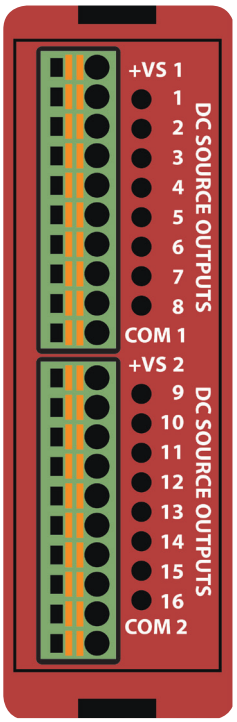
EZ I/O™ 16 pt. 24VDC Output Sourcing Module

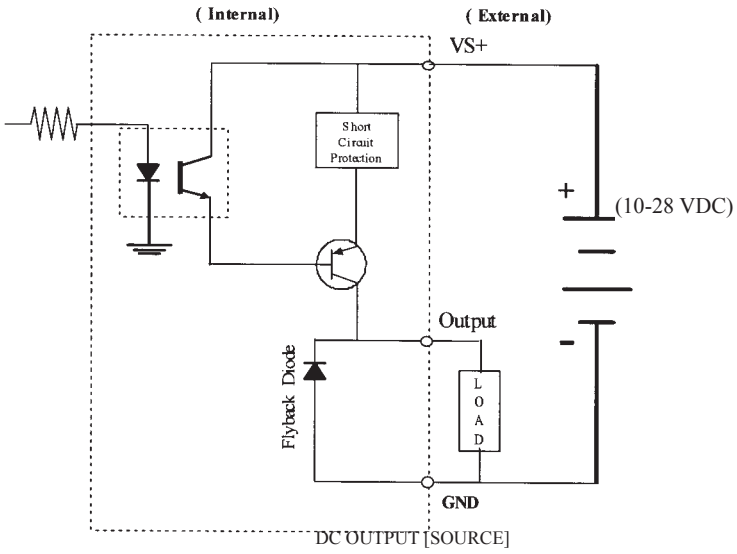
Module Specifications	
Number of Outputs	16 sourcing
Output Voltage Range	11-30 VDC
Peak Voltage	50 VDC
Maximum Steady State Output Current	0.5A per output, 1.0A max per module @ 50°C
Maximum Leakage Current	100µA @ 50 VDC @ 50°C
ON Voltage Drop	2 VDC @ 0.5A
Maximum Inrush Current	0.8A for 10ms
OFF to ON Response	< 2µs
ON to OFF Response	<10µs
Status Indicators	Red LED for each output
+V Terminals & Commons	Two V+, 2 Commons Separate
Short Circuit Protection	1 Amp per module, turns off outputs upon short circuit detection
Base Power Required (5V)	80mA, all outputs on
Optical Isolation	2500 Volt
Wires	14 to 24 AWG

EZRPL-IO-16DCOP
$69



EZRPL-IO-16DCOP

Pinout Information			
1	+VS1	*11*	+VS2
2	Output(1)	*12*	Output(9)
3	Output(2)	*13*	Output(10)
4	Output(3)	*14*	Output(11)
5	Output(4)	*15*	Output(12)
6	Output(5)	*16*	Output(13)
7	Output(6)	*17*	Output(14)
8	Output(7)	*18*	Output(15)
9	Output(8)	*19*	Output(16)
10	COM1	*20*	COM2

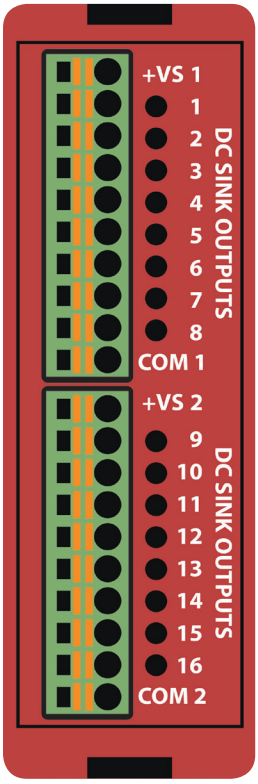


EZ I/O™

16 pt. 24VDC Output Sinking Module

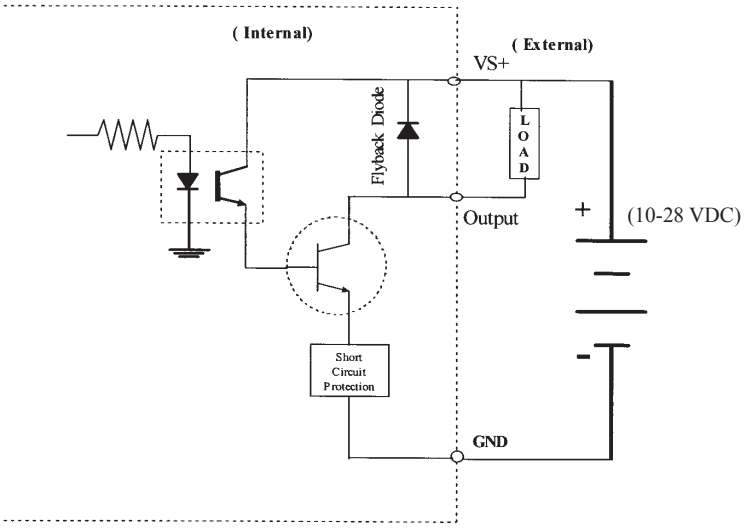
Module Specifications	
Number of Outputs	16 sinking
Peak Voltage	50.0 VDC
Maximum Steady State Output Current	0.4A per output
Maximum Leakage Current	100µA @ 50 VDC @ 50°C
ON Voltage Drop	1.3 VDC @ 0.5A
Maximum Inrush Current	1.0A for 10ms
OFF to ON Response	< 2µs
ON to OFF Response	<10µs
Status Indicators	Red LED for each output
+V Terminals & Commons	Two V+, 2 Common
Short Circuit Protection	Turns off outputs upon short circuit detection
Base Power Required (5V)	40mA, all outputs on
Optical Isolation	2500 Volt
Wires	14 to 24 AWG

EZRPL-IO-16DCON
$69



EZRPL-IO-16DCON

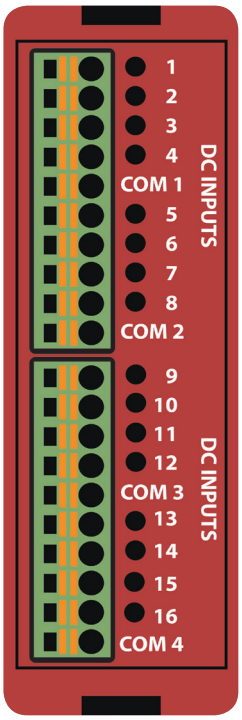
Pinout Information			
1	+VS1	*11*	+VS2
2	Output(1)	*12*	Output(9)
3	Output(2)	*13*	Output(10)
4	Output(3)	*14*	Output(11)
5	Output(4)	*15*	Output(12)
6	Output(5)	*16*	Output(13)
7	Output(6)	*17*	Output(14)
8	Output(7)	*18*	Output(15)
9	Output(8)	*19*	Output(16)
10	COM1	*20*	COM2



DC OUTPUT [SINK]

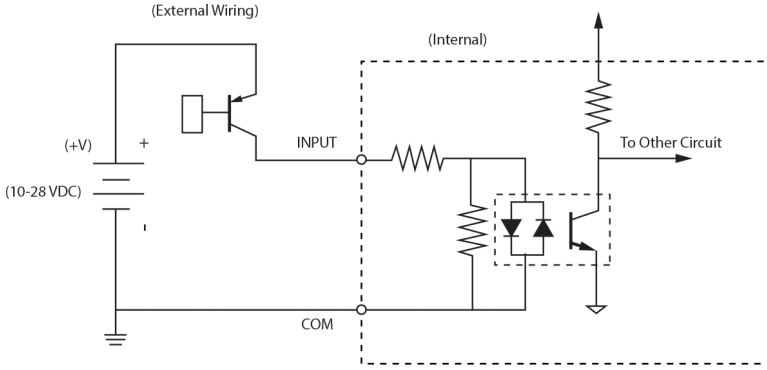
EZ I/O™ 16 pt. 24VDC Input Module

Module Specifications	
Number of Inputs	16
Input Voltage Range	11 - 30 VDC
Peak Voltage	40 VDC
Input Current	1.92 mA @ 12 VDC 4.0 mA @ 24 VDC
Maximum Input Current	5 mA @ 28 VDC
Input Impedance	5.6k @ 10-28 VDC
ON Voltage Level	> 10 VDC
OFF Voltage Level	< 2 VDC
Min. ON Current	1.5 mA
Min. OFF Current	0.2 mA
OFF to ON Response	2-4 ms, typical 3 ms
ON to OFF Response	2-4 ms, typical 3 ms
Status Indicators	Red LED for Source Green LED for Sinking
Commons	2 points/4 points Seperate
Base Power Required (5V)	Typical 30mA (all inputs on)
Optical Isolation	2500 Volt
Wires	14 to 24 AWG

