



- ECU for I/O expansion in a CAN-BUS network systems
- Reverse polarity supply protected
- Small form factor
- Up to 18 inputs
- Up to 4 outputs
- Cortex-M7 high performance CPU
- Protected Output against short-circuit
- Protected Input against over-voltage/current
- Rugged and waterproof case



**TECHNICAL FEATURES**

**POWER SUPPLY** 9-36 VDC

**CURRENT CONSUMPTION** 50mA in STD-BY @24V

**INPUT** **TOTAL No. 18 INPUTS**

- UP TO 5 UNIVERSAL INPUT: 4-20mA/0-40V/0-5V/DIGITAL\_LS/DIGITAL\_HS
- UP TO 11 ANALOGUE INPUT: 0-40V/0-5V/DIGITAL\_HS
- UP TO 4 DIGITAL INPUT: DIGITAL\_HS/COUNTER

**OUTPUT** **No. 4 HIGH SIDE OUTPUTS**  
SINGLE OUTPUT CURRENT: 2A, TOTAL DEVICE CURRENT: 6 A  
**No. 1 SENSOR POWER SUPPLY**  
VOLTAGE = POWER SUPPLY VOLTAGE (OPTIONAL: STABILIZED +5VDC)  
CURRENT: MAX 500 mA

**CAN BUS** **No. 1 PORT**  
2.0B COMPLIANT - (11, 29 BIT) - ISO 11898 - UP TO 1MBIT/S  
PROTOCOLS: CAN OPEN (DS401 DEVICE PROFILE FOR GENERIC I/O MODULE, WITH DS306 EDS FILE)

**CONNECTION** SICMA 24 PIN – Refer to «MATING CONNECTORS» table

**ENCLOSURE MATERIAL** PC ABS V0

**STATUS INDICATION** Green and red LED

**WORKING TEMPERATURE** -40°C +85°C





ALM-IO

CAN-BUS I/O EXPANDER

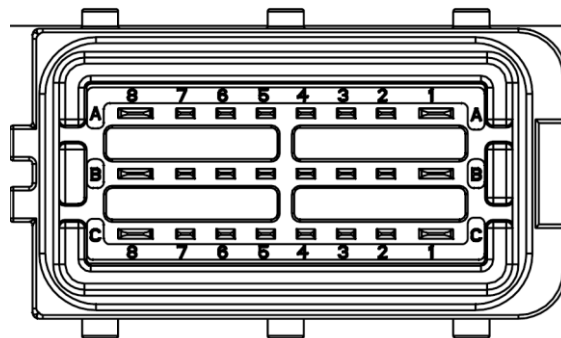
**ELECTRONIC FEATURES**

<b>SLAVE USAGE</b>	EDS FILE
<b>MASTER USAGE</b> <i>OPTIONAL</i>	C PROGRAM OPEN-SOURCE SOFTWARE
<b>PROGRAMMING</b>	FIRMWARE UPLOAD BY CAN BUS WITH ALOADER SOFTWARE TOOL
<b>CPU</b>	Family: 32-bit Arm® Cortex®-M7 With external hardware watchdog
<b>MEMORY</b>	MCU FLASH: 2 MB - RAM: 1 MB External EEPROM: 1024 KB <i>OPTIONAL</i> : QSPI 64 MB/128 MB

**STANDARDS**

<b>APPROVALS</b>	CE: 2014/30/EU UKCA: 2016 No. 1091 The Electromagnetic Compatibility Regulations 2016
<b>ELECTROMAGNETIC COMPATIBILITY</b>	EN 50498
<b>ELECTROMAGNETIC EMISSIONS</b>	EN 61000-6-4
<b>ELECTROMAGNETIC IMMUNITY</b>	EN 61000-6-2
<b>ENVIRONMENTAL TESTING</b>	IEC 60068-2-64 IEC 60068-2-27 IEC 60068-2-27 IEC 60068-2-3
<b>PROTECTION</b>	IEC 60529 (IP68)

