

TSP-2105_MAN_260519

Cypress TSP-2105 Barcode Scanner Kit Manual - Overview and Specifications

Overview:

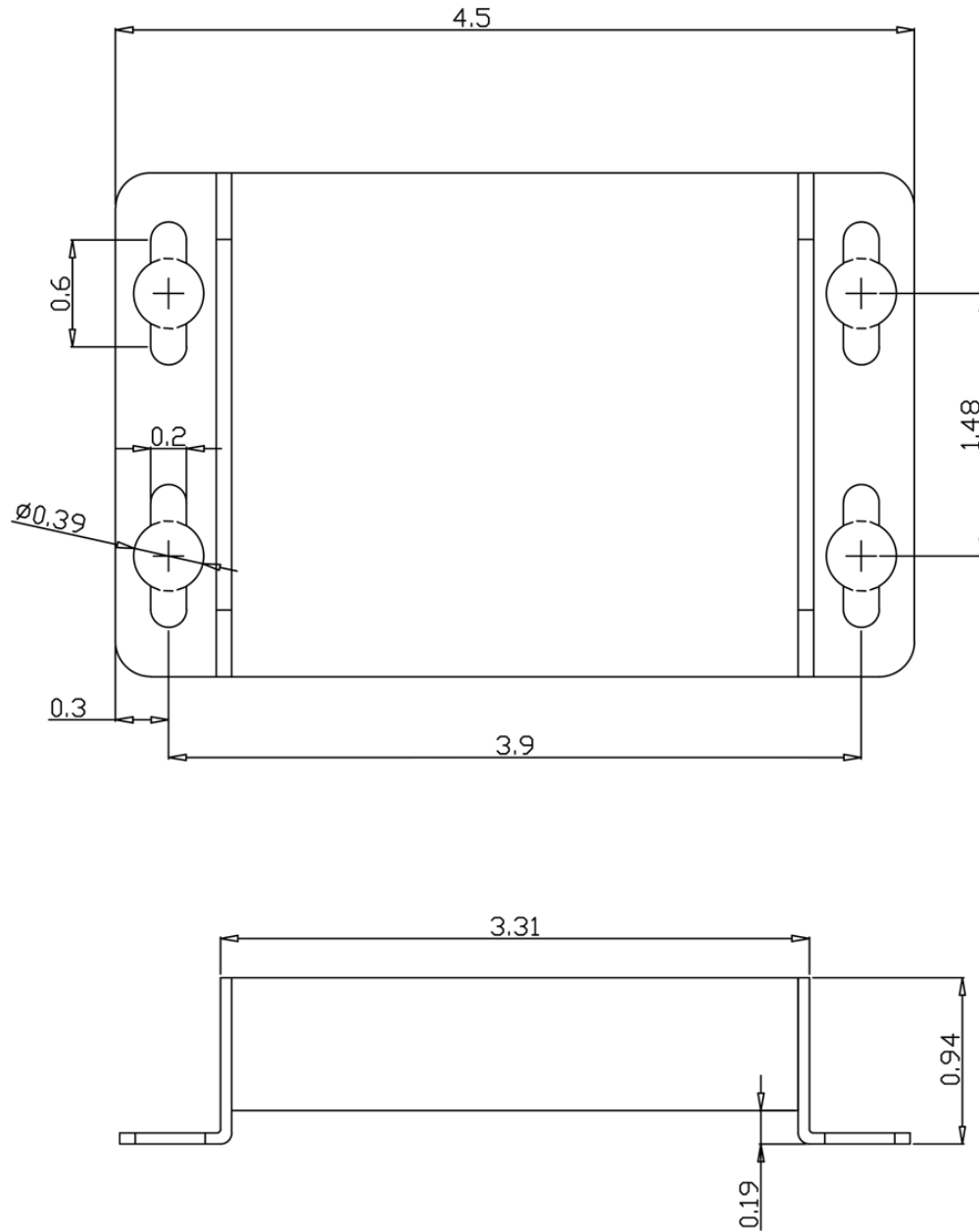
Cypress Barcode Scanner Kits pair a barcode scanner and a Cypress Data Converter (CVX-1300). The Data Converter enables dozens of conversions, including RS-232 serial-to-Wiegand, typically used to add barcode scanners to access control systems. Cypress Barcode Scanner Kits are commonly used in visitor management applications or for connecting turnstiles to access control systems.

