

## CANLink® CL-416-103 Module I/O Module (12V) w/ LED I/O Indicators



Representative Product Photo

The CL-416 is a solid-state microprocessor based module and member of the HED® CANLink® multiplexed control family. Delivered in a Deutsch enclosure, this unit provides a high density I/O count in a compact and economical package.

Designed for use as a stand alone unit or as part of a distributed system, the CL-416 is also available in a clear enclosure with LED indicators for each input or output for simple troubleshooting in the field.

The HED® CL-416 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.

### 8 Inputs and 8 Outputs including:

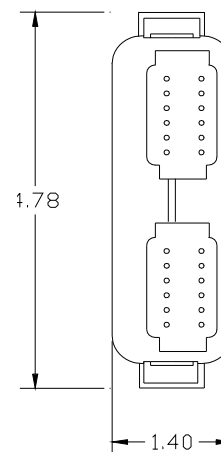
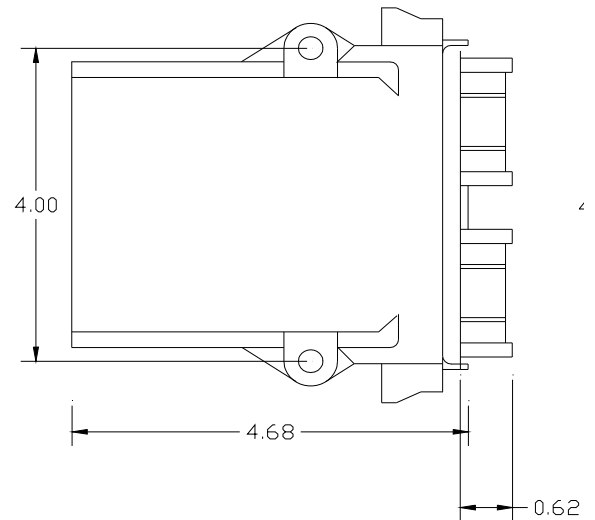
- (4) inputs software configurable as switch to battery or 0-5.5VDC 10-bit analog
- (2) inputs software configurable as switch to ground or 0-5.5VDC 10-bit analog
- (2) inputs software configurable as switch to ground or 0-18VDC 10-bit analog
- (4) harness codes\* inputs
- (8) 500mA sinking PWM outputs (with 10K pull-up resistors to +Battery)
- (1) J1939 CAN Input

| Specifications                |   |
|-------------------------------|---|
| Enclosure:                    | Deutsch standard EEC-325x4 PCB enclosure with 24-pin receptacle.  |
| Mating Connectors:<br>Deutsch | DTM06-12SA<br>DTM06-12SB<br>WM-12S (wedge) – Two needed (one per connector)<br>0462-201-20141 20AWG sockets<br>0413-204-2005 Sealing Plugs – Unused pins are required to be sealed to maintain module sealing   |
| Operating Voltage Range:      | 8-18 VDC  |
| Operating Temperature:        | -40°C to 70°C   |
| Storage temperature:          | -40°C to 85°C   |
| IP Rating:                    | IP 6K9K   |
| PC Boards:                    | The printed circuit boards are designed for high EMI/RFI protection.<br>The boards are conformal coated with a silicone coating for further water/moisture protection.<br>All inputs and outputs are protected against shorts to Battery(+) or Battery(-).<br>100% of the boards are functionally tested before shipment.<br><br>* Harness codes are switch to ground inputs used to identify I/O module location and function to the master controller |

## CL-416-103 I/O Module

**CL-416-103 I/O Module Pinout**

| Pin | Function                 | Pin | Function                          |
|-----|--------------------------|-----|-----------------------------------|
| 1   | Input #1 STB/AIN(0-5.5V) | 1   | Output #1<br>DOUT(-)/PWM(-)(0.5A) |
| 2   | Input #2 STB/AIN(0-5.5V) | 2   | Output #2<br>DOUT(-)/PWM(-)(0.5A) |
| 3   | Input #3 STB/AIN(0-5.5V) | 3   | Output #3<br>DOUT(-)/PWM(-)(0.5A) |
| 4   | Input #4 STB/AIN(0-5.5V) | 4   | Output #4<br>DOUT(-)/PWM(-)(0.5A) |
| 5   | Input #5 STG/AIN(0-5.5V) | 5   | Output #5<br>DOUT(-)/PWM(-)(0.5A) |
| 6   | Input #6 STG/AIN(0-5.5V) | 6   | Output #6<br>DOUT(-)/PWM(-)(0.5A) |
| 7   | Input #7 STG/AIN(0-18V)  | 7   | Output #7<br>DOUT(-)/PWM(-)(0.5A) |
| 8   | Input #8 STG/AIN(0-18V)  | 8   | Output #8<br>DOUT(-)/PWM(-)(0.5A) |
| 9   | CAN-L                    | 9   | HID#1                             |
| 10  | CAN-H                    | 10  | HID#2                             |
| 11  | BAT(-) Module            | 11  | HID#3                             |
| 12  | BAT(+) Module            | 12  | HID#4                             |



Note: Above pinout is for HED® part number CL-416-103.  
Additional part number data sheets available on HED® website.