ECU® Design Guide for FEX3

Refer to FEX3 application drawing when using this guide.

Topics

What does an ***ECU***® FEX3 do for me?

The FEX3 depending on the systems design can...

Allows for the easy expansion of more faults to a engine control system

Can be used to create dry FORMC contacts from DC Signals of lower current.

Can be used to do latching of signals

Outputs common output fault signal for use in other systems.

They may be ganged together to almost any fault count.

How the FEX3 works for you

The unit combines relays,diodes and other parts to allow the unit to be used as a latching module, simple relay module and a common fault grouping device. With very little wiring you can have a fault system running. When combined with other modules it is capable of sequential type logic.

If the load on the Alarm Output is larger than published specification be sure to use a pilot relay

What does it sense and control?

The FEX3 depending on systems design can...

Sense …

- Contact closures to battery positive
- Battery high signals from other units

Control...

- Pilot relays
- Higher current loads
- Isolated loads

What kind of sensors are used with the FEX3?

The FEX3 uses

Dry Contact Closures

These are switches that close allowing battery voltage connected to one side of a dry contact to transfer to the the other side thus sending signal to the FEX3.

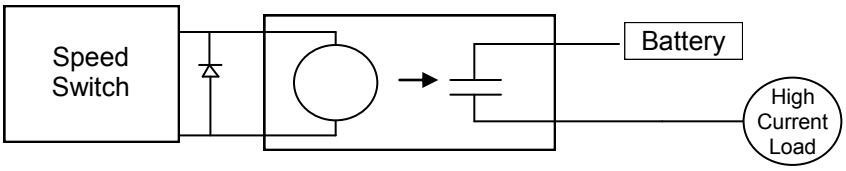
Systems that produced a positive battery signal

These are systems that produce a battery positive signal via various means such as transistor, semiconductor, thermostat or internal relays.

What are pilot or slave relays?

Pilot or Slave relays

Many of the valves and solenoids the speed switch operates have high currents and it may become necessary to “buffer” the control against harmful currents.



Pilot or Slave relay

The Pilot or Slave relay simply “relays” the signal to the high current load. The input to the Slave relay can be small but it can control currents up to 100’s of amps. A diode is shown in the above illustration. This is a low cost preventative that adds years of useful life. The diode channels the surges of the slave relay into a harmless dissipation as opposed to causing arcing in the control contacts of the engine control.

By placing the pilot relays close to the loads other electrical benefits occur when the system is in an environment where electrical interference should be minimized.

Are there any application drawings available?

The FEX3 application example located on the flyer shows an example. Look at the various drawings on other products for ideas.

ECU® can be reached for special applications that we may already have drawings for.

We will endeavor to assemble all the drawings into a fixed gallery that can be emailed to our customers on a project by project basis.

How do I order an FEX3?

The FEX3 is available in either 12V or 24V models

It is necessary to specify which version you would like