

DDU 310-DL128

Dashboard with data logger
TFT color display

Description

The DDU 310-DL128 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-DL128 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-DL128 (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
- 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*

Typical Applications

Rally cars
One make race series
Race bikes
Touring cars

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	Kb
Flash E2PROM (microcontroller A)	1 Mb
RAM memory (microcontroller A)	48 Kb
Flash memory (microcontroller B)	512 Kb
Ram memory (microcontroller B)	4 Kb
Flash NV Ram	32 Mb
RAM memory	512 Kb
E2PROM	32 Kb
Time keeper	1

Logging

Flash disk memory	128 Mb
Logged channels	up to 128
Logging rate	up to 48 Kb/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

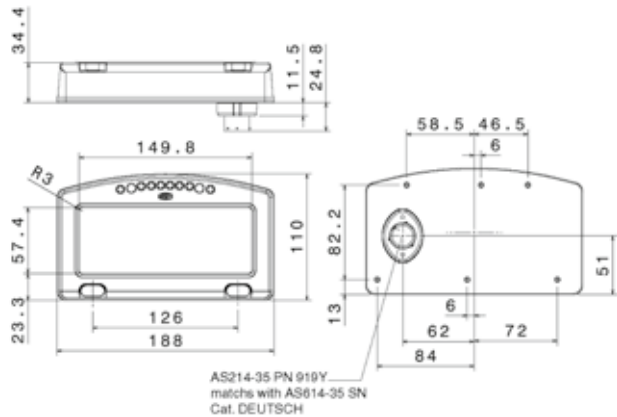
without connector	188 x 110 x 34.4 mm
with connector	188 x 110 x 59.2 mm
Weight (approx.)	580 g

DATA DISPLAYS

DDU 310-DL128

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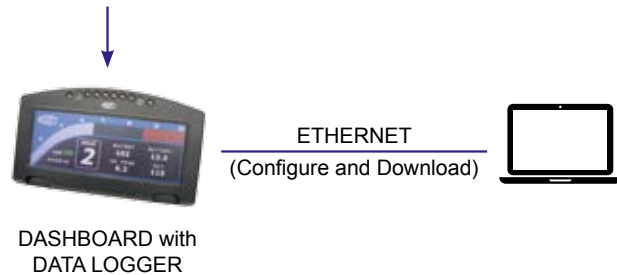


Dimensions in millimetres

Application Schematics

STAND-ALONE MODE

EXTERNAL INPUT



CAN COMMUNICATION MODE

EXTERNAL INPUT