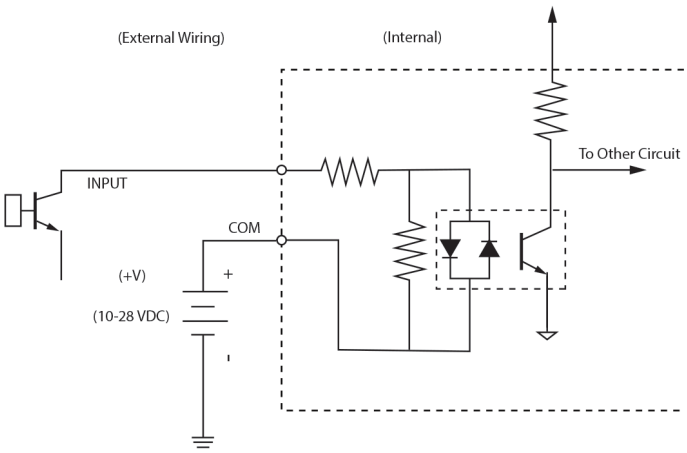


EZRPL-IO-16DCI

Pinout Information			
1	Input(1)	*11*	Input(9)
2	Input(2)	*12*	Input(10)
3	Input(3)	*13*	Input(11)
4	Input(4)	*14*	Input(12)
5	COM-1	*15*	COM-3
6	Input(5)	*16*	Input(13)
7	Input(6)	*17*	Input(14)
8	Input(7)	*18*	Input(15)
9	Input(8)	*19*	Input(16)
10	COM-2	*20*	COM-4



DE INPUT (SOURCE)

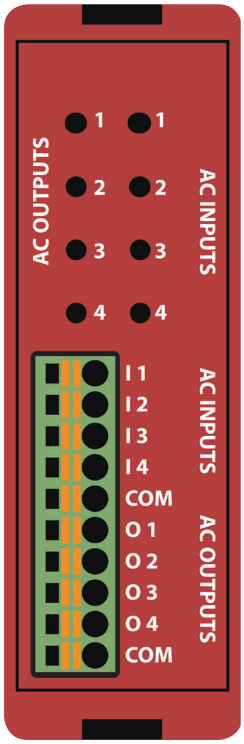


DE INPUT (SINK)

EZ I/O™

4 pt. 110VAC In , 4 pt. 110VAC Out Module

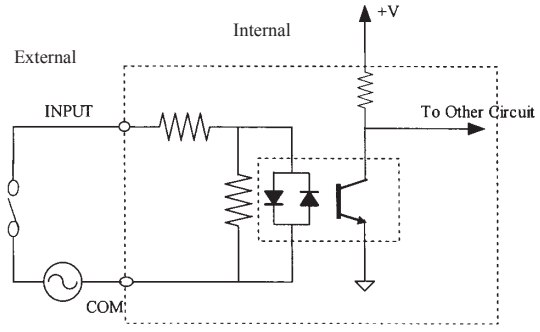
EZRPL-IO-4ACI4ACO
$59

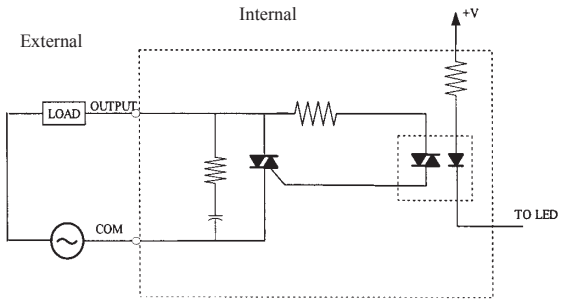


EZRPL-IO-4ACI4ACO

	Module Specifications	
AC Input Specs	Number of Inputs	4
	Input Voltage Range	70-132 VAC
	AC Frequency	47-63 Hz
	Peak Voltage	180 Volt
	Input Current	0.5mA @ 110 VAC
	Maximum Input Current	0.6mA @ 132 VAC
	Input Impedance	200K
	ON Voltage Level	70 VAC
	OFF Voltage Level	40 VAC
	OFF to ON Response	< 10ms
	ON to OFF Response	< 10ms
	Status Indicators	Green LED for each input
	Commons	1 Common
	Base Power Required (5V)	10mA for all 4 on
	Optical Isolation	2500 Volt
	Wires	24-16 AWG
AC Output Specs	Number of Output Points	4
	Number of Commons	1
	Output Voltage Range	20-132 VAC
	Peak Voltage	180 Volt
	ON Voltage Drop	1.2 V @ 1A
	Maximum Current	1.2 A @ 25°C, 0.8A @ 50°C for each output
	Maximum Leakage Current	1mA @ 132 VAC
	Maximum Inrush Current	38Amps for 16.6ms
	Minimum Load	15mA
	OFF to ON Response	max 1/2 cycle
	ON to OFF Response	max 1/2 cycle
	Fuse	No fuse
	Base Power Required (5V)	35mA for all 4 on
	Optical Isolation	2500 Volt
	Wires	14 to 24 AWG

Pinout Information	
1	Input(1)
2	Input(2)
3	Input(3)
4	Input(4)
5	Input-COM
6	Output(5)
7	Output(6)
8	Output(7)
9	Output(8)
10	Output-COM

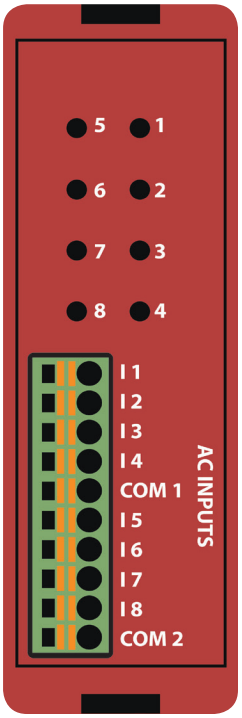




EZ I/O™ 8 pt. 110VAC Input Module

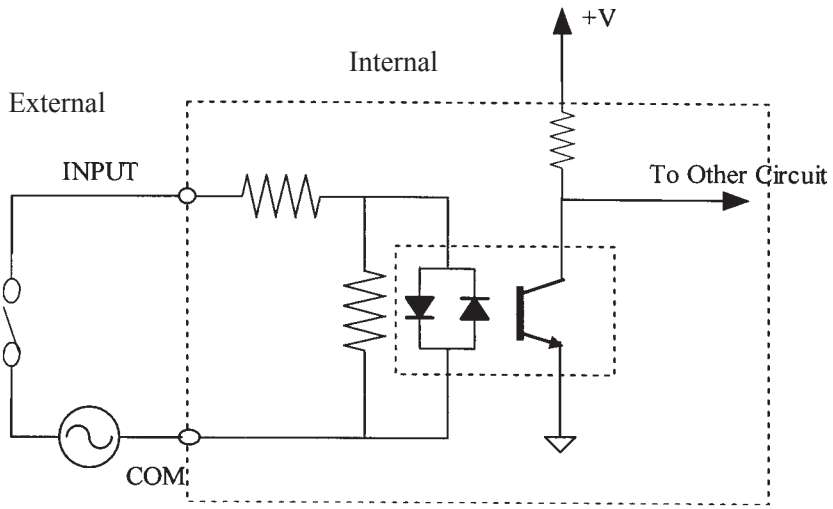
Module Specifications	
Number of Inputs	8
Input Voltage Range	70-132 VAC
AC Frequency	47-63 Hz
Peak Voltage	180 Volt
Input Current	0.5mA @ 110 VAC
Maximum Input Current	0.6mA @ 132 VAC
Input Impedance	200K
ON Voltage Level	70 VAC
OFF Voltage Level	40 VAC
OFF to ON Response	< 10ms
ON to OFF Response	< 10ms
Status Indicators	Red LED for each input
Commons	2 Commons
Fuse	No fuse
Base Power Required (5V)	20mA for all 8 on
Optical Isolation	2500 Volt
Wires	14 to 24 AWG

EZRPL-IO-8ACI
$49



EZRPL-IO-8ACI

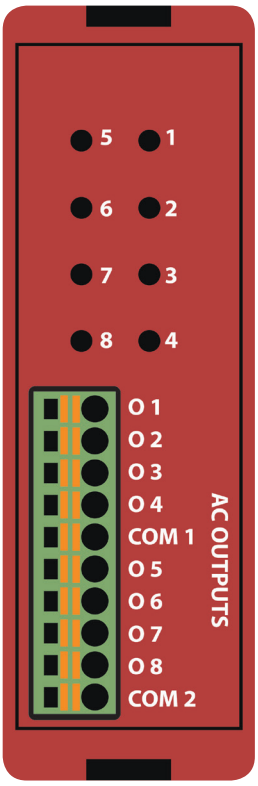
Pinout Information	
1	Input(1)
2	Input(2)
3	Input(3)
4	Input(4)
5	AC_Common
6	Input(5)
7	Input(6)
8	Input(7)
9	Input(8)
10	AC_Common



