**LifeRacing**

# D5 Dash
Datasheet

The D5 is a 5" Full Colour Sunlight readable WVGA display with 8 high brightness 'shift' LEDs, 4 general purpose / warning LEDs as well as 6 general purpose analogue inputs for sensors and 4 switch inputs. 2 flexible CAN2.0B ports, RS232, twin Ethernet ports and real time maths operations allow it to be used as a fully featured central hub for a single connection point. The D5 can log all channels (physical, CAN and maths) to USB at individually configured logging rates or alternatively stream the logged data from LR ECUs (F88, F90, etc).

The D5 can be configured using PC software or by an external keypad controller. This allows custom layouts, easy page navigation and programmable driver aids, warnings and alarms. All functions can be simulated in software or by the playback of data files (.LRD) before programming.

**Processing:**

- Powerful RISC CPU for advanced strategy execution
- Real time maths up to 8000 operators a second

**Display:**

- 5" WVGA ultra bright anti-glare screen with intelligent auto dimming
- 8 variable intensity shift lights
- 4 configurable warning lights

**Inputs:**

- 6 user configurable general purpose analogue sensor inputs
- 4 user configurable switch inputs

**Interfaces:**

- Twin 100 MHz full duplex Ethernet for calibration, configuration and ECU streaming
- 2 CAN 2.0B interfaces with fully flexible CAN configuration
- RS232 serial interface
- USB 2.0 for bulk data storage on USB stick (FAT and FAT32 USB formats supported only)

**Memory:**

- Unlimited USB logging memory either standalone or streaming from an LR ECU

**Power Supply:**

- 8V to 80V input voltage range with reverse polarity protection
- Regulated 5V sensor supply output

**Physical:**

- 50Way D-type connector
- CNC machined, black anodised aluminium case
- Class leading slim profile for flat panel mounting
- Maximum dimensions including the connectors are 140 x 123 x 31 mm
- Total mass is ~395 grams

**Available Upgrade Features:**

- Complex Maths (upgrade to 8000 operators a second)
- CANtx
- USB logging

Included as standard:

|  | Complex Math | CANtx | USB logging |
|---|---|---|---|
| D5 Basic | No | No | No |
| D5 Club | Yes | Yes | No |
| D5 Pro | Yes | Yes | Yes |
| D5A | Yes | Yes | Yes |

**Ordering Information:**

| Description | Part number |
|---|---|
| D5 Basic | DIS-A08 |
| D5 Club | DIS-A01 |
| D5 Pro | DIS-A09 |
| D5A | DIS-A03 |
| Complex Math Upgrade | DIS-FEAT-M |
| CANtx Upgrade | DIS-FEAT-T |
| USB Logging | DIS-FEAT-P |
| 50way Connector Kit | CON-B04 |
| Lemo USB | ANC-A04 |

## Wiring Information:
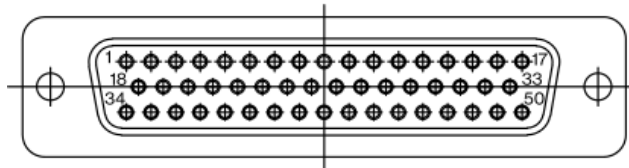


*View looking into the 50 way connector*
*Mating Connector: Harting 09670504701 |Connector Crimps: Harting 09670008277*
*Connector Hood: TE 5745175-5 or FCI 86303641BLF*

