SEL-451-5 With 8U Chassis

Protection, Automation, and Control System, Standard With Serial Communication $Protocols^{(1)}$, Synchrophasor Measurement, 8 Outputs, 7 Inputs, ACSELERATOR QuickSet® SEL-5030 Software⁽²⁾, and Configurable Labels

Part Number:	0	4	5	1	5										8				
Firmware																			
Standard					5														
Power Supply																			
24-48 Vdc						2													
48-125 Vdc or 110-120 Vac						4													
125-250 Vdc or 110-240 Vac						6													
Connector Type																			
Screw Terminal Block							1												
Connectorized® Relay ⁽¹⁰⁾ *							2												
Secondary Input Current																			
1 A Phase								1											
5 A Phase								5											
1 A Phase With High Impedance Fault Detection*								D											
5 A Phase With High Impedance Fault Detection*								Е											
Secondary Input Voltage 300 V Phase - Neutral Maximum (Wye)									Χ										
Euro Connector with IEEE C37.92 Low Energy Analog Inputs (LEA) ⁽³⁾									1									2	
	_																		
Ethernet Communications Pro	otoc	cols								W	V	1	1	1					
None FTP, Telnet, Synchrophasors, and										X	X						<u> </u>		
DNP3 LAN/WAN										В									
FTP, Telnet, Synchrophasors, DNP3 LAN/WAN, and IEC 61850*										С									
Ethernet Connection Options																			
None										Χ	Χ								
Ports 5A, 5B ⁽⁴⁾ With PTP: Ethernet Card With Two 10/100BASE-T Connectors*											1								
Ports 5A, 5B ⁽⁴⁾ With PTP: Ethernet											3								
Card With Two 100BASE-FX Connectors*																			
Ports 5A, 5B ⁽⁴⁾ With PTP: Ethernet Card With One 10/100BASE-T, One 100BASE-FX Connector*											5								
Ports 5C, 5D ⁽⁵⁾ : Ethernet Card With Two 10/100BASE-T Connectors*											0								
Ports 5C, 5D ⁽⁵⁾ : Ethernet Card With Two 100BASE-FX Connectors*											2								
Ports 5C, 5D ⁽⁵⁾ : Ethernet Card With One 10/100BASE-T, One 100BASE-FX Connector*											4								

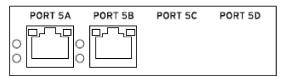
Mainboard Input Voltage Standard with 3 High-Current Interrup	otina O	utputs	, 2 Sta	andar	rd Fo	orm	ΑО	utpu	ts. 3	3 Sta	ndar	d Fo	orm (. Oı	ıtpu	ts. a	nd 7	,	
Optoisolated Level-Sensitive Inputs			,						, -						p	, -			
24 Vdc											1								
48 Vdc											2								
110 Vdc											3								
125 Vdc											4								
220 Vdc											5								
250 Vdc											6								
Mounting																			
Horizontal Rack Mount												Н							
Horizontal Panel Mount												3							
Chanain																			
Chassis 8U, Front Panel With 24 Target LEDs,													0						
12 Operator Control Pushbuttons, and Tri-Color LEDs*													8						
I/O Board Position B 8 Independent Inputs, 13 Standard														1	Х				
Form A, 2 Standard Form C Outputs*															Χ				
8 Optoisolated Independent Level- Sensitive Inputs, 13 Standard Form														2					
A, 2 Standard Form C Outputs* 24 Optoisolated Level-Sensitive						_				1									
Inputs, 8 Outputs ⁽⁶⁾ *														4					
8 Independent Inputs, 8 High-Speed High-Current Interrupting Form A Outputs*														5	Χ				
8 Independent Inputs, 13 High-														6	Χ				
Current Interrupting Form A, 2 Standard Form C Outputs*															, , <u>, , , , , , , , , , , , , , , , , </u>				
8 Optoisolated Independent Level-														7					
Sensitive Inputs, 13 High-Current Interrupting Form A, 2 Standard Form C Outputs*																			
8 Optoisolated Independent Level-														8					
Sensitive Inputs, 8 High-Speed High- Current Interrupting Form A Outputs*																			1
Auxiliary Trip/Close Pushbuttons, 24														Α					
Optoisolated Level-Sensitive Inputs, 4 High-Current Interrupting Form A Outputs ⁽⁸⁾ *																			
Auxiliary Trip/Close Pushbuttons With														В					
Guards, 24 Optoisolated Level- Sensitive Inputs, 4 High-Current																			
Interrupting Form A Outputs ⁽⁷⁾⁽⁸⁾ *																			
I/O Board Position B Input V	oltag	e																	
User-Settable Pickup Voltage Level															Х				
(Available only on I/O Board Options 1, 5, and 6)																			
24 Vdc															1				
48 Vdc															2				
110 Vdc															3				
125 Vdc															4				
220 Vdc															5				
250 Vdc															6				