**CONNECTOR PINOUT**



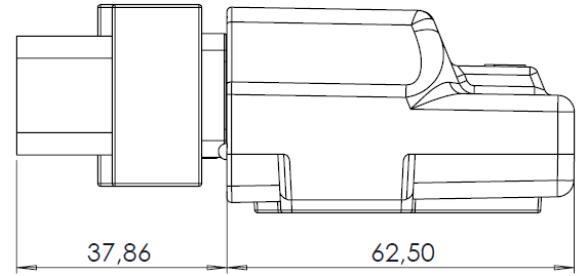
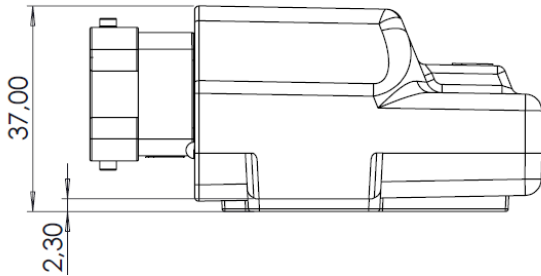
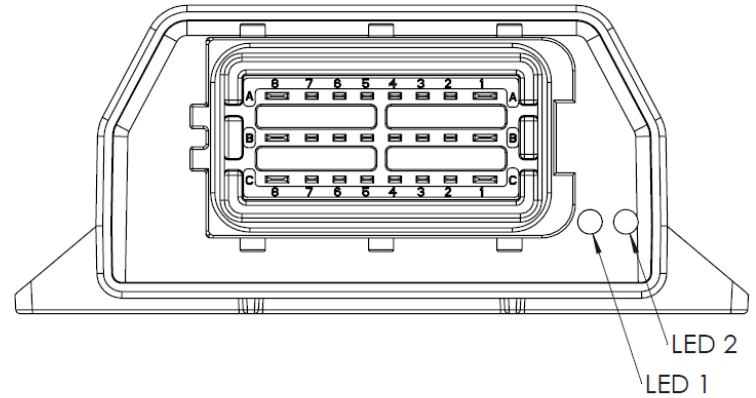
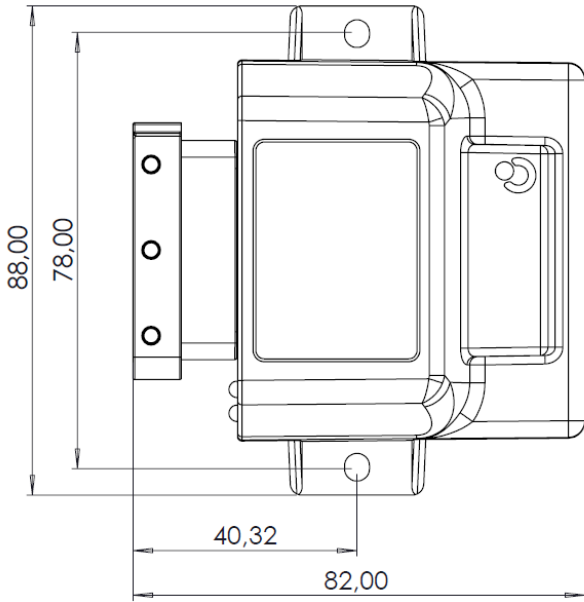
PIN	8	7	6	5	4	3	2	1
<b>A</b>	IN 17 (FAST 3)	IN 16 (FAST 2)	IN 15 (FAST 1)	OUT4 / IN 14	OUT3 / IN 13	OUT2 / IN 12	OUT1 / IN 11	COMMON OUT 1-8
<b>B</b>	IN 18 (FAST 4)	AN IN 9	AN IN 8	AN IN 7	AN IN 6	CAN H	CAN L	SENSOR P.S. OUT
<b>C</b>	POSITIVE POWER SUPPLY	IN 10	AN IN 5	AN IN 4	AN IN 3	AN IN 2	AN IN 1	GND



ALM-IO

CAN-BUS I/O EXPANDER

SIZE (mm)



MATING CONNECTORS – APTIV CODES

COMPONENT	CODE
MATING CONNECTOR BRAND: APTIV	211PC249S0033
TERMINALS BRAND: APTIV	211CC2S2160P
PRE-WIRED CABLES	AVAILAVBLE ON REQUEST





NOTE