



The RDC EVO, is a bi-directional radio module for CANbus and serial network applications.

The device is designed to operate in systems with architectures with a high level of safety and it is compatible with SIL2 and PLd standards.

The internal antenna allows efficient signal detection and a reliable radio connection for a wide range of action.

For indoor applications, a dedicated version provides an SMA connector for the installation of an external antenna, to ensure excellent radio range performance.

The polyurethane resin wrap and the DEUTSCH type connector makes the controllers suitable for use on machines operating in harsh working environments.



TECHNICAL FEATURES

MASTER CODE	RDC.438
POWER SUPPLY	9-36 VDC CURRENT CONSUMPTION: 30 mA (min) – 100 mA (max) @ 24VDC
COMMUNICATION PORTS	NETWORK: CAN BUS 2.0B COMPLIANT – (11, 29 BIT) – ISO 11898-2 UP TO 1Mbit/s
	RADIO: 868 / 434 MHz BAND WITH INTEGRATED ANTENNA SIGNAL
CAN BUS PROTOCOLS	CAN OPEN protocol (CIA DS401 DEVICE PROFILE FOR GENERIC I/O MODULE, WITH DS306 EDS FILE)
RADIO PROTOCOL	PACKET TRANSMISSION PROTOCOL 12 CHANNELS (AUTOMATIC FREQUENCY SCAN) 2-GFSK MODULATION BIDIRECTIONAL LINK HAMMING DISTANCE = 4 SAFETY STOP INTERVENTION TIME < 0,5s
CONNECTIONS	MAIN: DEUTSCH DTF13-6P
	OPTIONAL: EXT. ANTENNA (for indoor application): SMA
CASE	PUR - UL94-V0
PROTECTION	IP68 WITH EXTERNAL ANTENNA: IP65
WORKING TEMPERATURE	-40°C +85°C





ELECTRONIC FEATURES

SLAVE USAGE	EDS FILE
PROGRAMMING	FIRMWARE UPLOAD BY CAN BUS WITH ALOADER SOFTWARE TOOL
CYCLE TIME	RADIO CONNECTION: < 70 ms LOGIC: < 1 ms
INTERNAL SYSTEM CONTROL	DUAL REDUNDANT MICROPROCESSOR WITH WATCHDOG SELF CHECKED SAFETY OUTPUT RELAY

STANDARDS

ELECTROMAGNETIC (EMC)	ACCORDING TO DIRECTIVE 2014/30/EU: EN 61000-6-4 EN 61000-6-2 EN 50498
ROAD VEHICLES	ISO 7637-2: 2011 ISO 11452-1: 2005
INFORMATION TECHNOLOGY EQUIPMENT – SAFETY	EN 60950-1
RADIO SPECTRUM MATTERS (RED)	ACCORDING TO DIRECTIVE 2014/53/EU: ETSI EN 300.220-1 ETSI EN 300.220-2 ETSI EN 301.489-1 ETSI EN 301.489-3
PERFORMANCE AND SAFETY INTEGRITY LEVEL	EN ISO 13849-1 PLd – SIL2 (DUAL-CHANNEL INTERNAL SCHEME)

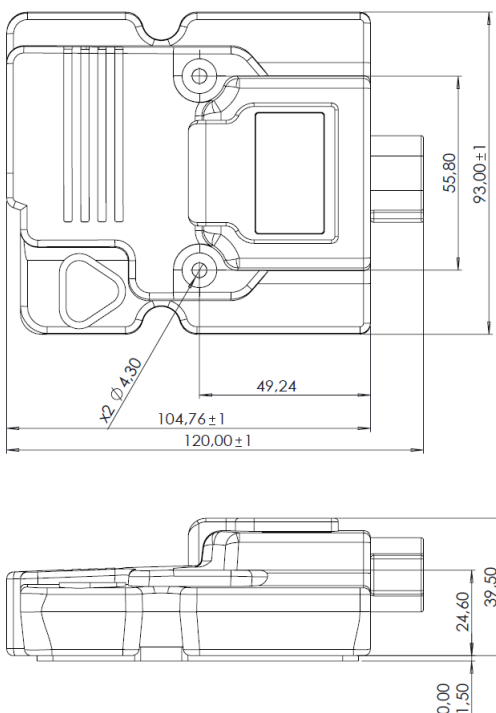
STATUS
COMMUNICATION
DIAGNOSTIC

FIX THE UNIT WITH HEX SOCKET HEAD SCREWS OF STAINLESS STEEL AND A SEALING WASHER.

