ADL3 - ADVANCED DASH LOGGER

The Advanced Dash Logger (ADL3) is a combined display, fully programmable data logger and powerful control device, all in one lightweight unit. As standard, the ADL3 comes with 16 MB of data logging, which can be upgraded to 250 MB at any time.

The layout of the screen is fully configurable to display a multitude of data channels, warning alarms, lap times, fuel calculations, minimum corner speeds, maximum straight speeds and more.

Four auxiliary outputs can be used to control external devices with additional outputs available as an upgrade or created by using expander modules. The ADL3 performs calculations, acquiring data from other MoTeC devices such as ECUs, Dash Loggers and VIMs, which enable it to log more than 300 inputs, including high resolution sensor inputs.

▶ FEATURES

- All-in-one display, logger and controller
- Suitable for bikes, cars, marine and industrial applications
- Supports Wideband Lambda from MoTeC PLMs or LTCs
- Easily integrates with MoTeC CAN based products such as ECUs, expanders, lap timing devices and shift lights
- More than 300 sensor inputs, using VIM input expanders
- GPS Lap Timing
- Tell Tales
- Diagnostic Logging

- Preserved Channels
- Running Min/Max, Timers, PID Control, Telemetry, Engine Log

▶ ACCESSORIES

- Standard Ethernet cable
- 61213 – ADL3 loom
- 61131 – Ethernet cable, unterminated, 2 metre

▶ UPGRADES

- Data Logging: Increases internal logging memory to 250 MB
- Pro Analysis: Provides access to advanced i2 Pro data analysis software
- Telemetry: Enables transmission of live data from the vehicle
- Remote Logging: Enables converting telemetry data into a log file
- 52 I/O: Provides additional input/output functionality consisting of:
  - 14 extra Analogue voltage inputs (AV11 to AV24, see pinout)
  - 4 extra Analogue temperature inputs (AT5 to AT8, see pinout)
  - 4 extra Auxiliary outputs (AUX5 to AUX8, see pinout)

▶ SPECIFICATIONS

Display

- 70 segment bar graph
- 13 digit alphanumeric text bar
- 20 user-defined, scrollable message lines with 4 programmable overrides
- 3 programmable 'pages' for Practice, Warm-Up and Race

Logging

- 16 MB standard logging memory (250 MB optional)
- Logging rates up to 1000 samples per second
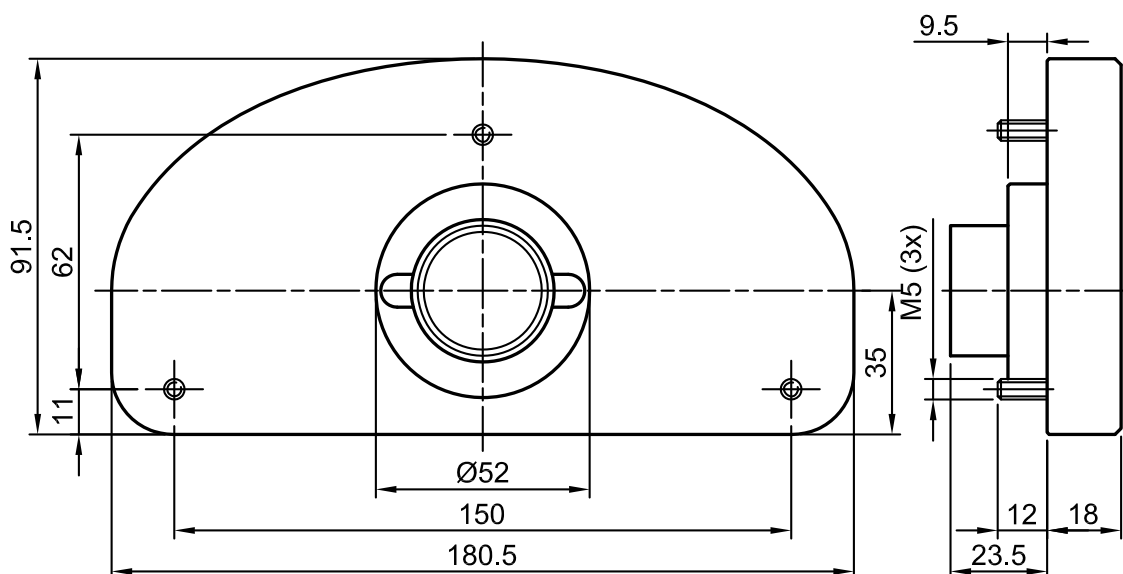- Fast Ethernet download

