

CM0212

Smart Node Controller



The smart node CAN controller enables a distributed control architecture in mobile vehicles. J1939 CAN support is available for network control and messaging. This is a general purpose compact mobile system controller suitable for applications including valve, pump, fan and pneumatics control. For more application details please contact your Parker representative.

General	
Weight	0.21 kg
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Electrical	
System Voltage	12 V
Operating Voltage	9 V to 16 V
Micro Core Capabilities	
Micro Type	STM32F407 (Cortex M4 based)
Flash Size	1024 kB
RAM Size	192 kB
EEPROM Size	8 kB
Communication Channels	
CAN (SAE J1939)	1
Configurable Inputs*	Maximum of 2 inputs
Analog Inputs	Input Sensor: Analog and/or Frequency
Outputs	
High Side Outputs - PWM capable	8
Max Continuous Load	2.5 A
Max PWM Frequency	250 Hz
Low Side Outputs	4
Max Continuous Load	2.5 A (with current sense)
+5V Sensor Supply	1 (5 V at 75 mA max current)
Maximum Module Current	10 A



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Mechanical	
Enclosure Material	Injection Molded Plastic with potted electronics
Connector Type	1 x 20 pins Molex MX150, Key B
Mounting Method	Two 1/4" or 6mm bolts
Software	
Software Environment Platform Framework	Provides the application developer with the drivers required to access the hardware
Software Development Kit (SDK)	Provides the interface between the platform framework and the application software
Application Software	Matlab Simulink (can be developed by the OEM or Parker)
Configurable Software	Simple I/O configuration is provided via CAN communication
Environment	
Specifications (based on)	EP455, MIL-STD-202G, EN7691, ISO 10605, and ISO 14982
Sealing	IP69K
Over Voltage	26V
Ordering	
Ordering Part Number	1101002ECD

* - depending on PCB stuffing options, all features may not be available

Pin Number	Function						
1	V Batt 12 V	6	Sensor Ground	11	HS Output 3	16	HS Output 8
2	Ground	7	Input 2	12	HS Output 4	17	LS Output 9
3	CAN Lo	8	Input 1	13	HS Output 5	18	LS Output 10
4	CAN Hi	9	HS Output 1	14	HS Output 6	19	LS Output 11
5	5 V Regulated Sensor Supply	10	HS Output 2	15	HS Output 7	20	LS Output 12