Specifications			
Part Number	TSP-2105	UPC: 816684004674	Barcode Scanner and Wiegand Converter Kit
		Scanner Part Number	CODE CR1100
Physical	Scanner	2.7 x 2.1 x 1.2 inches / 0.275 lbs. 67.5 x 52.5 x 29.7 mm / 13 Kg	
	Converter	4.5 x 2.9 x 0.94 inches / 0.3 lbs. 11.43 x 7.37 x 2.39 cm / 0.14 Kg	
Environmental	Storage Temperature	Converter	32°F to 158°F 0°C to 70°C
		Scanner	-22°F to 150°F -30°C to 65°C
	Operating Temperature	Converter	32°F to 158°F 0°C to 70°C
		Scanner	-4°F to 131°F -20°C to 55°C
	Enclosure	Converter	Extruded aluminum, not sealed or weather rated
		Scanner	Plastic housing
Electrical	Supply Voltage	Converter	8-16Vdc @ 300mA
		Scanner	5Vdc @ 350mA
	5Vdc 1A wall-plug power supply for scanner is included.		
Scan Performance	Field Selection	High Density or Wide Field	
	Field of View	High Density: 30° horizontal by 20° vertical Wide Field: 50° horizontal by 33.5° vertical	
	Focal Point	High Density: approx. 3.94" / 100 mm Wide Field: approx. 4.53" / 115 mm	
	Optical Resolution	High Density: 960 x 640 Wide Field: 960 x 640	
	Pitch, Skew	± 65° (from front to back), ± 60° from plane parallel to symbol (side to side)	
	Rotational Tolerance	± 180°	
	Decode Capability	Standard 1D, PDF, 2D, Postal, and OCR symbologies.	
	Symbol Contrast	15% minimum reflectance difference	
Supported Symbologies	1D Symbologies	BC412, Codabar, Code 11, Code 32, Code 39, Code 93, Code 128, IATA 2 of 5, Interleaved 2 of 5, GS1 DataBar, Hong Kong 2 of 5, Matrix 2 of 5, MSO Plessey, NEC 2 of 5, Plessey, Straight 2 of 5, Telepen, Trioptic, UPC/EAN/JAN	
	Stacked 1D Symbologies	Codablock F, Code 49, GS1 Composite (CC-A/CC-B/CC-C), Micro PDF, PDF417	
	2D Symbologies	Aztec Code, Data Matrix, Data Matrix Rectangular Extension, Grid Matrix, Han Xin, Maxicode, Micro QR Code, QR Code, QR Model 1	
	Postal Codes	Australian Post, Canada Post, Intelligent Mail, Japan Post, KIX Code, Korea Post, Planet, Post-net, UK Royal Mail, UPU ID-tags	

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Cypress TSP-2105 Barcode Scanner Kit Manual - Converter Dimensions



All dimensions are in inches.

Cypress TSP-2105 Barcode Scanner Kit Manual - Scanner Dimensions



Diagram above is from Code CR1100 User Manual (D032078 _02 CR1100 User Manual).

