SCADAPack 333E

Smart RTU for Water

Schneider Electric

The SCADAPack 333E Smart RTU features 32-bit processing, serial and USB communications, integrated 12-30Vdc power supply, advanced power-management and a wide range of digital and analog I/O, in a cost-effective, compact package.

This Smart RTU communicates with remote SCADA using open protocols: DNP3, IEC60870-5 and Modbus. It may also be used as a data-concentrator, for slave devices fitted with DNP3 or Modbus communication.

DNP3 (level 4-compliant) protocol supports optional Secure Authentication and/or AGA-12 Encryption to improve message security.

IEC60870-5 protocol is KEMA-certified for both IEC60870-5-101 and IEC60870-5-104.

This RTU may be configured and programmed locally or remotely, and is optionally configurable, directly from StruxureWare SCADA Expert ClearSCADA host software.

It may be fitted with the optional IEC61131-3 SCADAPack Workbench programming language suite.

It offers the same small footprint as the SCADAPack 334E, enabling compact mounting enclosures to be used for applications where space is at a premium.

Product Data Sheet SCADAPack 333E
Specifications

>	333E: 5210 controller board and integrated 5611 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	• 4 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, 0-20/4-20mA (12-bit) with optional card on 5611 I/O board
Digital I/O	• 16, 12/24V digital inputs • 10 relay outputs: dry contact, dry contact rating: 3A, 30VDC or 240VAC (resistive)
Counter Inputs	1, 0-10Hz or 0-5kHz (dry contact); 2, 0-10kHz (turbine or dry contact)
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
Serial Port COM3	RS-232 port, 8-pin modular RJ45 jack, full or half duplex with RTS/CTS control and operator interface power control
Baud Rates	300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, and 115200
Serial Protocols	DNP3 Slave/Master, IEC60870-5-101 Slave, Modbus RTU Slave, optional Modbus Master and DF1 Master
Ethernet Port	RJ45, 10/100BaseT
IP Protocols	DNP3 in TCP Master/Slave, DNP3 in UDP Master/Slave, Modbus/TCP Client, IEC60870-5-104 Slave, NTP Server, Telnet Server, FTP Server, BOOTP Server, optional Modbus/TCP Server
USB Port	USB 2.0 compliant “B”-type receptacle, DNP3 protocol
Wireless	External modem (e.g. Schneider Electric GPRS modem ref. SR2MOD3)
General	
Logic Control	Optional IEC61131-3 SCADAPack Workbench programming suite (LD, ST, FBD & SFC)
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, –25°C (–13°F) to 70°C (158°F)
Power	
5210 Controller Board	• 11 - 30VDC, 8.5W typical • Add 25 to 100mW when enabling the LEDs • 12W at 24V maximum, 5V supply fully loaded
5611 I/O Module	• 11 - 30VDC, 10.3mA plus analog outputs • 325mA (max.) at 5V required from 5210 controller board
Warranty	3 years on parts and labor

Certifications

- CE marking
- C-Tick
- UL508 (US/Canada) - cULus
- FCC/ EN61000-6 emissions & immunity

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

Product Data Sheet SCADAPack 333E
Model Code

	TBUP333-EA54-AB00 represents a sample code for a SCADAPack 333E with 12V dry-contact relay outputs and no IEC61131 programming option.
Model	**Select: Controller**
TBUP333	SCADAPack 333E, 32-Bit controller, 4 Analog Inputs, 2 optional Analog Outputs, 16 Digital Inputs, 10 Digital Outputs, 3 Counter Inputs
Code	**Select: Platform**
E	E Firmware platform (SCADAPack E Configurator software included), executes two IEC61131-3 kernels (optional), 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 Encryption
	Notes: • The Security Administrator Application has to be purchased to generate and manage security keys. • AGA-12 Encryption is subject to export restrictions. Please consult with your TRSS business unit contact.
Code	**Select: Protocol Option**
5	DNP3 Slave/Master, IEC60870-5-101/-104 Slave, Modbus RTU Slave
Code	**Select: License Option**
4	Option 1: without IEC61131, Modbus Master and DF1 Master
5	Option 2: with IEC61131-3 (executes two kernels, SCADAPack Workbench required), Modbus Master and DF1 Master
	Notes: • Both options include DNP3 Data Concentrator license (limit of 500 points from 10 IEDs), Multiple DNP3 Master License (up to 3 Masters) • If you order a product with option 1 which you later want to upgrade to option 2, you have to order a RTU licence update (ref. TBUM297889)
Code	**Select: Analog Inputs**
A	4
Code	**Select: Digital Inputs/Outputs**
B	16 inputs and 10 outputs
Code	**Select: Analog Outputs**
0	None
1	2
Code	**Select: Future Option**
0	None