Removable Logger Unit (RLU)

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Removable Logger Unit (RLU)

Overview

The Cosworth RLU is a high-bandwidth Ethernet data hub which enables multiple streams of Ethernet data to be logged directly to a standard USB memory stick for instant data offload. Compatible with a range of Cosworth data loggers, ECUs, and power controllers, the RLU can record up to five separate streams of data.

Configuration is simply a matter of partitioning the USB stick for each separate Ethernet stream using Cosworth Toolset. The configuration of the data stream is defined by the source of the data, so once the USB stick is partitioned, the RLU requires no further configuration.

The RLU contains an integrated 100Mb/s Ethernet switch enabling direct connectivity for up to three Ethernet devices including PC connection for system configuration. This combination allows the RLU to act as a central Ethernet Hub for other on car systems.

Measuring just 32 x 70 x 80mm and weighing only 160g, the rugged anodised aluminium finish is specifically designed for use in harsh environments where space and weight are important factors.

The USB port is broken out onto a separate AS connector, that allows the USB interface to be extended and located in an easy access location to remove the USB stick. Lengths of up to 3m between the RLU box and the USB plug-in point are supported.

| Electrical data	
Operating Voltage	7 to 30V
Current consumption[*1]	~900mA @ 14.4V
Communication	
Serial Ports	1x Bi-directional RS232 Port Max BAUD Rate: 115200
Ethernet Connections	3 x 100Base-T
USB Ports	1 x USA2 (compatible with USB3)
USB Flash Drive Requirements	USB2 / USB3 min recommended 1GB

Mechanical data	
Size	32 x 70 x 80mm
Weight	160g
Environmental	IP65, IP67
Operating Temp	-20 to + 70ºC
Storage Temp	-30 to + 80ºC
Material	6082-T6 Aluminium Anodised
Vibration	Cosworth DV-V (C)
LEDs	3 x Diagnostic 3 x Ethernet activity

Ordering information

Description	Part Number
RLU Logger[1]	01L-650030
RLU USB Loom (1m)	60L-650039
RLU Bench Loom	60L-650040

[1] USB flash drive not included.

Connector information
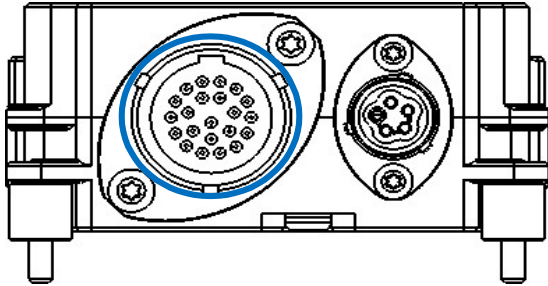
System Connector

Connector	Mating connector
AS-212-35PN	AS-612-35SN

System Connector Pinout

Pin	Signal	Description
1	RS232Rx	RS232 Debug Rx
2	N/C	Not connected
3	N/C	Not connected
4	Enet1Rx+	Ethernet 1 Rx+
5	Enet1Rx-	Ethernet 1 Rx-
6	Enet1Tx+	Ethernet 1 Tx+
7	+12V	Supply Power +12V
8	Enet2Rx+	Ethernet 2 Rx+
9	Enet2Tx+	Ethernet 2 Tx+
10	N/C	Not connected
11	N/C	Not connected
12	Enet3Rx-	Ethernet 3 Rx-
13	Enet3Tx+	Ethernet 3 Tx+
14	RS232Tx	RS232 Debug Tx
15	N/C	Not connected
16	N/C	Not connected
17	Enet1Tx-	Ethernet 1 Tx-
18	Enet2Rx-	Ethernet 2 Rx-
19	Enet2Tx-	Ethernet 2 Tx-
20	Enet3Rx+	Ethernet 3 Rx+
21	Enet3Tx-	Ethernet 3 Tx-
22	GND	Supply Ground
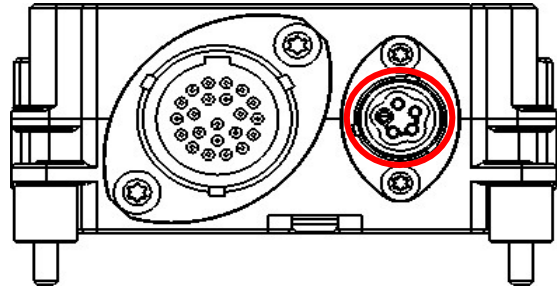
USB Connector

Connector	Mating connector
ASL206-05SN-HE	AS606-05PN-HE

USB Connector Pinout

Pin	Signal	Description
1	N/C	Not connected
2	USB5V	USB +5V
3	USBD+	USB Data +
4	USBD-	USB Data -
5	USB GND	USB Ground
Scn		USB Screen[2]

[2] Make sure that you connect the screen from the USB to the shell of the ASL connector when making interconnect loom.

