






SCADAPack E-Series

Data Sheet

	SCADAPack314E	SCADAPack330E	SCADAPack334E
	P314E	P330E	P334E
			
Analog Inputs			
On-board	8, (0-20mA, 4-20mA, 0-5V, 0-10V, software configurable)	None	8, (0-20/4-20mA / 0-5/0-10V, software configurable)
Expansion¹	128 channels	128 channels	128 channels
Analog Outputs			
On-board	Standard: None 2, 0-20mA/4-20mA with optional 5305 module	None	Standard: None 2, 0-20mA/4-20mA with optional 5305 module
Expansion¹	64 channels	64 channels	64 channels
Digital Inputs			
On-board	16, 12/24V, 48V, 115/125V, 240V	None	16, 12/24V, 48V, 115/125V, 240V
Expansion¹	512 inputs	512 inputs	512 inputs
Digital Outputs			
On-board	10, dry contact relays or 10, solid-state relays paired with 12/24V DIs only (ATEX)	None	10, dry contact relays or 10, solid-state relays paired with 12/24V DIs only (ATEX)
Expansion¹	512 outputs	512 outputs	512 outputs
Frequency Inputs			
On-board	1, 0-10Hz or 0-5kHz (dry contact)	1, 0-10Hz or 0-5kHz (dry contact)	1, 0-10Hz or 0-5kHz (dry contact)
Expansion	64 inputs	64 inputs	64 inputs
Turbine Inputs	2, 0-10kHz (turbine or dry contact)	2, 0-10kHz (turbine or dry contact)	2, 0-10kHz (turbine or dry contact)
Communication Ports	2, RS232/RS485 (Ethernet port not available)	2, RS232/RS485 1, RS232 1, Ethernet 10/100BaseT	2, RS232/RS485 1, RS232 1, Ethernet 10/100BaseT
USB Ports	1, Peripheral Port: USB 2.0-compliant, "B" - type receptacle	← 1, Host Port: USB 2.0 Compliant "A" - type receptacle →	← 1, Peripheral Port: USB 2.0 Compliant "B" - type receptacle →
Compact Flash Socket	None	None	None
Serial Protocols	← DNP3, Modbus RTU, DF1 →	← DNP3, Modbus RTU, DF1 →	← DNP3, Modbus RTU, DF1 →
Ethernet Protocols	N/A	DNP3/IP, Modbus/TCP, TCP/IP IEC60870-5-104 Slave	DNP3/IP, Modbus/TCP, TCP/IP IEC60870-5-104 Slave
Network Protocols	N/A	IP, ARP, TCP, UDP, PPP, ICMP (Ping), Telnet, BOOTP, FTP, NTP	IP, ARP, TCP, UDP, PPP, ICMP (Ping), Telnet, BOOTP, FTP, NTP
Optional Wireless	← Integrated or stand-alone module available with Trio (900MHz and 2.4GHz), Freewave (900 MHz and 2.4 GHz) or MDS TransNET (900 MHz). Frequencies not available in all areas. →	← Integrated or stand-alone module available with Trio (900MHz and 2.4GHz), Freewave (900 MHz and 2.4 GHz) or MDS TransNET (900 MHz). Frequencies not available in all areas. →	← Integrated or stand-alone module available with Trio (900MHz and 2.4GHz), Freewave (900 MHz and 2.4 GHz) or MDS TransNET (900 MHz). Frequencies not available in all areas. →
12 / 24 VDC Converter	None	None	None
Sequence of events (SOE)	None	None	None
Event Logging Capacity (events)	20,000	20,000	20,000
Maximum Database Points (typical)	1,000	1,000	1,000
Processor	ARM7 32-bit microcontroller, 32 MHz	ARM7 32-bit microcontroller, 32 MHz	ARM7 32-bit microcontroller, 32 MHz
Hazardous Area Rating²	← cCSAus Class 1, Div 2 and ATEX II 3G, CSA certified to UL508 standards, IECEx: Ex nA IIC T4 per EN 60079-15, protection type n (Zone 2) →	← cCSAus Class 1, Div 2 and ATEX II 3G, CSA certified to UL508 standards, IECEx: Ex nA IIC T4 per EN 60079-15, protection type n (Zone 2) →	← cCSAus Class 1, Div 2 and ATEX II 3G, CSA certified to UL508 standards, IECEx: Ex nA IIC T4 per EN 60079-15, protection type n (Zone 2) →