Cypress TSP-2105 Barcode Scanner Kit Manual - Scanner Mounting Hole Pattern

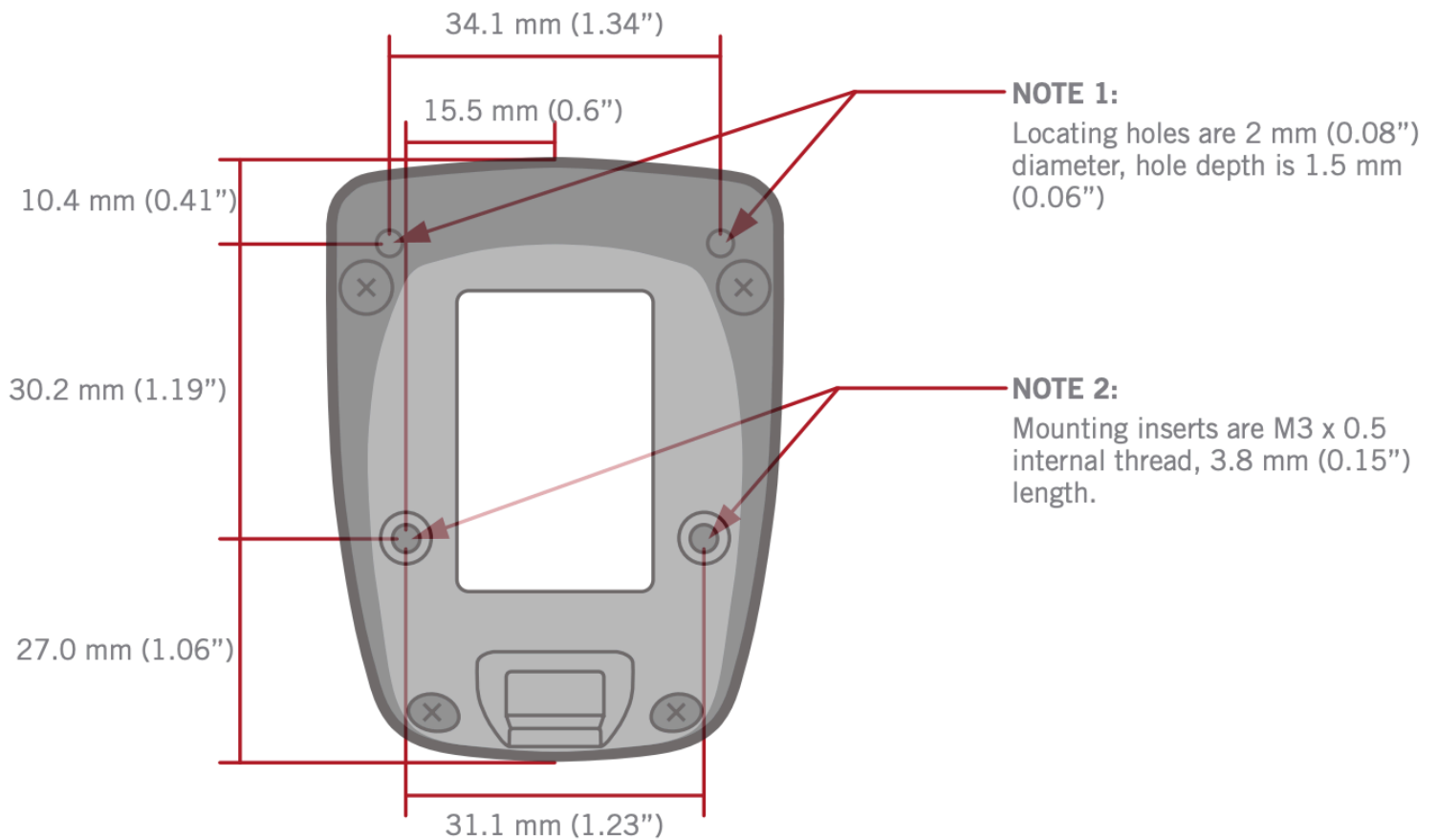
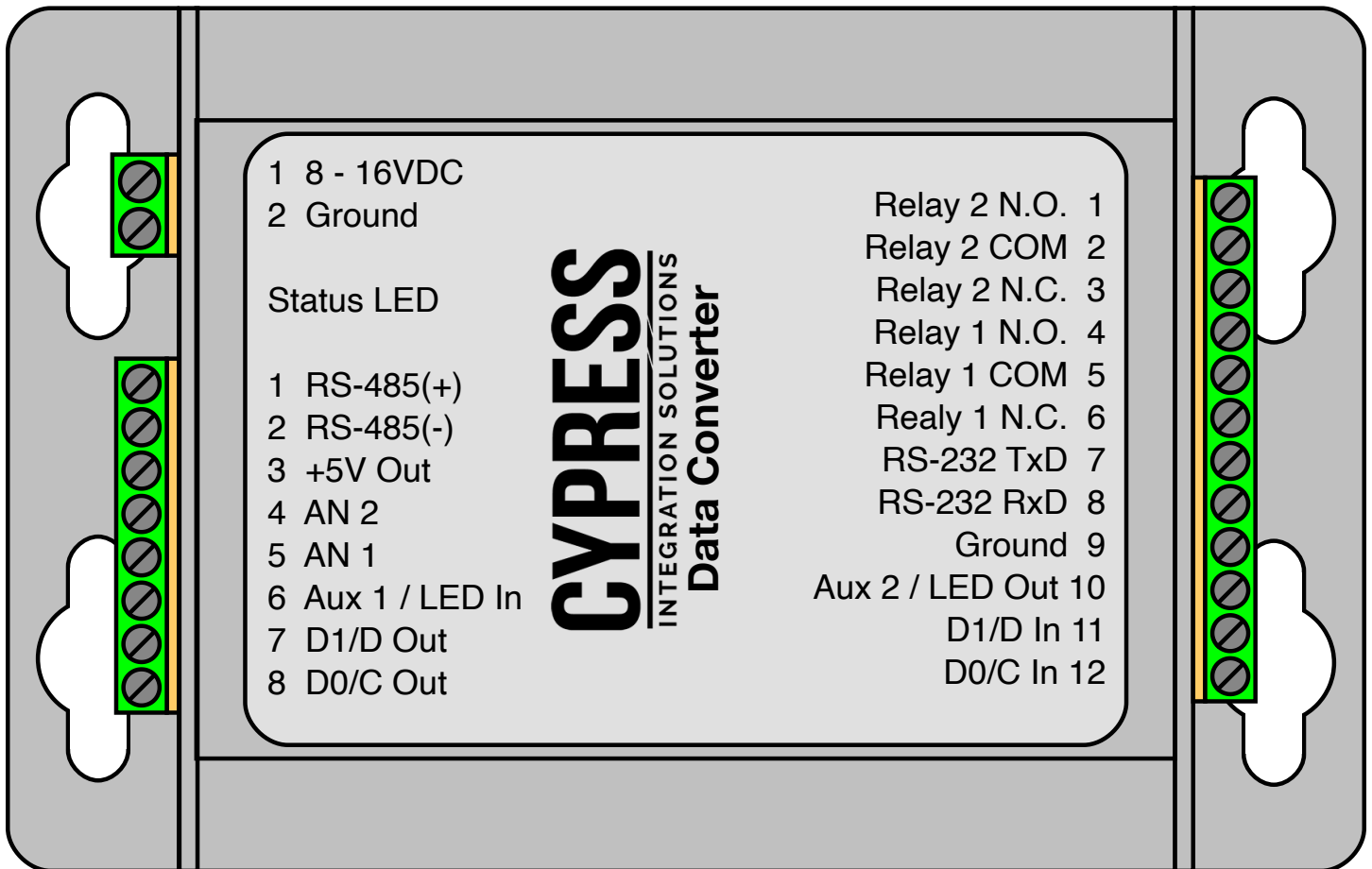


