PRODUCT SUMMARY

HSL-500

The HSL-500 is a compact, self-contained data logger for applications in top level motorsport. It includes many innovative features including advanced hardware acceleration of front-end signal processing functions including filtering and down-sampling. The unit can acquire data from on-board interfaces at rates of up to 400ksps, and from remote units via communications links. A high-performance on-board PowerPC microprocessor offering over 1000MIPS processing power hosts customer applications for real-time data analysis. Application code is automatically generated from MATLAB/Simulink models. Advanced data logging, high-speed telemetry control and rich communications are all provided. HSL-500 integrates with the McLaren Applied suite of software tools including System Monitor, ATLAS and MCT.

APPLICATION

- General purpose data logging

KEY FEATURES

- Customer application processing power >1000MIPS
- Hardware acceleration of front-end signal processing functions including filtering and down-sampling
- Data logging memory 2GB Flash
- Real time telemetry transmission via ARCNET connection

INPUTS

- Up to twelve general-purpose 0 to 5V analogue inputs (12-bit, 400ksps)
- Up to thirty-six general-purpose 0 to 5V analogue inputs (12-bit, 100ksps) (8-off can be hardware configured to Pt1000 inputs)
- Eight DHE speed inputs
- Lap trigger input
- Timing synchronisation input/output
- Ignition switch input
- "Force Boot" analogue input (12-bit, 1ksps)
- "IP Address Select" analogue input (12-bit, 1ksps)

OUTPUTS

- Three sensor supplies at 5V, 100mA (one shared between both connectors)
- Five sensor supplies at 12V, 200mA
- One DHE sensor supply at 12V, 200mA
- One lap trigger supply at 5V, 200mA

COMMUNICATIONS

- One Wired Ethernet interface (10/100/1000Mbps)
- One FlexRay interface (10Mbps) (A second FlexRay interface can replace a CAN interface as a build option)
- Six CAN interfaces (1Mbps)
- One ARCNET link (10Mbps)
- One RS232 interface (1Mbps maximum)

CONNECTION DEFINITION

- Two 64-way Deutsch AS motorsport double density connectors

ELECTRICAL

- Supply voltage 8 to 16V DC
- Transient voltage and reverse polarity protection

MECHANICAL

- Aluminium case (hard black anodised)
- Weight 625g

ENVIRONMENTAL AND COOLING

- Splash resistant to standard motorsport fluids
- Lids sealed with o-rings
- Maximum humidity 100%
- Operating temperature 0°C to 70°C
- Storage Temperature -10°C to 85°C
- Vibration isolation is recommended

ELECTRO MAGNETIC COMPATIBILITY

- Complies with the essential protection requirements of 89/336/EE

PRODUCT SUMMARY

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BASE CONTROL UNIT

Order Code	Description
O 030 095 012 000	HSL-500 High Speed Logger

PRODUCT ADD-ONS

McLaren System Monitor is a software package for configuring and tuning automotive control systems.

McLaren Control Toolbox (MCT) contains a set of toolboxes for MATLAB which provide the ability to generate software for McLaren components via Simulink and the MATLAB toolchain. To generate code from Simulink for any McLaren Applied products, the MCT, plus the appropriate HSP is required.

MCT Hardware Support Package (HSP) is in addition to MCT that allows targeting a specific control unit when building applications. It adds a library of custom blocks especially for the control unit of choice.

ACCOMPANYING SOFTWARE

Order Code	Description
O 020 014 000 101	Single Seat System Monitor Licence
O 020 021 000 000	MCT Core Seat
O 020 021 001 000	MCT Core Site
O 020 021 011 000	HSP HSL-500 Seat
O 020 021 012 000	HSP HSL-500 Site

PRODUCT SUMMARY

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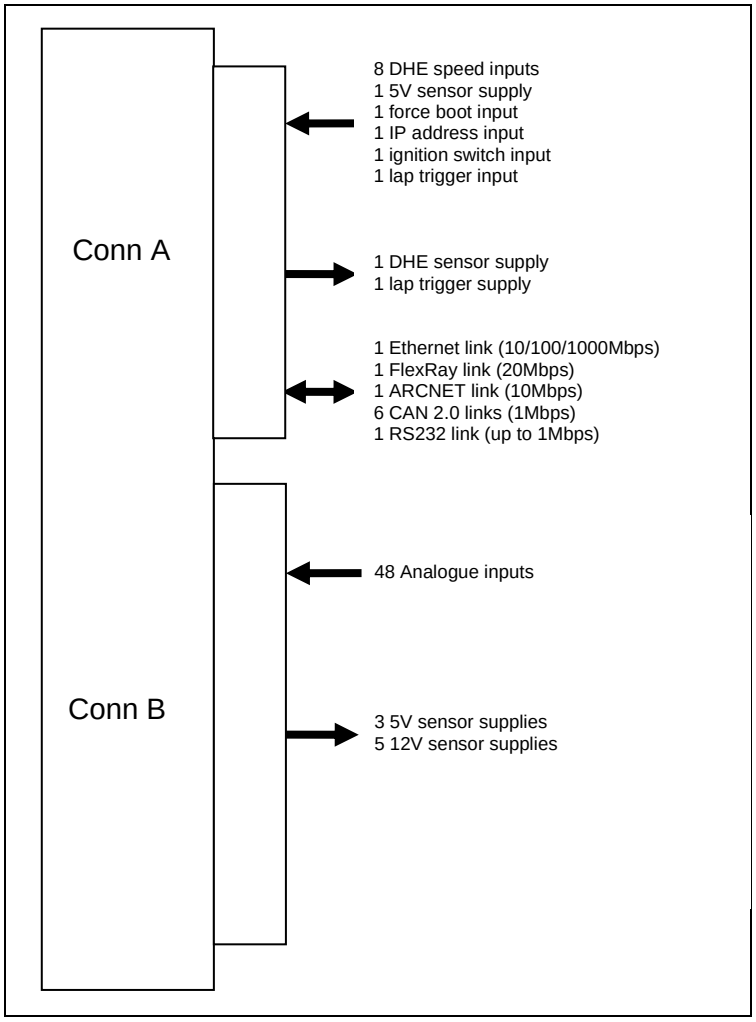
CONNECTOR DIAGRAM