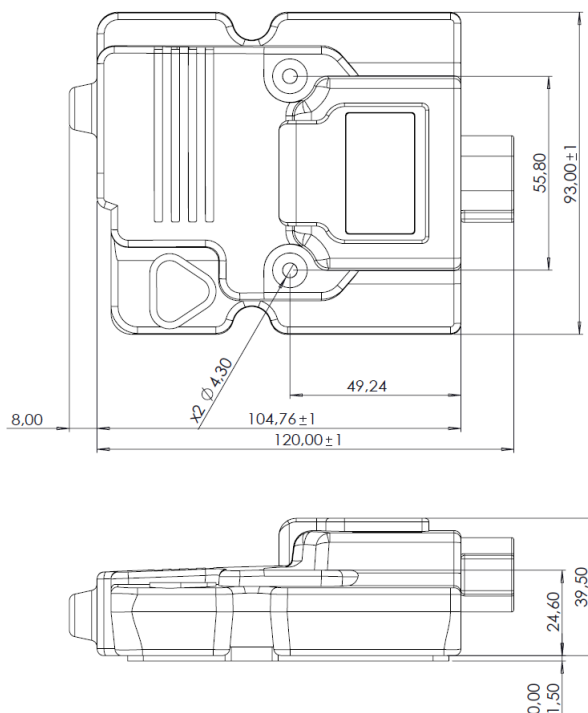


SIZE (mm)

868 MHz VERSION

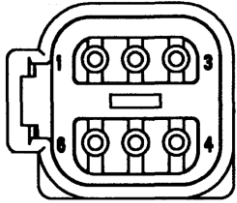


434 MHz VERSION





CONNECTOR PINOUT



PIN	DESCRIPTION
1	POSITIVE POWER SUPPLY
2	SAFETY DRY CONTACT OUT
3	SAFETY DRY CONTACT IN
4	CAN L
5	CAN H
6	GND

MATING CONNECTOR CODES

CONNECTOR: DT06-6S
 TERMINALS: 1062-16-1422/1062-16-1222 or similar (x6)
 CAP: W6S



DT06-6S



TERMINALS



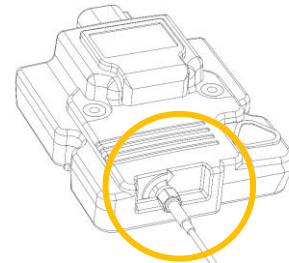
W6S

FEATURES

OPTIONAL:

EXTERNAL ANTENNA SIGNAL KIT

ANTENNA 868/434 MHz WITH MOUNTING BRACKET, CONNECTOR and CABLE LENGHT 3m (for predisposed RDC device only)

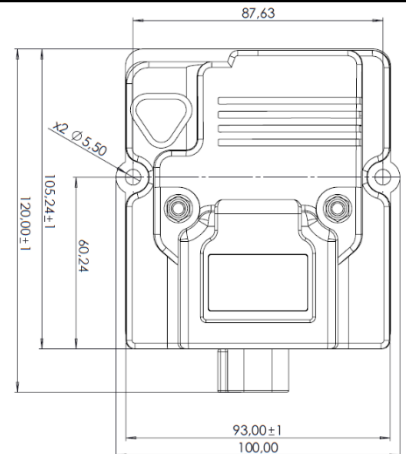
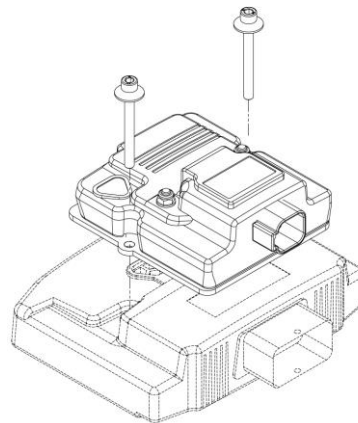


OPTIONAL:

RETRO-FIT KIT

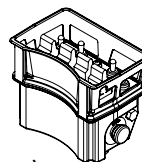
For RD.CAN.S02/03/11/15 replacement composed by:

- STEEL BASEHOLE ADAPTER PLATE
- RETROFIT ADAPTER CONNECTOR



RADIO PAIRING WITH ALMEC PRODUCTS:

- AL50R radio console series with proportional controllers
- ALNWR radio pushbutton series
- RDC EVO device for point-to-point radio link



a)



b)



c)



c)



ALMEC
MECHATRONICS

NOTE