



ALMECdiag Device is a telediagnostic, interconnection and satellite geolocalization gateway, to connect machines and equipment, for diagnose and control, through the ALMECdiag Portal web platform.

It can be implemented in a SERIAL or CAN network.

The waterproof case makes this device suitable for use on machines that operate in harsh work environments.



TECHNICAL FEATURES		BASIC VERSION	FULL VERSION
POWER SUPPLY	9-36 VDC ON REQUEST: INTERNAL BUFFER BATTERY		
COMMUNICATION PORTS	CANOPEN: 1 SERIAL: 1	CANOPEN: 1 + 1 SERIAL: 1 + 1	
CAN BUS PROTOCOL	CANOPEN: CAN BUS 2.0 A/B COMPLIANT – (11, 29 BIT) – ISO 11898-2 UP TO 1Mbit/s CIA DS401 DEVICE PROFILE FOR GENERIC I/O MODULE, WITH DS306 EDS FILE		
SERIAL PROTOCOL	RS232		
WI-FI	NO	BAND: 2.4GHz IEEE 802.11b/g/n 1x1 CONNECTION AND OPERATING RANGE: up to 15 m (indoor)	
GSM/GPRS	QUAD BAND GSM/GPRS 2G MODULE, WORLD WIDE COVERAGE, EASY REPLECEABLE MICRO-SIM BAND: 2G: 900 , 1800 MHz TRANSFER CAPACITY : 2G 9-14 kbps		
GPS	72 CH RECEIVER GNSS, L1C/A COMPLIANT, WORLD WIDE COVERAGE, INTEGRATED/EXTERNAL ANTENNA PRECISION   Direction: < 1°   Position: < 4 m		
MOBILE CONNECTION	DEDICATED APP AVAILABLE ON REQUEST FOR SMARTPHONE O.S. COMPATIBLE: ANDROID 4.0 VERSION or higher version – iOS 7 or higher version		
SENSOR	NO	ON REQUEST: THREEAXIAL ACCELEROMETER FOR SHOCK DETECTION	
INPUTS	1 IGNITION INPUT: FOR UNDER-KEY APPLICATIONS (0-36 VDC) 1 UPDATING ENABLE INPUT: TO ENABLE THE SOFTWARE REMOTE UPDATE (0-36 VDC)		
CONNECTORS	M12 8 PIN, MALE CONNECTOR: POWER SUPPLY + COMUNICATION PORTS		
	SMA, FEMALE CONNECOR: GPS ANTENNA SMA, FEMALE CONNECOR: GSM ANTENNA	Adding: M12 4 PIN, MALE: COMUNICATION PORTS SMA, FEMALE : WI-FI ANTENNA	
WORKING TEMPERATURE	-40°C +80°C		
CASE	ABS (UL94 V-0)		
PROTECTION	IP65		





**ELECTRONIC FEATURES**

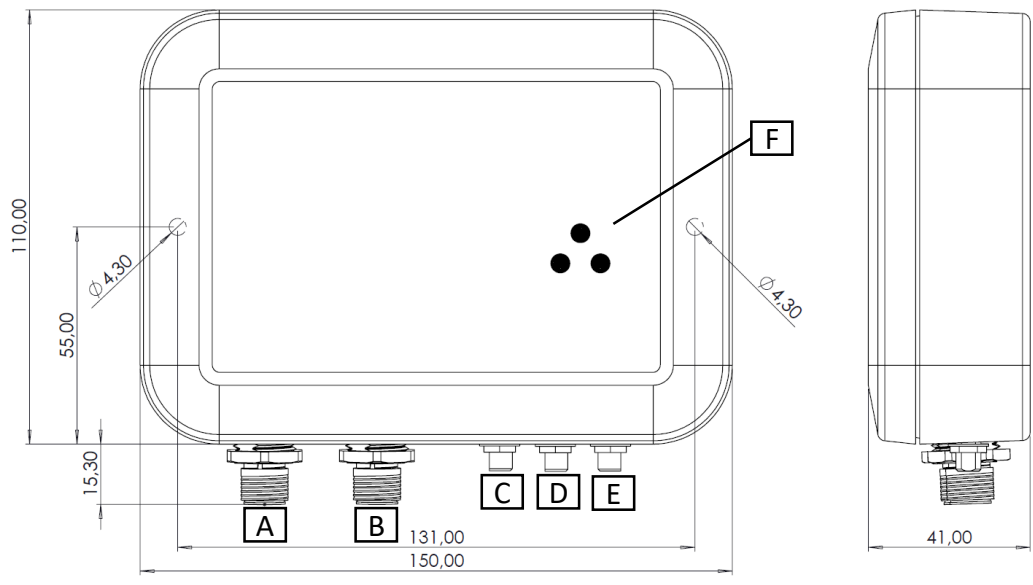
<b>NETWORK INTEGRATION</b>	TRASPARENT CAN FRAME RECEIVE/TRANSMIT CONFIGURABLE BY WEB
<b>INTERNAL SYSTEM CONTROL</b>	Family: ARM Cortex M4, 32bit core CLOCK FREQUENCY = 120 MHz
<b>PROGRAM INTERFACE</b>	CONFIGURABLE VIA PC

**STANDARDS**

<b>IMMUNITY TO CONDUCTED INTERFERENCE</b>	ISO 7637-2: 2004, pulses 2a, 3a, 3b, 4, severity level 4, function state A ISO 7637-2: 2004, pulse 1, 2b, severity level 4, function state C ISO 7637-2: 2004, pulse 5, severity level 1, function state A
<b>ELECTROMAGNETIC (EMC)</b>	ACCORDING TO DIRECTIVE 2014/30/EU: EN 61000-6-4 EN 61000-6-2 EN 50498
<b>RADIO SPECTRUM MATTERS (RED)</b>	ACCORDING TO DIRECTIVE 2014/53/EU: ETSI EN 300.220-1 ETSI EN 301.489-1 ETSI EN 301.489-3
<b>SPECTRUM FREQUENCY ALLOCATION</b>	EN 301489-1 V1.9.2 EN 301489-3 V1.4.1

ACCORDING WITH THE EN50498 THE DEVICE MEETS THE TECHNICAL SPECIFIC REQUIREMENTS OF 2004-104 DIRECTIVE (AUTOMOTIVE).

