DATA SHEET

DP-30039

CAN Relay Control Module

RCM0808

CANBUS

8 Relay Outputs

Eight Digital Inputs

This device is a high current automotive relay power distribution node with J1939 CAN communication that can operate as a CAN slave, I/O module, or a controller thanks to its use of DPLogic. Its features include optional replaceable relays, and each relay comes with circuit protection. It can be configured by the user with user-supplied relays and circuit breakers or fuses.

DPLogic

DPLogic is a library of C+ language files used with the Microchip PIC compiler to process DPLogic records, which are created with a PC-based Graphical User Interface. DPLogic is used to program Data Panel CAN (J1939)-based DPLogic certified modules.

Connector Pinout

Connector	Function	Type of I/O
J1-1	CAN High	Communication
J1-2	Ground	Ground
J1-3	Ignition ON/OFF	+12 V @ 2 A Max
J1-4	CAN Low	Communication
J1-5	Shield	Communication
J1-6	NC	
J2-1	Ignition ON/OFF	+12 V @ 2 A Max
J2-2	Ground	Ground
J2-3	CAN T High	CAN BUS Termination 120 Ohm
J2-4	CAN T Low	CAN BUS Termination
J3-1	Input 1	0.01 A @ +14.5 Vdc
J3-2	Input 2	0.01 A @ +14.5 Vdc
J3-3	Input 3	0.01 A @ +14.5 Vdc
J3-4	Input 4	0.01 A @ +14.5 Vdc
J3-5	Input 5	0.01 A @ +14.5 Vdc
J3-6	Input 6	0.01 A @ +14.5 Vdc
J3-7	Input 7	Ground @ 0.01 A
J3-8	Input 8	Ground @ 0.01 A

Operating States (LEDs)	Color	Status
PWR	Blue	Power to module
COM	Green	Communication status
FLT	Red	Board status
Relay Coil	Green	Power through coil
Relay Output	Red	Power on relay contact

Mechanical Data

Housing	.062” aluminum Hard Coat black anodized bent metal
Dimensions (l x w x h)	5.90 x 10.00 x 2.20 in. (149.86 x 254.00 x 55.88 mm)
Weight	2.43 lbs (1100 g)
Installation	Flange

Technical Data

Connections: Connectors Mating Connectors Terminals Power Lug	MFG (DP): 4 pin Molex 39-30-1042 (105-7602-13D02) 6 pin Molex 39-30-1062 (105-8603-13D02) 8 pin Molex 39-30-1082 (105-8604-13D02) 4 pin Molex 39-01-2045 (104-0251-001) 6 pin Molex 39-01-2065 (104-0351-001) 8 pin Molex 39-01-2085 (104-0451-001) Molex 39-00-0186 (114-046) 5/16-20 x ¾ stud with 2 lock nuts supplied
Operating Voltage	9-16.5 Vdc
Switching Current	40 A
Total Module Current	160 A at 25 °C
Operating Temperature	-40…80 °C
Storage Temperature	-40…85 °C
Ingress Protection	IP20

Test Standards and Regulation

Climatic test	Storage Temperature to IEC 60068-2-1, Test Ad, IEC 60068-2-2, Test Bb Temperature Durability to IEC 60068-2-14, Test Nb
Mechanical test	Drop Test—With Shipping Container to IEC 60068-2-31, Test Ec
Electrical test	Electrical Tests to ISO 16750-2:2003 Vehicle Start Cycle—Brown Out to DP DSGN-3012 Power Cycle Tests Power Decay—Battery Drain to DP DSGN-3012 Power Cycle Tests

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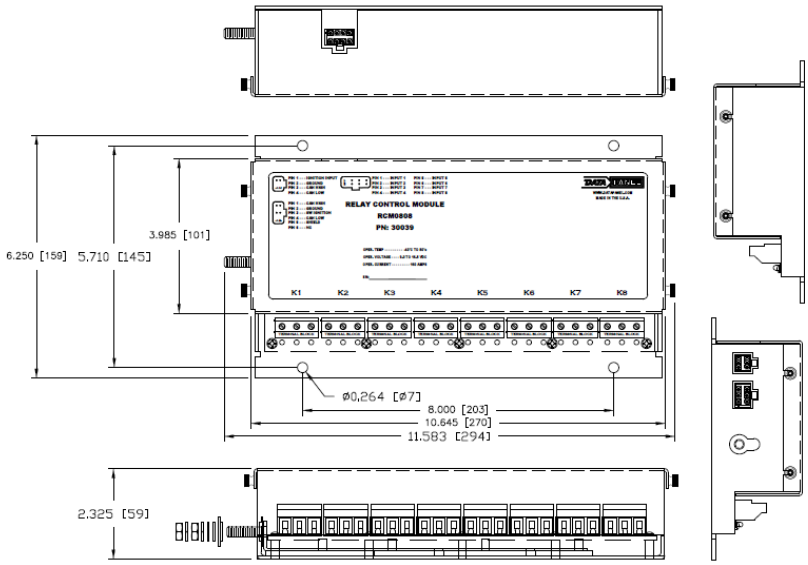

CAN Control and Operation Message Summary			
Description	Function	PGN	SA (base)
Control Message	Output Control	65511	39
Digital Inputs	Digital Inputs	65301	105

DPLogic™ User function / logic generating and programming tool for creating vehicle personality. Similar to Ladder Logic with user enhanced features for troubleshooting and diagnostics.

Relay Terminal Block Pinout			
Terminal Block TB1—TB2	Function K1—K2	Description	Comment
TBX-1	KX-NO	Normally Open	40 Amps
TBX-2	KX-NO	Normally Open	40 Amps
TBX-3	KX-COM	KX-COM	40 Amps
Terminal Block TB3, TB5—TB7	Function K3, K5—K7	Description	Comment
TBX-1	KX-NO	Normally Open	24 Amps
TBX-2	KX-NO	Normally Open	24 Amps
TBX-3	KX-COM	KX-COM	24 Amps
Terminal Block TB4, TB8	Function K4, K8	Description	Comment
TBX-1	KX-NO	Normally Open	24 Amps
TBX-2	KX-NC	Normally Closed	24 Amps
TBX-3	KX-COM	KX-COM	24 Amps

The internal fuse location for each terminal block allows the selection of either TBX-3 or the 12 Vdc power stub.