

SPX-1400_MAN_261007

Cypress OSDP I/O Extender - SPX-1400 Overview and Specifications

The OSDP I/O Extender reduces the number of conductors required when connecting an OSDP reader and its physical door I/O hardware to the access controller over the 2-wire OSDP connection. The door hardware typically includes the door strike, door position sensor, and REX switch. The SPX-1400 includes 1 central unit in an aluminum enclosure, which connects to the controller, and 1 remote unit in an outdoor-rated enclosure, which connects to the OSDP reader and door hardware.

The access controller and OSDP reader communicate transparently over the OSDP data connection between the SPX-1400 central and remote units. Physical I/O is handled only between the SPX-1400 units.

Specifications			
Part Number	SPX-1400	UPC: 816684005824	OSDP I/O Extender (pair of Central and Remote units)
Physical	Dimensions		Central Unit: 4.50" x 2.85" x 0.94" Remote Unit: 9.25" x 7.0" x 2.25"
	Weight		Central Unit: 0.3 lbs Remote Unit: 1.3 lbs
Environmental	Operating Temperature		-40°F to 158°F -40°C to 70°C
	Enclosure Rating		Central: Aluminum Enclosure - Not rated for water or dust Remote: Weatherproof Enclosure - ABS - IP65
Electrical	Supply Voltage		8 - 16 Vdc @ 300 mA (12 Vdc typical)
	Relays	Max Switching	220Vdc 30W (resistive) 1A / 250Vac 37.5VA 1A
		Running Spec with load	30Vdc 1A (resistive) / 125 Vac 0.3A (resistive), 1x10 ⁵ operations @ 20°C 30Vdc 1A (resistive) / 125 Vac 0.3A (resistive), 1x10 ⁵ operations @ 20°C
Inputs and Outputs	Four SPDT relays, two on each unit. Relay inputs activate the corresponding Relay output on opposite board		
	Two auxiliary, active low digital I/O channels		
Features	Transparent OSDP communication supports multiple OSDP devices and Secure Channel		
	Separate OSDP ports/busses for ACU/PD connections, SPX-1400 Central to Remote connection, and OSDP configuration		
	Remote unit is housed inside outdoor enclosure		

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Cypress OSDP I/O Extender - SPX-1400: Status LED and I/O

Status LED

The SPX-1400 units have a single bi-color Status LED between the 2-pin and 8-pin screw-terminal headers. The Status LED states are described in the table below.

Status LED State	Description
Solid Red	No communication between the Central and Remote unit.
Flashing Green	Central and Remote units are communicating.
Solid Green	Baud rate configuration is successful (when configuring with digital inputs).
Off	Unit has no power or is not running properly.

Inputs and Outputs

Each SPX-1400 unit has two relay digital inputs, two relay outputs, one AUX digital input, and one AUX digital output. Each relay input controls the corresponding relay output on the opposite board. Each AUX input controls the corresponding AUX output on the opposite board.

Central I/O	Remote I/O
Relay 1 Input (Digital Input)	Relay 1 Output (N.O, COM, & N.C.)
Relay 2 Input (Digital Input)	Relay 2 Output (N.O, COM, & N.C.)
Relay 3 Output (N.O, COM, & N.C.)	Relay 3 Input (Digital Input)
Relay 4 Output (N.O, COM, & N.C.)	Relay 4 Input (Digital Input)
AUX 1 Input (Digital Input)	AUX 1 Output (Digital Output)
AUX 2 Output (Digital Output)	AUX 2 Input (Digital Input)

Cypress OSDP I/O Extender - SPX-1400: Baud rate configuration

Because the access controller and OSDP reader transparently communicate through the SPX-1400 Central and Remote units, it is only necessary to configure the OSDP baud rate. The baud rate of the SPX-1400 units can be configured either via OSDP or with the digital inputs. Both the Central and Remote units will need to be configured when changing the baud rate.

The default baud rate for the SPX-1400 Central and Remote units is 9600.

OSDP Configuration:

1. Power off the SPX-1400 unit.
2. Connect the access controller, or other OSDP configuration device, to the SPX-1400 configuration port (Config A– and Config B+).
3. Power on the SPX-1400 unit.
4. Send the OSDP COMSET command from the access controller to the SPX-1400.
5. Power cycle the SPX-1400 unit, the new baud rate will be applied.

