

RIO 410 Expansion I/O Unit

Part#: 1006453

Rev. September 2014

Interfaces

Section	Ch.	Cond.	Min	Typ	Max	Unit	Comment
Power Supply	1		18	24	32	VDC	
Switch Input	4	low=0-2 high=8-32	-	24	-	VDC	Optocoupled
4-20 mA Input	9		0	4-20	25	mA	Accuracy: $\pm 0.5\%$ of range
PT100 Input	8		0	-	800	$^{\circ}\text{C}$	Accuracy: $\pm 2.0\%$ of range
Config. 24 V Output	2		-	24	-	V	Typical: Power Supply - 0.5 V
Config. Relay Output	2		0	-	1	A	Potential free
Thermocouple type K	2	0-40 mV	-5	-	5	V	Max 5 V between TC terminals. Factory calibrated to within ± 5 degrees Celsius
RIO Link Connection	1		-	19 200	-	baud	DCU Interface (Modbus DCU)
0 - 5 V Input	1		-28	0 - 5	28	V	Accuracy: $\pm 1.0\%$ of range

Measurements and Weight

Section	Weight	Width	Height	Depth	Unit	Comment
Size	-	185	105	45	mm	
Weight	0.9	-	-	-	kg	

Environmental

Section	Condition	Min	Typ	Max	Unit	Comment
Vibration	Operational	-	0.7	-	g	IEC 60068-2-6 Fc
Dry Heat	Operational	-	-	70	$^{\circ}\text{C}$	IEC 60068-2-2 Bb/Bd
		-	-	16	hours	
Damp Heat, cyclic	Cyclic 20-55-20	-	-	-	C	IEC 60068-2-30 Db
	Humidity 95%	-	-	-	-	
	Duration	-	-	48	hours	
Low Temperature	Operational	5	-	-	$^{\circ}\text{C}$	IEC 60068-2-1 Ab/Ad
	Duration	-	-	2	hours	
High Voltage	Not powered	-	-	548	Vrms	Voltage applied between <i>clamped</i> supply and shield.
		-	-	1	minute	
Fast low-energy Transients/bursts	Operational	-	-	-	-	IEC 61000-4-4
		-	-	2	kV	24 VDC supply lines, 5 kHz
		-	-	1	kV	Signal lines, 5 kHz
Slow high-energy Transients/surges	Operational	-	-	-	-	IEC 61000-4-5
		-	-	0.5	kV	24 VDC supply lines
		-	-	1	kV	Signal lines
Electrostatic Discharge, ESD	Operational	-	-	-	-	IEC 61000-4-2
		-	-	8	kV	Air
		-	-	6	kV	Contact

Datasheet



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EMC

Section	Condition	Min	Typ	Max	Unit	Comment
Conducted emission	Operational	-	-	-	-	CISPR 16-1-1 / 16-1-2 / 16-2-1
Radiated emission	Operational	-	-	-	-	Quasi-peak at 3 m:
		150	-	300	kHz	80-50 dB μ V/m
		0.3	-	300	MHz	50-34 dB μ V/m
		30	-	156	MHz	54 dB μ V/m
		156	-	165	MHz	24 dB μ V/m
165	-	2 000	MHz	54 dB μ V/m		
Radio frequency Immunity	Operational	-	-	10	Vrms	IEC 61000-4-6
Radiated electric Immunity	Operational	80	-	2 000	MHz	IEC 61000-4-3 10 V/m, 80 % AM, 1 kHz

Validity of Information

Data valid at revision date. Auto-Maskin reserves the right to make improvements and changes of specification at any time.

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