

Didcom Engine Protocol Converter® V3.0



EPC is a device designed for the conversion of specific communication protocols either CANbus owners, CAN J1939 or J1708 communication bus, these are converted to SAE J1939 standard protocol, at the same time, the device has the ability to filter engine data and Fault codes, in the same way can calculate data that does not exist as such on the bus, which allows to obtain different parameters of great importance.

Features

The device can be connected directly non-intrusively to the data network inside a vehicle, when connected it identifies and associates the origin protocol automatically, if it is supported by the device model, once the device has established communication reads existing data on the bus, so that the read data can be converted, or filtered to the J1939 standard protocol, even perform calculations to obtain new specific parameters.

The information that is received is divided into two essential parts, **Engine data and fault codes.**

As main feature, each data that is processed can be referenced with value and date, the above allows to create history tables of each record, obtaining in this way the information for its analysis, with which trends can be identified and based on it statistics of behavior.

*As an additional part, the device in its **EPC V3.0 PLUS version** has the option of adding or editing parameters to be filtered through the RS232 communication port interconnected to a telemetry device with bidirectional communication or to an on-board PC. **

The EPC device has two LED indicators visible to the user, they are for knowing the status of incoming and outgoing communication, in addition to providing error information that could present such communication.

Application Examples of EPC parameters

Safety parameters: Increase the safety of your drivers and cargo.

Vehicle performance parameters: Control the use of your vehicle and reduce maintenance costs.

Travel parameters: Analyze the driver's conscious driving behavior and reduce fuel costs.

First of all, EPC reads vehicle information via HRN-FMS04-MFT02-50C-J17 or HRN-FMS04-MFT02-50C-CAN included with the device, making a direct connection to the vehicle, if an isolated connection is required you can purchase the necessary accessory to perform a non-intrusive data reading with EHR-FMS04-NMC02-100C (CANbus) or EHR-FMS04-NMJ02-100C (J1708) depending on the communication bus in the vehicle to be connected.

Applications

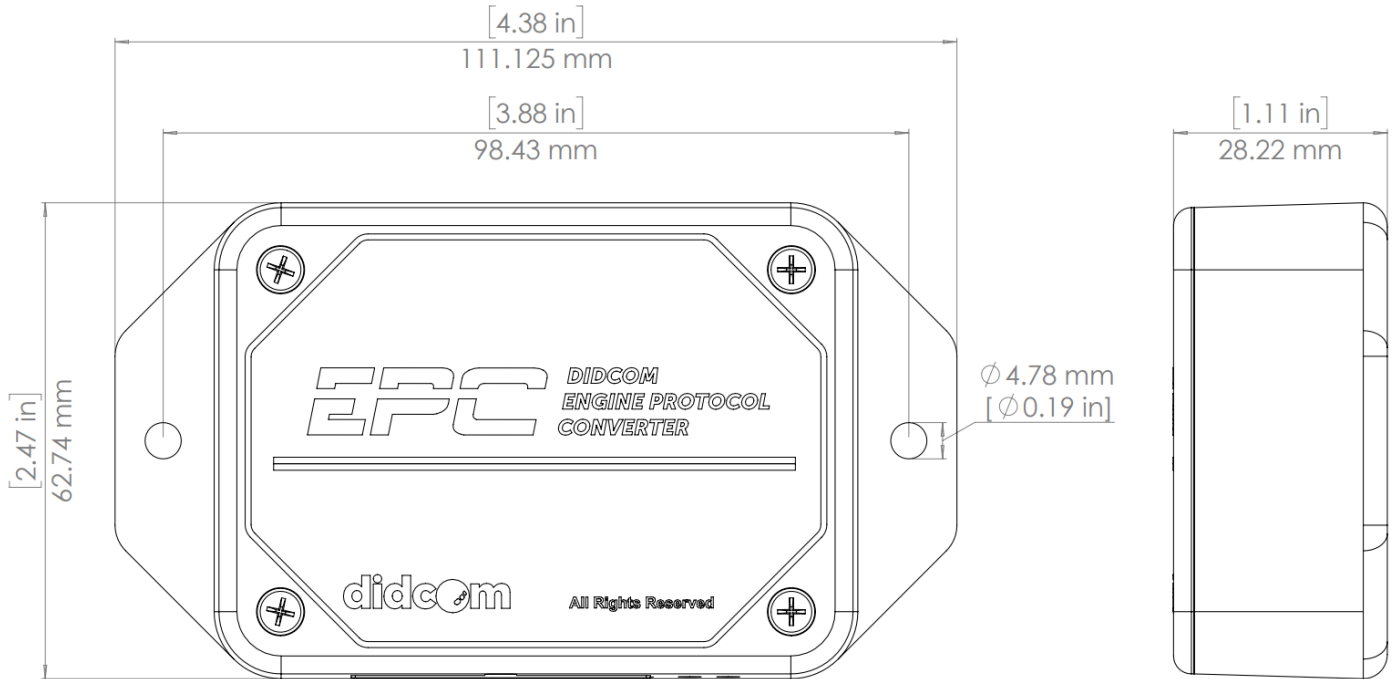
The EPC V3.0 device can be used on buses of several compatible brands for reading, obtaining and sending engine data including fault codes, either of standard data or specific manufacture data owner, this through the integration of a telemetry equipment, with which the information can be sent remotely over a cellular network, and receiving the information on a WEB platform where a large number of reports or analyzes can be made based on the valuable information obtained.