| Pin | Gauge | Signal Name | Signal Notes |
|-----|-------|-------------|--------------|
| 1 | 22AWG | BATTERY SUPPLY | Positive power supply |
| 2 | 22AWG | BATTERY SUPPLY | Positive power supply |
| 3 | 22AWG | INPUT #01 (5V/TH) | Analogue input 0-5v, 3K software pullup to 5V |
| 4 | 22AWG | INPUT #04 (5V/TH) | Analogue input 0-5v, 3K software pullup to 5V |
| 5 | 22AWG | 5V OUT | Regulated 5V sensor supply |
| 6 | 22AWG | SWITCH INPUT #03 | All switch inputs utilise a 10K pullup to 3.3V |
| 7 | 24AWG | RS232 RX | RS232 Receive |
| 8 | 24AWG | CAN LO #01 | CAN communication port. Termination dependant on age |
| 9 | 24AWG | CAN HI #02 | CAN communication port. Termination dependant on age |
| 10 | - | DO NOT CONNECT | LR internal use only |
| 11 | - | DO NOT CONNECT | LR internal use only |
| 12 | - | DO NOT CONNECT | LR internal use only |
| 13 | - | DO NOT CONNECT | LR internal use only |
| 14 | 26AWG | ECU RX- | Recommended connection to LR ECU. Required for USB logging. |
| 15 | 26AWG | ECU RX+ | Recommended connection to LR ECU. Required for USB logging. |
| 16 | 26AWG | ECU TX- | Recommended connection to LR ECU. Required for USB logging. |
| 17 | 26AWG | ECU TX+ | Recommended connection to LR ECU. Required for USB logging. |
| 18 | - | DO NOT CONNECT | LR internal use only |
| 19 | 22AWG | SENSOR GROUND | Protected sensor ground |
| 20 | 22AWG | INPUT #02 (5V/TH) | Analogue input 0-5v, 3K software pullup to 5V |
| 21 | 22AWG | INPUT #05 (5V) | Analogue input 0-5v |
| 22 | 22AWG | SWITCH INPUT #01 | All switch inputs utilise a 10K pullup to 3.3V |
| 23 | 22AWG | SWITCH INPUT #04 | All switch inputs utilise a 10K pullup to 3.3V |
| 24 | 24AWG | RS232 TX | RS232 Transmit |
| 25 | 24AWG | CAN HI #01 | CAN communication port. Termination dependant on age |
| 26 | 24AWG | USB D+ | Standard USB Cable must be used and not exceed 2m in length |
| 27 | 22AWG | USB GND | Standard USB Cable must be used and not exceed 2m in length |
| 28 | 22AWG | USB VCC | Standard USB Cable must be used and not exceed 2m in length |
| 29 | - | DO NOT CONNECT | LR internal use only |
| 30 | - | DO NOT CONNECT | LR internal use only |
| 31 | - | DO NOT CONNECT | LR internal use only |
| 32 | - | DO NOT CONNECT | LR internal use only |
| 33 | - | DO NOT CONNECT | LR internal use only |
| 34 | 22AWG | POWER GROUND | Negative power supply |
| 35 | 22AWG | POWER GROUND | Negative power supply |
| 36 | 22AWG | INPUT #03 (5V/TH) | Analogue input 0-5v, 3K software pullup to 5V |
| 37 | 22AWG | INPUT #06 (5V) | Analogue input 0-5v |
| 38 | 22AWG | SWITCH INPUT #02 | All switch inputs utilise a 10K pullup to 3.3V |
| 39 | - | DO NOT CONNECT | LR internal use only |
| 40 | 22AWG | DIGITAL GROUND | Use for Switch Inputs |
| 41 | 24AWG | CAN LO #02 | CAN communication port. Termination dependant on age |
| 42 | 24AWG | USB D- | Standard USB Cable must be used and not exceed 2m in length |
| 43 | 26AWG | DASH TX+ (BI_DA+) | Ethernet PC Communication Port |
| 44 | 26AWG | DASH TX- (BI_DA-) | Ethernet PC Communication Port |
| 45 | 26AWG | DASH RX+ (BI_DB+) | Ethernet PC Communication Port |
| 46 | 26AWG | DASH RX- (BI_DB-) | Ethernet PC Communication Port |
| 47 | - | DO NOT CONNECT | LR internal use only |
| 48 | - | DO NOT CONNECT | LR internal use only |
| 49 | - | DO NOT CONNECT | LR internal use only |
| 50 | - | DO NOT CONNECT | LR internal use only |

