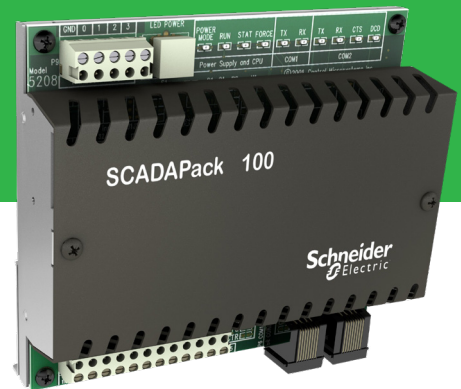


SCADAPack 100

Smart Remote Terminal Units



Product at a glance

The SCADAPack™ 100 Smart RTU is the most compact and cost-effective model in the SCADAPack family, providing serial communications and analog inputs and digital I/O.

The product offers 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 SCADAPack 100 is based on a multiprocessor architecture with a co-processor used for handling the onboard input/output channels.

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Specifications

Controller

Processors	<ul style="list-style-type: none"> 16-bit CMOS micro-controller, 14.74 MHz clock, integrated watchdog timer Micro-controller co-processor: 14.74 MHz clock
Memory	<ul style="list-style-type: none"> 256 KBytes CMOS RAM (controller ID number A182921 or less) 1024 KBytes CMOS RAM (controller ID number A182922 or greater) 512 KBytes flash ROM, 1 kBytes EEPROM
Non-volatile RAM	CMOS RAM with lithium battery retains contents for 2 years with no power

I/O

Analog Inputs	<ul style="list-style-type: none"> 3 at 5 Vdc /20 mA: 250 W resistance user configurable with jumper link 1 at 32.768 Vdc
Resolution	12-bit over the 5 Vdc and 32.768 Vdc measurement range
Digital I/O	6 points, each point is an input and an output, dry contact input, 1.0 A max output rating
Counter Inputs	1, maximum frequency 5 kHz, dry contact input, wetting current typically 5 mA with 24 Vdc input power

Communications

Communication Port COM1	RS-485 serial port, 2-pole removable terminal block, 2-wire half duplex, bias resistors installed
Communication Port COM1	RS-232 compatible serial port (CMOS), Data Terminal Equipment (DTE), 8 pin modular jack, full or half duplex, implemented Td, Rd, +5 Vdc
Communication Port COM2	RS-232 compatible serial port (CMOS), Data Terminal Equipment (DTE), 8 pin modular jack, full or half duplex, implemented Td, Rd, +5 Vdc
Baud Rates COM1 & COM2	RS-232 compatible serial port (CMOS), Data Terminal Equipment (DTE), 8 pin modular jack, full or half duplex with RTS/CTS control, implemented Td, Rd, CTS, RTS, DCD, DTR, +5 Vdc
Serial Protocols	Modbus RTU, Modbus ASCII, DNP3, DF1
Serial Protocol Modes	Slave, Master, Master/Slave, Store and Forward
Wireless ¹	Spread spectrum radio at 900 MHz ² and 2.4 GHz ²

General

I/O Terminations	5 and 12-pole, removable terminal blocks. 12...22 AWG 15 A contacts screw termination 6 lb.-in. (0.68 Nm) torque
Dimensions	5.65 in. wide x 5.00 in. high x 1.80 in. deep (144 mm x 127 mm x 45 mm)
Packaging	Corrosion resistant zinc plated steel with black enamel paint
Environment	5% RH to 95% RH, non-condensing, -40...70 °C (-40...158 °F)
DC Power Input	30 Vdc maximum, 10.0...11.5 Vdc turn on, 9.5 Vdc typical turn off, UL508 rated 13.75...28 Vdc. Class 2, less than 500 mW (at 12 Vdc) LEDs off, 2.9 W maximum
Output Capacity	5 Vdc at 0.425 A capacity, 5 Vdc at 0.060 A required by 5208 controller, 5 Vdc at 0.365 A available on COM1 and COM2
Warranty	3 years parts and labor

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Specifications - continued

Certifications

Hazardous Locations	Suitable for use in Class I, Division 2, Groups A, B, C and D Hazardous Locations
North America	Temperature Code T4 per CSA Std C22.2 No. 213-M1987 / UL1604 UL listed and CSA certified to the following standards: <ul style="list-style-type: none">• CSA Std. C22.2 No. 213-M1987 - Hazardous Locations• UL Std. No. 1604 - Hazardous (Classified) Locations
Hazardous Locations	ATEX II 3G, Ex nA IIC T4 per EN 60079-15, protection type n (Zone 2) Does not include wireless versions
Safety	CSA (cCSA _{US}) certified to the requirements of: CSA C22.2 No. 142-M1987 and UL508. (Process Control Equipment, Industrial Control Equipment) UL (cUL _{US}) listed: UL508 (Industrial Control Equipment)

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Model Code

SCADAPack 100: TBUP100-1A20-AA00 represents a sample code for a TBUP100 with DNP, 0...5 Vdc inputs

Code	Select: Controller
TBUP100	SCADAPack 100, comes with 3 Analog Inputs, 6 configurable Digital I/O, 1 Accumulator
TBUP110	SCADAPack 100, Gas Flow Controller with 1 Gas Flow Run (I/O as above)

Code	Select: Communication Serial Ports
1	2 Communication Ports (RJ45 Type): 1 RS-232 and 1 RS232/485

Code	Select: Memory Configuration
A	1 MB CMOS RAM (512 K OS, 512 K APP), 512 K FLASH ROM

Code	Select: Protocol Option
2	Modbus and DNP 3.0 (Level 2) protocol emulation (512 K OS, 512 K APP), 512 K FLASH ROM

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	3 Analog Inputs, individually selectable as 0...20 mA or 0...5 Vdc

Code	Select: Digital Inputs/Outputs
A	6 configurable Digital I/O, individually selectable as Digital Input (Dry Contact) or Digital Output (Open Drain)

Code	Select: Analog Outputs
0	None

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Model Code - continued

SCADAPack 100: TBUP100-1A20-AA00 represents a sample code for a TBUP100 with DNP, 0...5 Vdc inputs

Code	Select: Integrated Communication Interfaces
0	None
FreeWave™ & MDS™ Radios (requires one RS232 port)	
1	900 Mhz FreeWave Spread Spectrum Radio – consult factory for availability in your market area (not RoHS compliant)
A	900 Mhz MDS Spread Spectrum Radio – consult factory for availability in your market area (not RoHS compliant)
Trio™ Radios - 900 MHz (requires one RS232 port)	
B	900 MHz Trio Spread Spectrum Radio with encryption, 902...928 MHz (FCC / IC)
C	900 MHz Trio Spread Spectrum Radio with encryption, 915...928 MHz (AUS)
D	900 MHz Trio Spread Spectrum Radio, 915...928 MHz (BRAZIL)
E	900 MHz Trio Spread Spectrum Radio, 921...928 MHz (NZ)
Trio Data Radios - 2.4 GHz (requires one RS232 port)	
J	2.4 GHz Trio Spread Spectrum Radio, ETSI/100 mW, ATEX (EUROPE)
K	2.4 GHz Trio Spread Spectrum Radio with Encryption, 500 mW (CANADA, USA & AUSTRALIA)
L	2.4 GHz Trio Spread Spectrum Radio, 500 mW (OUTSIDE OF EUROPE, CANADA, USA & AUSTRALIA)

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

Note: This product is not RoHS compliant. Accessories sold separately. Schneider Electric reserves the right to change product specifications. For more information visit www.se.com.

Schneider Electric

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