Inputs

- 10 x Analogue voltage inputs (24 optional)
- 4 x Analogue temperature inputs (8 optional)
- 4 x Digital inputs
- 4 x Speed inputs with voltage measuring capability
- 4 x Switched inputs
- Compatible with VIM input expanders

Outputs

- 4 x PWM, digital or switched outputs (8 optional)
- Compatible with up to 2 E888/E816 input/output expanders

Internal Sensors

- 3-axis accelerometer, detection range: +/- 5G
- Dash temperature sensor
- Sensor supply voltage
- Battery voltage

Communications

- 2 x CAN with individually programmable CAN bus speeds
- 1 x RS232

Physical

- Dimensions: 180 x 91 x 18 mm excluding connector
- Weight: 385 g
- 1 x 79 pin Autosport connector

▶ SOFTWARE

Windows-based software designed for setup and management of the display and data logging system, that provides:

- Configuration of the inputs, ouputs, LEDs, display, data logging and calculations
- Offline generation of a configuration file that can then be sent to the device.
- Channel monitoring
- Firmware updating and extensive help screens

▶ DIMENSIONS AND MOUNTING

Dimensions are in mm. Ensure product is not stressed when mounted.

ETHERNET WIRING

Ethernet Connector		MoTeC Loom Colour	ADL3	
Pin	Function		Pin	Function
1	ethernet TX +	orange/white	77	ethernet RX +
2	ethernet TX -	orange	78	ethernet RX -
3	ethernet RX +	green/white	67	ethernet TX +
6	ethernet RX -	green	68	ethernet TX -

⇨ The wiring specified is the preferred cross-over configuration. However, the wiring can also be configured as straight-through. Cat 5 Ethernet cable must be used.
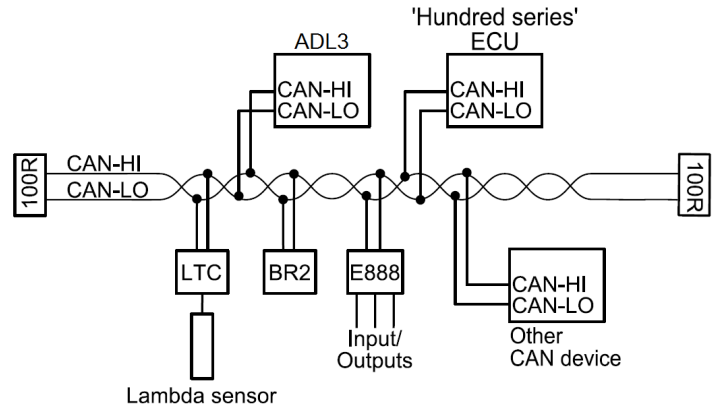
Pin Numbering

Plug   Socket
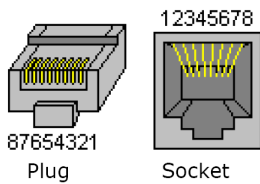
ECU WIRING

When using an M4, M48 or M8 ECU, the ADL3 should be connected via RS232. For some ECUs, a PCI cable may also be required.

The Display Logger should be connected via the CAN bus when using a 'hundred series' ECU (M400/M600/M800/M880) or M84, and any number of other CAN devices. See the following example.

Detailed wiring information is available in the user manual at www.motec.com/downloads.

