COSWORTH

CLU CENTRAL LOGGER UNIT

Cosworth's next-gen single-box solution for vehicle development logging and control, superseding the extremely successful Sigma system. Using the latest hardware, software and Cosworth's in-house electronics expertise, the CLU provides class-leading memory capacity, bandwidth and logging rates.

INPUTS & OUTPUTS

Equipped to instrument vehicles through to the highest levels of motorsport with 32 analogue 16-bit inputs, of which 8 are compatible with resistor-based temperature sensors (PT100, PT1000).

Wheel speed (including DF11i support), lap beacon and PWM inputs are supported by 8 high frequency digital inputs. Simplify circuit fault detection with the use of 16 sensor supplies, reducing the need for shared circuitry.

Low current devices such as driver drinks pumps and oval racing weight jackers can be driven by 4 high side drivers. Extra I/O is available through use of additional EtherCat expansion modules.

LOGGING & CHANNELS

High-quality data is produced by continuous logging rates of up to 1kHz and burst logging rates of up to 50kHz.

Reduced need to compromise the number and rate of channels logged with internal storage of up to 16GB. Fast data offload with 1GBit Ethernet.

Execute fully customisable control strategies, driver aids and alarms with on-box maths channel capability.

COMMUNICATION

Send and receive large quantities of data to and from other devices with up to 8 CAN ports. Define CAN streams with DBC file import.

Connect to LIN spec devices including the popular motorsport WDA (Wiper DriverActuator). Featuring EtherCAT synchronous expansion with SJU.

SOFTWARE

Pi Toolset is the single software used for firmware updates, setup and data offload for all Omega devices; CLU, IPS32, IPS48, ICD and L2.

Market-leading data analysis software Pi Toolbox is used for detailed data analysis.

Design, simulate and upload custom control strategies onto hardware with Cosworth's new state of the art control strategy software, Autocoding, utilising MATLAB® Simulink®.

PHYSICAL & OPERATING

12V or 24V systems compatible with logging continuation in the event of low battery with a voltage operating range of 5V – 33V. Battery issues are more easily diagnosed.

Housed in an aluminium enclosure, designed and manufactured to IP65 the unit is protected against infiltration of dust with a high level of water protection.

One of the most compact and lightweight solutions on the market with a footprint of 130 x 102 x 34 mm and weight of 470g.

LOGGER FEATURE MATRIX

Platform	CLU		
Variant	PLUS	PRO	ULTRA
Part Number	01L-650001	01P-650001-Pro	01P-650001-Ultra
Logging			
Capacity (MB)	2,048	8,192	12,288
Bandwidth (bytes/sec)	100,000	250,000	500,000
Cont. Sampling Rates (Hz)	1,000	1,000	1,000
Burst Sampling Rates (Hz)	2,000	5,000	50,000
Total no of Channels	2,048	8,192	16,384
Maths			
User Configurable Maths	250	500	1,000
Analogues (16 bit)	16	24	32
I/O			
Digital Inputs	8	8	8
Outputs (HSD)	4	4	4
Comms			
CAN Ports	4	6	8
Physical			
Weight (g)	470		
Dimensions (mm)	130 x 102 x 34		

Get in touch