With **EPC V3.0 PLUS** *, in addition to the data already obtained, extra data can be sent through the RS232 * communication port and / or make adjustments to the sending parameters, such as; change time intervals on variables to send, add or edit variables supported by the device.

The device can be integrated into telemetry equipment that supports connection to CANbus SAE J1939, via OBDII connector on terminals 6 (CANHigh) and 14 (CANLow).

NOTE: *The data obtained on the WEB platform will depend on the filter applied in the Telemetry equipment used.*

Mechanical Dimensions



Specifications

EPC V3.0 / PLUS	
Signals E/S	
Power supply	Systems 12V/24V DC, 53mA/32mA
Protections	Against Short Circuit: F1= 3 A, 32V miniATO <u>Replace with the same value.</u>
	Polarity of Inverted Connection
Communication / EPC V3.0 PLUS	Mod3 RS232, 115200 baud, DIDCOM® Protocol
Input Interface	Read Only CANbus 125Kbps, 250Kbps y 500Kbps autobaud
Input Interface	Read Only SAE J1850, J1708 Bus Serie
Output Interface	Standard CANbus SAE J1939, 250Kbps
Input Interface	K-LINE
E/S Auxiliar Interface	CanBus, DIDCOM® Protocol Proprietary
Visual interface	2 bicolor status LED
Energy consumption	Module EPC V3.0 <1Watt
Case material	ABS Black Color, Flame retardant.
Protection Case Index	UL94V-0
Temperature range	-40 a +85 °C
Net weight	Module 83 gr / Module with harness 325gr

Engine Data



Speed and Cruise control

- Speed wheel based
- Odometer
- Cruise Control Active
- Cruise Control enable
- High Speed Control Limit Cruise



Engine

- RPM
- Engine Hours
- Coolant Temperature
- Coolant Level
- Engine Oil Temperature
- Engine Oil Level
- Engine Oil Pressure
- Idling Hours
- Engine Warning Light



Transmission and Gears

- Actual Gear
- Transmission Oil Level
- Transmission Oil Temperature



Braking analysis

- Brake Pedal Position
- Parking Break



Fuel Analysis

- Total Fuel Used
- Fuel Level
- Average Fuel Economy
- Idling Fuel
- Driving Fuel



Others

- Seat belt driver
- Accident event
- Airbag warning light
- Tire warning light
- ABS warning light
- Generic access door
- Hybrid detection
- Windshield fluid level
- Tire temperature
- Vehicle tilt angle
- Active vehicle
- Injection control pressure
- Active PTO