Dimensions

All dimensions shown in millimetres.
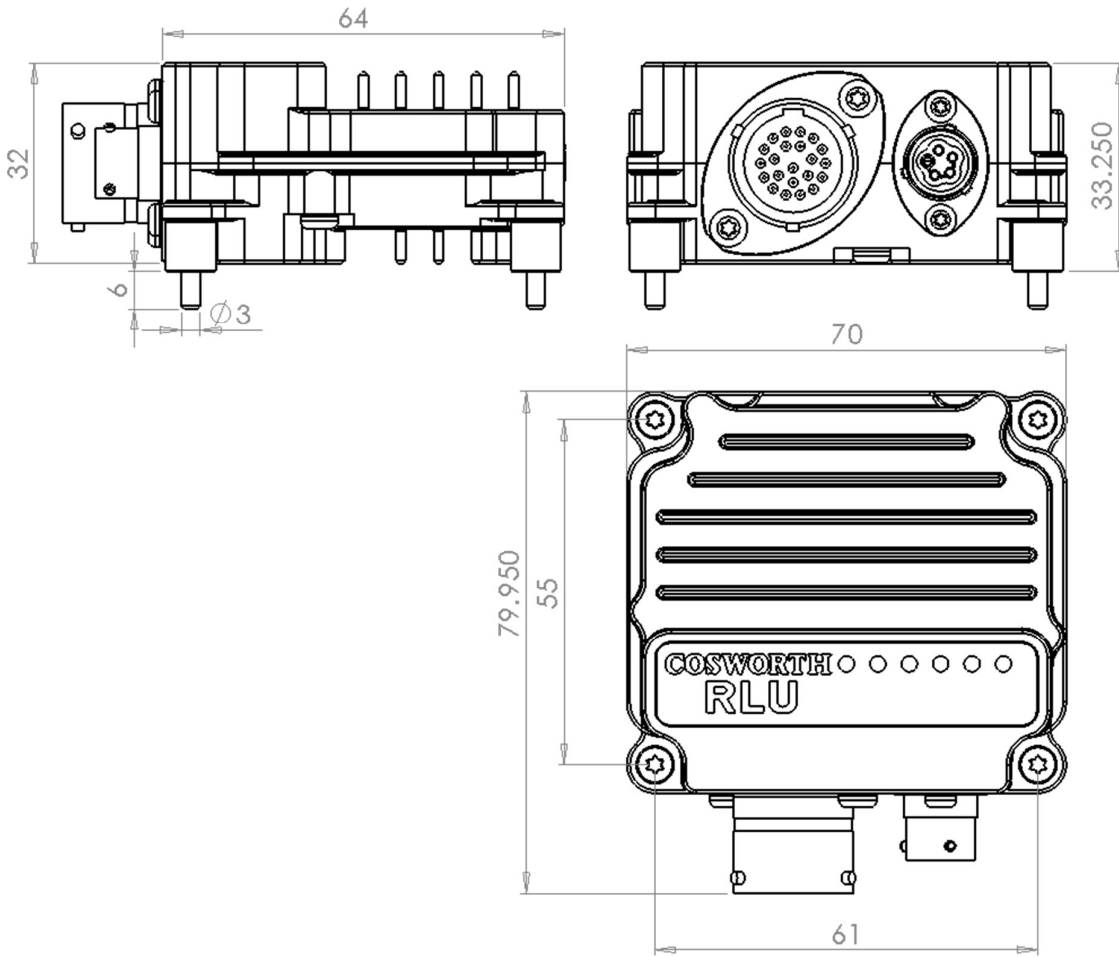
Recycling and Environmental Protection

Cosworth Electronics is committed to conducting its business in an environmentally responsible manner and strive for high environmental standards.

Manufacture: Cosworth products comply with the appropriate requirements of the Restriction of Hazardous Substance (RoHS)

Disposal: Electronic equipment should be disposed of in accordance with the regulations in force and in particular in accordance with the Waste in Electrical and Electronic Equipment directive (WEEE).

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All Information in this document is correct as of 01/10/2024

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