

SEL-751A

Feeder Protection Relay

SEL-751A Base Unit

- Vertical Chassis
- Front Panel
 - Large LCD Display
 - 4 Programmable Pushbuttons w/8 LEDs
 - 8 Target LEDs (6 Programmable)
 - Operator Control Interface
 - EIA-232 Port
- Processor and Communications Card
 - EIA-232 Port
 - IRIG-B Time Code Input
- Power Supply Card with 2 DI, 3 DO
- IA, IB, IC, IN Current Inputs Card
- Synchrophasors with IEEE.C37.118 Protocol
- ACSELERATOR QuickSet® SEL-5030 Software⁽¹⁾
- Instruction Manual CD (printed manual available)⁽²⁾
- Protocols
 - Modbus® RTU
 - SEL ASCII and Compressed ASCII
 - SEL Fast Meter, Fast Operate, Fast SER
 - SEL Fast Message
 - Ymodem File Transfer
 - SEL MIRRORRED BITS® Communications
 - Event Messenger®
- 3 Expansion Slots for Optional Cards
- Breaker Monitoring

Part Number:

7 5 1 A

Firmware/User Interface

Standard Firmware, No Configurable Labels	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Standard Firmware plus Reclosing, No Configurable Labels	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Standard Firmware with Configurable Labels*	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Standard Firmware plus Reclosing with Configurable Labels*	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

SELEct Power Supply with I/O Option Slot A

Power Supply 110-250 Vdc, 110-240 Vac, 50/60 Hz (SELEct PSIO / 2 DI / 3 DO)	125 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	24 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	48 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	110 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	220 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	250 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
Power Supply 24-48 Vdc (SELEct PSIO / 2 DI / 3 DO)	125 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	24 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	48 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	110 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	220 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
	250 Vdc/Vac Digital Input	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>

SELECT Processor Board Option Slot B																	
Processor Board (SELECT CPU/COM)	Slot B Options Include EIA-232 Front, IRIG-B, SEL ASCII, Compressed ASCII, Fast Meter, Fast Operate, Fast Message, MIRROR ED BITS, and Modbus RTU	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Slot B Options Include EIA-232 Front, IRIG-B, Fiber Optic Serial Multimode ST, SEL ASCII, Compressed ASCII, Fast Meter, Fast Operate, Fast Message, MIRROR ED BITS, and Modbus RTU*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

[illegible]

SELECT Protocols Slot B	
Protocols	Standard
	Standard plus IEC 61850 (requires Ethernet)*
	Standard plus DNP3*
	Standard plus DNP3 plus IEC 61850 (requires Ethernet)*

[illegible]

[illegible]

No Card	Empty
3 Digital Input / 4 Digital Output / 1 4 –20mA Analog Output (SELEct 3 DI / 4 DO / 1 AO) ⁽³⁾	125 Vdc/Vac DI, Electromechanical DO*
	24 Vdc/Vac DI, Electromechanical DO*
	48 Vdc/Vac DI, Electromechanical DO*
	110 Vdc/Vac DI, Electromechanical DO*
	220 Vdc/Vac DI, Electromechanical DO*
	250 Vdc/Vac DI, Electromechanical DO*
4 Digital Input / 4 Digital Output (SELEct 4 DI / 4 DO)	125 Vdc/Vac DI, Electromechanical DO*
	24 Vdc/Vac DI, Electromechanical DO*
	48 Vdc/Vac DI, Electromechanical DO*
	110 Vdc/Vac DI, Electromechanical DO*
	220 Vdc/Vac DI, Electromechanical DO*
	250 Vdc/Vac DI, Electromechanical DO*
	125 Vdc/Vac DI, Fast High Current Interrupting DO*
	24 Vdc/Vac DI, Fast High Current Interrupting DO*
	48 Vdc/Vac DI, Fast High Current Interrupting DO*

	SEL-C814 Arc-Flash Detection (AFD) Fiber Cables and Accessories (configurable length and number of splices)*	Please see Online MOT or contact SEL REP or CSR for ordering information.
	SEL-C234 EIA-232 Serial Cable, SEL-751A to DTE Device (9-Pin Female) (configurable length)*	Please see Online MOT or contact SEL REP or CSR for ordering information.
	SEL-C227A EIA-232 Serial Cable, SEL-751A to DTE Device (25-Pin Female) (configurable length)	C 2 2 7 A
	SEL-C222 EIA-232 Serial Cable, SEL-751A to DCE Device (25-Pin Female) (configurable length)	C 2 2 2
	SEL-C272 EIA-232 Serial Cable, SEL-751A to SEL Communications Processor (without IRIG-B signal) (configurable length)*	Please see Online MOT or contact SEL REP or CSR for ordering information.
	SEL-C273 EIA-232 Serial Cable, SEL-751A to SEL Communications Processor (with IRIG-B signal) (configurable length)*	Please see Online MOT or contact SEL REP or CSR for ordering information.
	SEL-CA605 CAT 5e, Shielded Twisted Pair (STP) Ethernet Cable (configurable length)*	Please see Online MOT or contact SEL REP or CSR for ordering information.
	SEL-C805 200 µm Multimode Fiber-Optic Cable (configurable length)*	Please see Online MOT or contact SEL REP or CSR for ordering information.
	SEL-C807 62.5/200 µm Multimode Fiber-Optic Cable (configurable length)*	Please see Online MOT or contact SEL REP or CSR for ordering information.
	SEL-C808 62.5/125 µm Multimode Fiber-Optic Cable (configurable length)*	Please see Online MOT or contact SEL REP or CSR for ordering information.

