Flex link Wiring Guide

Thank you for purchasing the FlexLink Fuel Content Communication Module from Advanced Fuel Dynamics. The FlexLink provides accurate fuel content data via our ProFlex Connect app available in the Apple AppStore and on GooglePlay. The FlexLink also provides standard 5v signal input and output for data logging fuel content and fuel temperature. The FlexLink is an important part of your complete flex fuel solution for GM ECUs, standalone ECUs and vehicles currently employing the GM fuel content sensor.

The FlexLink has numbered ports on each end indicated by the digit 1 and 2.

Port 1 is for the sensor connectivity and 5v input.

Port 2 is for 5v output as well as a power and ground.

5 harness are included with your FlexLink to allow for a wide range of applications.

Port 1 - Sensor input port - Connects the sensor to the FlexLink for data uploading to FlexLink

The FlexLink comes with pre wired fuel sensor connector and a jumper connectors to plug in when a sensor is already installed in a vehicle for easy installation.

2 harnesses are used on the port 1 side – Harness # 1,3

Harness 1: Pass through connector for existing GM/Continental sensor - if you already have a GM fuel content sensor use this harness.

Harness 3: Direct connector for new GM/Continental sensor with ECU pin - if you are installing a new GM content sensor use this harness.

Port 2 of the FlexLink is for the sensor connection and 5v output (where desired)

Port 2 - Power-up Port

3 harnesses are used on the port 1 side – Harness #2, 4, 5

Harness 4: For GM LT and 6.2L Ecotech3 Engines, plugs directly into purge valve connector

Harness 5: For GM LS Engines, plugs directly into purge valve connector

Harness 2: Output, power and ground for Stand Alone ECU

Reference wires for output:

The yellow wire is used on port 2 for 5v reference for fuel content.

The purple wire is used on port 2 for 5v reference for fuel temperature.

NOTE: If you are not tuning or data logging using fuel temperature as a variable you can roll up the purple wire and store it for later use. It will not be used at this time.

To in install the FlexLink for complete flex fuel conversion on your GM Vehicle:

1. Remove the fuel inlet line from the fuel rail to the firewall. (NOTE: use a clean rag to catch any fuel that may escape when removing the fuel line. This line may be under slight pressure which can cause fuel to escape in any direction so please be safe)
2. Click one of the supplied fuel lines onto your fuel fitting at the firewall. All fuel connections are quick connect and simply snap and lock together.
3. Insert the fuel sensor into the OE fuel line and click the second supplied line onto the other side of the sensor.
4. Click the remaining fuel line fitting onto your fuel rail fitting.
5. Choose harness #3 and plug it into the sensor. Insert the other end of this harness into Port 1.
6. Choose the appropriate harness for your application for port 2.
7. Leave the yellow wire uninstalled for now. Your tuner will open up your ECU connector and install the pin on the yellow wire into the appropriate pin port for flex fuel data in your vehicle.
8. Power-up the unit based on your application.

For LS Engines - Choose harness #5. Unplug your purge valve, plug in the new connector and plug your OE purge valve connector back onto the FlexLink harness. The black wire with the eyelet goes to your main ground. The other end of the harness goes to port 2 on the FlexLink. (NOTE: Do not ground to your battery. This will cause electrical interference than can harm your FlexLink. If you cannot find your main ground please give us a shout)

For LT and 6.2L truck engines- Choose harness #4. Unplug your purge valve, plug in the new connector and plug your OE purge valve connector back onto the FlexLink harness. The black wire with the eyelet goes to your main ground. The other end of the harness goes to port 2 on the FlexLink. (NOTE: Do not ground to your battery. This will cause electrical interference than can harm your FlexLink. If you cannot find your main ground please give us a shout)

For all others choose harness #2 and wire the red wire to 12v switch on, the black wire to the main ground under your hood and the other end to the FlexLink. (NOTE: Do not ground to your battery. This will cause electrical interference than can harm your FlexLink. If you cannot find your main ground please give us a shout)

On each of the port 2 harnesses there are 2 additional wires; yellow and purple. These are 5v reference wires for data output. These can be used for a wired gauge or by your tuner for data logging. The yellow wire is fuel content data output. The purple wire is fuel temperature data output.

9. Once your FlexLink flex fuel system is fully installed you will need to visit your local tuning center. Your tuning professional will insert the data lead wire into your ECU in the open flex fuel data pin position and, using a tuning tool, will activate the flex fuel mapping already programmed into your computer. Once your tuner is finished your vehicle will be flex fuel ready and you can run gas, E85 or any mix of the two fuels.

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For standalone ECUs

There are few differences when following the steps above for a standalone ECU.

1. Your yellow data lead terminates in a pin. You will need to locate the data input lead for flex fuel on your standalone wiring harness and either install a pin receiver on the end or cut the pin off the lead on the FlexLink harness to couple the bare wires. When no pin connection is used a twisted solder joint is preferred.

2. Some standalone ECUs are preloaded with a flex fuel map. If your ECU does not have a flex fuel map your tuner will need to load a map in the open cell reserved for flex fuel data in the ECU.

If you already have a GM sensor in your vehicle:

Choose harness 1, which is a pass through harness for your existing sensor. Unplug your existing sensor, install the FlexLink harness on your sensor and plug your existing sensor harness back into the pass through connector. Insert the other end of harness #1 into port 1 on the FlexLink.

Virtual Ethanol Gauge:

With FlexLink you can see your exact fuel content in real time via our smartphone app.

To see ethanol content wirelessly download the app and follow our instructions on using the app the same as with our Commander systems. The app is called ProFlex Connect in the App Store and the Google Play Store.

Apple Devices: If you have an Apple you can simply open the app, start your car and press connect. The app will connect to the FlexLink via BT Wireless and read out ethanol content by percentage.

Android Devices: If you have an Android you must set up permission for the ProFlex Connect app.

1. Pull down your global settings menu from the top of your screen and make sure your global location services are “on”. Close the menu.

2. Go to settings - applications - ProFlex Connect - permissions. In permissions make sure the permission for the app to use location services is “on”. Close settings.

3. Open the ProFlex Connect app, start your car and hit connect. Your phone should now display ethanol content by percentage.

NOTE: If the app does not connect on your Android device after you’ve completed step 3, go to your BlueTooth device list and pair with the device called “Dual SPP”. This is only necessary on a handful of Android devices and once paired the app should continue to connect whenever you have it open and press connect.