**Dimensions:**
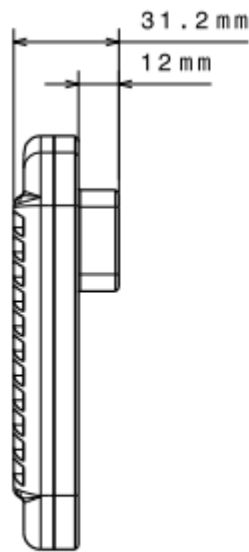


Side View
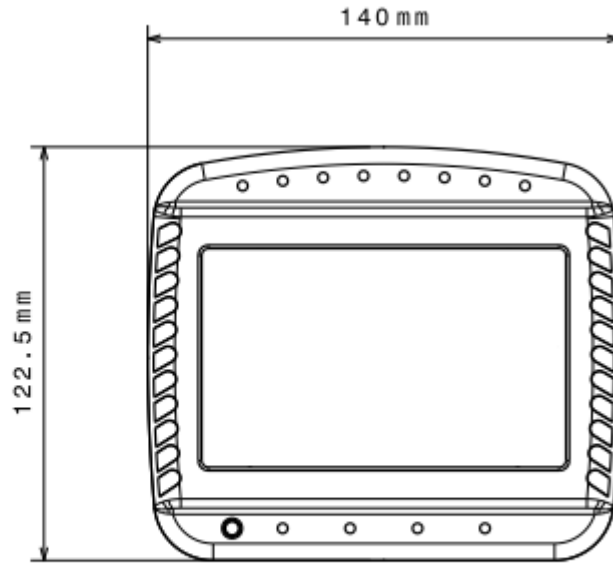
Front View
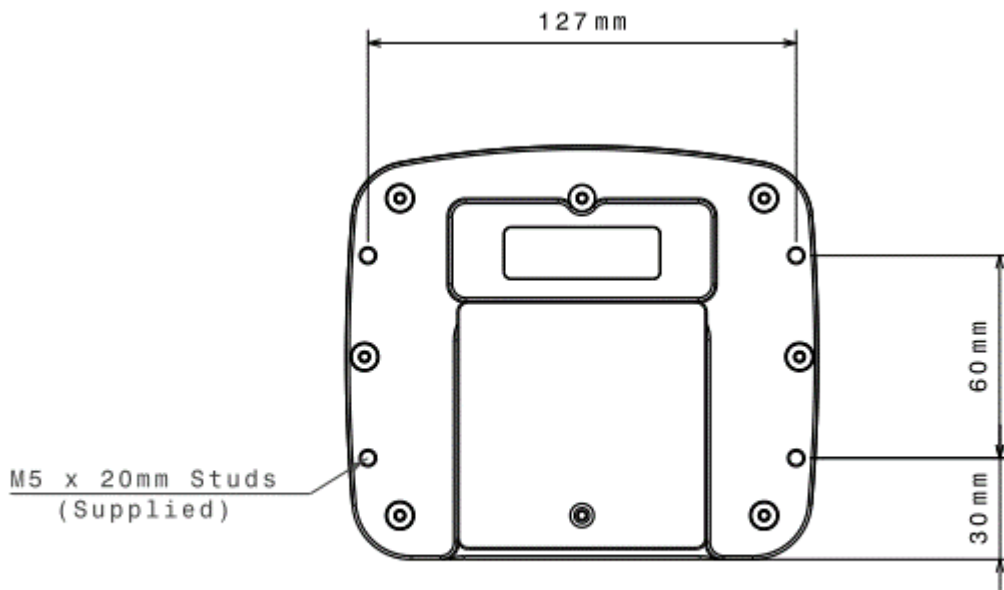


Rear View

**Warranty and Servicing:**

- 1 year limited warranty when used within supplied specification.