EZ I/O™ 8 pt. 110VAC Output Module

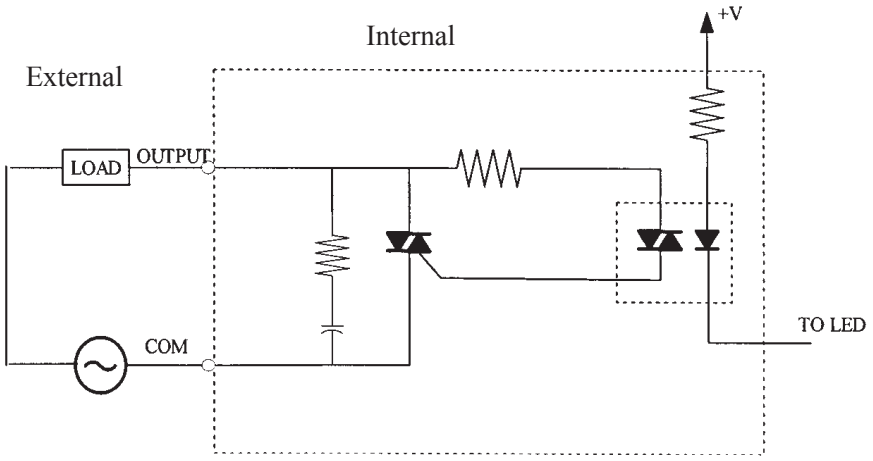
EZRPL-IO-8ACO $59

Module Specifications	
Number of Output Points	8
Number of Commons	2
Output Voltage Range	20-132 VAC
Peak Voltage	180 Volt
ON Voltage Drop	1.2 V @ 1A
Maximum Current	1.2 A @ 25°C, 0.8A @ 50°C for each output
Maximum Leakage Current	1mA @ 132 VAC
Maximum Inrush Current	38Amps for 16.6ms
Minimum Load	15mA
OFF to ON Response	max 1/2 cycle
ON to OFF Response	max 1/2 cycle
Base Power Required (5V)	70mA for all 8 on
Optical Isolation	2500 Volt
Wires	14 to 24 AWG



EZRPL-IO-8ACO

Pinout Information	
1	Output(1)
2	Output(2)
3	Output(3)
4	Output(4)
5	AC_Common
6	Output(5)
7	Output(6)
8	Output(7)
9	Output(8)
10	AC_Common

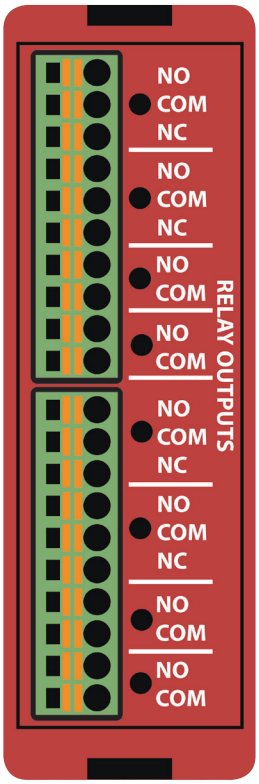


EZ I/O™ 8 pt. Relay Out Module

with built-in Electromagnetic shield

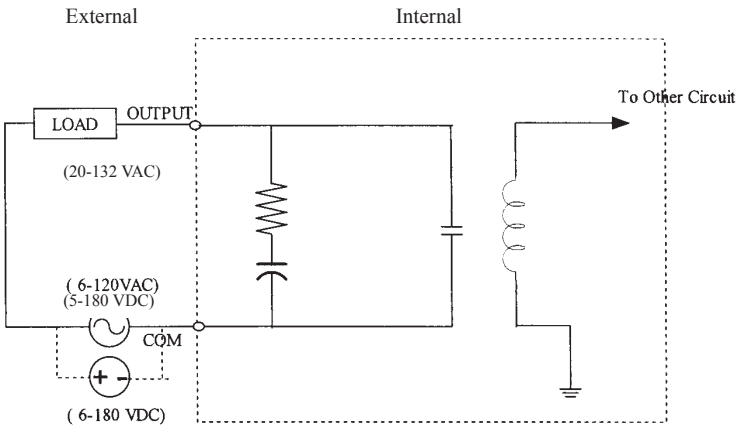
EZRPL-IO-8RLO
$59

Module Specifications	
Number of Outputs	8
Output Voltage Range	5-30 VDC or 20-250 VAC
Output Type	8 Form C (SPDT)
Output Terminals Consumed	20
Peak Voltage	30 VDC/380 VAC
AC Frequency	47-63 Hz
Maximum Current (resist.)	5A/point
Maximum Leakage Current	0.5mA @ 130 VAC @ 60Hz
Maximum Switching Current	5A
Electromagnetic Shield	2 pF between contact and shield
Dielectric Strength	1000VAC between contacts, 4000VAC between contacts and coil
OFF to ON Response	≤1ms (typical)
ON to OFF Response	≤1ms (typical)
Status Indicators	Red LEDs
Contacts	8 isolated
Base Power Required (5V)	50mA



EZRPL-IO-8RLO

Pinout Information			
1	Output(1)_Normally open	*11*	Output(5)_Normally open
2	Output(1)_COM	*12*	Output(5)_COM
3	Output(1)_Normally close	*13*	Output(5)_Normally close
4	Output(2)_Normally open	*14*	Output(6)_Normally open
5	Output(2)_COM	*15*	Output(6)_COM
6	Output(2)_Normally close	*16*	Output(6)_Normally close
7	Output(3)_Normally open	*17*	Output(7)_Normally open
8	Output(3)_COM	*18*	Output(7)_COM
9	Output(4)_Normally open	*19*	Output(8)_Normally open
10	Output(4)_COM	*20*	Output(8)_COM



EZ I/O™ 4 pt. 24VDC Output (Sourcing), 4 pt. Relay Out Module

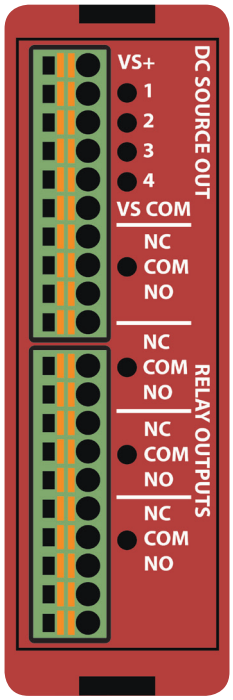
	Module Specifications	
DC Output Specs	Number of Outputs	4 sourcing
	Output Voltage Range	20-30 VDC
	Peak Voltage	50.0 VDC
	Maximum Steady State Output Current	0.5A per output, 1.0A max per module @ 50°C
	Maximum Leakage Current	100µA @ 50 VDC @ 50°C
	ON Voltage Drop	2 VDC @ 0.5A
	Maximum Inrush Current	0.8A for 10ms
	OFF to ON Response	< 2µs
	ON to OFF Response	<10µs
	Status Indicators	Red LED for each output
	+V Terminals & Commons	One + One
	Short Circuit Protection	1 Amp per module, turns off outputs upon short circuit detection
	Base Power Required (5V)	40mA, all outputs on
	Optical Isolation	2500 Volt
	Wires	14 to 24 AWG
	Optical Isolation	2500 Volt
Relay Output Specs	Number of Outputs	4 Isolated
	Output Voltage Range	10A @ 277 VAC or 30VDC
	Output Type	4 Form C (SPDT)
	Output Terminals Consumed	12
	Peak Voltage	30 VDC/3800 VAC
	AC Frequency	47-63 Hz
	Maximum Current (resist.)	5A/point
	Maximum Leakage Current	0.5mA @ 130 VAC @ 60Hz
	Maximum Switching Current	15A
	Electromagnetic Shield	2 pF between contact and shield
	Dielectric Strength	750 VAC between contacts, 1500 VAC between contacts & coil
	OFF to ON Response	Max 10ms
	ON to OFF Response	Max 5ms
	Status Indicators	Red LEDs
	Base Power Required (5V)	50mA
	Wires	14 to 24 AWG

EZRPL-IO-4DCOP4RLO

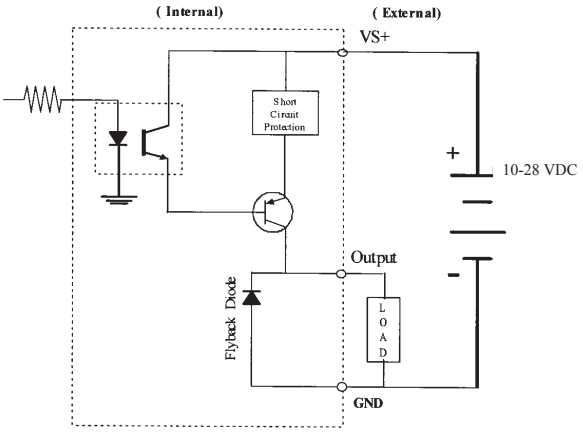
$69

Pinout Information			
1	+24V	11	NC-2
2	Output(1)	12	COM-2
3	Output(2)	13	NO-2
4	Output(3)	14	NC-3
5	Output(4)	15	COM-3
6	24V-COM	16	NO-3
7	Not Connected	17	NC-4
8	NC-1	18	COM-4
9	COM-1	19	NO-4
10	NO-1	20	Not Connected

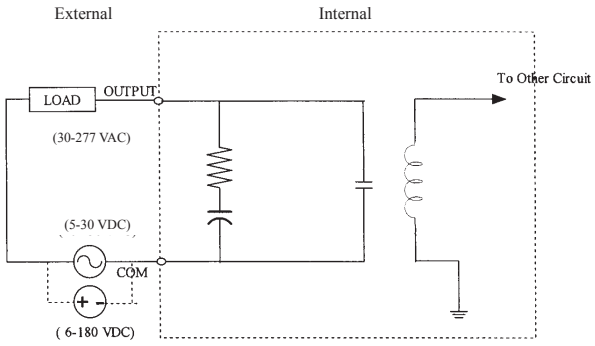
Note: NO-Normally Open, NC-Normally Closed



EZRPL-IO-4DCOP4RLO



DC OUTPUT [SOURCE]