¹ Using maximum of sixteen Series 5000 expansion modules. Supported modules: 5304, 5405, 5411, 5414, 5415, 5505, 5506, 5606 and 5607.

² ATEX and IECEx: 24V DI/Solid State Relay version only, Wireless versions pending approvals.

	SCADAPack350E P350E	SCADAPack357E P357E
		
Analog Inputs		
On-board	5, User-selectable, 0-10V or 0-20mA 1, 0-32.7VDC	5, User-selectable, 0-10V or 0-20mA 1, 0-32.7VDC 8, (0-20/4-20mA / 0-5/0-10V, software configurable)
Expansion¹	128 channels	128 channels
Analog Outputs		
On-board	Standard: None 2, 0-20mA/4-20mA with optional 5305	Standard: None 2 or 4, 0-20mA/4-20mA with two optional 5305 modules
Expansion¹	64 channels	64 channels
Digital Inputs		
On-board	8, User-selectable as dry contact inputs. Shared with outputs	8, User-selectable as dry contact inputs. Shared with outputs 32, (12/24V, 48V, 115/125V, 240V)
Expansion¹	512 inputs	512 inputs
Digital Outputs		
On-board	8, User-selectable as open drain outputs. Shared with inputs	8, User-selectable as open drain outputs. Shared with inputs 16 (dry contact)
Expansion¹	512 outputs	512 outputs
Frequency Inputs		
On-board	1, 0-10Hz (dry contact)	1, 0-10Hz (dry contact)
Expansion	64 inputs	64 inputs
Turbine Inputs	2, 0-10kHz (turbine or dry contact)	2, 0-10kHz (turbine or dry contact)
Communication Ports	1, RS485 1, RS232/RS485 1, RS232 1, Ethernet 10/100BaseT	1, RS485 1, RS232/RS485 1, RS232 1, Ethernet 10/100BaseT
USB Ports	1, Host Port: USB 2.0 Compliant "A" - type receptacle 1, Peripheral Port: USB 2.0 Compliant "B" - type receptacle	1, Host Port: USB 2.0 Compliant "A" - type receptacle 1, Peripheral Port: USB 2.0 Compliant "B" - type receptacle
Compact Flash Socket	None	None
Serial Protocols	DNP3, Modbus RTU, DF1 IEC60870-5-103 Master (optional), IEC60870-5-101 Slave	DNP3, Modbus RTU, DF1 IEC60870-5-103 Master (optional), IEC60870-5-101 Slave
Ethernet Protocols	DNP3/IP, Modbus/TCP, TCP/IP IEC60870-5-104 Slave	DNP3/IP, Modbus/TCP, TCP/IP IEC60870-5-104 Slave
Network Protocols	IP, ARP, TCP, UDP, PPP, ICMP (Ping), Telnet, BOOTP, FTP, NTP	IP, ARP, TCP, UDP, PPP, ICMP (Ping), Telnet, BOOTP, FTP, NTP
Optional Wireless	← Integrated or stand-alone module available with Trio (900MHz and 2.4GHz), Freewave (900 MHz and 2.4 GHz) or MDS TransNET (900 MHz). Frequencies not available in all areas. →	
12 / 24 VDC Converter	Yes	Yes
Sequence of events (SOE)	None	None
Event Logging Capacity (events)	20,000	20,000
Maximum Database Points (typical)	1,000	1,000
Processor	ARM7 32-bit microcontroller, 32 MHz	ARM7 32-bit microcontroller, 32 MHz
Hazardous Area Rating²	cCSA _{US} Class 1, Div 2 and ATEX II 3G, CSA certified to UL508 standards, IECEx: Ex nA IIC T4 per EN 60079-15, protection type n (Zone 2)	

1 Using maximum of sixteen Series 5000 expansion modules. Supported modules: 5304, 5405, 5411, 5414, 5415, 5505, 5506, 5606 and 5607.