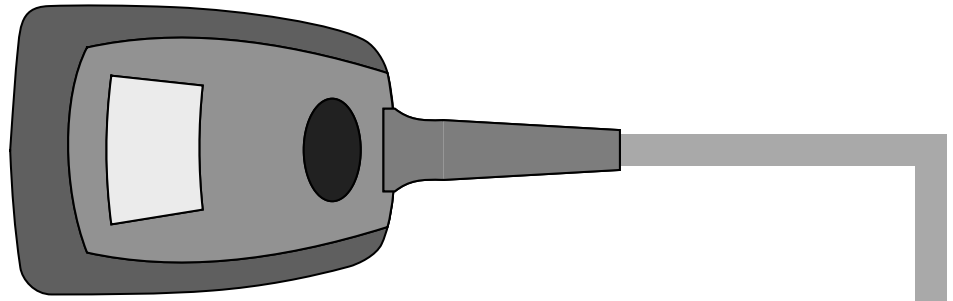
Diagram above is from Code CR1100 User Manual (D032078 _02 CR1100 User Manual).

Cypress TSP-2105 Barcode Scanner Kit Manual - Converter Pin Designations

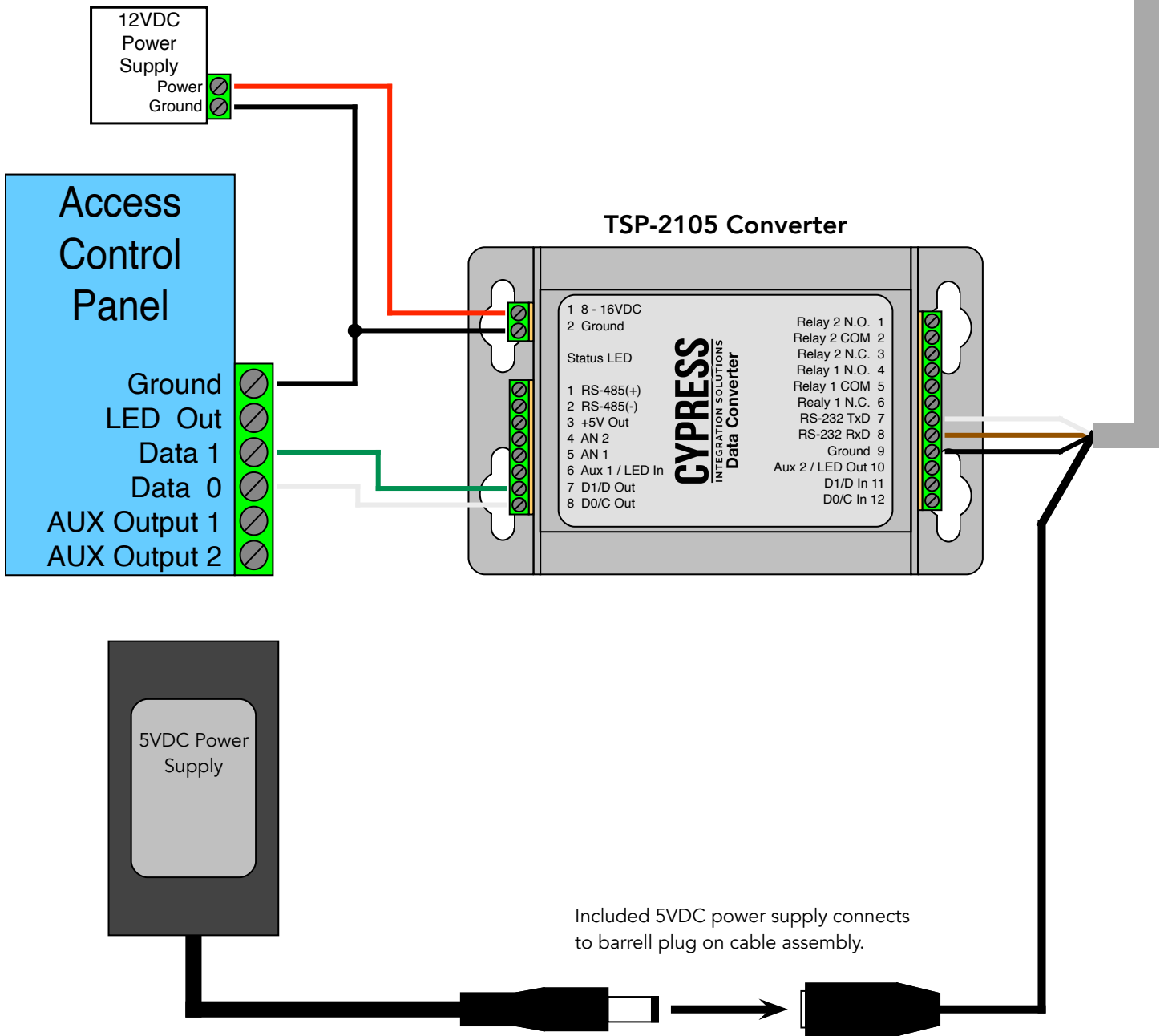


The diagram above shows the pin designations for the three terminal blocks/headers on the converter unit.

Cypress TSP-2105 Barcode Scanner Kit Manual - Wiring Diagram



CODE CR1100 Barcode Scanner



Cypress TSP-2105 Barcode Scanner Kit Manual - Scanner Configuration:

Default Enabled Symbologies

Aztec
Codabar
Code 39
Code 93
Code 128
Data Matrix
Data Matrix Rectangle
All GS1 DataBar
Interleaved 2 of 5
PDF417
QR code
UPC/EAN/JAN

Default Disabled Symbologies

Codablock F
Code 11
Code 32
Code 49
Composite
Grid Matrix
Han Xin Code
Hong Kong 2 of 5
IATA 2 of 5
Matrix 2 of 5
Maxicode
Micro PDF417
MSI Plessey
NEC 2 of 5
Pharmacode
Plessey
Postal Codes
Standard 2 of 5
Telepen
Trioptic

To enable or disable symbologies, scan the symbology barcodes located in the CR1100 Configuration Guide found on the product page at codecorp.net.