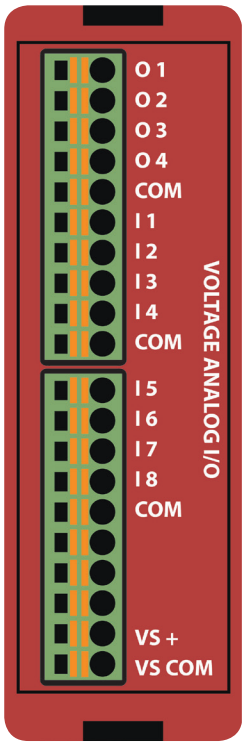
EZ I/O™ 8 pt. Analog In/4 pt. Analog Out Module (Voltage)

	Module Specifications	
Analog Voltage Input Specs	Number of Channels	8 single ended (2 commons)
	Input Range	0-10V
	Resolution	12 bit (1-4096)
	Step Response	200µs to 95% of FS
	Crosstalk	1/2 count max, -80db
	Input Impedance	>20KΩ
	Absolute Max Ratings	± 15V
	Converter Type	successive approximation
	Linearity Error (end to end)	± 2 count
	Input Stability	± 2 count
	Gain Error	± 2 counts
	Offset Calibration Error	± 5 counts
	Max Inaccuracy	± 0.2% at 25°C, ± 0.4% at 0-60°C
	Accuracy vs. Temperature	± 50 ppm/°C typical
Analog Voltage Output Specs	Number of Channels	4 single ended (1 common)
	Output Range	0-10 VDC
	Resolution	12 bits (1 in 4096)
	Conversion Setting Time	100 µs for FS
	Crosstalk	1/2 count max, -80db
	Peak Output Voltage	± 18 VDC
	Offset Error	± 0.15% of range
	Gain Error	± 0.3% of range
	Linearity Error (end to end)	± 1 count
	Output Stability	± 2 counts
	Load Impedance	2k Ω min.
	Load Capacitance	.01 microF max
	Accuracy vs. Temperature	± 50 ppm/C typical

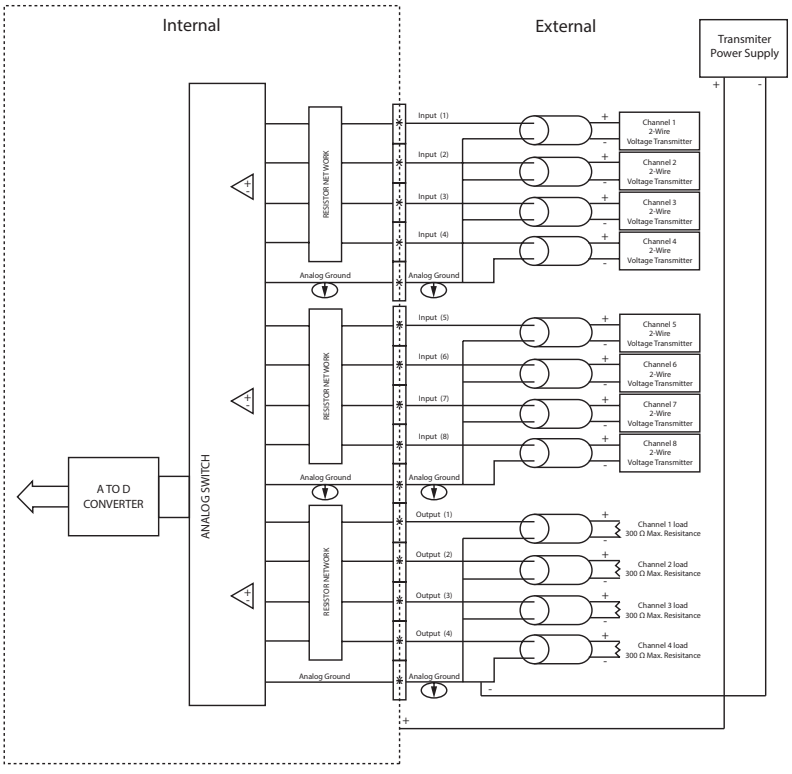
Module Specifications	
Operating Temperature	-20 °C to 60 °C
Storage Temperature	-20 °C to 70 °C
Relative Humidity	5 to 95 %
Removable Terminal Block	300 Volt/8 Amp/ 14 AWG UL Rating
Vibration	MIL STD 810C 514.2
Shock	MIL STD 810C 516.2
Noise Immunity	NEMA ICS3-304

EZRPL-IO-8ANI4ANOV
$229

Pinout Information			
1	Output(1)	11	Input(5)
2	Output(2)	12	Input(6)
3	Output(3)	13	Input(7)
4	Output(4)	14	Input(8)
5	COM	15	COM
6	Input(1)	16	Not Connected
7	Input(2)	17	Not Connected
8	Input(3)	18	Not Connected
9	Input(4)	19	+VS
10	COM	20	VS-COM

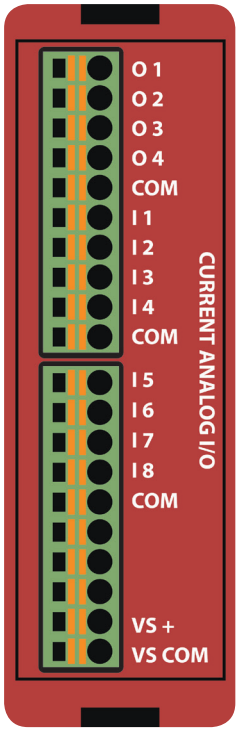


EZRPL-IO-8ANI4ANOV



EZ I/O™ 8 pt. Analog In/4 pt. Analog Out Module (Current)

EZRPL-IO-8ANI4ANOC
$229

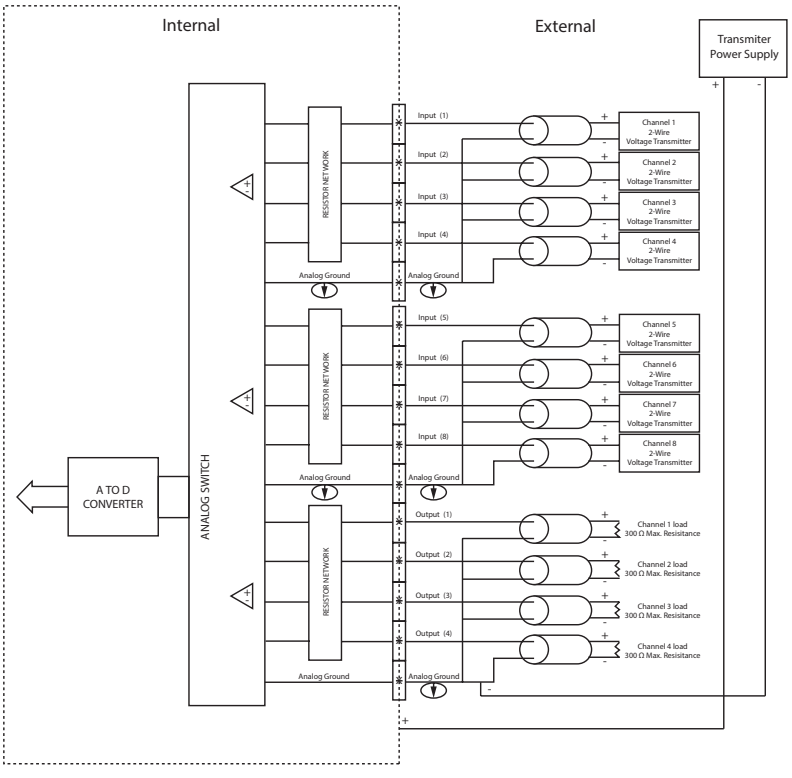


EZRPL-IO-8ANI4ANOC

Analog Specifications		
Analog Current Input Specs	Number of Channels	8 Single Ended
	Input Range	4-20 mA
	Resolution	12 bit (1-4096)
	Step Response	1ms for 95% FS
	Crosstalk	1/2 count max, -80db
	Input Impedance	62.5Ω ± 0.1%
	Absolute Max Ratings	-30mA to 30mA
	Converter Type	Successive Approximation
	Linearity Error (end to end)	± 2 counts
	Input Stability	± 1 count
	Full-scale Calibration Error	± 10 counts @ 20mA
	Offset Calibration Error	± 5 counts
	Max Inaccuracy	± 0.3% @ 25°C, ± 0.6% @ 60°C
	Accuracy vs. Temperature	± 50 ppm/°C typical
	Recommended Fuse	.032 Amp, series 217 fast acting
Analog Current Output Specs	Number of Channels	4 single ended
	Output Range	4-20mA
	Output Type	Current Sourcing
	Resolution	12 bit (1-4096)
	Max. Loop Voltage	6 VDC
	Load/loop	0-300Ω
	Linearity Error (end to end)	± 2 counts
	Conversion Setting Time	100µs for FS
	Full-scale Calibration Error	± 12 counts
	Offset Calibration Error	± 6 counts
	Max. Full-scale Inaccuracy (all errors included)	± 0.3%
	Wires	14 to 24 AWG

Module Specifications	
Operating Temperature	-20 °C to 60 °C
Storage Temperature	-20 °C to 70 °C
Relative Humidity	5 to 95 %
Removable Terminal Block	300 Volt/8 Amp/ 14 AWG UL Rating
Vibration	MIL STD 810C 514.2
Shock	MIL STD 810C 516.2
Noise Immunity	NEMA ICS3-304