* Additional Cost

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

(2) The SEL-751A can be ordered with a CD manual.

(3) Only one (1) 3 DI / 4 DO / 1 AO card per chassis.

(4) Only one (1) 4 AI / 4 AO card per chassis.

(5) Monitoring Package includes: Synch Check and Battery Monitor Inputs.

(6) Advanced Metering and Protection Package includes: Monitoring Package plus 59G, 59Q, 81R, 81RF (Islanding Detection for Aurora Mitigation), Directional Power (32), and Demand Metering.

(7) For Arc-Flash Detection Point Sensors, Bare-Fiber Sensors, or Cable Accessories, see SEL-C804 Multimode Fiber-Optic Arc-Flash Detection (AFD) Sensors and C814 Arc-Flash Detection (AFD) Fiber Cables and Accessories.

(8) In order to achieve the 2-5 ms operate times for Arc-Flash Protection it is required that the SEL-751A include a 4 DI/4 DO Fast High Current Interrupting Card.

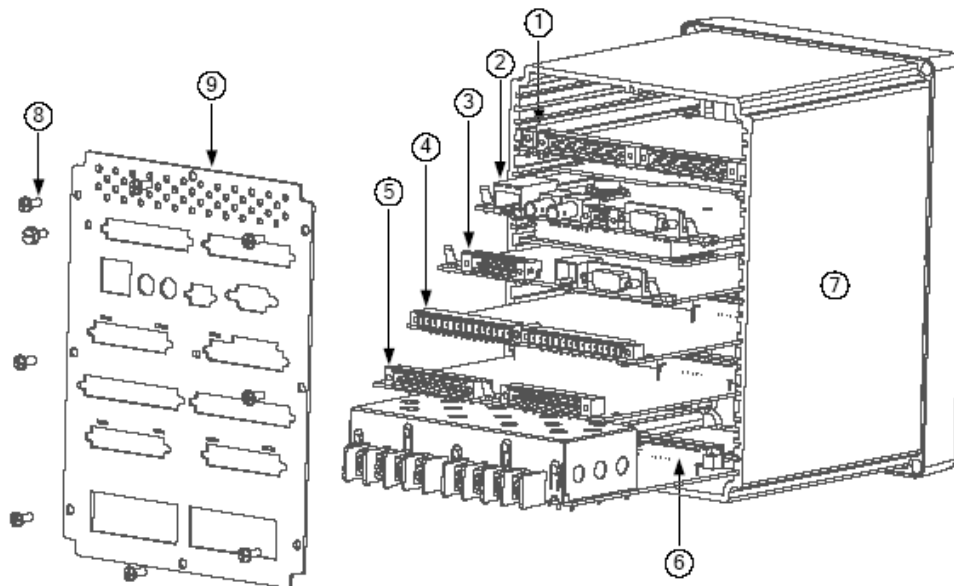
(9) Includes all items from footnote (6) as well as an additional CT input that allows the user to input residual current (IG) into the relay instead of relying on a calculated IG (3IO) quantity.

(10) One complimentary printed instruction manual is available upon request with each product purchased.

NOTES:

- Base unit includes slots A, B (EIA-232), Z, HMI, and Front EIA-232 Port.
- Order 3 AVI Card for AC Voltage Input only.
- The protocols SNTP and Modbus TCP are included in the STANDARD offering with Ethernet Option.
- A configuration kit is provided for the front panel configurable labels (packaged in the shipping box). For additional kits, order SEL part number 9260027.
- For additional remote I/O capability, order SEL-2505 Remote I/O Module that is SEL-2812 compatible (ST option only).
- Order external AC powered RTD module SEL-2600A or external DC powered RTD module SEL-2600D using WI-5997 to interface remote external resistive temperature devices (RTD) or use internal RTD inputs option in Slot D. In order to connect to an external SEL-2600A or SEL-2600D, the fiber-optic serial port option must be included.
- The SEL-751A option cards are orderable separately for field installation. Use WI-5932 and contact your SEL representative to order option cards.
- For relay wire termination kits, please see Application Note AN2014-08 on the SEL website or contact SEL REP or CSR for ordering information.
- For SEL-751A Mounting Accessories including adapter plates, dust protectors, etc go to http://www2.selinc.com/mounting_selector/.

Chassis Card Slot Configuration



- | | |
|---|------------------------------|
| ① SELECT Power Supply Card with I/O (Slot A) | ⑥ SELECT 4 ACI Card (Slot Z) |
| ② SELECT Processor and Communications Card (Slot B) | ⑦ Device Case |
| ③ SELECT I/O Expansion Card (Slot C) | ⑧ Rear Panel Mounting Screws |
| ④ SELECT I/O Expansion Card (Slot D) | ⑨ Rear Panel |
| ⑤ SELECT I/O Expansion Card (Slot E) | |

Making Electric Power Safer, More Reliable, and More Economical ®

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