



- I/O expansion ECU for CAN-BUS based systems
- Small form factor
- 10 inputs and 8 outputs
- Cortex-M7 high performance CPU
- Designed for Master or Slave usage mode
- Internal watchdog for class II safety architecture EN13849 (up to PLd)
- Protected I/O against short-circuit and over-voltage/current
- Rugged and waterproof case



TECHNICAL FEATURES

POWER SUPPLY	8-30 VDC
CURRENT CONSUMPTION	50mA in STD-BY @ 24V
INPUT	<p>No. 10 INPUTS</p> <ul style="list-style-type: none"> • n. 5 UNIVERSAL INPUTS(4-20 mA/0-40 V/0-5V/DIGITAL LS/DIGITAL HS). (SW Configurable) • n. 4 ANALOGIC INPUTS (0-40 V) • n. 1 IGNITION INPUT FOR BOARD ACTIVATION
OUTPUT	<p>No. 8 OUTPUTS</p> <p>MAX CURRENT: SINGLE OUTPUT: 3 A ; TOTAL DEVICE: 12 A</p> <p>SOFTWARE CONFIGURABLE AS:</p> <ul style="list-style-type: none"> • HIGH-SIDE PWM OPEN-LOOP OUTPUTS WITH CURRENT SENS. • HIGH-SIDE DIGITAL OUTPUTS <p>No. 1 SENSOR POWER SUPPLY</p> <p>VOLTAGE = SUPPLY VOLTAGE (OPTIONAL STABILIZED +5VDC)</p> <p>MAX SOURCE CURRENT: MAX 500 mA.</p>
CAN BUS	<p>No. 1 PORT</p> <p>2.0B COMPLIANT - (11, 29 BIT) - ISO 11898 - UP TO 1MBIT/S</p> <p>PROTOCOLS: CAN OPEN (DS401 DEVICE PROFILE FOR GENERIC I/O MODULE, WITH DS306 EDS FILE)</p>
CONNECTION	SICMA 24 PIN - See «MATING CONNECTORS» table for pinout
ENCLOSURE MATERIAL	PC ABS V0
STATUS INDICATION	Green and Red LED
WORKING TEMPERATURE	-40°C +85°C





ALMEXT

CAN-BUS I/O EXPANDER

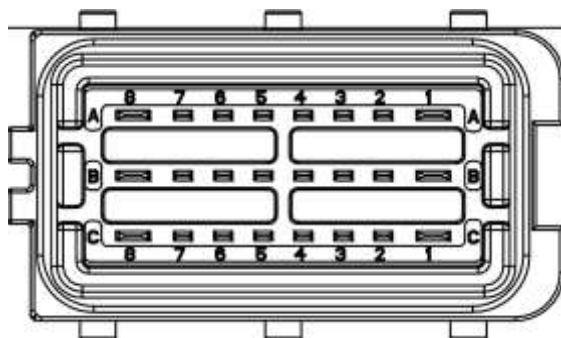
ELECTRONIC FEATURES

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

STANDARDS

APPROVALS	CE: 2014/30/EU UKCA: 2016 No. 1091 The Electromagnetic Compatibility Regulations 2016
ELECTROMAGNETIC COMPATIBILITY	EN 50498
ELECTROMAGNETIC EMISSIONS	EN 61000-6-4
ELECTROMAGNETIC IMMUNITY	EN 61000-6-2
PERFORMANCE AND SAFETY INTEGRITY LEVEL	Up to PL(d)cat.2
ENVIRONMENTAL TESTING	IEC 60068-2-64 IEC 60068-2-27 IEC 60068-2-27 IEC 60068-2-3
PROTECTION	IEC 60529 (IP68)

CONNECTOR PINOUT



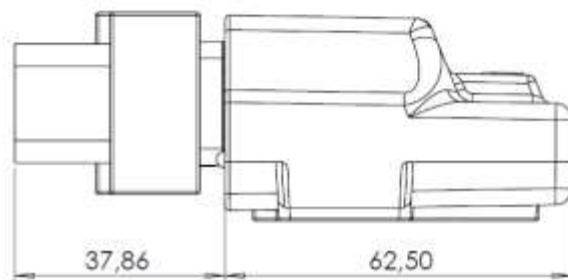
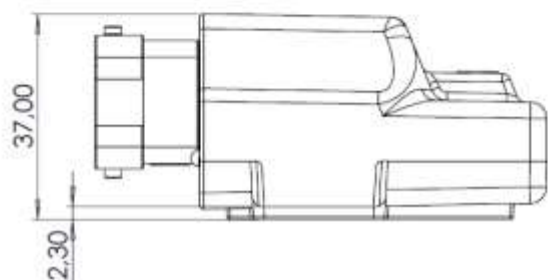
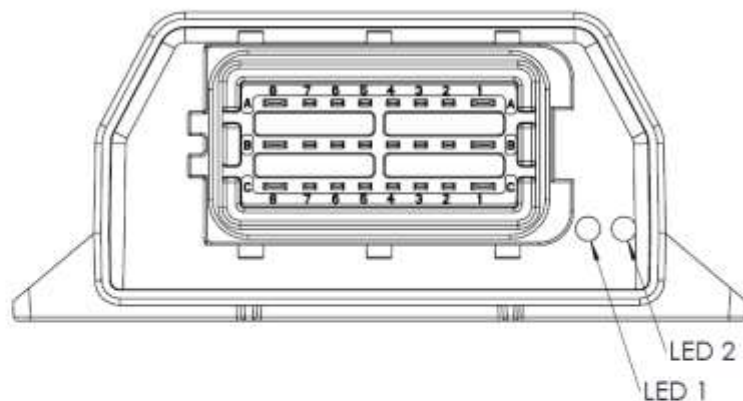
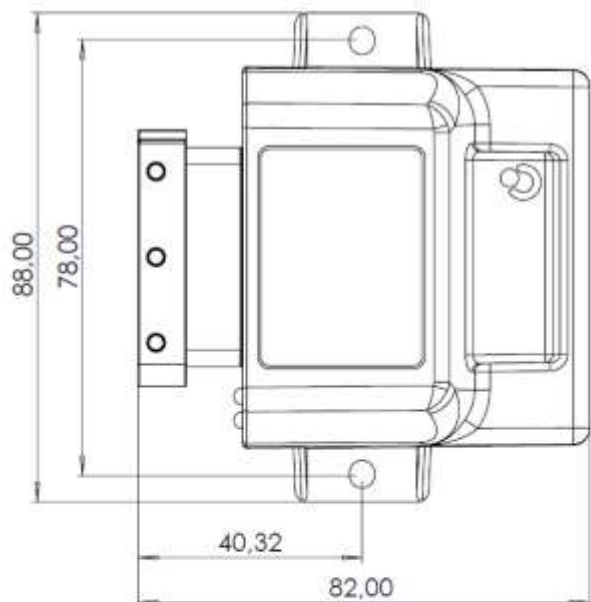
PIN	8	7	6	5	4	3	2	1
A	OUT8	OUT6	OUT5	OUT4	OUT3	OUT2	OUT1	POSITIVE SUPPLY OUT
B	OUT7	IN AN 9	IN AN 8	IN AN 7	IN AN 6	CAN H	CAN L	SENSOR POWER SUPPLY
C	POSITIVE POWER SUPPLY	IGNITION INPUT	IN AN 5	IN AN 4	IN AN 3	IN AN 2	IN AN 1	GND



ALMEXT

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