Pinout Information			
1	Output(1)	11	Input(5)
2	Output(2)	12	Input(6)
3	Output(3)	13	Input(7)
4	Output(4)	14	Input(8)
5	COM	15	COM
6	Input(1)	16	Not Connected
7	Input(2)	17	Not Connected
8	Input(3)	18	Not Connected
9	Input(4)	19	+VS
10	COM	20	VS-COM



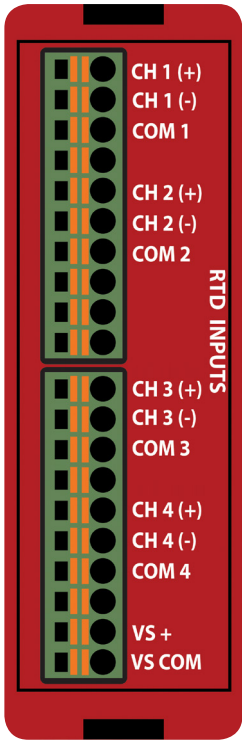
EZ I/O™ Resistance Temperature Detector

Pinout Information			
1	CHAN1 +	11	CHAN3 +
2	CHAN1 -	12	CHAN3 -
3	COM-1	13	COM-3
4	Not Connected	14	Not Connected
5	CHAN2 +	15	CHAN4 +
6	CHAN2 -	16	CHAN4 -
7	COM-2	17	COM-4
8	Not Connected	18	Not Connected
9	Not Connected	19	VS +
10	Not Connected	20	VS - COM

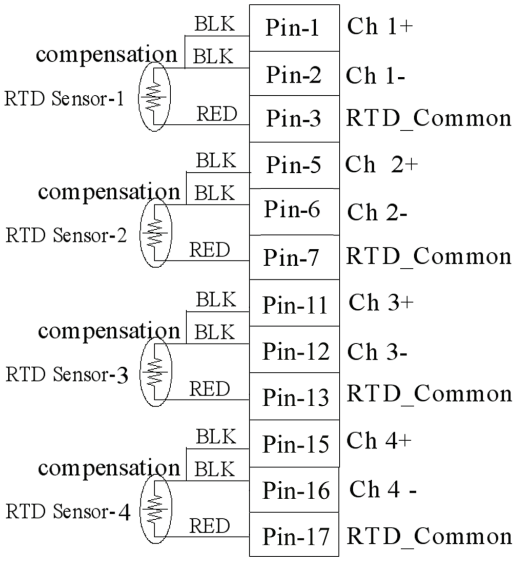
RTD Input Specifications	
Number of Channels	4
Common Mode Range	0-3.3 VDC
Resolution	12-bit
Update Rate	All Channels per scan
Input Words Required	4 IR Words
Temperature Drift	50 ppm / °C (max)
Maximum Inaccuracy	+ / - 1 °C
RTD Excitation Current	500 uA
Operating Temperature	-20 °C to 60 °C
Storage Temperature	-20 °C to 70 °C
Relative Humidity	5 to 95 %
Terminal Block	300 Volt/8 Amp/ 14 AWG UL Rating
Optical Isolation	2500 Volt
Vibration	MIL STD 810C 514.2
Shock	MIL STD 810C 516.2
Noise Immunity	NEMA ICS3-304

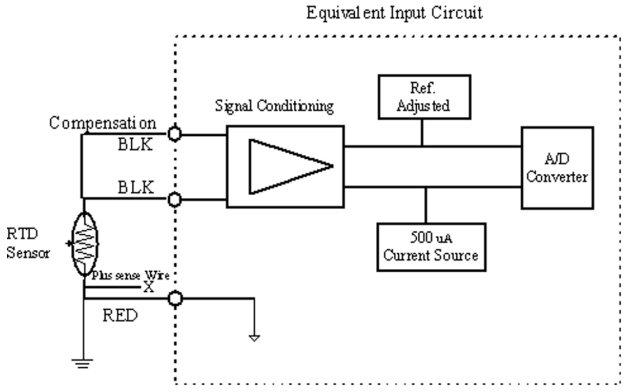
RTD Input Ranges			
RTD Input Ranges	Temperature Coefficient of Resistance (TCR) (Ω/Ω°C)	Temperature Ranges	Resolution
Pt100	0.00385	-200 °C to + 850 °C	0.29
120 Ni	0.00672	-80 °C to 260 °C	0.22
10 Cu / 25 Cu	0.00427	-200 °C to 260 °C	2.64

EZRPL-IO-4RTD
$229



EZRPL-IO-4RTD





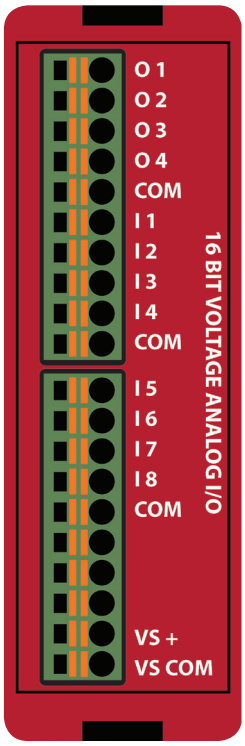
EZ I/O™ 16-Bit, 8 pt. Analog In, 4 pt. Analog Output Module (Voltage)

	Module Specifications	
Analog Voltage Input Specs	Number of Channels	8 Single ended
	Input Range	0-10 VDC
	Resolution	16-bit (1-65535)
	Step Response	15µs to 95% of FS
	Crosstalk	1/2 count max, -120dB
	Input Impedance	>10MΩ
	Absolute Max Ratings	±12V ±100mA
	Converter Type	successive approximation
	Linearity Error (end to end)	±2 LSB
	Input Stability	
	Gain Error	±1 LSB
	Offset Calibration Error	±5 LSB
	Max Inaccuracy	0.1% @ 25° C
	Accuracy vs. Temperature	± 1 ppm/°C
Analog Voltage Output Specs	Number of Channels	4 Single ended
	Output Range	0-10 VDC
	Resolution	16-bit (1-65535)
	Conversion Setting Time	10µs to 95% of FS
	Crosstalk	1/2 count max, -100dB
	Peak Output Voltage	±18 VDC
	Offset Error	±0.15% of range
	Gain Error	±0.15% of range
	Linearity Error (end to end)	±2 LSB
	Output Stability	±2 count
	Load Impedance	2KΩ min.
	Load Capacitance	0.01µF max.
	Accuracy vs. Temperature	5ppm/°C

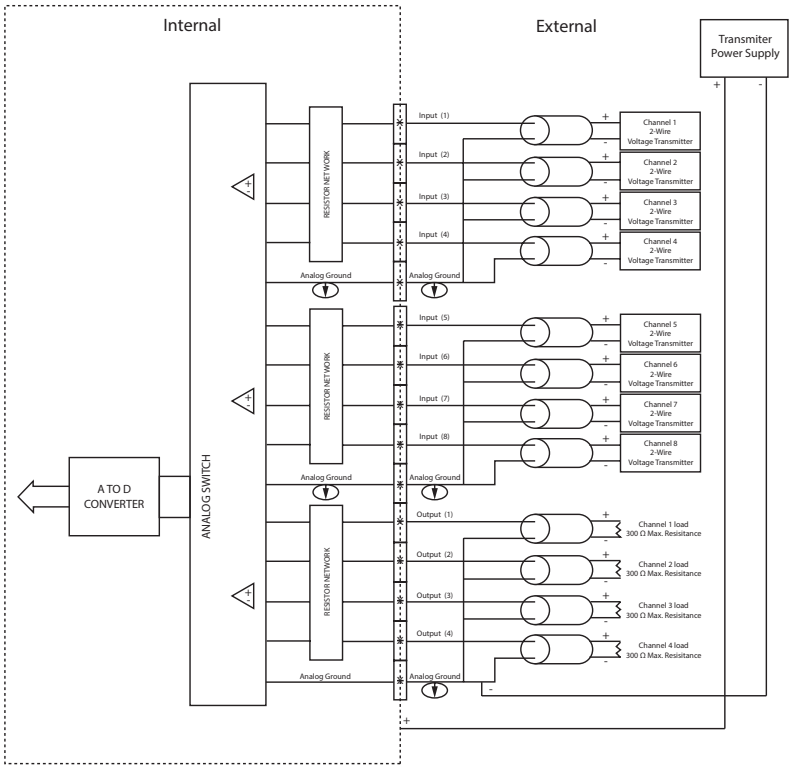
EZRPL-IO-8ANI4ANOV-16BIT

$359

Pinout Information			
1	Output(1)	11	Input(5)
2	Output(2)	12	Input(6)
3	Output(3)	13	Input(7)
4	Output(4)	14	Input(8)
5	COM	15	COM
6	Input(1)	16	Not Connected
7	Input(2)	17	Not Connected
8	Input(3)	18	Not Connected
9	Input(4)	19	+VS
10	COM	20	VS-COM



EZRPL-IO-8ANI4ANOV-16BIT

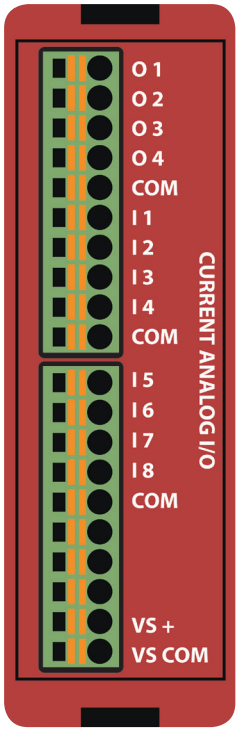


EZ I/O™ 16-Bit, 8 pt. Analog In, 4 pt. Analog Output Module (Current)

