Datasheet

Carrot CS-48 ECU



- Gasoline engines up to 8 cylinders
- Billet CNC aluminium waterproof housing
- 48-pin sealed automotive connector
- CAN-bus communication & programming
- Integrated UEGO controller (Bosch LSU4.9)
- 4x non-amplified + 4x amplified ignition output
- Staged injection control

The Carrot CS-48 engine control unit manages gasoline engines up to 8 cylinders. An engine control unit is a device that determines the amount of fuel, the moment of ignition and the associated parameters that are required to run a combustion engine. The CS-48 is carried out with an integrated wideband UEGO controller whereby a Bosch LSU4.9 sensor can be connected directly. Furthermore the ECU is equipped with 4 amplified ignition outputs and 4 non-amplified ignition outputs. The CS-48 is suitable for the control of a staged injection setup with a maximum total of 16 injectors.

Application

4x Ignition outputs (non amplified)
4x Ignition output (amplified)
Injector output (max. 8 injectors)
Staged injector output (max. 8 injectors)
3x Auxiliary outputs (1A)
Tachometer output
Crank sensor input (hall or inductive)
Internal UEGO controller (Bosch LSU4.9 wideband)
Air temperature signal input (NTC 2.2kΩ)
Water temperature signal input (NTC 2.2kΩ)
Throttle position signal input
Manifold air pressure signal input
Oil pressure signal input
Gear position input
Variable launch RPM
Fuel pump relay control
Boost control
Launch control
Powershift control
Anti-Lag control

Technical Specifications

Billet CNC Aluminium housing
Sealed automotive connector, 48 pins
Size 150mm x 150mm x 35mm (LxWxH)
Power supply: 9v to 16v
1x CAN communication bus

Ordering information

Carrot CS-48 ECU - C-010-0002	€1200,-
Carrot communication interface-C-020-0002	€125,-
Break-out loom CS-48 ECU - C-060-0002	€350,-
Connector Carrot CS-48 ECU - C-050-0002	€50,-

All prices are ex. VAT

CARROT
Powertrain Solutions

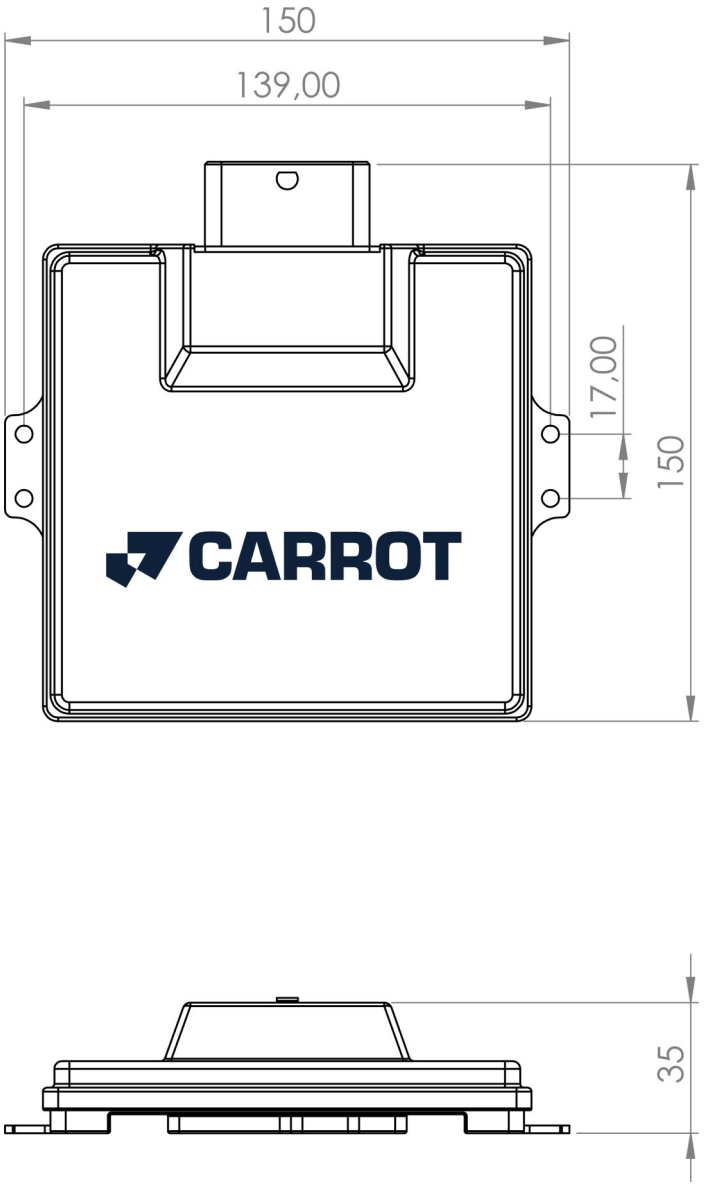
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Dimensions

