

Options

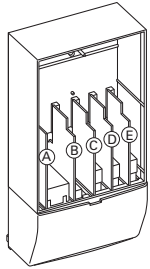
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SVX Series Option Board Kits

The SVX Series drives can accommodate a wide selection of expander and adapter option boards to customize the drive for your application needs. The drive's control unit is designed to accept a total of five option boards.

The SVX Series factory installed standard board configuration includes an A9 I/O board and an A2 relay output board, which are installed in slots A and B.

Option Boards



Option Board Kits

Option Kit Description ^①	Allowed Slot Locations ^②	Field Installed Catalog Number	Factory Installed Option Designator	SVX Ready Programs						
				Basic	Local/Remote	Standard	MSS	PID	Multi-P.	PFC
Standard I/O Cards										
6 DI, 1 DO, 2 AI, 1 AO, 1 +10 Vdc ref, 2 ext +24 Vdc/EXT +24 Vdc	A	OPTA9	—	■	■	■	■	■	■	■
2 RO (NC-NO)	B	OPTA2	—	■	■	■	■	■	■	■
Extended I/O Cards										
2 RO, therm	B	OPTA3	A3	—	■	■	■	■	■	■
Encoder low volt +5 V/15 V/24 V—SPX only	C	OPTA4	A4	—	■	■	■	■	■	■
Encoder high volt +15 V/24 V—SPX only	C	OPTA5	A5	—	■	■	■	■	■	■
Double encoder—SPX only	C	OPTA7	A7	■	■	■	■	■	■	■
6 DI, 1 DO, 2 AI, 1 AO	A	OPTA8	A8	—	■	■	■	■	■	■
3 DI (encoder 10–24 V), out +15 V/+24 V, 2 DO (pulse+direction)—SPX only	C	OPTAE	AE	■	■	■	■	■	■	■
6 DI, 1 ext +24 Vdc/EXT +24 Vdc	B, C, D , E	OPTB1	B1	—	—	—	—	—	■	■
1 RO (NC-NO), 1 RO (NO), 1 therm	B, C, D , E	OPTB2	B2	—	—	—	—	—	■	■
1 AI (mA isolated), 2 AO (mA isolated), 1 ext +24 Vdc/EXT +24 Vdc	B, C, D , E	OPTB4	B4	■	■	■	■	■	■	■
3 RO (NO)	B, C, D , E	OPTB5	B5	—	—	—	—	—	■	■
1 ext +24 Vdc/EXT +24 Vdc, 3 Pt100	B, C, D , E	OPTB8	B8	—	—	—	—	—	—	—
1 RO (NO), 5 DI 42–240 Vac input	B, C, D , E	OPTB9	B9	—	—	—	—	—	■	■
Communication Cards										
Modbus ^③	D, E	OPTC2	C2	■	■	■	■	■	■	■
Modbus TCP	D, E	OPTCI	CI	■	■	■	■	■	■	■
BACnet	D, E	OPTCJ	CJ	■	■	■	■	■	■	■
EtherNet/IP	D, E	OPTCQ	CQ	■	■	■	■	■	■	■
Johnson Controls N2 ^③	D, E	OPTC2	CA	—	—	—	—	—	—	—
PROFIBUS DP	D, E	OPTC3	C3	■	■	■	■	■	■	■
LonWorks	D, E	OPTC4	C4	■	■	■	■	■	■	■
PROFIBUS DP (D9 connector)	D, E	OPTC5	C5	■	■	■	■	■	■	■
CANopen (slave)	D, E	OPTC6	C6	■	■	■	■	■	■	■
DeviceNet	D, E	OPTC7	C7	■	■	■	■	■	■	■
Modbus (D9 type connector)	D, E	OPTC8	C8	■	■	■	■	■	■	■
Adapter—SPX only	D, E	OPTD1	D1	■	■	■	■	■	■	■
Adapter—SPX only	D, E	OPTD2V	D2	■	■	■	■	■	■	■
RS-232 with D9 connection	D, E	OPTD3	D3	■	■	■	■	■	■	■

Notes

^① AI = Analog Input; AO = Analog Output, DI = Digital Input, DO = Digital Output, RO = Relay Output

^② Option card must be installed in one of the slots listed for that card. Slot indicated in bold is the preferred location.

^③ OPTC2 is a multi-protocol option card.

Modbus RTU Network Communications

The Modbus Network Card OPTC2 is used for connecting the SVX Drive as a slave on a Modbus network. The interface is connected by a 9-pin DSUB connector (female) and the baud rate ranges from 300 to 19,200 baud. Other communication parameters include an address range from 1 to 247; a parity of None, Odd or Even; and the stop bit is 1.

PROFIBUS Network Communications

The PROFIBUS Network Card OPTC3 is used for connecting the SVX Drive as a slave on a PROFIBUS-DP network. The interface is connected by a 9-pin DSUB connector (female). The baud rates range from 9.6 Kbaud to 12 Mbaud, and the addresses range from 1 to 127.

LonWorks Network Communications

The LonWorks Network Card OPTC4 is used for connecting the SVX Drive on a LonWorks network. This interface uses Standard Network Variable Types (SNVT) as data types. The channel connection is achieved using a FTT-10 A Free Topology transceiver via a single twisted transfer cable. The communication speed with LonWorks is 78 kBits/s.

CANopen (Slave) Communications

The CANopen (Slave) Network Card OPTC6 is used for connecting the SVX Drive to a host system. According to ISO11898 standard cables to be chosen for CANbus should have a nominal impedance of 120 ohms, and specific line delay of nominal 5 nS/m. 120 ohms line termination resistors required for installation.

DeviceNet Network Communications

The DeviceNet Network Card OPTC7 is used for connecting the SVX Drive on a DeviceNet Network. It includes a 5.08 mm pluggable connector. Transfer method is via CAN using a two-wire twisted shielded cable with two-wire bus power cable and drain. The baud rates used for communication include 125 Kbaud, 250 Kbaud and 500 Kbaud.

Johnson Controls Metasys N2 Network Communications

The OPTC2 fieldbus board provides communication between the SVX Drive and a Johnson Controls Metasys™ N2 network. With this connection, the drive can be controlled, monitored and programmed from the Metasys system. The N2 fieldbus is available as a factory installed option and as a field installable kit.

Modbus/TCP Network Communications

The Modbus/TCP Network Card OPTCI is used for connecting the SVX Drive to Ethernet networks utilizing Modbus protocol. It includes an RJ-45 pluggable connector. This interface provides a selection of standard and custom register values to communicate drive parameters. The board supports 10 Mbps and 100 Mbps communication speeds. The IP address of the board is configurable over Ethernet using a supplied software tool.

BACnet Network Communications

The BACnet Network Card OPTCJ is used for connecting the SVX Drive to BACnet networks. It includes a 5.08 mm pluggable connector. Data transfer is Master-Slave/Token Passing (MS/TP) RS-485. This interface uses a collection of 30 Binary Value Objects (BVOs) and 35 Analog Value Objects (AVOs) to communicate drive parameters. The card supports 9.6, 19.2 and 38.4 Kbaud communication speeds and supports network addresses 1–127.

EtherNet/IP Network Communications

The EtherNet/IP Network Card OPTCK is used for connecting the SVX Drive to Ethernet/Industrial Protocol networks. It includes an RJ-45 pluggable connector. The interface uses CIP objects to communicate drive parameters (CIP is “Common Industrial Protocol”, the same protocol used by DeviceNet). The board supports 10 Mbps and 100 Mbps communication speeds. The IP address of the board is configurable by Static, BOOTP and DHCP methods.