MOTORSPORT | MAGNETI MARELLI

SDL
Racing Data Logger

Description

SDL is an evolution of Magneti Marelli successful HRDL-1 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.

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

SDL 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, while the Ethernet line is dedicated to data download.

SDL is provided with analogue inputs including: Single-ended, differential, temperatures and K-type thermocouple. Furthermore the device provides lap trigger and wheel speed inputs.

For further information or different solution, please contact our technical department.

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 64 Mbyte logging memory*
- *Up to 300 logged channels*
- *Up to 40 kbyte/s logging rate*
- *Sampling rates up to 200 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*
- *Requires SYSMA logging setup tool*
- *Very compact design*
- *Robust design, easy to install*

Typical Applications

Rally cars
One make race series
Industrial application
Formula cars

SDL-0838XXXXXX00

SDL
Racing Data Logger

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

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 M
RAM memory (microcontroller)	48 K
RAM memory	512 K
E2PROM	4 Kb
Time keeper	1

Logging

Flash disk memory	32 or 64 Mb
Logged channels	up to 300
Logging rate	up to 40 Kb/s
Sampling rate	up to 200 Hz

Other Characteristics

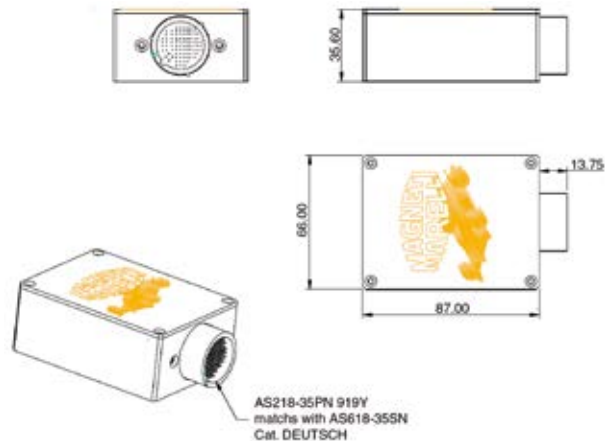|	
Power supply	8 to 18 V
Operating temperature range (internal)	- 40 to 85 °C
Temperature range during data download	0 to 70 °C
Protection class	IP 54
Dimensions	
without connector	66 x 87 x 35.6 mm
Weight (approx.)	230 g

Dimensions

AS218-35PN 919Y
matchs with AS618-35SN
Cat. DEUTSCH

Dimensions in millimetres

Application Schematics