

DATA DISPLAY

DDU 310-DL64/128

Dashboard with data logger
TFT color display

Description

The DDU 310-DL64/128 is a combined dashboard and input module for use either as a stand-alone display unit, or as an integral part of a complete data acquisition and monitoring system for use in the demanding environment found in motorsports vehicles.

The DDU 310-DL64/128 is equipped with a comprehensive range of analogue and digital inputs and ten-page liquid crystal display with configurable windows for an easily configured and personalised screen layout. A graphical bar indicator is typically used for representing engine revs.

A fast Ethernet bus is used for graphical layout load, channels' configuration and data download. As part of the Magneti Marelli data acquisition and telemetry system, the DDU 310-DL64/128 (with internal data logger) can communicate over a CAN network with a range of additional data loggers receiving and displaying data from the logger as well functioning as an additional input module.



Main Features

- 5 Single-ended
- 1 Pick-ups or Hall effect
- 3 Hall effect
- 64 or 128 Mbyte internal data logger
- Up to 128 logged channels
- Up to 48 Kbyte/s logging rate
- Sampling rates up to 1000 Hz
- Page and channel name labels
- Transmit internal diagnostic over CAN bus
- 48 alarm channels with programmable thresholds
- Display dedicated to 48 internal channels
- Lap time message displayed on dedicated page
- PC interface via Ethernet for loading graphical layout
- Easy to use and configure by SYSMA tool
- Designed for rugged applications

Benefits

- TFT 6.2" transfective dot matrix color display
- Graphical engine revolution counter with configurable non-linear scale
- Alarm condition displays channel name and value (with priorities for multiple alarms)
- Backlight regulation (8 steps)
- Inputs configurable to suit all sensors in the product range
- 2 push-button on the front panel for page selection, alarm level set, rpm/speed conversions, message hold time
- 6 high-brightness warning lights yellow/red for gear change (with programmable threshold) and 2 blue for general alarm condition indication
- 2 outputs for external warning lamps with short-circuit protections
- Floating point data management
- Pick-up inputs for wheel speed and distance measurement
- Requires WinTAX4 analysis software
- Requires Axon logging setup tool

Typical Applications

- MotoGP
- Professional circuit and rally applications
- One make race series
- Race motorcycle application
- Touring car

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Technical Characteristics

Inputs

| | |
|--|---|
| Single-ended..... | 5 |
| NTC/PT1000 temperature sensor..... | 2 |
| NTC internal temperature sensor | 1 |
| VR Pick-ups or Hall effect (RPM)..... | 1 |
| Hall effect (wheelspeed) | 3 |
| On/Off digital (page scroll and confirm) | 2 |
| Lap Trigger..... | 2 |
| "Code Load" enable pin | 1 |

Outputs

| | |
|--|---|
| Voltage references (@ 5 V) | 1 |
| Low-side (@ 12 V) | 2 |
| Shift Lamp (adjustable brightness) | 6 |
| Alarm (adjustable brightness) | 2 |

Communications

| | |
|------------------------------------|---|
| CAN line (1 Mbit/s (*))..... | 2 |
| Ethernet line (10/100base T) | 1 |
| RS232 | 1 |

(*) Configurable on request

Logic Core

| | |
|---------------------------------------|-----------|
| Microcontroller A (80 MIPS RISC)..... | 1 |
| Microcontroller B (64 MIPS RISC)..... | 1 |
| FPGA (50k gates) | 1 |
| Graphic display controller | 1 |
| DPR | 32 Kbyte |
| Flash E2PROM (microcontroller A)..... | 1 Mbyte |
| RAM memory (microcontroller A)..... | 48 Kbyte |
| Flash memory (microcontroller B)..... | 512 Kbyte |
| Ram memory (microcontroller B)..... | 4 Kbyte |
| Flash NV Ram..... | 32 Mbyte |
| RAM memory | 512 Kbyte |
| E2PROM..... | 32 Kbyte |
| Time keeper | 1 |

Logging

| | |
|------------------------|------------------|
| Flash disk memory..... | 64 or 128 Mbyte |
| Logged channels..... | up to 128 |
| Logging rate | up to 48 Kbyte/s |
| Sampling rate..... | up to 1000 Hz |

Other Characteristics

| | |
|---|------------|
| Power supply | 10 to 18 V |
| Operating internal temperature..... | 0 to 60 °C |
| Protection class..... | IP 65 |
| Transflective dot matrix color display..... | TFT 6.2" |
| Dimensions | |

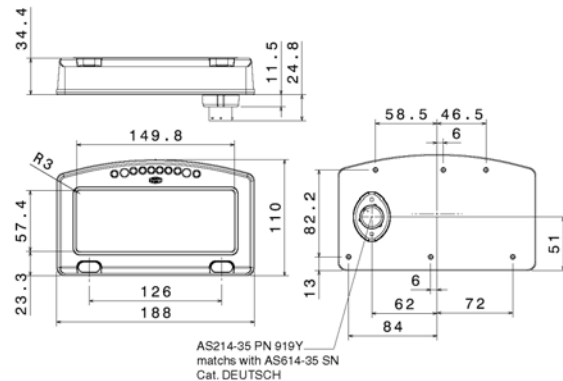
| | |
|-------------------------|---------------------|
| without connector | 188 x 110 x 34.4 mm |
| with connector | 188 x 110 x 59.2 mm |
| Weight (approx.) | 580 g |

For further information, please contact:



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20011 Corbetta (Milano) Italy

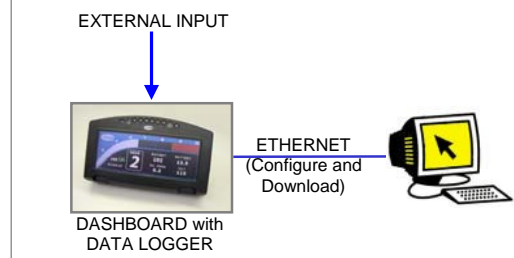
Dimensions



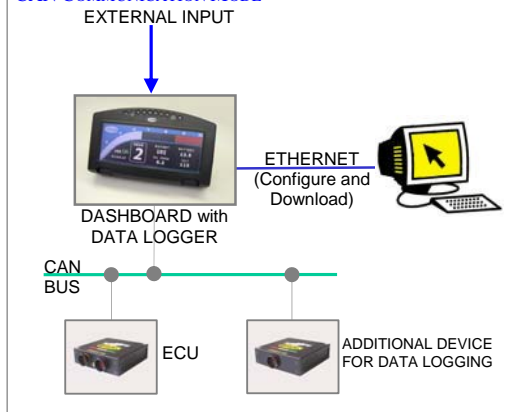
Dimensions in millimetres

Application Schematics

STAND-ALONE MODE



CAN COMMUNICATION MODE



DDU 310-DL64/128-083818184600