

Fuel injection system







Fuel injection system: the advantages

- Specifically designed for motorcycle application: reduced dimension, waterproof, high vibration resistance,...
- Reduced time to market: our company dimension grants flexibility and solution designed to solve specific customer problem;
- Full service: we offer not only a product but also a service.





Fuel injection system: The system layout





Fuel injection system: the philosophy

Customer is supported with different approches:

- a) Designing and producing new ECU on existing Fuel injection engines implementing new functions
- b) Designing and suppling⁽¹⁾ the components necessary to transform an engine from carburettor version to an EFI one.

(1) Directly or from top quality company with whom we have a partnership



Fuel injection system: the service

Ducati grants customer with all services needed to:

- a) Set, map, calibrate and test the vehicle.
- b) Issue laboratory test report on driveability, emissions, noise and EMC on the vehicle.
- c) Improve, co-design all parts not strictly related to ECU but necessary (i.e. muffler, harness,...)



Fuel injection system: main charactheristics

- •Meet Euro III and China III requirements on emissions
- •Reduce consumption and optimise driveabilty
- •Reduced dimensions and weight
- •Sealed connections
- •Low leakage current (less of 1mA in key OFF)
- Fast control algorithms and strategies to optimise bike engines
- •Suitable for battery less vehicles



Input parameters:

Input:

- •TPS (throttle position sensor)
- •Engine and air Temperature
- •Air pressure (directly integrated in the ECU)
- •Lambda Sensor
- •Roll-over sensor
- •Trigger coil

It's also possible to manage other inputs as:

- •Oil pressure;
- •Different timing maps (directly settable with a switch on the handlebar)
- •Managing of input from generator to avoid kickback





Output parameters:

ECU Outputs control the following components:

- •Injector. (up to 4).
- •Ignition coils.
- •Fuel pump
- •Cooling fan
- •Starting







Fuel injection system: inputs and outputs