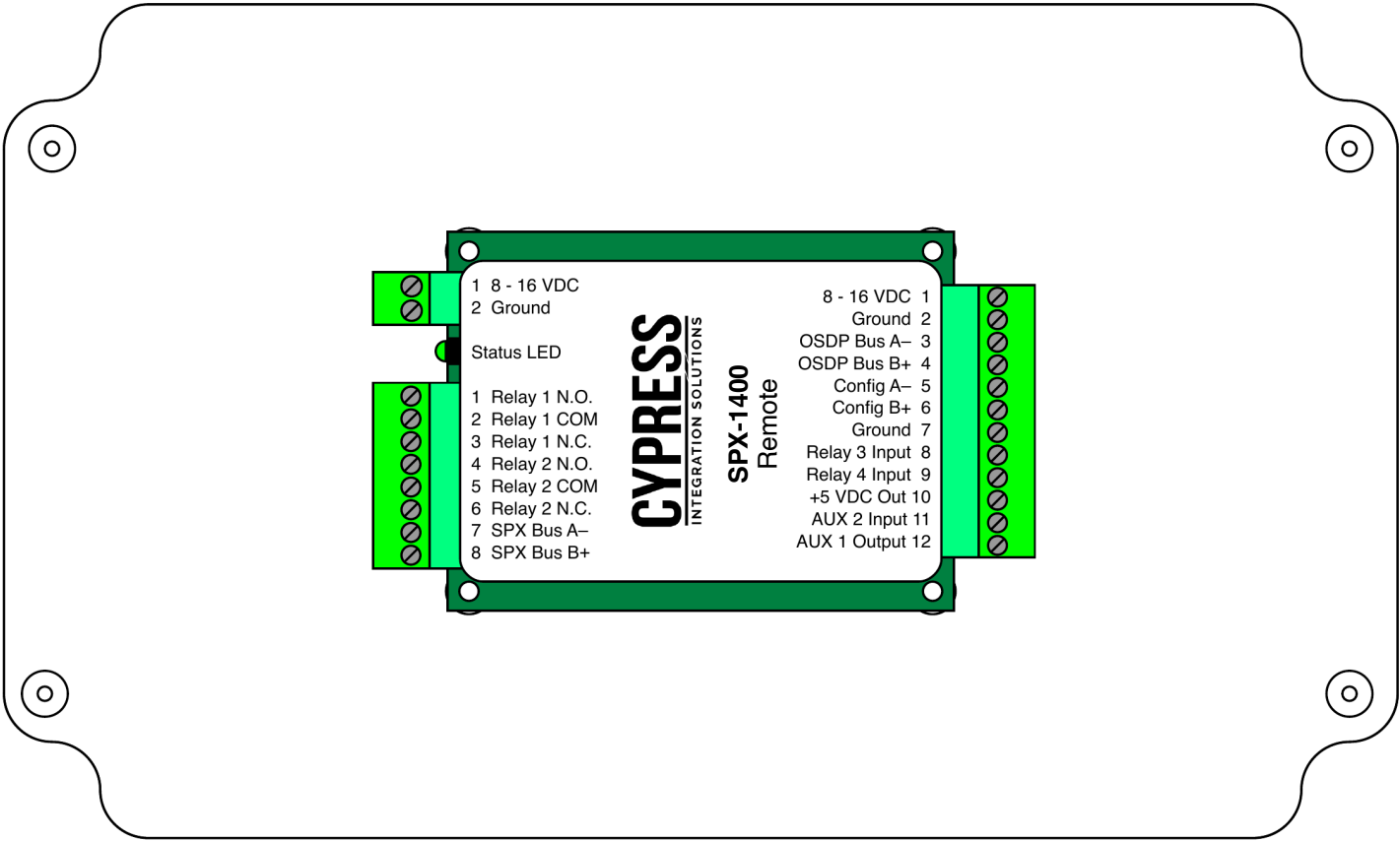
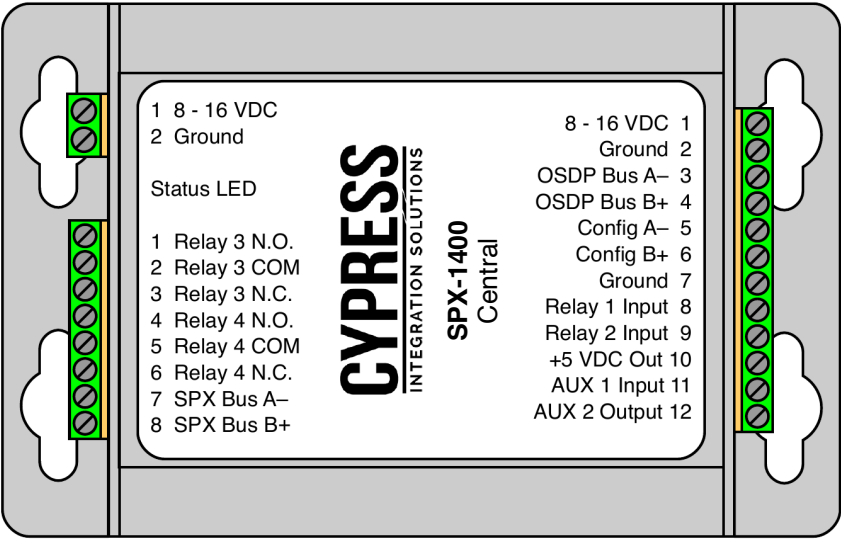
Digital Input Configuration:

