



Representative Product Photo

CANLink[®] CL-444-100 Master Module w/o LED I/O Indicators

29 Inputs and 24 Outputs including:

- (21) switch to battery inputs
- (2) switch to ground inputs
- (2) inputs software configurable as switch to ground or frequency inputs
- (4) 0-5.64VDC 10-bit analog inputs
- (8) 2A 2-wire constant current PWM outputs
- (4) 2A PWM outputs with estimated current feedback
- (12) 2.5A digital outputs
- Battery voltage and sensor supply voltage monitoring
- (1) 5VDC regulated sensor supply (500mA)
- (2) J1939 CAN ports
- (1) USB port

The CL-444 is a solid-state microprocessor based module and member of the HED[®] CANLink[®] multiplexed control family. Delivered in an aluminum enclosure, this unit provides a large and highly flexible I/O count in a compact package.

The CL-444 is designed for use as a multi-purpose stand alone unit or as a master controller in a distributed system.

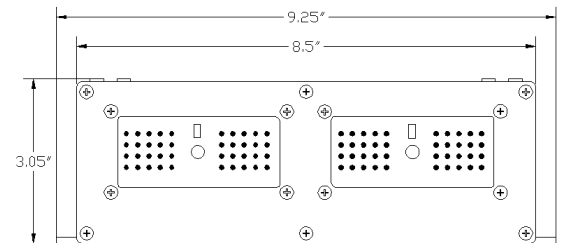
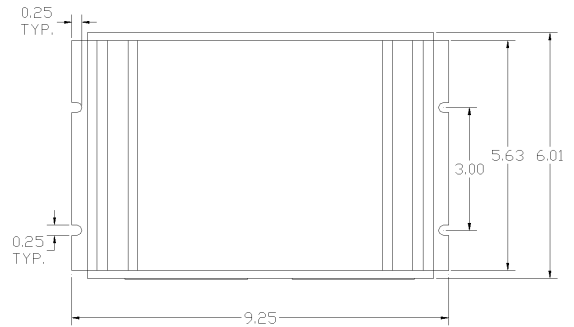
The HED[®] CL-444 can be programmed using HED[®]'s do-it-yourself CANLink[®] Composer[™] programming tool or directly by HED[®] engineering, and is designed for use with the CANLink[®] Conductor[™] software tool for diagnostics and field troubleshooting.

Specifications

Enclosure:	Aluminum Extrusion
Mating Connectors: Deutsch	Deutsch DRC18-40SA Deutsch DRC18-40SB 0462-201-16141 16AWG sockets
Operating Voltage Range:	8 to 32 VDC
Operating Temperature:	-40°C to 85°C
Storage Temperature:	-40°C to 85°C
IP Rating:	IP67
PC Boards:	<p>The printed circuit boards are designed for high EMI/RFI protection.</p> <p>The boards are conformal coated with a silicone coating for further water/moisture protection.</p> <p>All inputs and outputs are protected against shorts to Battery(+) or Battery(-).</p> <p>100% of the boards are functionally tested before shipment.</p> <p>* Harness codes are switch to ground inputs used to identify I/O module location and function to the master controller</p>

CL-444-100 Master Module

DRC13-40PA 40-Pin Connector		DRC13-40PB 40-Pin Connector	
Pin	Function	Pin	Function
1	Output #1 DOUT(+)(2.5A)	1	Return(-) Output 13
2	Output #2 DOUT(+)(2.5A)	2	Return(-) Output 14
3	Output #3 DOUT(+)/PWM(+)/ECC(+)(2A)	3	BAT(+) Outputs 13-14, 19-20 / Input #34 Battery Voltage
4	Output #4 DOUT(+)/PWM(+)/CC(+)(2A)	4	Output #13 DOUT(+)/PWM(+)/CC(+)(2A)
5	BAT(+) Outputs 3-4, 9-10 / Input #29 Battery Voltage	5	Output #14 DOUT(+)/PWM(+)/CC(+)(2A)
6	Output #5 DOUT(+)/PWM(+)/ECC(+)(2A)	6	BAT(-) Module
7	Output #6 DOUT(+)/PWM(+)/CC(+)(2A)	7	Output #15 DOUT(+)(2.5A)
8	BAT(+) Outputs 5-6, 11-12 / Input #30 Battery Voltage	8	Output #16 DOUT(+)(2.5A)
9	Return(-) Output 6	9	Output #17 DOUT(+)(2.5A)
10	Return(-) Output 12	10	Output #18 DOUT(+)(2.5A)
11	Output #7 DOUT(+)(2.5A)	11	Return(-) Output 19
12	Output #8 DOUT(+)(2.5A)	12	Return(-) Output 20
13	Output #9 DOUT(+)/PWM(+)/ECC(+)(2A)	13	Input #35 STB
14	Output #10 DOUT(+)/PWM(+)/CC(+)(2A)	14	Output #19 DOUT(+)/PWM(+)/CC(+)(2A)
15	5V Sensor Supply (500mA) / Input #31 Sensor Supply Voltage	15	Output #20 DOUT(+)/PWM(+)/CC(+)(2A)
16	Output #11 DOUT(+)/PWM(+)/ECC(+)(2A)	16	BAT(+) Outputs 15-16, 21-22 / Input #36 Battery Voltage
17	Output #12 DOUT(+)/PWM(+)/CC(+)(2A)	17	Output #21 DOUT(+)(2.5A)
18	5V Sensor Ground / Input #32 Ground Voltage	18	Output #22 DOUT(+)(2.5A)
19	Return(-) Output 4	19	Output #23 DOUT(+)(2.5A)
20	Return(-) Output 10	20	Output #24 DOUT(+)(2.5A)
21	BAT(+) Outputs 1-2, 7-8 and Module / Input #33 Battery Voltage	21	BAT(-) Outputs 13-24
22	Input #1 STB	22	Input #17 AIN(0-5.64V)
23	Input #2 STB	23	Input #18 AIN(0-5.64V)
24	Input #3 STB	24	Input #19 AIN(0-5.64V)
25	Input #4 STB	25	Input #20 AIN(0-5.64V)
26	Input #5 STB	26	Input #21 STB
27	Input #6 STB	27	Input #22 STB
28	Input #7 STB	28	Input #23 STB
29	Input #8 STB	29	Input #24 STB
30	BAT(-) Outputs 1-12	30	BAT(+) Outputs 17-18, 23-24 / Input #37 Battery Voltage
31	Input #9 STB	31	Input #25 STG/FREQ
32	Input #10 STB	32	Input #26 STG/FREQ
33	Input #11 STB	33	Input #27 STG
34	Input #12 STB	34	Input #28 STG
35	Input #13 STB	35	USB (GND)
36	Input #14 STB	36	USB (DP)
37	Input #15 STB	37	USB (DM)
38	Input #16 STB	38	CAN (Shield)
39	CAN1-L	39	CAN2-L
40	CAN1-H	40	CAN2-H



Note: The module with the LED I/O Indicators utilizes an enclosure that is 0.5" longer in length than module without the LED I/O Indicator option (6.0" vs 5.5"). The mounting hole spacing/dimensions between the two modules are identical with respect to connector end of modules.

Note: Above pinout is for HED® part number CL-444-100. Different I/O combinations are available. Additional part number data sheets available on HED® website.

Note: BAT(-) Output pins are required to be connected to system Battery(-) for proper function of 2-Wire Constant Current Outputs and for proper suppression of PWM output flyback voltage spikes