▶ PINOUT

Mating connector: Part number 68086

Pin	Name	Function
1	AV15	Analogue Voltage Input 15 (with 52 I/O upgrade)
2	AV16	Analogue Voltage Input 16 (with 52 I/O upgrade)
3	AV17	Analogue Voltage Input 17 (with 52 I/O upgrade)
4	AV18	Analogue Voltage Input 18 (with 52 I/O upgrade)
5	AV19	Analogue Voltage Input 19 (with 52 I/O upgrade)
6	0V	Sensor 0 V
7	BAT-	Battery Negative
8	BAT+	Battery Positive
9	AUX1	Auxiliary Output 1
10	AUX2	Auxiliary Output 2
11	AUX3	Auxiliary Output 3
12	AUX4	Auxiliary Output 4
13	AUX5	Auxiliary Output 5 (with 52 I/O upgrade)
14	AUX6	Auxiliary Output 6 (with 52 I/O upgrade)
15	AUX7	Auxiliary Output 7 (with 52 I/O upgrade)
16	AUX8	Auxiliary Output 8 (with 52 I/O upgrade)
17	0V	Sensor 0 V
18	5V	Sensor 5 V
19	AV7	Analogue Voltage Input 7
20	AV8	Analogue Voltage Input 8
21	AV9	Analogue Voltage Input 9
22	AV10	Analogue Voltage Input 10
23	AV11	Analogue Voltage Input 11 (with 52 I/O upgrade)
24	AV12	Analogue Voltage Input 12 (with 52 I/O upgrade)
25	AV13	Analogue Voltage Input 13 (with 52 I/O upgrade)
26	AV14	Analogue Voltage Input 14 (with 52 I/O upgrade)
27	0V	Sensor 0 V
28	5V	Sensor 5 V
29	AV21	Analogue Voltage Input 21 (with 52 I/O upgrade)
30	AV22	Analogue Voltage Input 22 (with 52 I/O upgrade)
31	AV23	Analogue Voltage Input 23 (with 52 I/O upgrade)
32	AV24	Analogue Voltage Input 24 (with 52 I/O upgrade)
33	0V	Sensor 0 V
34	AT1	Analogue Temp Input 1
35	AT2	Analogue Temp Input 2
36	AT3	Analogue Temp Input 3
37	AT4	Analogue Temp Input 4
38	AT5	Analogue Temp Input 5 (with 52 I/O upgrade)

Pin	Name	Function
39	AT6	Analogue Temp Input 6 (with 52 I/O upgrade)
40	0V	Sensor 0 V
41	AT7	Analogue Temp Input 7 (with 52 I/O upgrade)
42	AT8	Analogue Temp Input 8 (with 52 I/O upgrade)
43	0V	Sensor 0 V
44	5V	Sensor 5 V
45	AV1	Analogue Voltage Input 1
46	AV2	Analogue Voltage Input 2
47	AV3	Analogue Voltage Input 3
48	AV4	Analogue Voltage Input 4
49	AV5	Analogue Voltage Input 5
50	AV6	Analogue Voltage Input 6
51	0V	Sensor 0 V
52	DIG1	Digital Input 1
53	DIG2	Digital Input 2
54	DIG3	Digital Input 3
55	DIG4	Digital Input 4
56	0V	Sensor 0 V
57	SW1	Switch Input 1
58	SW2	Switch Input 2
59	SW3	Switch Input 3
60	SW4	Switch Input 4
61	0V	Sensor 0 V
62	8V	Sensor 8 V
63	SPD1	Speed Input 1
64	SPD2	Speed Input 2
65	SPD3	Speed Input 3
66	SPD4	Speed Input 4
67	E-TX+	Ethernet Transmit +
68	E-TX-	Ethernet Transmit -
69	AV20	Analogue Voltage Input 20 (with 52 I/O upgrade)
70	TX	RS232 Output
71	0V	0 V CAN
72	8V	8 V CAN
73	CAN0L	CAN 0 Low
74	CAN0H	CAN 0 High
75	CAN1L	CAN 1 Low
76	CAN1H	CAN 1 High
77	E-RX+	Ethernet Receive +
78	E-RX-	Ethernet Receive -
79	RX	RS232 Input