

## DCU 408 Engine Control Unit

Part#: 1006455

Rev. November 2011

### Interfaces

Section	Ch.	Cond.	Min	Typ	Max	Unit	Comment
Power Supply, Vcc	2		18	24	32	VDC	
Current Consumption		@24.0 V	-	0.5	2.0	A	
Switch Input	8	low=0-2 high=8-32	-	24	-	VDC	Optocoupled
4-20mA Input	4		0	4-20	25	mA	Accuracy: +/- 0.5 % of range
PT100 Input	4		0	-	800	C	Accuracy: +/- 2.0 % of range
Config. 24V Output	4		-	24	-	V	Typical: Power Supply – 0.5 V
Switch Outputs	12		-	Vcc-0.5	-	V	Power supply - 0.5 V
			0	-	0.2	A	Current consumption
Crank Output	1		0	-	1.4	A	
Config. Relay Output	2		0	-	1	A	Potential free
Tacho	1		0.1	5	10	kHz	Magnetic pickup
CAN J1939	1		-	250	-	kbps	
Ethernet	1		-	10	-	Mbps	
Modbus TCP	1		-	10	-	Mbps	
Modbus RTU	1		-	19 200	-	baud	
CANopen®	1		-	250	-	kbps	
RIO Link Connection	1		-	19 200	-	baud	Daisy chain all RIO units
SDU Link Connection	1		-	19 200	-	baud	
USB Port	1		-	-	-	-	USB 1.1 Memory Interface
Relay Expansion	1		-	-	-	-	For MK-14 Relay Expansion

### Measurements and Weight

Section	Weight	Width	Height	Depth	Unit	Comment
Size	-	260	160	50	mm	
Weight	0.9	-	-	-	kg	

### Environmental

Section	Condition	Min	Typ	Max	Unit	Comment
Vibration	Operational	-	0.7	-	g	IEC 60068-2-6 Fc
Operating Temperature	Operational	5	-	70	C	IEC 60068-2-1 Ab/Ad
Storage Temperature	Not powered	-30	-	+80	C	
Dry Heat	Operational	-	-	70	C	IEC 60068-2-2 Bb/Bd
		-	-	16	hours	
Damp Heat, cyclic	Cyclic 20-55-20 Humidity 95%	-	-	-	C	IEC 60068-2-30 Db
	Duration	-	-	48	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

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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 3m:
		150	-	300	kHz	80-50 dB $\mu$ V/m
		0.3	-	300	MHz	50-34 dB $\mu$ V/m
		30	-	156	MHz	54 dB $\mu$ V/m
		156	-	165	MHz	24 dB $\mu$ V/m
165	-	2 000	MHz	54 dB $\mu$ 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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