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Pinout

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Pin no.	Wire gauge mm2 (AWG)	Wire colour	Function
1A	0,35-0,5 (22-20)	Blue	Launch control
1B	0,35-0,5 (22-20)	Green	Boost control
1C	0,35-0,5 (22-20)	Black	Sensor ground
1D	0,35-0,5 (22-20)	Black	Sensor ground
1E	0,5 (20)	White	Injector output 2
1F	0,5 (20)	White	Injector output 2
1G	0,5 (20)	White	Injector output 1
1H	0,5 (20)	White	Injector output 1
1J	0,35-0,5 (22-20)	White/Black	Fuel pump relay
1K	0,35-0,5 (22-20)	White/Grey	Manifold air pressure signal
1L	0,75 (18)	Orange	Ignition output 1 (amplified)
1M	0,75 (18)	Green	Ignition output 2 (amplified)
2A	0,35-0,5 (22-20)	White/Brown	Air temperature signal
2B	0,35-0,5 (22-20)	Brown	Powershift
2C	0,35-0,5 (22-20)	White/green	Aux 2 out
2D	0,35-0,5 (22-20)	White/purple	Aux 3 out
2E	0,35-0,5 (22-20)	Black	Sensor ground
2F	0,5 (20)	Red	12v supply
2G	0,5 (20)	Red	12v supply
2H	0,35-0,5 (22-20)	Yellow	5v sensor supply
2J	0,35-0,5 (22-20)	White/Orange	Aux 1 out
2K	0,35-0,5 (22-20)	Grey	Throttle position signal
2L	0,75 (18)	Brown	Ignition output 4 (amplified)
2M	0,75 (18)	Red	12v ECU supply
3A	0,35-0,5 (22-20)	Green	CAN Low
3B	0,35-0,5 (22-20)	White	CAN High
3C	0,35-0,5 (22-20)	White/Red	Tacho output
3D	0,5 (20)	Grey	Heater + (Bosch LSU4.9 pin 4)
3E	0,35-0,5 (22-20)	Green	Ignition output 2 (non amplified)
3F	0,35-0,5 (22-20)	Orange	Ignition output 1 (non amplified)
3G	0,35-0,5 (22-20)	Brown	Ignition output 4 (non amplified)
3H	0,35-0,5 (22-20)	Purple	Ignition output 3 (non amplified)
3J	0,35-0,5 (22-20)	Black	Sensor ground
3K	0,35-0,5 (22-20)	White	Crank-sensor signal (hall or inductive)
3L	0,75 (18)	Purple	Ignition output 3 (amplified)
3M	0,75 (18)	Red	12v supply
4A	0,35-0,5 (22-20)	White	Heater - (Bosch LSU4.9 pin 3)
4B	0,35-0,5 (22-20)	Blue	Ipr (Bosch LSU4.9 pin 5)
4C	0,35-0,5 (22-20)	Red	Ip (Bosch LSU4.9 pin 1)
4D	0,35-0,5 (22-20)	Yellow	Vm (Bosch LSU4.9 pin 2)
4E	0,35-0,5 (22-20)	Black	Un (Bosch LSU4.9 pin 6)
4F	0,35-0,5 (22-20)	White/Yellow	Oil pressure signal
4G	0,35-0,5 (22-20)	White/Red	Analog aux input
4H	0,35-0,5 (22-20)	White/Blue	Water temperature signal
4J	0,35-0,5 (22-20)	White	Pull-up resistor hall signal
4K	0,35-0,5 (22-20)	Yellow	5v sensor supply
4L	0,75 (18)	Black	ECU ground
4M	0,75 (18)	Black	ECU ground

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