**SIZE (mm)**



THE DEVICE MUST BE FIXED BY OPENING THE TWO SIDE LIDS ON THE FRONT OF THE BOX; RECOMMENDED SCREW: M4 LENGTH 6mm

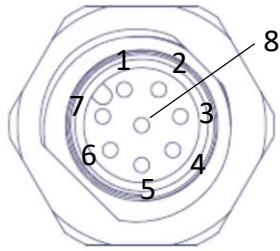
- A - M12 8 PIN, MALE CONNECTOR: POWER SUPPLY + COMUNICATION PORTS
- B - M12 4 PIN, MALE CONNECTOR: OPTIONAL COMUNICATION PORTS
- C - SMA, FEMALE CONNECOR: GPS ANTENNA
- D - SMA, FEMALE CONNECOR: WI-FI ANTENNA
- E - SMA, FEMALE CONNECOR: GSM ANTENNA
- F - STATUS LED



**CONNECTOR PINOUT**

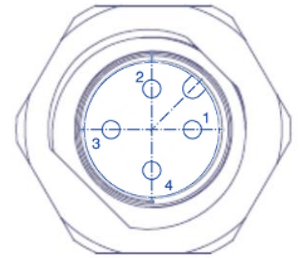
**CONNECTOR A  
M12 8 PIN, MALE**

1	POSITIVE POWER SUPPLY
2	SERIAL PORT TX
3	CAN PORT HIGH
4	SERIAL PORT RX
5	GND POWER SUPPLY
6	IGNITION INPUT
7	CAN PORT LOW
8	UPDATING ENABLE INPUT



**CONNECTOR B  
M12 4 PIN, MALE**

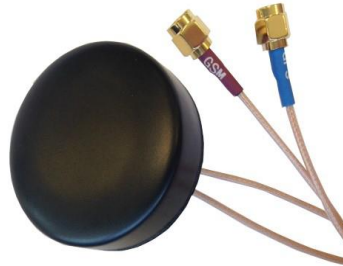
1	SERIAL PORT 2 TX
2	CAN PORT 2 HIGH
3	SERIAL PORT 2 RX
4	CAN PORT 2 LOW



**FEATURES**

**EXTERNAL ANTENNA SIGNAL (included)**

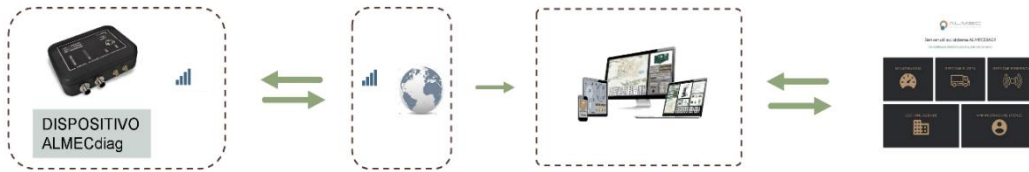
**BASIC VERSION:**  
GPS & GSM ANTENNA  
FIXING BY SCREW AND  
DOUBLE-SIDED ADHESIVE  
  
WITH CABLE LENGHT: 3m



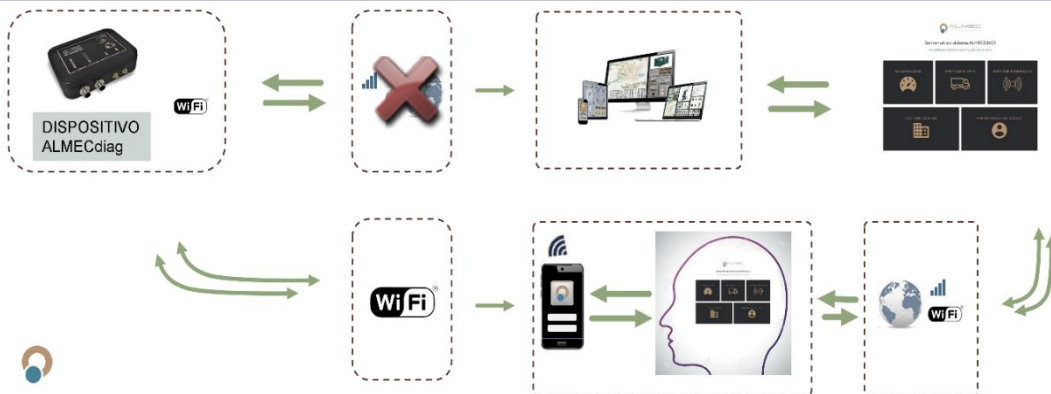
**FULL VERSION:**  
GPS, WI-FI & GSM ANTENNA  
FIXING BY SCREW AND DOUBLE-SIDED  
ADHESIVE  
  
WITH CABLE LENGHT: 3m



**CONDITIONS OF POSSIBLE USE IN THE PRESENCE OF GSM NETWORK**



**CONDITIONS OF POSSIBLE USE IN ABSENCE OF GSM NETWORK**





**ALMEC**  
MECHATRONICS

NOTE