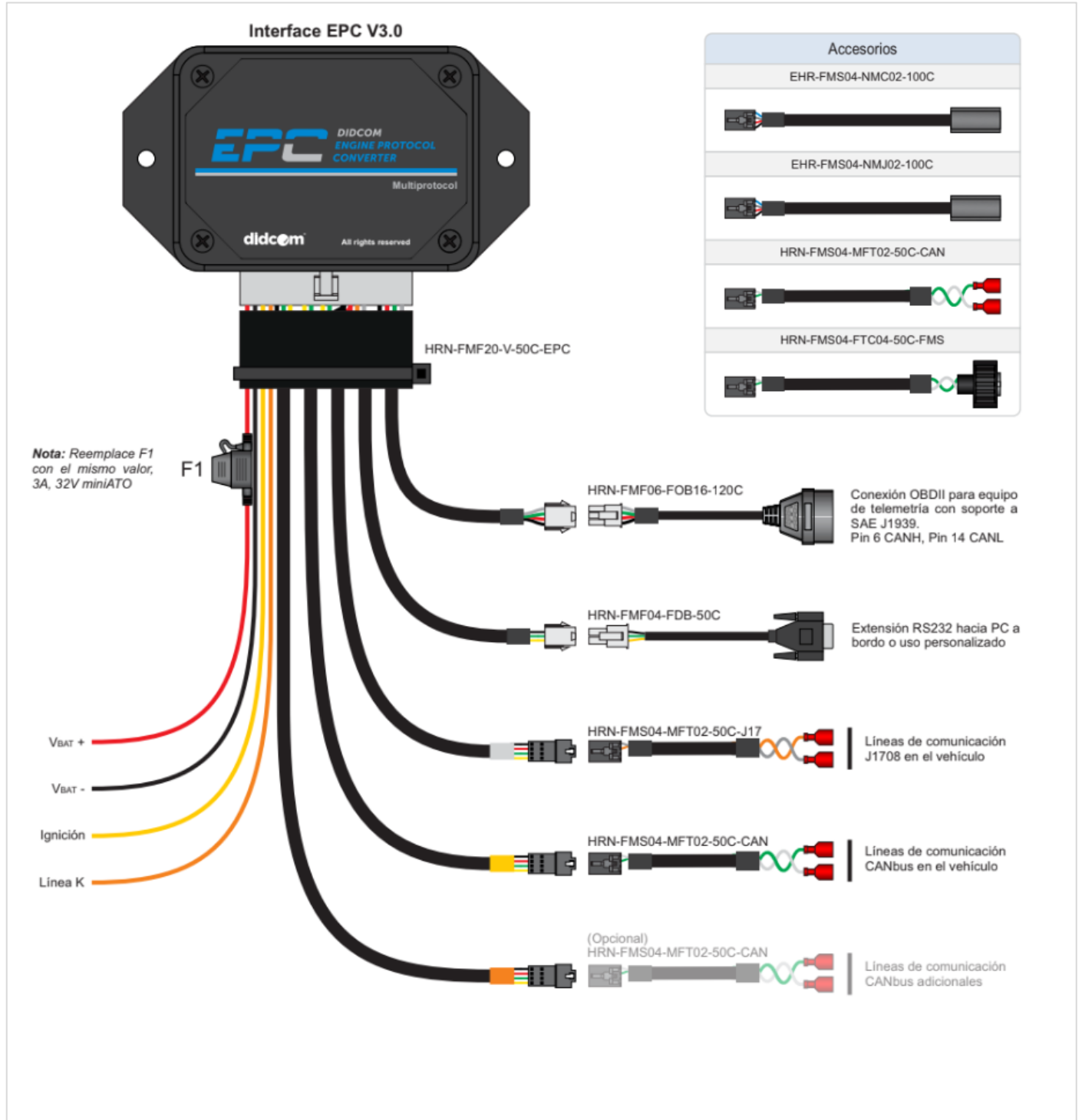


Fault Codes

- Diagnostic

NOTE: Not all parameters listed are available for each vehicle. The availability of the data will depend mainly on the communication protocol of the vehicle as well as the brand, model, year and the configuration of the vehicle itself. Please contact DIDCOM® support for review of supported parameters.

