SCADAPack 314E

Smart RTU

Schneider Electric

Built on a native DNP3 architecture, the SCADAPack 314E features high-performance 32-bit processing, serial and USB communications, integrated power supply, advanced power-management, and a wide range of digital and analog I/O in a cost-effective, compact Smart RTU. The level 4 compliant DNP3 protocol comes with optional Secure Authentication and/or AGA-12 Encryption to improve message security for critical operations, and support for the open protocols of Modbus and IEC60870-5 is also offered. The SCADAPack 314E can be programmed locally or remotely using the IEC61131-3 programming language and is optionally configurable directly from ClearSCADA host software.

This Smart RTU has the same I/O offering as the SCADAPack 334E but without an Ethernet port and one less serial port. It also offers the same small footprint, enabling compact mounting enclosures for applications where space is at a premium.

Product Data Sheet SCADAPack 314E
Specifications

>	P314E: 5212 controller board and integrated 5607 I/O board
Controller	
Processors	• CPU: 32-bit ARM7 microcontroller, 32 MHz clock, integrated watchdog timer • Microcontroller co-processor, 20 MHz clock
Memory	16MB FLASH ROM, 4MB CMOS RAM, 4kB EEPROM
Non-Volatile RAM	CMOS SRAM with lithium battery retains contents for 2 years with no power
Event Logging Capacity	20,000 events
Maximum Database Points	1,000 typical
I/O	
Analog Inputs	• 8 software configurable: 0-20/4-20mA / 0-5/0-10V (15-bit) • 3 internal: measure incoming power supply voltage for solar applications, battery voltage, and controller temperature
Analog Outputs	• Standard: None • 2 with optional 5305 on 5607 I/O board: 0-20/4-20mA (12-bit)
Digital I/O	• 16 digital inputs: 12/24V, 48V, 115/125V, 240V • 10 relay outputs: dry contact or DC solid state, dry contact rating: 3A, 30VDC or 240VAC (resistive), DC solid state rating: 3A, 60 VDC
Counter Inputs	• 1 dry contact: 0-10Hz or 0-5kHz • 2 turbine or dry contact: 0-10kHz
Communications	
Serial Ports COM1, COM2	• RS-232 port, 8-pin modular RJ45 jack, full or half-duplex, or • RS-485 port, 2-wire, half-duplex
Baud Rates	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200
Serial Protocols	DNP3 Slave, DNP3 Master, IEC60870-5-101 Slave, IEC60870-5-103 Master, Modbus RTU Master, Modbus RTU Slave, DF1
USB Peripheral Port	USB 2.0 compliant B-type receptacle, DNP3 protocol
Wireless[1]	Spread spectrum radio at 900MHz[2] and 2.4GHz[2]
General	
I/O Terminations	5, 6, and 9-pole removable terminal blocks, 12 to 22AWG, 15A contacts
Dimensions	5.65 inch (144mm) wide, 6.50 inch (165mm) high, 2.80 inch (72mm) deep
Packaging	Corrosion resistant, zinc-plated steel with black enamel paint
Environment	5% RH to 95%, non-condensing, –40°C (–40°F) to 70°C (158°F)
Power	
5212 Controller Board	• 11 - 30VDC, 5.8W typical • Add 30 to 90mW when enabling the LEDs • 8.5W at 24V maximum, 5V supply fully-loaded
5607 I/O Module	• 11 - 30VDC, 10.3mA plus analog outputs • 235mA (max.) at 5V required from 5212 controller board
Warranty	3 years on parts and labor
Certifications	
Hazardous Locations North America	Suitable for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations. Temperature Code T4 CSA certified to the requirements of: • CSA Std. C22.2 No. 213-M1987 - Hazardous Locations • UL Std. No. 1604 - Hazardous (Classified) Locations
Hazardous Locations Europe	ATEX II 3G, Ex nA IIC T4 per EN 60079-15, protection type n (Zone 2). Does not include Wireless versions.
Hazardous Locations	IECEx, Ex nA IIC T4 per IEC 60079-15, protection type n (Zone 2). Does not include Wireless versions.

1 Available only with optional integrated wireless modules or with stand-alone wireless modules.
2 Not applicable in all countries.

Disclaimer: Schneider Electric reserves the right to change product specifications. For more information visit www.schneider-electric.com.

Product Data Sheet SCADAPack 314E
Model Code

	TBUP314-EA55-AB00 represents a sample code for a SCADAPack 314E with 12V dry contact relay outputs
Model	**Select: Controller**
TBUP314	SCADAPack 314E, 32 Bit controller, 8 Analog Inputs, 16 Digital Inputs, 10 Digital Outputs, 3 Accumulators
Code	**Select: Platform**
E	E Firmware platform (Configuration Software included), executes two IEC61131-3 kernels, Workbench required
Code	**Select: SCADA Security**
A	None
B	AGA-12 Encryption for DNP3
C	DNP3 Secure Authentication SAv2
D	DNP3 Secure Authentication with AGA-12
	Note: The Security Administrator Application must be purchased to generate and manage security keys for Secure Authentication and/or Encryption (AGA-12)
Code	**Select: Protocol Option**
5	Modbus, DNP3, DF1, IEC 60870-5-101 Slave
6	Adds IEC 60870-5-103 Master, Protection Relay Protocol (for data transmission with IEDs)
Code	**Select: License Option**
5	DNP3 Data Concentrator License (limit of 500 points from 10 IEDs), supports multiple DNP3 Masters (up to 3 Masters)
Code	**Select: Analog Inputs**
A	Adds 8 selectable as 0-20mA, 4-20mA, 0-5V or 0-10V
Code	**Select: Digital Inputs/Outputs**
B	16 Digital Inputs (12/24V) and 10 Dry Contact Relay outputs
D	16 Digital Inputs (120V) and 10 Dry Contact Relay outputs
F	16 Digital Inputs (12/24V) and 10 Solid State Relay outputs, ATEX Certified (with no Integrated radio)
H	16 Digital Inputs (120V) and 10 Solid State Relay outputs
Code	**Select: Analog Outputs**
0	None
1	2 channel analog output option, 0 - 20mA
Code	**Select: Integrated Communication Interfaces**
0	None
	FreeWave & MDS Radios (requires one RS232 port)
1	900Mhz FreeWave Spread Spectrum Radio
A	900MHz MDS Spread Spectrum Radio
	Trio Radios - 900MHz (requires one RS232 port)
B	900MHz Trio Spread Spectrum Radio with encryption, 902-928MHz (FCC / IC)
C	900MHz Trio Spread Spectrum Radio with encryption, 915-928MHz (AUS)
D	900MHz Trio Spread Spectrum Radio, 915-928MHz (BRAZIL)
E	900MHz Trio Spread Spectrum Radio, 921-928MHz (NZ)
	Trio Radios - 2.4GHz (requires one RS232 port)
J	2.4GHz Trio Spread Spectrum Radio, ETSI/100mW, ATEX (EUROPE)
K	2.4GHz Trio Spread Spectrum Radio with Encryption, 500mW (CANADA, USA & AUSTRALIA)
L	2.4GHz Trio Spread Spectrum Radio, 500mW (OUTSIDE OF EUROPE, CANADA, USA & AUSTRALIA)