

CAN Junction Box (CJB)

The Cosworth CJB is a fully configurable CAN Junction Box designed to be light and compact allowing easy expansion to any data system. The CJB allows complicated chassis looms to be reduced in wire count and complexity whilst also providing weight and cost reductions. The CJB has been developed with this in mind allowing for simple integration into any system requiring a minimum of only 4 wires in the chassis loom as well as a simple sensor loom.

The CJB supports up to 12 analogue inputs, 3 digital switch inputs and 2 wheel speed inputs. The CJB is fitted with a 16 position switch allowing simple switching between the 8 preset CAN identification ranges. These 8 addresses are duplicated once with CAN termination (120 ohm) and

once without CAN termination. The CJB allows for 8 CJB devices per bus to be connected enabling simple and large scale system expansion. The default CAN identification addresses are stored in non-volatile memory and can be changed by using the CSB configuration menu which is available via the RS232 interface.



Specifications

Electrical Data	
Supply Voltage	6.5Vdc to 18Vdc
Supply Protection	Reverse and over voltage
Supply Current	60mA@13.8v
Temperature Range	Operational -20°C to +60°C Storage -30°C to +60°C

I/O Information	
1x CAN	1Mbit, 512k, 256k, 128k software selectable, with 120Ω selectable termination
12x Analogue Inputs	0-5V range @ 100-200Hz, with a 1MΩ pull-down resistor.
3x Digital Switch Inputs	0-5V range @ 100Hz, with a 10kΩ pull-up resistor.
2x Wheel speed Inputs	Active or Passive
1x Protected 5V Excitation	200mA @ 25°C 110mA @ 70°C