1. Power off the SPX-1400 unit.
2. Connect the OSDP Bus to the Config Bus (OSDP Bus A– to Config A– and OSDP Bus B+ to Config Bus B+).
3. Connect the appropriate digital input pins to ground, according to the baud rate table below.
4. Power on the SPX-1400 unit.
5. The Status LED will be solid green when the baud rate configuration is complete.
6. Power off the SPX-1400 unit.
7. Remove the configuration mode wiring.
8. Power on the SPX-1400 unit.

Baud Rate	Relay 1 Input	Relay 2 Input	AUX 1 Input
9600	X		
19200		X	
38400	X	X	
57600			X
115200	X		X
230400		X	X

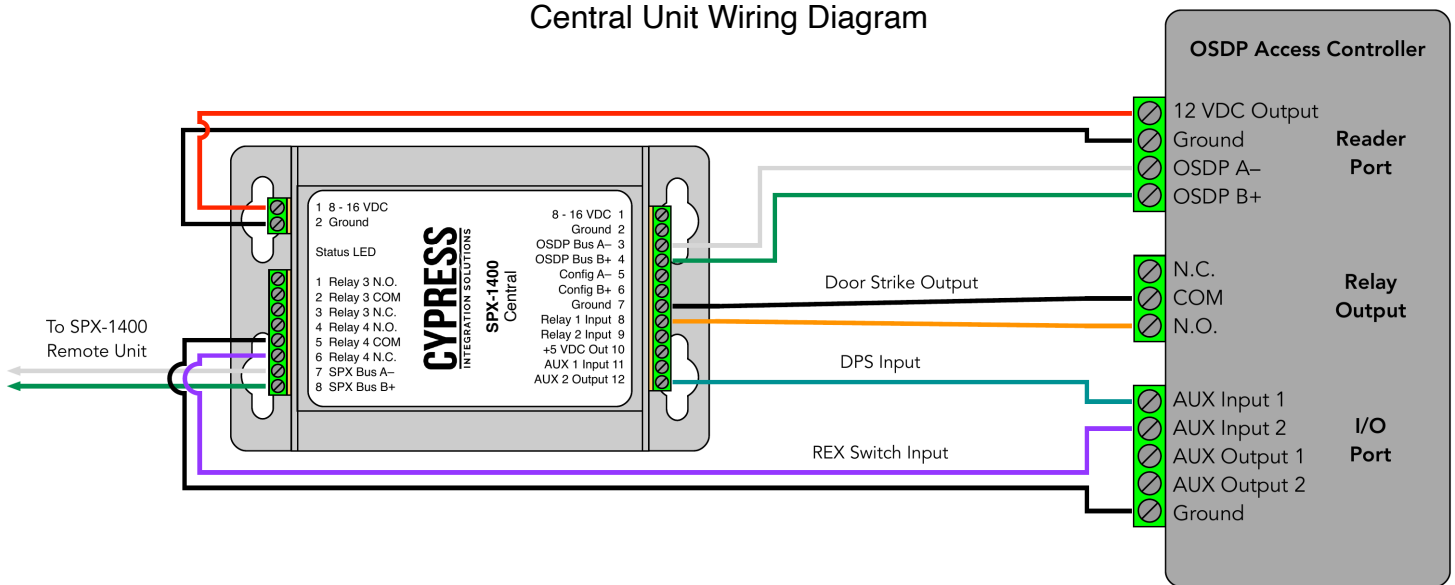
X = Grounded Input Pin

Cypress OSDP I/O Extender - SPX-1400: Pin designations



Cypress OSDP I/O Extender - SPX-1400: Wiring diagrams

Central Unit Wiring Diagram



Remote Unit Wiring Diagram

