus protocols, the SCADAPackLP integrates easily with a wide range of SCADA software, MMIs, DCS systems, intelligent instrumentation and remote I/O control applications.

The SCADAPackLP is a flexible controller that can be used in both master and slave configurations. Special features

include report-by-exception and store and forward capabilities. With its mix of functions and features the SCADAPackLP is ideal for use in gas well optimization, plunger lift and oil field production applications. Using the optional RealFLO 6 software the unit is an ideal low power gas flow computer with AGA-3, AGA-7, and V-Cone flow calculations and AGA-8 Detailed and NX-19 compressibility calculations. In the water and waste water sector the SCADAPackLP is well suited for use in dam control systems and environmental monitoring solutions.

In solar panel powered applications the SCADAPackLP offers further cost reduction by allowing smaller solar panels and batteries to be used. The integrated DC/DC converter and overall small footprint also enables the use of compact mounting enclosures for those applications where space is at a premium.

Similar in design to all other SCADAPack products, the SCADAPack is fabricated with conformal coatings, gold-plated machined sockets and zinc plated steel system components. Regardless of the specific need, the SCADAPack can provide reliable and compact stand-alone performance in the hazardous environments so often found in SCADA applications.

Specifications

Controller	
Processors	CPU: 16-bit CMOS, 14.74MHz clock, integrated watchdog timer CPU co-processor: 14.74MHz clock (used for I/O processing)
Memory	1 MB CMOS SRAM, 512kBytes flash ROM
Non Volatile	CMOS RAM with lithium battery retains contents for 2 years with no power
I/O	
Analog Inputs	5, user selectable 0 - 10V (15 bit) or 0 - 20mA (14 bit) 1, 0 - 32.768V (15 bit)
Digital I/O	8 total Output rating: 1.0A maximum 0.35V maximum drop at 1.0A Input rating: Dry contact with 5mA typical pulsed wetting current
Counter Inputs	1 digital input counter, max frequency 10Hz, dry contact, 5mA wetting current 2 turbine meter inputs, maximum frequency 10kHz
Communications	
Serial Port COM 1	RS-485 port, 2 pole removable terminal block, 2 wire half duplex
Serial Port COM 2	RS-232 port, 8 pin modular jack, full or half duplex with RTS/CTS control
Serial Port COM 3	RS-232 port, 8 pin modular jack, half duplex with RTS/CTS control
Baud Rates	COM1 and COM2: 300, 600, 1200, 2400, 4800, 9600, 19200, 38400 COM3: 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200
Serial Protocols	Modbus RTU, Modbus ASCII, DNP3, DF1
Serial Protocol Modes	Slave, Master, Master/Slave, Store and Forward
Wireless 1	Spread spectrum radio at 900MHz ² and 2.4 GHz ²
General	
I/O Terminations	2, 3, 5, 8 and 10 pole, removable terminal blocks, 12 to 22 AWG,15A contacts
Dimensions	8.40 inch (213mm) wide, 5.00 inch (127mm) high,1.80 inch (45mm) deep
Packaging	Corrosion resistant zinc plated steel with black enamel paint
Environment	5% RH to 95% RH, non-condensing - 40°F (- 40°C) to 158°F (70°C)
Power:	11 - 30 VDC, 125mW typical during sleep mode, 360mW typical during normal operation
Warranty	3 years on parts and labor

1 Available only with optional integrated wireless modules or with stand-alone wireless modules.

2 Not applicable in all countries.

Model Code

P200-1A20-AA00 represents a sample code for a P200 with DNP, 0-10V inputs

Model	Select: Controller
P200	SCADAPack LP, comes with 5 Analog Inputs, 8 configurable Digital I/O, 3 Accumulators
Code	Select: Communication Serial Ports
1	3 Communication Ports: 2 RS-232 (RJ45) and 1 RS485 (2 wire Terminal Block)
Code	Select: Memory Configuration
A	1 Meg. CMOS RAM (512K OS, 512K APP), 512K FLASH ROM
Code	Select: Protocol Option
0	Modbus protocol emulation
1	Modbus and DF1 protocol emulation
2	Modbus and DNP 3.0 (Level 2) protocol emulation
Code	Select: Programming Environment
0	TelePACE Ladder Logic and C Language firmware loaded - IEC enabled (Programming Tools sold separately)
1	IEC 61131-3 and C Language firmware loaded - TelePACE enabled (Programming Tools sold separately)
Code	Select: Analog Inputs
A	5 Analog Inputs, Individually selectable as 0-20mA or 0-10 volts
Code	Select: Digital Inputs/Outputs
A	8 configurable Digital I/O, Individually selectable as Digital Input (Dry Contact) or Digital Output (Open Drain)
Code	Select: Analog Outputs
0	None
1	2 channel Analog Output option, 0 - 20 mA
Code	Select: Integrated Communication Interfaces
0	None
1	900Mhz FreeWave Spread Spectrum Radio *Not available in all areas – Consult CMI for availability in your market area
A	900 Mhz MDS Spread Spectrum Radio *Not available in all areas – Consult CMI for availability in your market area
2	2.4GHz FreeWave Spread Spectrum Radio *Not available in all areas – Consult CMI for availability in your market area

**CONTROL
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www.controlmicrosystems.com

Sales: (888) 267 2232 ■ International: (613) 591-1943 ■ Calgary ■ Houston ■ Melbourne ■ Leiden

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