Cypress TSP-2105 Barcode Scanner Kit Manual - Scanner Configuration: TSP

The CR1100 barcode scanner is configured with the three configuration QR codes to the right. They are scanned in order: A4, E4, C2.

The converter unit serial interface is configured for 9600 baud, the scanner baud rate must be configured to match. The last configuration QR code set the unit to scan barcodes automatically when one is presented.

The scanner is preconfigured at the factory to work out of the box for typical applications.

If the default configuration does not work for a specific application, see the configuration options in the CR1100 Configuration Guide found on the product page at codecorp.net.

Below is a test barcode. The default converter setting is Setting 65 (see table on page 12). This barcode should be output by the converter as a 26 bit (H10301) Wiegand read. The facility code value is 123, the card number value is 12345.

Test Barcode



M20112_01

Reset to RS232 Factory Defaults M2

A4



M20163_01

RS232 Interface - 9600 Baud Rate M2

E4



M20199_01

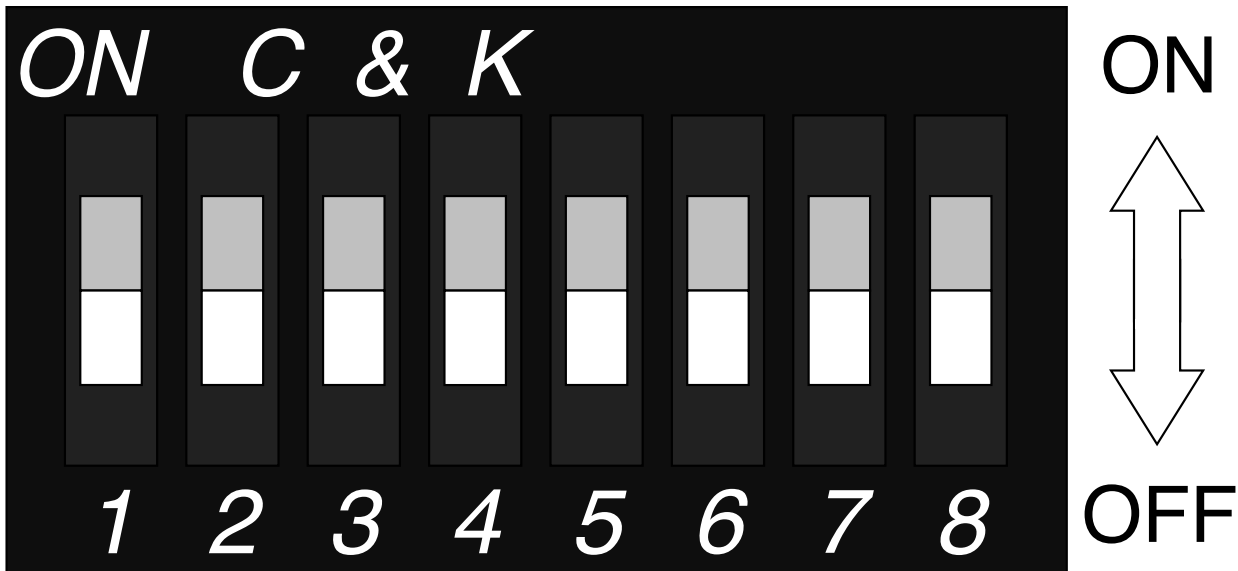
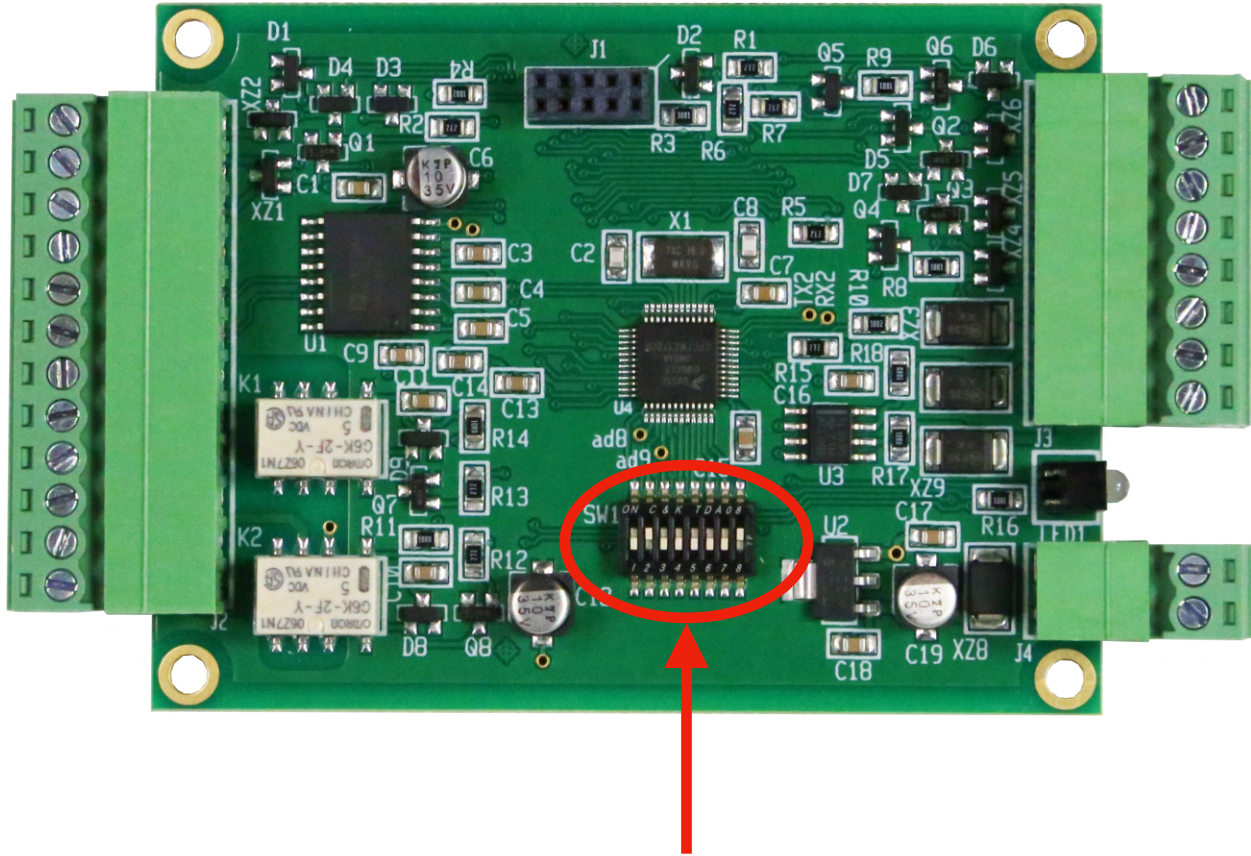
Motion Detect Always On M2

