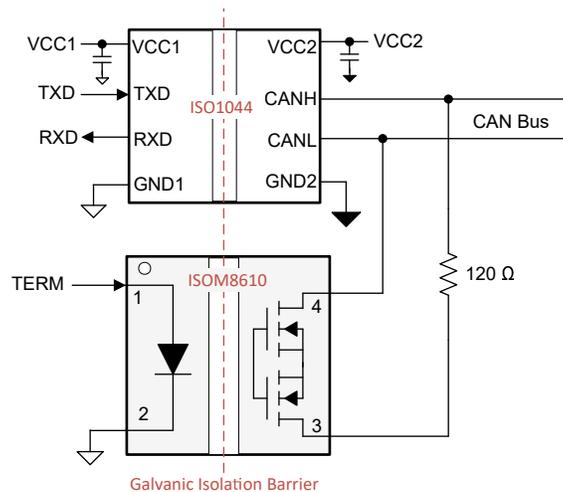


Upgrading Relays with Opto-Emulator Switch



Example Isolated Software Controlled Termination Resistor Diagram Using an OptoMOS

Design Considerations

- Pin-to-pin and drop-in replacement for standard photorelays.
- Able to be used as a software controlled termination resistor.
- [\[FAQ\] What is an Opto-emulator?](#)
- [\[FAQ\] Opto-Emulator FAQ's](#)
- Performance and reliability upgrade from traditional optocoupler designs.
- Low IF (0.8mA) and power consumption over device lifetime.
- Protects low-voltage parts in a system from high-voltage circuits.
- [Introduction to Opto-Emulators.](#)
- [Opto-emulators explained: Why you should upgrade your optocoupler technology.](#)
- [Opto-emulators | TI.com](#)
- Wider temperature range.
- No LED aging effect.
- Fast switching (200us).

Need additional assistance? Ask our engineers a question on the [TI E2E™ Isolation Support Forum](#).

Recommended Parts

Analog Output Opto-Emulators

Part Number	$I_{FT, \text{max}}$ (mA)	Off V, max (V)	On I (mA)	On R, max (Ω)
ISOM8610	0.8	80	150	7

To find a pin-to-pin alternative to the optocouplers in your design, search TI's [cross reference tool](#). For more opto-emulators, browse through the [online parametric tool](#).

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