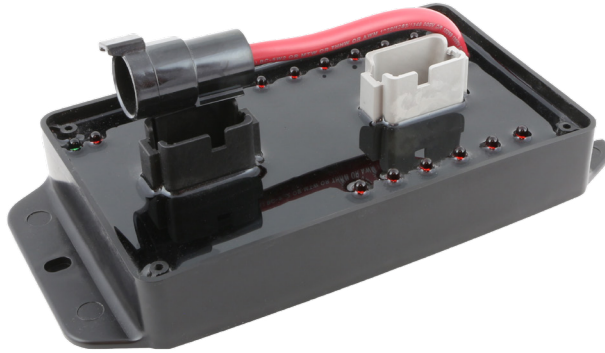


PN: 99-0530



Description

This output module provides 8 outputs rated for 13A and 4 outputs rated for 3A, each with short circuit and over load protection as well as open detection. It has an 8V-32V operating voltage range, LED output status for all 12 outputs, utilizes sealed automotive connectors and is potted to protect in very harsh conditions.

Product Features

- For 12VDC Systems (operating voltage supply range 8-16VDC)
- Twelve SOURCING outputs
- Outputs (1) - (8)
 - Rating (per output): 13A (maximum) continuous current
- System Total Maximum Current Draw:
 - 100A * Reference the Continuous Operation Derating Curve*
- Each output has short circuit and overcurrent detection and protection
- Four addressing pins that adjust CAN-ID when grounded via external harnessing
- CAN Baud Rate: 250k
- CAN SAE J1939 communications protocol
- IP67 Rated with properly mated connectors

Specifications

Outputs Connector (Gray) :

Connector - Deutsch DTF15-12PA

Mating Connectors - DT06-12SA-P012

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12
Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7	Output 8	Output 9	Output 10	Output 11	Output 12

Power/Ground/Com.Input Connector (Black):

Connector - Deutsch DTF15-12PB

Mating Connectors - DT06-12SB-P012, Socket 1062-16-0122, Wedgelock W12S-P012

Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8	Pin 9	Pin 10	Pin 11	Pin 12
Ground-Common with pin 12, only one of these must be connected	CANH communication	CANL communication	Address (0)	Address (1)	Address (2)	Address (3)	Unused	Unused	Unused	Battery, logic power	Ground-Common with pin 1, only one of these must be connected

Module Reference Guide:

LED Indicator Location Reference

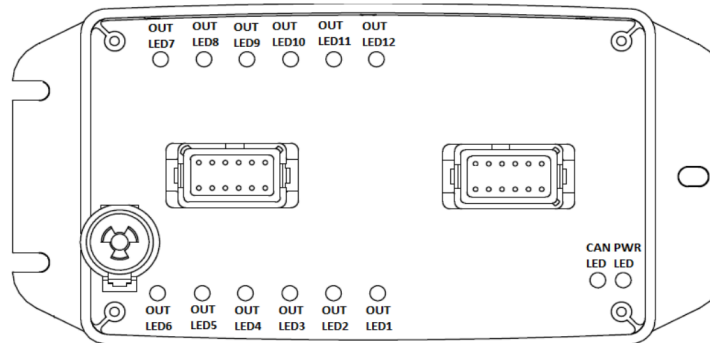


Image 1: A top-down view of the 99-0530 with LEDs labeled for reference



Electrical Specification

Parameter	Min	Typ.	Max	Units	Notes
Functional Battery Voltage	8	14	16	VDC	Nominal 12VDC battery systems
Reverse Battery Voltage	-	-	-16	VDC	One-Hr verification test Test: ISO16750-2, Section 4.7.2.3
Jump Start Voltage	-	-	32	VDC	One-Hr verification test Test: ISO16750-2, Section 4.3.2
Output Current	-	-	100	A	Reference Continuous Operation Derating Curve
Electrostatic Discharge	-15	-	15	KV	Per SAE J1113-12, Sec 5, Test Sequence 1-5
CAN Bus Baud Rate	-	250	-	Kbps	The unit will default to 250Kbps only
Node ID	-	0x60	-	-	0x60 is default CAN ID, reference the Ground Pin Matrix section for how the CAN-ID is changed

Environmental Specification

Parameter	Min	Typ.	Max	Units	Notes
Storage Temperature	-40	-	125	°C	
Operating Temperature	-40	-	85	°C	Including Condensing
Ingress Protection	-	-	IP67	-	With all connectors properly mated and strain relieved
Mounting Torque	-	-	50	in-lbs	Mounted with M6 bolt, split lock washer, and a flat washer

Mechanical Specification

Parameter	Test	Notes
Thermal Cycle Test	SAE J1455 Section 4.1.3, 8-Hour Cycle	Unpowered, -40°C to 85°C, 20 cycles
Thermal Shock Test	ISO016750-4 Section 5.3.2	Unpowered, -40°C to 85°C, 100 cycles, 60 min dwells
Drop Test/Handling Shock	IEC 60068-2-31 Section 5.1, 5.2	Topple, Free Fall 1m onto concrete
Humidity & Temperature Cycling (Thermal Cyclic Aging)	SAE J1455 Section 4.2.3, Figure 4A, 8 Hour	Powered but not necessarily monitored for function. -40°C to 85°C, 50 cycles
Fluid Compatibility	SAE J1455 Section 4.4	Degreaser, DEF, Diesel, 10W-30 Motor Oil, Anti-Freeze
Thermal Shock Immersion	ISO16750-4 section 5.4.3	Unit brought to 85°C to then submerged in ice Water, Salt, Detergent, Dye, Unpowered for dunk
Ingress Protection (IP)	IEC 60519, IP67	1m of water, 30 mins. Water and equipment temperature within 5°C of each other
Mechanical Shock Test	Half - sine - 50g	3 axis, 11ms pulse duration in positive and negative directions with 1 second between pulses
Vibration - Random	Standard Trombetta random vibration profile. Overall GRMS- 8.17GRMS, 5-2000Hz	3 axis 8 hours per axes. Connectors populated
Load Dump	ISO16750-2, Section 4.6.4.2.2, SAE J1113-11, Pulse 5B, ISO7637 Pulse 5B	32VDC, 2 Ohm, 350ms, 5 pulses, 1 min intervals