2 SCADAPack 357-based 24V DI/Solid State Relay versions only, Wireless versions pending approval.

SCADAPackES P500



SCADAPackER P600



Analog Inputs

On-board	4, 6, or 12 inputs, 0-5V, 1-5V, 0-20mA and 4-20mA	16 inputs per module, 0-20mA, 4-20mA, +/-10mA; 0-5V, 1-5V, 0-10V, +/-10V
Expansion ^{1,2}	128 channels	Up to 12 I/O modules of all types supported in rack

Analog Outputs

On-board	2 or 4 outputs, 0-20mA, 4-20mA	4 outputs per module, 4-20mA, 1-5V
Expansion ^{1,2}	64 channels	Up to 12 I/O modules of all types supported in rack

Digital Inputs

On-board	8, 16, or 32 inputs, 10-30 VDC, shared with Counter Inputs	32 inputs per module, current sink, 3mA per channel
Expansion ^{1,2}	512 inputs	Up to 12 I/O modules of all types supported in rack

Digital Outputs

On-board	2, 8 or 16 outputs, DPDT Relay, (NO/Common/NC)	16 outputs per module, mechanical relay, (NO/Common/NC)
Expansion ^{1,2}	512 outputs	Up to 12 I/O modules of all types supported in rack

Frequency Inputs

On-board	8, 16, or 32 inputs, 10-30 VDC, shared with Digital Inputs	32 inputs per module, 0-5kHz, shared with Digital Inputs
Expansion ^{1,2}		Up to 12 I/O modules of all types supported in rack

Turbine Inputs

None

Communication Ports

3, RS232 2, RS232/RS422/RS485 2, Ethernet 10/100BaseT	1, RS232 (full hardware flow control) 2, RS232 2, RS232/RS422/RS485 2, Ethernet 10/100BaseT
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USB Ports

None

Compact Flash Socket

1, Compact Flash Type 1, supports up to 2GB card

Serial Protocols

DNP3, Modbus RTU, DF1 IEC60870-5-103 Master, IEC60870-5-101 Slave (optional)	DNP3, Modbus RTU, DF1 IEC60870-5-103 Master, IEC60870-5-101 Slave (optional)
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Ethernet Protocols

DNP3/IP, Modbus/TCP, TCP/IP IEC60870-5-104 Slave (optional)	DNP3/IP, Modbus/TCP, TCP/IP IEC60870-5-104 Slave (optional)
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Network Protocols

IP, ARP, TCP, UDP, PPP, ICMP (Ping), Telnet, BOOTP, FTP, NTP	IP, ARP, TCP, UDP, PPP, ICMP (Ping), Telnet, BOOTP, FTP, NTP
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Optional Wireless

← Stand-alone module available with Trio (900MHz and 2.4GHz), Freewave (900 MHz and 2.4 GHz) or MDS TransNET (900 MHz). Frequencies not available in all areas. →

12 / 24 VDC Converter

optional

Sequence of events (SOE)

10 ms	1 ms
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Event Logging Capacity (events)

40,000	40,000
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Maximum Database Points (typical)

20,000	20,000
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Processor

AMD Elan™ SC520 32-bit embedded processor, 100MHz	AMD Elan™ SC520 32-bit embedded processor, 100MHz
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Hazardous Area Rating

cCSAUS Class 1, Division 2	None
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1 Using maximum of sixteen 5000 Series expansion modules. Supported modules: 5304, 5405, 5411, 5414, 5415, 5505, 5506, 5606 and 5607.

2 Up to 15 SCADAPackES controllers may be configured as remote I/O. Only the main SCADAPack ES supports 5000 Series expansion modules.