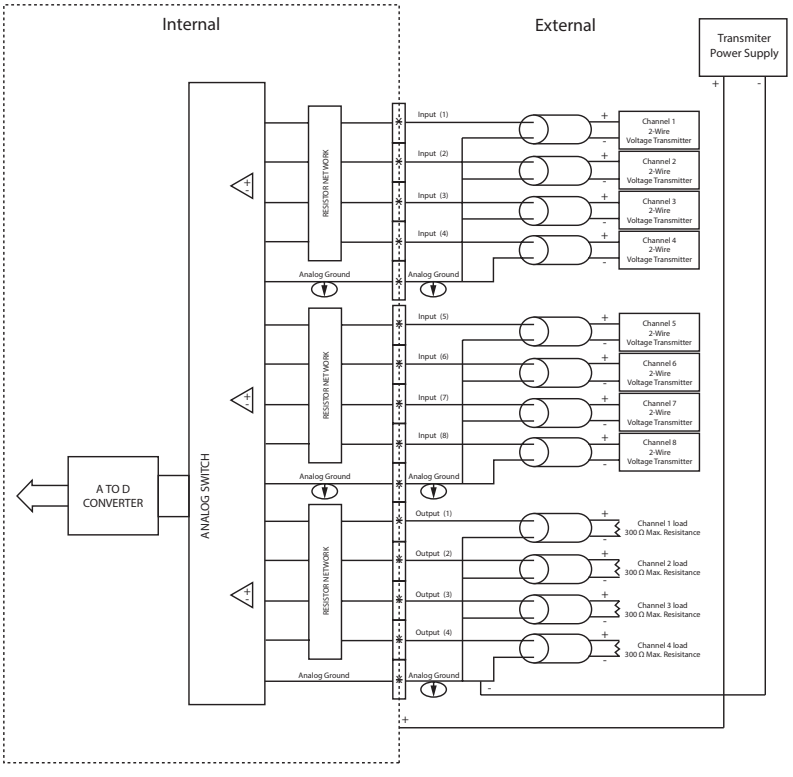
	Module Specifications	
Analog Voltage Input Specs	Number of Channels	8 Single ended
	Input Range	4-20 mA
	Resolution	16-bit (1-65535)
	Step Response	15µs to 95% of FS
	Crosstalk	1/2 count max, -120dB
	Input Impedance	>10MΩ
	Absolute Max Ratings	±12V ±100mA
	Converter Type	successive approximation
	Linearity Error (end to end)	±2 LSB
	Input Stability	
	Gain Error	±1 LSB
	Offset Calibration Error	±5 LSB
	Max Inaccuracy	0.1% @ 25° C
	Accuracy vs. Temperature	± 1 ppm/°C
Analog Voltage Output Specs	Number of Channels	4 Single ended
	Output Range	4-20 mA
	Resolution	16-bit (1-65535)
	Conversion Setting Time	10µs to 95% of FS
	Crosstalk	1/2 count max, -100dB
	Peak Output Voltage	±18 VDC
	Offset Error	±0.15% of range
	Gain Error	±0.15% of range
	Linearity Error (end to end)	±2 LSB
	Output Stability	±2 count
	Load Impedance	2KΩ min.
	Load Capacitance	0.01µF max.
	Accuracy vs. Temperature	5ppm/°C

EZRPL-IO-8ANI4ANOC-16BIT

Pinout Information			
1	Output(1)	11	Input(5)
2	Output(2)	12	Input(6)
3	Output(3)	13	Input(7)
4	Output(4)	14	Input(8)
5	COM	15	COM
6	Input(1)	16	Not Connected
7	Input(2)	17	Not Connected
8	Input(3)	18	Not Connected
9	Input(4)	19	+VS
10	COM	20	VS-COM



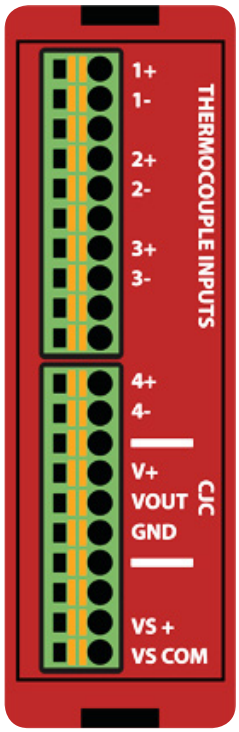
EZRPL-IO-8ANI4ANOC-16BIT



EZ I/O™ Thermocouple Input Module

Module Specifications	
Number of Channels	4, differential
Common Mode Range	-1.5 VDC to +4.0 VDC
Common Mode Rejection	100dB min. @ VDC 50/60Hz
Input Impedance	5MΩ
Absolute Maximum Ratings	Fault-protected inputs to ±50 VDC
Accuracy vs. Temperature	± 15ppm/°C max. 0-1.25V ±35 ppm/°C max. (including max. offset change)
PLC Update Rate	4 channels per scan
Base Power Required	10mA @ 3.3 VDC supplied by base
Operating Temperature	-4° to 140°F (-20° to 60°C)
Storage Temperature	-4° to 158°F (-20° to 70°C)
Relative Humidity	5 to 95% (non-condensing)
Environmental Air	No corrosive gases permitted
Vibration	MIL STD 810C 514.2
Shock	MIL STD 810C 516.2
Noise Immunity	NEMA ICS3-304

EZRPL-IO-4THIE
$169

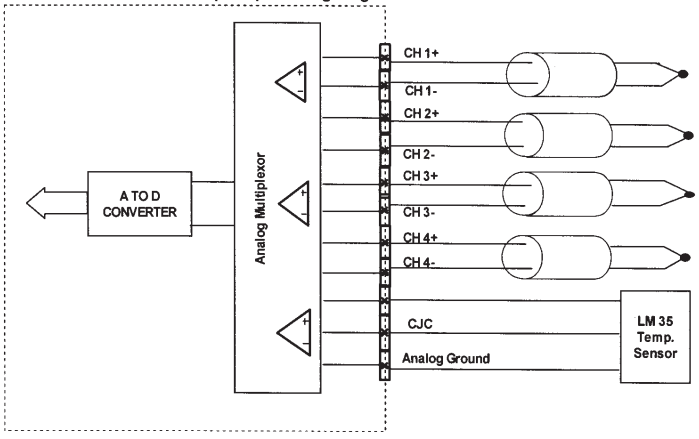


EZRPL-IO-4THIE

Pinout Information			
1	Input 1+	*11*	Input 4+
2	Input 1-	*12*	Input 4-
3	Not Connected	*13*	Not Connected
4	Input 2+	*14*	CJC V+
5	Input 2-	*15*	CJC VOut
6	Not Connected	*16*	CJC Ground
7	Input 3+	*17*	
8	Input 3-	*18*	
9	Not Connected	*19*	VS+
10	Not Connected	*20*	VS Common

Thermocouple Specifications	
Input Ranges in C	Type J -210 to 1200°C Type K -200 to 1372°C Type S -50 to 1768°C Type T -200 to 400°C Type E -200 to 1000°C Type R -50 to 1768°C Type B 250 to 1820°C Type N -200 to 1300°C
Display Resolution	Type J,K,T, E,B,N ± 0.1°C; Type S,R ± 1°C
Resolution	16 Bit (1 in 65535)
Cold Junction Compensation	Automatic
Conversion Time	1ms per channel
Warm-Up Time	30 minutes typically ± 1°C repeatability
Linearity Error (End to End)	± 1°C max. ± 0.5°C typical
Maximum Inaccuracy	± 2°C (excluding thermocouple error)

Thermocouple Input Wiring Diagram

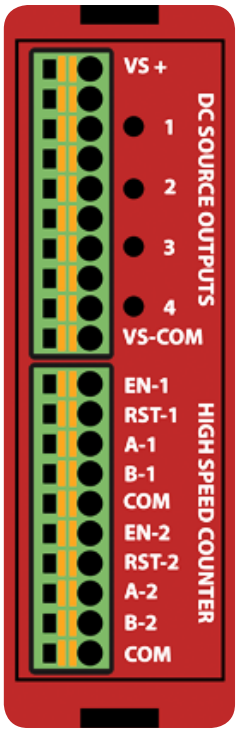


EZI/O™ High Speed Counter Inputs with Fast DC/PLS Outputs

High Speed 24 bit Counter Modules with PLS outputs that accept quadrature encoder inputs. The PLS outputs compare the counter value to two on/off presets and turn on outputs within 100µs of position change. Presets can be loaded into the counter modules from EZRack PLC. All inputs and outputs are optically isolated.

The counters have various preset/reset and inhibit modes as shown on the following page.

