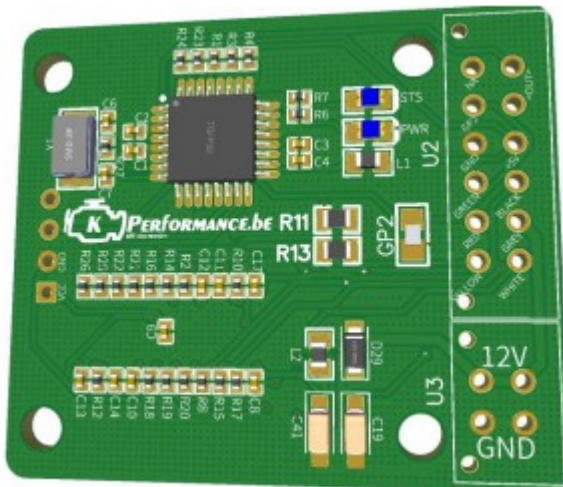




Tiny O2 Controller

Software, drivers and latest info can be downloaded at

www.Kperformance.be



Warning

- Do not connect or disconnect the Lambda Sensor while powered, only do so when unpowered.
- The Lambda Sensor gets very hot during normal operation, be careful when handling it.
- It takes roughly 30 seconds to 2 minutes to warm up the sensor. Once the sensor is warmed up an engine start could create condensation in the sensor, this may cause thermal shock and damage the sensor. It is best to power off a power source that is “live” when the engine starts.

Package Contents

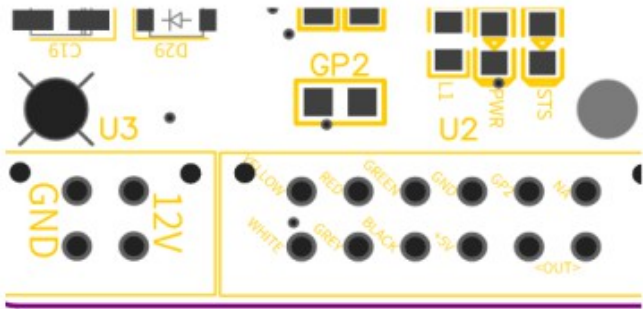
Tiny Wideband should include the following Items:

- 1x circuit board with soldered surface mount components
- 2x MicroMolex connectors
- 16x MicroMolex receptacles
- 1x 3d printed case and cap (optional)
- 1x OLED screen(optional)

Electrical connections

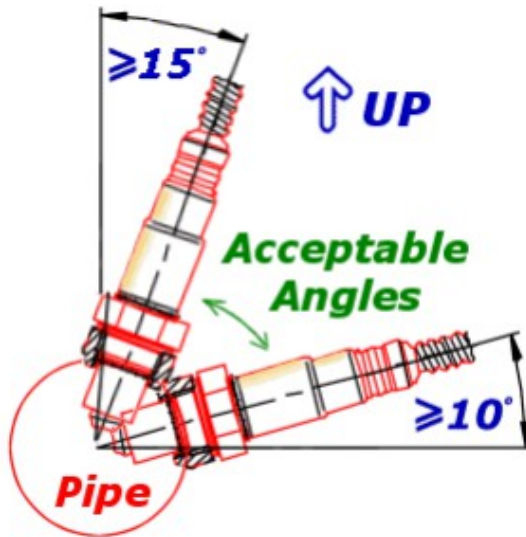
U2	Color	Function
YELLOW	YELLOW	LSU YELLOW
WHITE	WHITE	LSU WHITE
GREY	GREY	LSU GREY
RED	RED	LSU RED
BLACK	BLACK	LSU BLACK
GREEN	GREEN	LSU GREEN
GND		GROUND
+5V		EXTRA +5V SUPPLY MAX 500mA
GP2		EXTERNAL GROUND ACTIVATING
NA		/
<OUT>		ANALOG OUTPUT 0-5V

U3		Function
12V	2X	INPUT VOLTAGE 8-18V
GND	2X	GROUND



Sensor Exhaust Installation

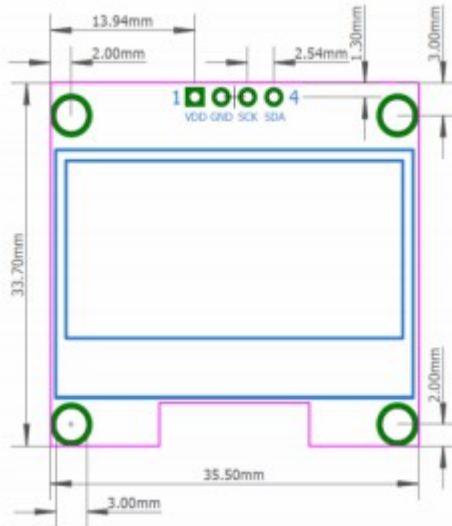
- The Lambda Sensor should be installed between the 10 o'clock and the 2 o'clock position, less than 60 degrees from vertical, this will allow gravity to remove water condensation from the sensor.
- For all Oxygen sensor installations the sensor must be installed before the catalytic converter.
- Avoid running the sensor to hot!
- Never leave an un-powered sensor in the exhaust system



O-LED Display(Optional)

1.3 and 0.96 I2C are supported without software changes.

Double check VCC&GND pins on aftermarket OLED-screens! Low budget/quality screens can cause freeze and hang up of Tiny Wideband Controller!



Initial stand-by screen will show:

- Icon Sensor connection
- Icon GP2 ground status (GP2 not grounded= NO START)
- Icon Battery voltage

After succesfull start, the screen will show:

- Temperature value
- Lambda value

Starting and operating

Linear output settings:

0V = Lambda 10.20 = AFR 22.35

5V = Lambda 0.650 = AFR 9.50

Starting of the controller can be done by grounding “GP2” (solder bridge on PCB) or external start grounding on molex connector, with customer requirements setting.

le:start lambda controller only after engine starts. (programmable output function within stand-alone ECU)

Not grounding of pin “GP2” will result in a standby lambda controller! Blinking LED.

Operational led Status

LED	Status	Function
STS	Solid	Heating sensor status
PWR	Blinking Fast	
STS	Solid	Operational measuring status
PWR	Blinking Slow	
STS	Blinking	Standby and/or error status
PWR	Blinking	

PCB Layout

For easy integration we'll share the layout so the controllers can be integrated in to own projects.

User Remarques and info