- Connector Details



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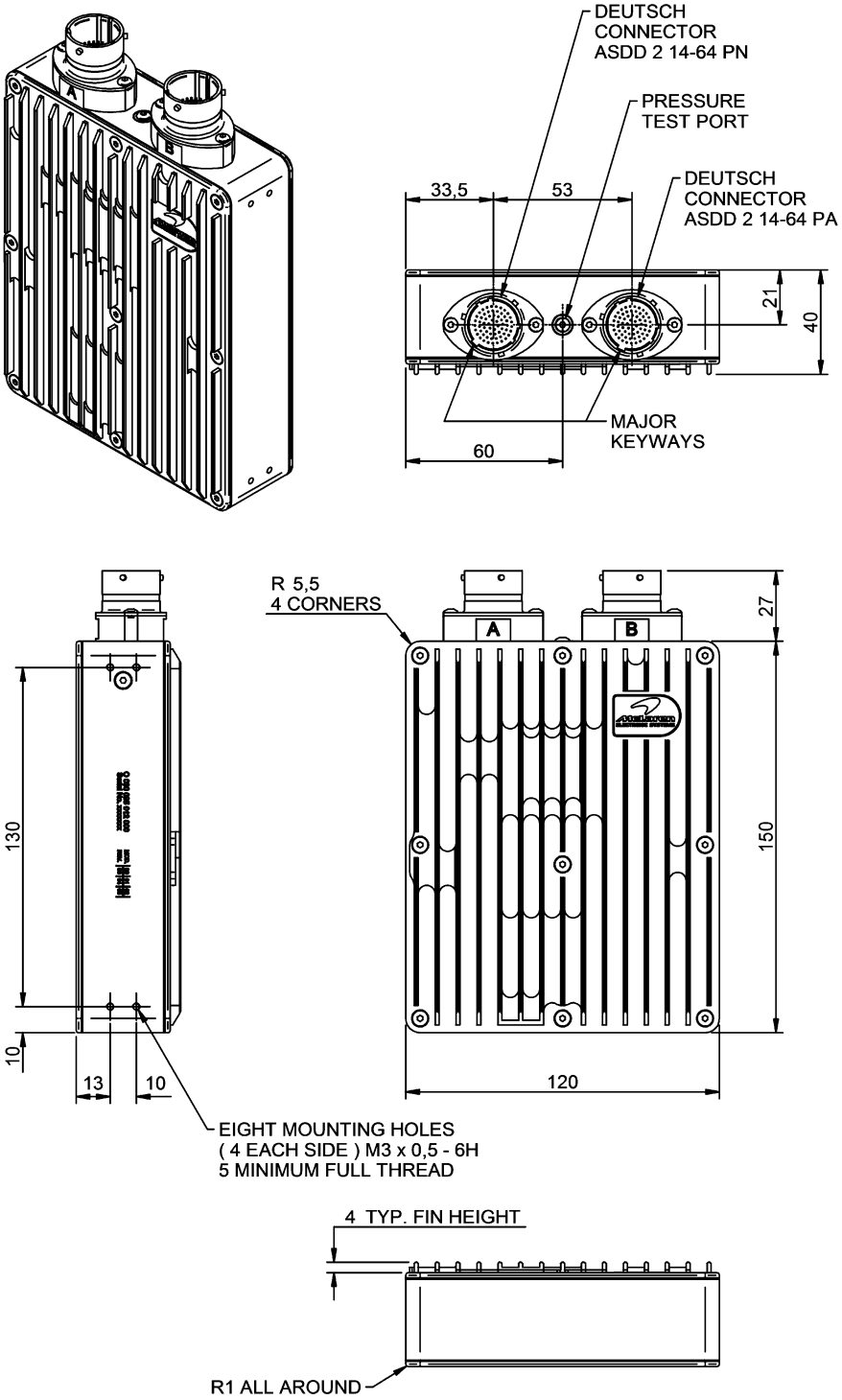

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