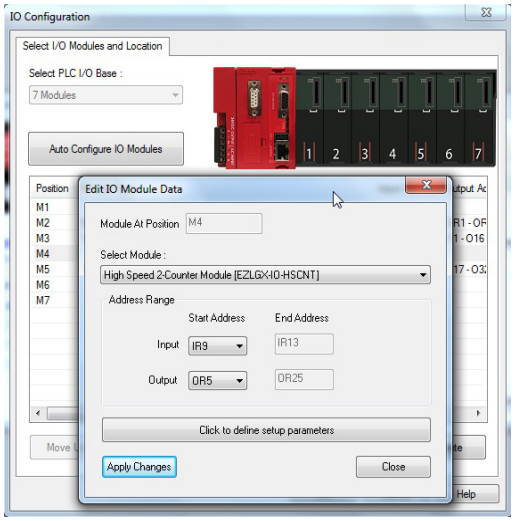
EZRPL-IO-HSCNT
$119



EZRPL-IO-HSCNT

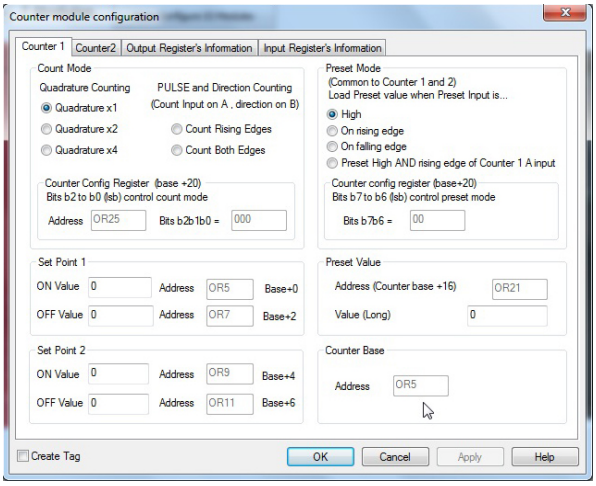
Configuring your High Speed Counter Module is EZier than Ever!

1 In EZRack PLC's I/O configuration specify the range of registers to be used for input and output.

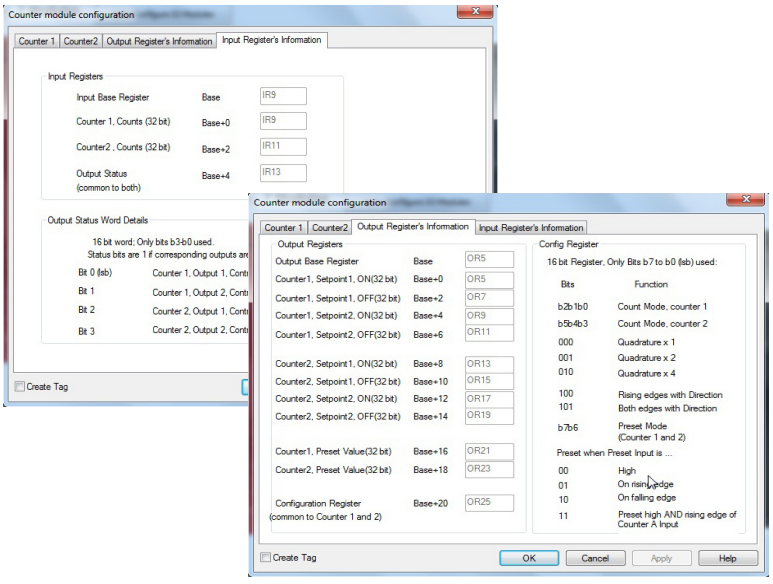


Pinout Information			
1	VS+	11	Counter EN-1
2		12	Counter RST-1
3	Output 1	13	Counter A-1
4		14	Counter B-1
5	Output 2	15	Common
6		16	Counter EN-2
7	Output 3	17	Counter RST-2
8		18	Counter A-2
9	Output 4	19	Counter B-2
10	VS Common	20	Common

2 Configure pulse, direction, quadrature counting, set points, preset values and preset mode



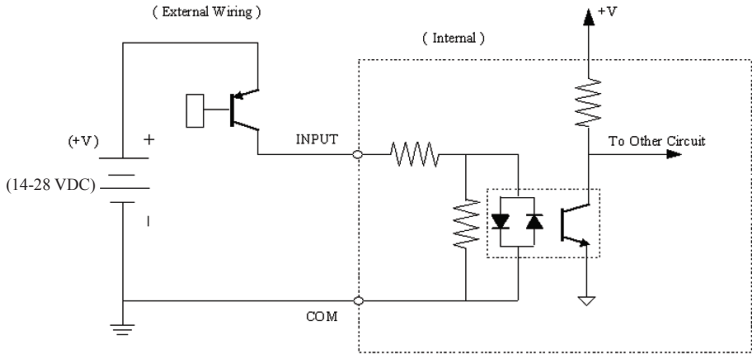
3 Detailed information for input and output registers



EZ I/O™ High Speed Counter Module Specifications

Module Specifications	
Feature	*EZRPL-IO-HSCNT*
Module Type	Intelligent High Speed **Dual** Counter Module
Maximum Input Frequency	100KHz after 1X, 2X or 4X Multiplication
Minimum Pulse Width	5 µs
Resource Options	1X, 2X, or 4X Quadrature, Up or Down Counter, Reset
Counter Range	16 million (24 bits)
Preset Modes	1. This mode will preset the counter to the preset value while preset is held high. While the preset signal is high, no new count signals will be counted. 2. This mode will create an interrupt on the rising edge of the reset signal to set the counter to the preset value. 3. This mode will create an interrupt on the falling edge of the preset signal to set the counter to the preset value. 4. This mode will create a preset pulse every time that there is a rising edge of signal A and the preset signal is high.
Reset Modes/Input	Same as Preset except the reset input sets the counter value to zero
Inhibit Input	Inhibits the counter from counting when high

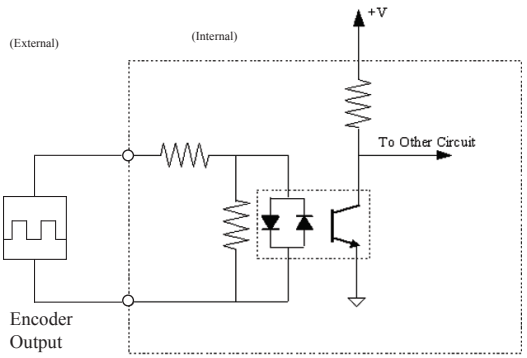
General Specifications	
Optical Isolation	2500 Volt
Wires	1 of 14 AWG, 2 of 18 AWG, 4 of 22 AWG
Operating Environment	-20-60°C, Humidity non-condensing 5-95%



DC INPUT (Source)
for Control Signals

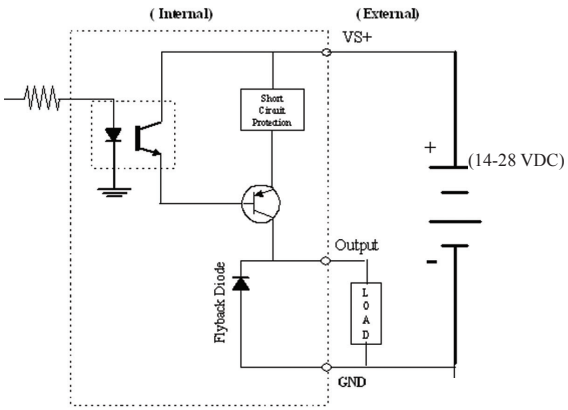
High Speed Output Specifications	
Feature	*EZRPL-IO-HSCNT (dual counter)*
Number of Outputs	4 High Speed PLS / DC Source outputs
Response Time	100µs
PLS Setpoints	1 on/off pair for each output
Peak Voltage	50.0 VDC
Maximum Steady State Output Current	0.5A per output, 1.0A max per module @ 50°C
Maximum Leakage Current	100µA @ 50 VDC @ 50°C
ON Voltage Drop	2 VDC @ 0.5A
Maximum Inrush Current	0.8A for 10ms
OFF to ON Response	< 2µs
ON to OFF Response	<10µs
Status Indicators	Red LED for each output
+V Terminals & Commons	One V+, 1 Common
Short Circuit Protection	1 Amp per module, turns off outputs upon short circuit detection
Optical Isolation	2500 Volt

Counter Input Specifications	
Feature	*EZRPL-IO-HSCNT (dual counter)*
Number of Inputs	4 per High Speed Channel Inputs (A, B, EN, RST)
Input Voltage Range	14-28 VDC
Peak Voltage	40 VDC
Input Current	2.5 mA @ 14 VDC 5.0 mA @ 28 VDC
Maximum Input Current	5 mA @ 28 VDC
Input Impedance	5.6KΩ min. @ 14-28 VDC
ON Voltage Level	> 14 VDC
OFF Voltage Level	< 2 VDC
Min. ON Current	2.5 mA
Min. OFF Current	0.2 mA
OFF to ON Response	< 2µs
ON to OFF Response	< 3µs
Commons	1 per High Speed Counter Input



DC INPUT (Source)
for Control Signals

Output Wiring

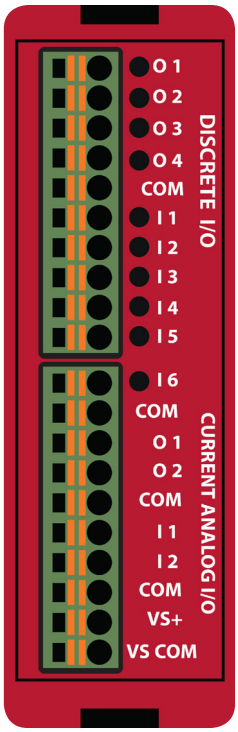


EZ I/O™

Combo Discrete and Analog Current Module

The combo discrete and analog modules are ideal for small machine applications requiring less I/O. They give you the cost benefit you normally find it in fixed I/O PLCs, but also provide flexibility & expandibility for your I/O needs as additional I/O modules can be added to the EZRack PLC.