Connection diagram



Part Numbers

Didcom Engine Protocol Converter® V3.0 (Device and accessory options)				
EPC V3.0	Mercedes Benz 125Kbps, 500Kbps			
	Standar J1939 250kbps, MAN,VW, Scania, others			
	Standard J1708, VOLVO, Others			
EPC V3.0 Plus (Editable Parameters)	Mercedes Benz 125Kbps, 500Kbps			
	Estándar J1939 250kbps, MAN,VW, Scania, Others			
	Standard J1708, VOLVO, Others			
	Proprietary protocol or integration to telemetry over RS232			
Accessories			Include	Optional
HRN-FMS04-MFT02-50C-J17	Twisted Pair Harness J1708		*	
HRN-FMS04-MFT02-50C-CAN	Twisted Pair Harness CANbus		*	
HRN-FMS04-FTC04-50C-FMS	FMS Connection Harness			*
EHR-FMS04-NMC02-100C	CANbus Harness for Non-Intrusive Connection			*
EHR-FMS04-NMJ02-100C	J1708 NO-Intrusive Connection Harness			*
*HRN-FMF04-FDB-50C	Harness RS232, Version PLUS			*
HRN-FMF06-FOB16-120C	OBDII CANbus Extension, Telemetry Connection		*	
HRN-FMF20-V-50C-EPC	Harness for EPC V3.0 / PLUS		*	

Important safety and usage information.

WARNING! The devices to be installed must be firmly fastened so as not to interfere with the controls of the vehicle, some of the cables with which they could interfere are those of the accelerator pedal, brake and clutch. For this procedure make use of plastic straps to fix the devices including their respective cables, they must be fastened along the harness and the module itself. The use of belts is essential in the installation since if they are not used the vibration of the vehicle can loosen the connection, indirectly causing some part of the vehicle to fail, control is lost or serious damage occurs. Inspect connections regularly to avoid accidents.

WARNING! If at any time after installing a new device in the vehicle a warning light on the dashboard comes on, or a general failure is caused, turn off the engine, remove the device and contact your dealer. Continuing to use the vehicle with any of these conditions may cause major failures to the vehicle, or cause loss of control of the vehicle.

WARNING! Devices connected to the vehicle must be kept clean, dry and free of contaminants; If this is not the case, it may present a malfunction or cause a short circuit, with the risk of accidents such as fire, damage to the vehicle or serious injury.

WARNING! Do not attempt to switch devices between vehicles where they were originally installed to install them in others. Not all vehicles or connection types are compatible; Doing so could have an unexpected effect with the connection to the vehicle, even causing the vehicle to fail or run erratically, causing more serious problems to the vehicle. If you have questions about compatibility or connection between devices, contact your distributor.

NOTICE

The device does not have any type of maintenance that can be performed by the user. Only distributors or installers authorized by the company can handle special configurations, maintenance and / or repairs. If any type of violation or maintenance of these products is made without the relevant authorization, the product warranty will be voided immediately.

NOTE: RevA Data Sheet first edition October 02/19.

The information contained in this document regarding the device, features and applications is provided for the convenience of the end user and may be replaced by subsequent updates. It is the responsibility of the end user to ensure that the specific application is complied with the use of the device. DIDCOM® DOES NOT MAKE ANY MANIFESTATION OR OFFER ANY EXPRESS OR TACTILE WARRANTY, RELATED TO THE INFORMATION CONTAINED IN THIS DOCUMENT RELATING TO QUALITY, PERFORMANCE, TRADE OR FITNESS TO COMPLY WITH THE PURPOSES OF THE END USER. This document does not grant license or assignment of industrial property rights, copyrights or any other protected by intellectual property laws in favor of Grupo Tecnológico Didcom S.A de C.V.

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Company information and support.

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