

## CANLink<sup>®</sup> CL-420-100 Module Master I/O Module



The CL-420 is a solid-state microprocessor based module and member of the HED<sup>®</sup> CANLink<sup>®</sup> 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-420 is designed for use as a multi-purpose stand alone unit or as a master controller in a distributed system.

The HED<sup>®</sup> CL-420 can be programmed using HED<sup>®</sup>'s do-it-yourself CANLink<sup>®</sup> Composer<sup>™</sup> programming tool or directly by HED<sup>®</sup> engineering, and is designed for use with the CANLink<sup>®</sup> Conductor<sup>™</sup> software tool for diagnostics and field troubleshooting.

### 17 Inputs and 10 Outputs including:

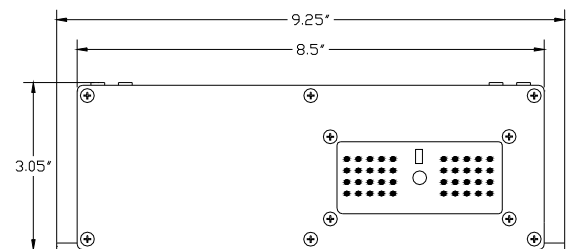
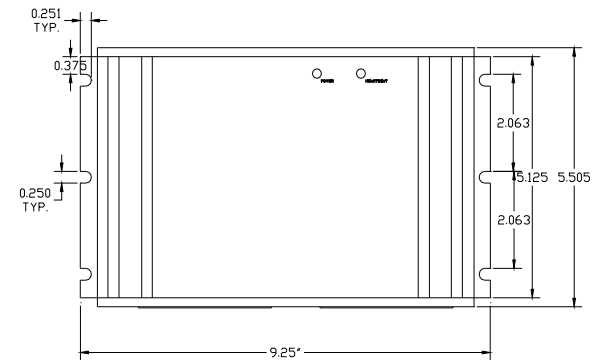
- (3) inputs software configurable as switch-to-ground, 12-bit analog, or resistive sensor input (RTD)
- (5) inputs software configurable as switch to ground or 12-bit analog
- (4) switch to battery inputs
- (4) inputs software configurable as switch to ground or frequency
- (1) 10-bit analog
- (8) 3A PWM outputs with estimated current feedback
- (2) 3A PWM outputs
- Battery voltage and sensor supply voltage monitoring
- (1) 5VDC regulated sensor supply (700mA)
- (2) J1939 CAN ports
- (1) RS232 port

Specifications	
Enclosure:	Aluminum Extrusion
Mating Connectors:	Deutsch DRC16-40SA
Deutsch	0462-201-20141 20AWG sockets 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:	IP 67
PC Boards:	The printed circuit boards are designed for high EMI/RFI protection. The boards are conformal coated with a silicone coating for further water/moisture protection. All inputs and outputs are protected against shorts to Battery(+) or Battery(-). 100% of the boards are functionally tested before shipment.  * Harness codes are switch to ground inputs used to identify I/O module location and function to the master controller

## CL-420-100 Master I/O Module

### CL-420-100 Master I/O Module Pinout

DRC13-40PA 40-Pin Connector			
Pin	Function	Pin	Function
1	Output #1 DOU(+)/PWM(+)/E/CC(+)(3A)	21	BAT(-) Module
2	Output #2 DOU(+)/PWM(+)/E/CC(+)(3A)	22	Input #8 STG/Freq
3	Output #3 DOU(+)/PWM(+)/ECC(+)(3A)	23	Input #9 STG/Freq
4	Output #4 DOU(+)/PWM(+)/ECC(+)(3A)	24	Input #10 STG/Freq
5	Output #5 DOU(+)/PWM(+)/ECC(+)(3A)	25	Input #11 STG/Freq/ Unswitched Battery(+)**
6	Output #6 DOU(+)/PWM(+)/ECC(+)(3A)	26	Input #12 STG/AIN
7	Output #7 DOU(+)/PWM(+)/ECC(+)(3A)	27	Input #13 STG/AIN
8	Output #8 DOU(+)/PWM(+)/ECC(+)(3A)	28	Input #14 STG/AIN
9	Output #9 DOU(+)/PWM(+)(3A)	29	Input #15 STG/AIN
10	Output #10 DOU(+)/PWM(+)(3A)	30	Input #16 STG/AIN
11	Input #1 STB	31	RS232 (GND)
12	Input #2 STB	32	RS232 (TX)
13	Input #3 STB	33	RS232 (RX)
14	Input #4 STB	34	5V Sensor Supply (700mA) / Input #20 Sensor Supply Voltage
15	BAT(+) Module and Outputs 1-5 / Input #18 Battery Voltage	35	Input #17 AIN
16	Flyback Ground	36	CAN1-L
17	Input #5 STG/AIN/ RTD(0-255ohm)	37	CAN1-H
18	Input #6 STG/AIN/ RTD(0-255ohm)	38	CAN (Shield)
19	Input #7 STG/AIN/ RTD(0-255ohm)	39	CAN2-L
20	BAT(+) Outputs 6-10 and 5V Supply / Input #19 Battery Voltage	40	CAN2-H



Note: Above pinout is for HED® part number CL-420-100.  
Additional part number data sheets available on HED® website.

\*\*Unswitched vehicle battery must be connected to properly store data to EEPROM. Module will draw max of 200 micro amps (12V) and 400 micro amps (24V) after turning itself off. This feature is only available on versions of this module that are Master Module capable.