HDL-240

high-performance racing data logger with 32 Gbyte internal memory, 4-port ethernet switch and USB

Description

HDL-240 is the evolution of Magneti Marelli's successful data logger line offering increased logging performance (data throughput and number of channels) in a smaller, lighter package.
HDL-240 is designed to provide an all-round data logging capability and can operate both in stand-alone mode and as an expansion to the new racing dashboard family (FBO).
This versatile data acquisition unit is specifically developed for racing applications which require high resolution data from a large number of channels, either coming from internal measurements or via CAN or Ethernet lines.
HDL-240 deploys a modern high-performance, low consumption 32-bit CPU, with a computational power of over 200 DMIPS and hardware floating-point support.
Two convenient bi-colour LEDs show logger status/ diagnostic information at a glance (powered, logging, etc.).

Main Features

- *16 Single-ended @12bit / 2kHz sampling (*)*
- *4 Differential @12bit / gain 100*
- *2 Thermocouple @12bit*
- *4 Temperature (PT1000/NTC)*
- *2 Pick-ups, Hall effect or Rate sensor*
- *4 Hall effect or Rate sensor*
- *32 GByte internal disk for data recording*
- *Data recording on USB pendrive*
- *1024 logged channels*
- *200 kByte/s logging rate*
- *Sampling rates up to 2000 Hz*
- *2x CAN 2.0B communication buses*
- *4x Ethernet 100 Mbit/s lines*
- *Tri-axial 16g accelerometer*
- *2x green/red LEDs on top for visible logger status feedback*
- *Fully supported by SYSMA setup tool and WinTAX4 data analysis tool*

(*) option for higher rates, please contact us.

Benefits

- *Data download via Ethernet link*
- *Upgrades HRDL and HFD loggers with no loom changes*
- *SW selectable NTC/PT1000 temperature sensor*
- *SW selectable VRS, Hall or Rate sensor*
- *Hardware accelerated floating point arithmetic*
- *Integrates seamlessly with Marelli dashboard displays*
- *Pick-up inputs for wheel speed and distance measurement*
- *Compact and robust design, easy to install*

Typical Applications

All race cars/bikes
One-make race series
Industrial applications
Formula cars

HDL-240 - 083817440100

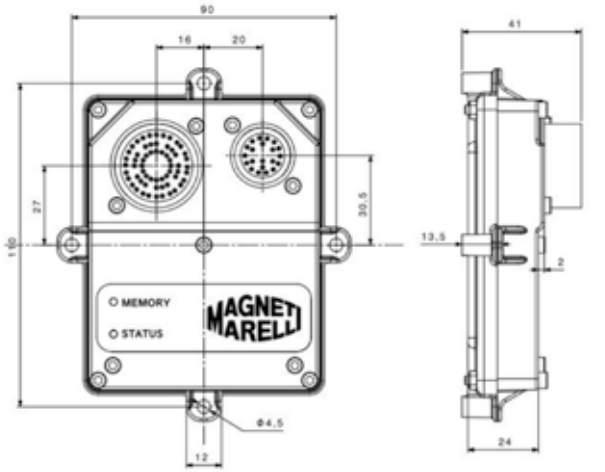
HDL-240

high-performance racing data logger
with 32 Gbyte internal memory,
4-port ethernet switch and USB

Technical Characteristics

Inputs	
Analogue Single-ended (12 bit)	16
Differential (12 bit, gain 100)	4
K-type thermocouple (12 bit)	2
NTC/PT1000 temperature sensor (SW selectable)	4
Internal temperature	1
VRS Pick-up, Hall or Rate sensor (SW selectable)	2
Hall effect or Rate sensor (SW selectable)	4
Lap trigger pull-up/pull-down (SW selectable)	2
“Code Load” enable pin	1
Outputs	
Voltage references (5.0V 70 mA max)	4
Half-bridge/high-side/low-side outputs (5A max total continuous; full-bridge mode available)	4
Communications	
CAN 2.0B lines (1 Mbit/s, SW selectable termination)	2
Ethernet lines (100 Mbit/s)	4
USB 2.0 full speed (for USB solid state drives)	1
RS 232	1
Logic Core	
Processor (32-bit CPU)	1
Flash 2	MB
RAM memory (internal)	256 kB
RAM memory (external)	32 MB
E2PROM	64 kB
Time keeper (with backup battery)	1
Logging	
Flash disk memory	32 GB
Logged channels	1024
Logging rate	200 kB/s
Sampling rate	up to 2000 Hz
Other Characteristics	
Power supply	8 to 16 V
Internal operating temperature range	- 20 to 85 °C
Protection class	IP 65
2 connectors Souriau 8STA series (1x size18-66 pins and 1x size12-22 pins)	
Dimensions without connector	90 x 110 x 24 mm
Weight (approx.)	200 g

Dimensions



Dimensions in millimetres

Application Schematics