I/O Board Pos																						
8 Independent Inp	uts, 13 Standard d Form C Outputs*																		1	Χ		
8 Optoisolated Ind						_	_		_		_				_	_			<u> </u>			
Sensitive Inputs, 1 A, 2 Standard Form	3 Standard Form																		2			
24 Optoisolated Le Inputs, 8 Outputs ⁽⁶																			4			
8 Independent Inp				П	Т										Т	Т			5	Χ		
High-Current Inter Outputs*	, -																			71		
8 Independent Inp Current Interruptir Standard Form C C	ng Form A, 2																		6	X		
8 Optoisolated Ind Sensitive Inputs, 1 Interrupting Form Form C Outputs*	3 High-Current																		7			
8 Optoisolated Ind Sensitive Inputs, 8 Current Interruptir Outputs*	High-Speed High-																		8			
I/O Board Pos	ition C Input Vo	olta	ge																			
User-Settable Picks (Available only on I/																				Χ		
5, and 6) 24 Vdc					Т											Т	T			1		
48 Vdc				T	Ť											Ť	T			2		
110 Vdc					T		Ť		Ť		Ť	i		T	i i	T	Ť			3		
125 Vdc				Ī	T											Ī	Ī			4		
220 Vdc					T															5		
250 Vdc																				6		
I/O Positions I Boards in Position	D and E D and E will be of th	ne sa	ame	typ	e aı	nd w	rill u	ıtilize	e th	e sel	ecte	d Ma	inbo	ard	Inpi	ut V	oltad	je				
8 Optoisolated Ind Sensitive Inputs, 1 A, 2 Standard Forn	3 Standard Form												2									
24 Optoisolated Le Inputs, 8 Outputs ⁽⁾													4									
8 Optoisolated Ind Sensitive Inputs, 1 Interrupting Form Form C Outputs	ependent Level- 3 High-Current												7									
8 Optoisolated Ind	ependent Level-				Т								8					Т				
Sensitive Inputs, 8 Current Interrupting	High-Speed High- ng Form A Outputs												<u> </u>									
Conformal Coa	t																					
None																					Χ	
Conformally Coate	d Circuit Boards*																				2	
Front Overlay																						
Standard Front Ov	erlay																					Χ
Bay Control Front	Overlay																					1
Accessories																						
Literature	Duinkad Turk																					
	Printed Instruction Manual ⁽⁹⁾	PN	1 4	5	1 -	0 2																

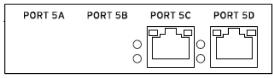
Wiring Harness		
Connec Wiring SEL-45 *	rized $^{\otimes}$ arness for Please see Online MOT or contact SEL REP or CSR for ordering information. Relays $^{(10)}$	

^{*} Additional Cost

(4) Only two Ethernet ports will be populated based on the Ethernet Connection Options Selection. IEEE Precision Time Protocol (PTP) is only available on Port 5A and 5B.



(5) PTP is not available on Ports 5C and 5D.



^{(6) 18} Common Inputs, 6 Independent Inputs, 6 High-Speed High-Current Interrupting Form A Outputs, 2 Standard Form A Outputs.

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⁽¹⁾ Serial Protocols: SEL ASCII, Compressed ASCII, Settings File Transfer, SEL Fast Meter with Configuration, Fast Operate, Fast SER, Phasor Measurement, Enhanced Mirrored Bits® Communications, DNP3 Level 2 Server Plus Dial-Out and Virtual Terminal.

⁽²⁾ Download ACSELERATOR QuickSet SEL-5030 software for free at https://www.selinc.com/softwaresolutions/. QuickSet on CD (503001WX4) is available upon request.

⁽³⁾ The LEA Voltage Input option requires Conformal Coating.

⁽⁷⁾ The guards help prevent inadvertent operation of the auxiliary Trip/Close pushbuttons. These guards may be ordered separately in a kit (part number 9252001).

^{(8) 18} Common Inputs, 6 Independent Inputs, 4 High-Current Interrupting Form A Outputs.

⁽⁹⁾ This product comes standard with a CD manual. One complimentary printed instruction manual is available upon request with each product purchased.

⁽¹⁰⁾ Order a Connectorized® Wiring Harness for SEL-451 (harness shipped separately).