I/O Information	
1x Protected 12V Excitation	450mA @ 25°C 220mA @ 70°C

Communication Ports	
1x Serial Port (Debug use only)	RS232

Mechanical Data	
Size with connectors	112.5 x 62.5 x 39.5 mm
Weight	250 grams

Ordering Information

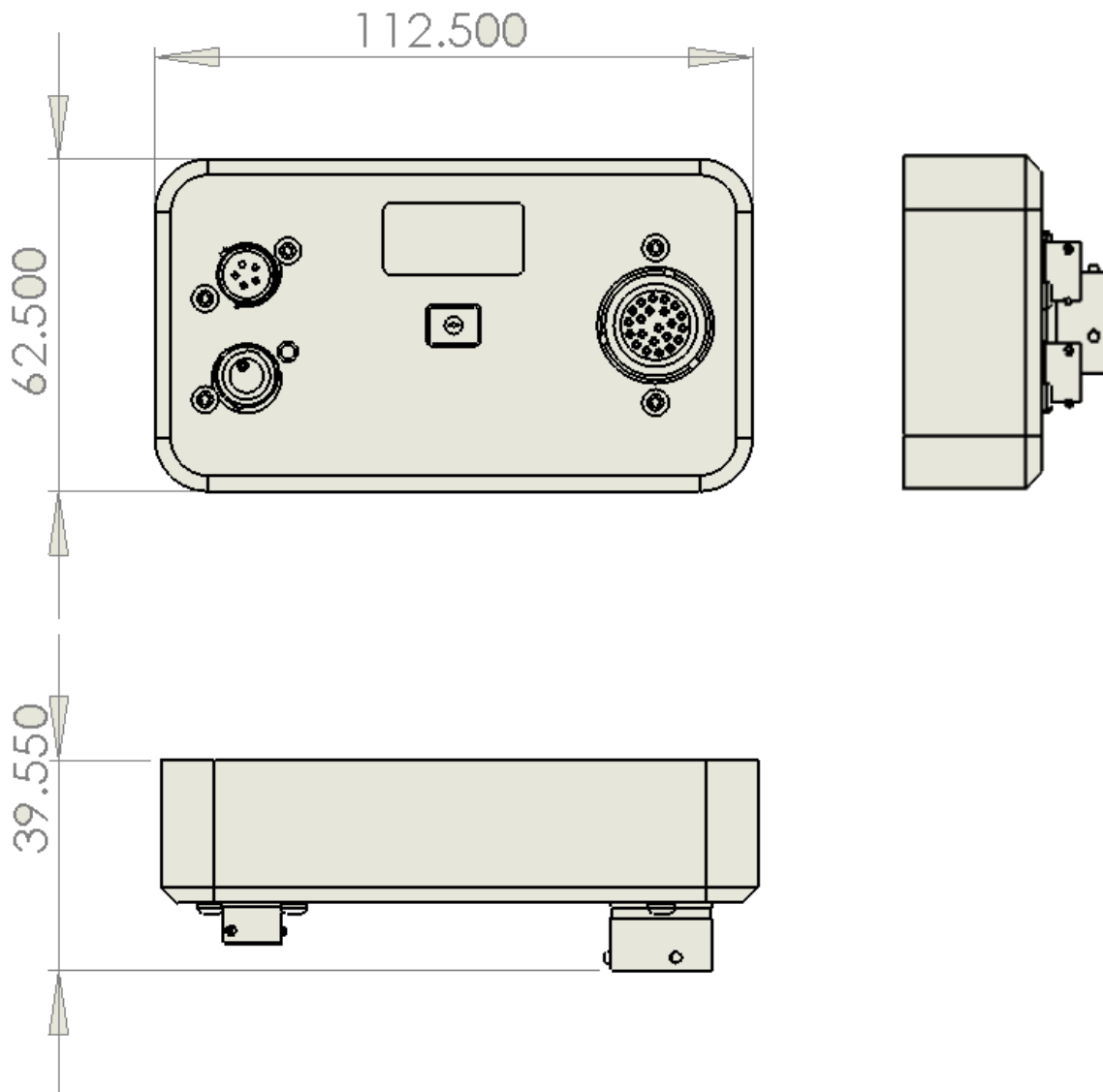
Part Number	
011-620065	CJB Assembled

Installation

When installing the CAN Junction Board:

- Select a position where the CJB will not be in constant contact with water, fuel or oil.
- Protect the CJB from vibration.
- Try not to place the CJB near sources of electrical interference i.e. ignition coils, plug leads, ECUs, alternators and telemetry antennas.

Dimensions in mm



Connector Information

C1 CJB Sensor Connector

Connector	Mating Connector
AS212-35SN	AS612-35PN

Pin	Name	Function
1	AI9	Analogue input 9
2	AI7	Analogue input 7
3	AI5	Analogue input 5
4	AI3	Analogue input 3
5	AI2	Analogue input 2
6	AI1	Analogue input 1
7	DEBTX	RS232 serial data PIC to PC
8	AI10	Analogue input 10
9	AI11	Analogue input 11
10	SW1	Switch input 1
11	SW2	Switch input 2
12	WS1	Wheel speed input 1
13	+12Vout	+12V fused output
14	+5Vout	+5V output
15	AI8	Analogue input 8
16	AI6	Analogue input 6
17	AI4	Analogue input 4
18	DEBRX	RS232 serial data PC to PIC
19	AI12	Analogue input 12
20	SW3	Switch input 3
21	WS2	Wheel speed input 2
22	GND	CJB reference 0V

C2 System Input Connector

Connector	Mating Connector
ASL206-05PB-HE	ASL606-05SB-HE

Pin	Name	Function
1	BATT+	Battery Supply +12V Input
2	CANH	CANH Input to CJB
3	N/C	Must be left unconnected
4	CANL	CANL input to CJB
5	GND	CJB Ref 0V

C3 System Output Connector

Connector	Mating Connector
ASL206-05SB-HE	ASL606-05PB-HE

Pin	Name	Function
1	BATT+	12V Supply Output from CJB
2	CANH	CANH output from CJB
3	N/C	Must be left unconnected
4	CANL	CANL output from CJB
5	GND	0V Supply output from CJB

Recycling and Environmental Protection

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

Manufacture

Cosworth products comply with the appropriate requirements of the Restriction of Hazardous Substances (RoHS) directive (where applicable).

Disposal

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

Battery

This equipment does not contain a battery.