DUAL CHANNEL CAN BUS BRIDGE   CANBG2

CANBG2 Dual channel CAN bus gateway forwards CAN data from one channel to another. It is offering fast processing solution to bridge between two isolated CAN buses where complexity and lengths of the buses are critical. Programmable hardware filters give the opportunity to either forward all traffic or select packets with specific arbitration ID.

CANBG2 is designed to meet the latest automotive standards and by its structure provide a reliable and fast processing solution even under harsh motorsport conditions.

170Mhz Cortex-M4 MCU clock together with 512Kbytes of Flash memory and a 3-Kbyte message RAM memory provides enough performance to process the most complex CAN networks seen in current racing cars. The two CAN modules are compliant with ISO 11898-1 (CAN protocol specification version 2.0 part A, B) and CAN FD protocol specification version 1.0.

All the above is packaged inside a waterproof polyamide case. Two Deutsch AS MicroLITE connectors provide reliable and watertight connection to suit individual requirements.
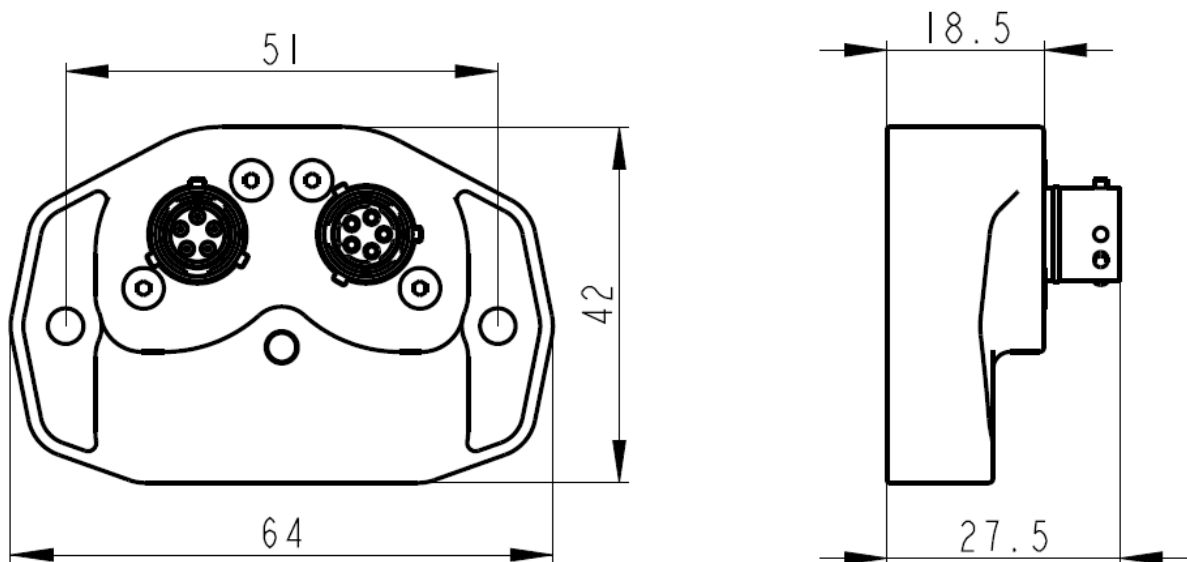
Description

Communication	
CAN[1]	CAN 2.0**A**, B (**STANDARD**, EXTENDED)
Baud rate[1]	**1M**, 500k, 250k, 125k, 100k
Frame rate[1]	up to 1kHz
Arbitration ID Filters HW[1]	**YES**
120Ω Termination[1]	ON, **OFF**
MCU	170Mhz Cortex-M4
Memory	512KB Flash, 128KB SRAM, 3KB FDCAN RAM
Receive FIFO	3 payloads (up to 64 bytes per payload)
Transmit FIFO	3 payloads (up to 64 bytes per payload)
Electrical	
Operating Voltage Range	6 – 40 V
Input current	~50 mA
Environmental	
IP rating	IP67
Mechanical	
Operating Temperature	-30°C to +85°C
Dimensions	144 x 30 x 15 mm
Case material	Polyamide
Weight Controller	~50 g
Connectors	ASL206-05PN-HE, ASL206-05SN-HE

[1] Other variants on request

CANBG2

Pinout

CAN1 – Deutsch ASL		CAN2 – Deutsch ASL	
Connector	DEUTSCH ASL206-05PN	Connector	DEUTSCH ASL206-05SN
Mating	DEUTSCH ASL606-05SN	Mating	DEUTSCH ASL606-05PN
Pin	**Signal (CANBG2)**	**Pin**	**Signal (CANBG2)**
1	+VBATT (+12V)	1	+VBATT (+12V) – fused 3A to CAN1
2	CAN-H	2	CAN-H
3	CAN-L	3	CAN-L
4	N/C	4	N/C
5	GND	5	GND

Drawing

Ordering information

CANBG2-XXXX

Customer Variant
N/A – STANDARD
            All traffic CAN1 <-> CAN2
IMSA – IMSA TPMS ID Filters
RADAR – CAS RADAR ID Filters
FIA – WEC 2025 Display Panel ID Filters

NOTE: Custom variants available on request