EZRPL-IO-6DI4DO-2ANI2ANOC
$169



EZRPL-IO-6DI4DO-2ANI2ANOC

Pinout Information			
1	Digital Out - 1	11	Digital In - 6
2	Digital Out - 2	12	Common_In
3	Digital Out - 3	13	Analog Out - 1
4	Digital Out - 4	14	Analog Out - 2
5	Common	15	Common
6	Digital In - 1	16	Analog In - 1
7	Digital In - 2	17	Analog In - 2
8	Digital In - 3	18	Common
9	Digital In - 4	19	VS+
10	Digital In - 5	20	VS Common

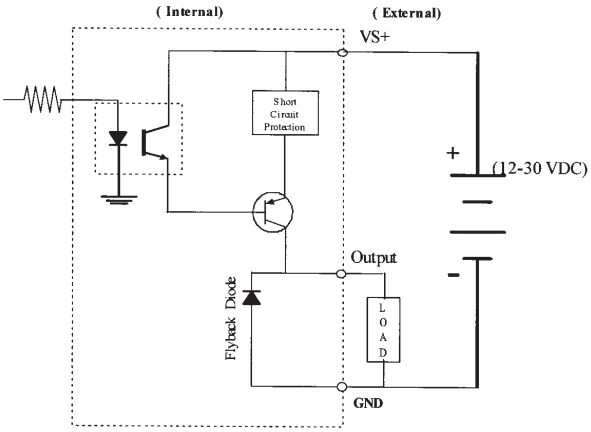
Digital Output Module Specifications	
Number of Outputs	4 sourcing
Output Voltage Range	11-30 VDC
Peak Voltage	50 VDC
Maximum Steady State Output Current	0.1A per output, 0.4A max per module @ 50°C
Maximum Leakage Current	100µA @ 50 VDC @ 50°C
ON Voltage Drop	2 VDC @ 0.5A
Maximum Inrush Current	0.8A for 10ms
OFF to ON Response	< 2µs
ON to OFF Response	<10µs
Status Indicators	Red LED for each output
+V Terminals & Commons	One V^+, 3 Commons Separate
Short Circuit Protection	1 Amp per module, turns off outputs upon short circuit detection
Base Power Required (5V)	80mA, all outputs on
Optical Isolation	2500 Volt
Wires	14 to 24 AWG

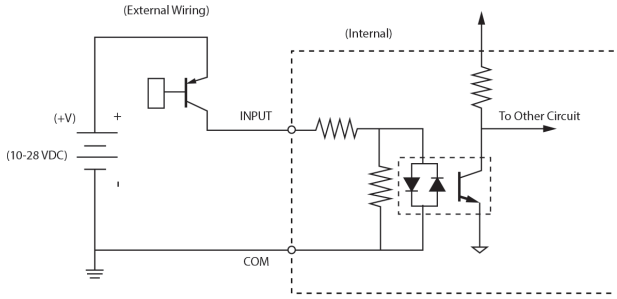
Digital Input Module Specifications	
Number of Inputs	6
Input Voltage Range	11 - 30 VDC
Peak Voltage	40 VDC
Input Current	1.92 mA @ 12 VDC 4.0 mA @ 24 VDC
Maximum Input Current	5 mA @ 28 VDC
Input Impedance	5.6k @ 10-28 VDC
ON Voltage Level	> 10 VDC
OFF Voltage Level	< 2 VDC
Min. ON Current	1.5 mA
Min. OFF Current	0.2 mA
OFF to ON Response	2-4 ms, typical 3 ms
ON to OFF Response	2-4 ms, typical 3 ms
Status Indicators	Red LED for Source Green LED for Sinking
Commons	1 point (Common_In)
Base Power Required (5V)	Typical 30mA (all inputs on)
Optical Isolation	2500 Volt
Wires	14 to 24 AWG

EZ I/O™ Combo Discrete and Analog Current Module

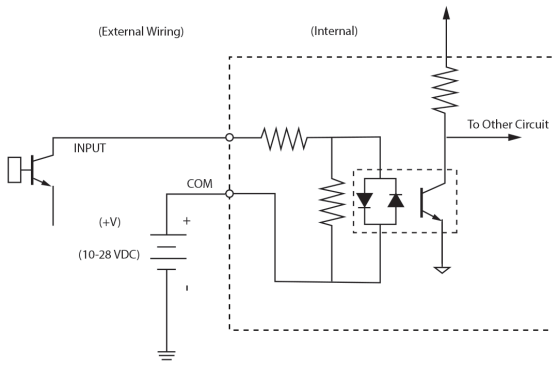
Analog Specifications		
Analog Current Input Specs	Number of Channels	2 Single Ended
	Input Range	4-20 mA
	Resolution	12 bit (1-4096)
	Step Response	1ms for 95% FS
	Crosstalk	1/2 count max, -80db
	Input Impedance	62.5Ω ± 0.1%
	Absolute Max Ratings	-30mA to 30mA
	Converter Type	Successive Approximation
	Linearity Error (end to end)	± 2 counts
	Input Stability	± 1 count
	Full-scale Calibration Error	± 10 counts @ 20mA
	Offset Calibration Error	± 5 counts
	Max Inaccuracy	± 0.3% @ 25°C, ± 0.6% @ 60°C
	Accuracy vs. Temperature	± 50 ppm/°C typical
	Recommended Fuse	.032 Amp, series 217 fast acting
Analog Current Output Specs	Number of Channels	2 single ended
	Output Range	4-20mA
	Output Type	Current Sourcing
	Resolution	12 bit (1-4096)
	Max. Loop Voltage	6 VDC
	Load/loop	0-300Ω
	Linearity Error (end to end)	± 2 counts
	Conversion Setting Time	100µs for FS
	Full-scale Calibration Error	± 12 counts
	Offset Calibration Error	± 6 counts
	Max. Full-scale Inaccuracy (all errors included)	± 0.3%
	Wires	14 to 24 AWG

Module Specifications	
Operating Temperature	-20 °C to 60 °C
Storage Temperature	-20 °C to 70 °C
Relative Humidity	5 to 95 %
Removable Terminal Block	300 Volt/8 Amp/ 14 AWG UL Rating
Vibration	MIL STD 810C 514.2
Shock	MIL STD 810C 516.2
Noise Immunity	NEMA ICS3-304

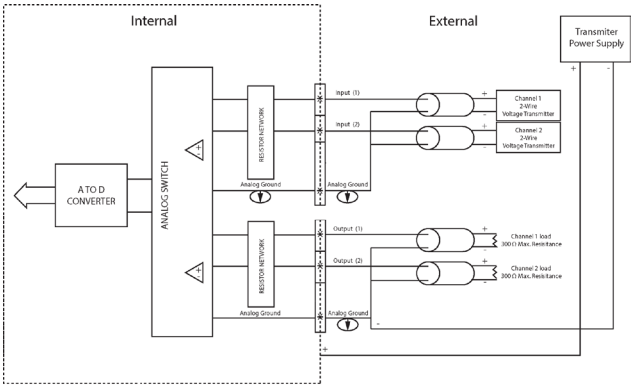




DE INPUT (SOURCE)



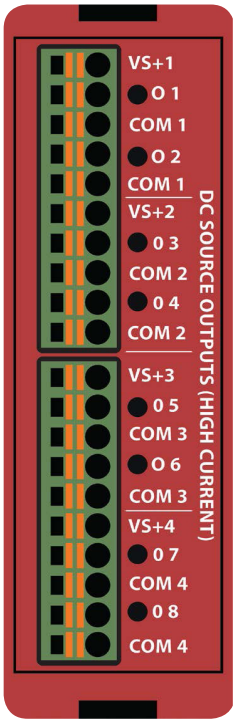
DE INPUT (SINK)



EZ I/O™ 8 pt. 24VDC Output Sourcing Module (High Current, 3A / pt)

Module Specifications	
Number of Outputs	8 sourcing
Output Voltage Range	11-30 VDC
Peak Voltage	50 VDC
Maximum Steady State Output Current	3A per output, 24.0A max per module @ 50°C
Maximum Leakage Current	100µA @ 50 VDC @ 50°C
ON Voltage Drop	2 VDC @ 0.5A
Maximum Inrush Current	0.8A for 10ms
OFF to ON Response	< 2µs
ON to OFF Response	<10µs
Status Indicators	Red LED for each output
+V Terminals & Commons	Two V+, 2 Commons Separate
Short Circuit Protection	2 Amp per module, turns off outputs upon short circuit detection
Base Power Required (5V)	80mA, all outputs on
Optical Isolation	2500 Volt
Wires	14 to 24 AWG

EZRPL-IO-8DCOP-HC
$99



EZRPL-IO-8DCOP-HC

Pinout Information			
1	+VS1	*11*	+VS3
2	Output 1	*12*	Output 5
3	COM 1	*13*	COM 3
4	Output 2	*14*	Output 6
5	COM 1	*15*	COM 3
6	+VS2	*16*	+VS2
7	Output 3	*17*	Output 7
8	COM 2	*18*	COM 4
9	Output 4	*19*	Output 8
10	COM 2	*20*	COM 4