

DCU 410 Engine Control Unit

Part#: 1006450

Rev. February 2012

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
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
			4	32	32	Vpp	
CANbus SAE 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

Screen

Section	Conditions	Width	Typ	Height	Unit	Comment
Size	-	-	5.7"	-	inch	
Resolution	-	320	-	240	px	
Colors	-	-	16 384	-	colors	

	Conditions	X	Typ	Y	Unit	Comment
Viewing angle	-	+67 -67	0	+62 -67	Deg.	X=horizontal, Y=vertical Contrast ratio >10:1

Measurements and Weight

Section	Weight	Width	Height	Depth	Unit	Comment
Size	-	260	160	50	mm	
Cutout	-	241	141	-	mm	Access depth: 60 mm
Weight	1.2	-	-	-	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	-	-	-	C	IEC 60068-2-30 Db
	Humidity 95%	-	-	-	-	
	Duration	-	-	48	hours	

Datasheet



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Section	Condition	Min	Typ	Max	Unit	Comment
Enclosure	Operational	-	IP44	-	-	Front panel
High Voltage	Not powered	-	-	548 1	Vrms minute	Voltage applied between <i>clamped</i> supply and shield.
Fast low-energy Transients/bursts	Operational	-	-	-	-	IEC 61000-4-4
		-	-	2	kV	24 VDC supply lines, 5 kHz
Slow high-energy Transients/surges	Operational	-	-	-	-	IEC 61000-4-5
		-	-	0.5	kV	24 VDC supply lines
Electrostatic Discharge, ESD	Operational	-	-	-	-	IEC 61000-4-2
		8	-	8	kV	Air
		6	-	6	kV	Contact

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 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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