

HRDL-1

Miniaturized high-performance racing data logger
Up to 1 Gbyte internal memory

Description

HRDL-1 is an evolution of Magneti Marelli successful DAS4 EVO to increase logging performances (higher data throughput and logged channels number), the number of Inputs (to allow a flexible set up) and to reduce the dimensions and weight.

HRDL-1 is intended to enhance the new Magneti Marelli data logger product range, started with RDL.

HRDL-1 is a versatile data acquisition unit developed for racing applications which require high resolution data from a large number of channels.

Interconnection with the box can be obtained using two CAN lines, a ARCNet line and a RS 232 line while a Ethernet line is dedicated to data download.

On the box is present a high performance RISC microcontroller.

HRDL-1 is provided with analogue inputs including: Single-ended, differential, temperatures and K-type thermocouple.

Furthermore the device provides lap trigger and wheel speed inputs.



Main Features

- 12 Single ended @ 12 bit resolution
- 4 Single ended @ 10 bit resolution
- 4 Differential @ 12 bit resolution (selectable gain: 1 or 100)
- 1 Pick-ups or Hall effect
- 4 Hall effect
- Up to 1 Gbyte internal data logger
- Up to 300 logged channels
- Up to 128 kbyte/s logging rate
- Sampling rates up to 1000 Hz
- 2 CAN communication buses
- 1 ARCNet line
- 1 Ethernet line

Benefits

- Data download via Ethernet link
- SW selectable NTC/PT1000 temperature sensor
- Floating point data management
- Direct management of Marelli dashboard display
- Pick-ups inputs for wheel speed and distance measurement
- Requires Wintax4 analysis software (compatible Win2K/XP/Vista 32 bit/7)
- Requires Axon logging setup tool
- Very compact design
- Robust design, easy to install

Typical Applications

Professional circuit and rally applications

One make race series

Industrial application

Formula series

DATA LOGGER

HRDL-1

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Up to 1 Gbyte internal memory

Technical Characteristics

Inputs

Analogue Single-ended (@ 12 bit resolution).....	12
Analogue Single-ended (@ 10 bit resolution).....	4
Differential (*) (@ 12 bit resolution).....	4
K-type thermocouple	2
NTC/PT1000 temperature sensor (selectable).....	4
NTC internal temperature sensor.....	1
VR Pick-ups or Hall effect.....	1
Hall effect	4
Lap trigger (**).....	1
"Code Load" enable pin	1
Syncro (Iso9141)	1

(*) Selectable gain: 1 or 100
(**) Configurable on request

Outputs

Voltage references	4
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Communications

CAN line (1 Mbit/s (***)).....	2
Ethernet line (100 Mbit/s)	1
ARCNet line (10 Mbit/s).....	1
RS 232.....	1

(***) Configurable on request

Logic Core

Microcontroller (80 MIPS RISC).....	1
Flash E2PROM (microcontroller).....	1 Mbyte
RAM memory (microcontroller).....	48 Kbyte
RAM memory	512 Kbyte
E2PROM.....	4 Kbyte
Time keeper	1

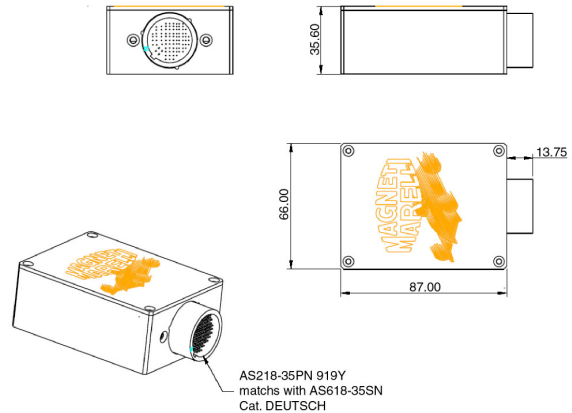
Logging

Flash disk memory	up to 1 Gbyte
Logged channels	up to 300
Logging rate	up to 128 Kbyte/s
Sampling rate	up to 1000 Hz

Other Characteristics

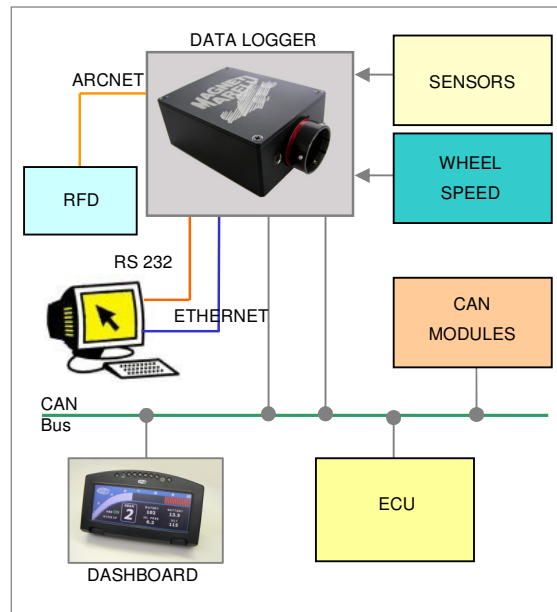
Power supply.....	8 to 18 V
Operating temperature range (internal).....	-40 to 85 °C
Temperature range during data download	0 to 70 °C
Protection class.....	IP 54
Dimensions	
without connector	66 x 87 x 35.6 mm
Weight (approx.).....	230 g

Dimensions



Dimensions in millimetres

Application Schematics



For further information, please contact:



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