D-GID LIGHT-32

ECU Dual-Fuel

TECHNICAL SPECIFICATIONS

The control unit is suitable for managing signals on a diesel engine with electronic-controlled diesel injection. It is equipped with a 32-pole connector and is housed in a plastic box, closed with silicone material.

The control unit is also included in a kit, consisting of a switch and a pressure sensor that will communicate each other through a wiring cable designed to be installed inside the engine compartment.

The device can manage these signals:

Digital Inputs:
- RPM signal from crankshaft sensor.
- Pedal Accelerator PWM (one line).

Digital Outputs:
- Emulation of PWM Pedal Accelerator (one line).
- Peak and Hold signal for the piloting of two gas injectors.
- Open Drain output for the piloting of two solenoids (typical tank and pressure regulator).
- Key-Out signal.

Comunication Signals:
- Serial TX/RX TTL for the communication with the calibration software.
- CAN BUS for the communication with the engine CAN line (read and write).
- Serial communication with a push button typical located in the cabin.

Analogue Inputs:
- NTC sensor to measure the temperature of the gas.
- NTC sensor to measure the temperature of the water on the pressure regulator.
- PT200 sensor to read the temperature on the exhaust.
- Map sensor to read the gas pressure.
- Map sensor to read the intake air pressure (turbo).
- Level sensor for the tank level.
- Reading of the first potentiometer of pedal accelerator.
- Reading of the second potentiometer of pedal accelerator.
- Reading of fuel pressure (diesel rail pressure).
- Reading of the turbo pressure (original sensor).

Analogue Outputs:
- Emulation of the first potentiometer of pedal accelerator.
- Emulation of the second potentiometer of pedal accelerator.
- Emulation of the fuel pressure (diesel rail pressure).
- Emulation of the turbo pressure (original sensor).

Technical Features:

- ➢ Supply Tension: 10 - 16 Vdc
- ➢ Operating Temperatures: -20 / +125 °C
- ➢ Absorption Current:
    - ○ stand-by (Key Off): < 7 mA
    - ○ without loads (Key On): < 120 mA
- ➢ Numbers of Injectors supported: 2 (Injectors impedence: 2 to 6 ohms)
- ➢ Solenoids Current on each channel: Max 4A
- ➢ Number of solenoids channel: 2
- ➢ Temp. water sensors supported: 4,7 - 10 Kohm
- ➢ Temp. gas sensors supported: 4,7 - 10 Kohm
- ➢ Pressure sensors supported: 4+2,5 bar, or 4+4 bar (and in general all the sensor with characteristic curve 0-5V)
- ➢ Level sensors supported: 1050, 806, 0..90 ohm, … (and in general all the sensor with characteristic curve 0-5V)
- ➢ Pedal Accelerator: 0-5 / 5-0 V
- ➢ Emulation Pedal Accelerator: 0-5 / 5-0 V
- ➢ Switch Characteristic: Push Button, Level visualization, Mode visualization, diagnosis. Buzzer included
- ➢ 4 poly AMP for the USB interface
- ➢ CAN bus supported: CAN STADARD and CAN EXTENDED up to 1Mb/sec
- ➢ IP level: IP 65 (mounting with the connector facing down).