C2

Cypress TSP-2105 Barcode Scanner Kit Manual - Converter DIP Switches

The converter included in the TSP-2105 supports many different conversion settings that are selectable with DIP switches on the converter board. The circuit board must be removed from the enclosure in order to access the DIP switches.

The picture below shows converter circuit board removed from the enclosure.



Cypress TSP-2105 Barcode Scanner Kit Manual - Conversion Settings

#	DIP SWITCH SETTING								INPUT		OUTPUT	
	1	2	3	4	5	6	7	8	Interface	Format	Interface	Format
31	X	X	X	X	X				Serial RS-232 9600 Baud TEST MODE			
32						X			Wiegand Output TEST MODE - 26 Bit, FC = 123, Card # = 4567			
57	X			X	X	X			RS-232 (9600)	12 Digit ASCII Dec	Wiegand	40 Bit Binary
58		X		X	X	X			RS-232 (9600)	16 Digit ASCII Dec	Wiegand	64 Bit Binary
65*	X						X		RS-232 (9600)	10 Digit ASCII Dec	Wiegand	26 Bit
68			X				X		RS-232 (9600)	12 Digit ASCII Hex	Wiegand	Variable
71	X	X	X				X		RS-232 (9600)	ASCII Dec	Wiegand	26 Bit
86		X	X		X		X		RS-232 (9600)	ASCII Dec	Wiegand	36 Bit
87	X	X	X		X		X		RS-232 (9600)	10 Digit ASCII Dec	Wiegand	37 Bit

* Default converter setting.