Re: How to wire a Reed Relay

Source: http://sci.tech−archive.net/Archive/sci.electronics.design/2005−04/msg00036.html

- *From*: "Lathe_Biosas" <lathe_biosas@xxxxxxxxxxx>
- *Date*: 31 Mar 2005 11:18:46 −0800

Ross Herbert wrote:
> Let's forget about your experiments, other than to say it is obvious
> you don't know anything about electricity... The old adage that " a
> little bit of knowledge is a dangerous thing" applies in your case,
> but don't take this too personally. It is usually a good idea to ask
> the questions BEFORE you start to blow expensive items up due to lack
> of knowledge.

Hi Ross,

Thank you very much for your answer and time

> You must apply +5V to terminal 6 and −VE to terminal 13 in order to
> energise the relay.

What does VE stands for?

> The diode is for user configuration. In the usual arrangement the
> diode is connected across the coil (insert strap between 13 and 9) to
> SUPPRESS the back emf from the coil during release. The disadvantage
> of this method is that the release time of the relay is increased
> considerably but if this isn't a problem then connect it like this.
>
> The diode can also be wired in series with the coil by connecting +VE
> to terminal 9 instead of 6 (leave 6 open or no connection). The diode
> will now BLOCK the coil back emf during release to prevent damage to
> the relay driver and will have the advantage of minimising the
release
> time of the relay. A small voltage will be dropped across the diode
> (0.7V) but since the relay will operate reliably down to 3.5V this
> shouldn't be a problem.
>
> You will need to check that your relay driver TTL output can source
or
> sink at least 25mA depending on your arrangement. What TTL driver are
> you using?

If relay driver TTL output current is the output current at the

terminal of the TTL chip, im getting 735 mVolts and 735mA . The TTL driver is a 74F00 I got those values setting the current prove sensitivity to 1 V/A (Unfortunatelly I don't know what is the meaning of V/A and neither if I actually I'm measuring the real current, sorry about that)

As for now, I'm testing the relay as follows:

Terminal 1 connected to 330 Ohm Resistence and resistence to Power Supply's GND
Terminal 6 connected to Power Supply's +5 Volts
Terminal 7 connected to a LED and LED to Power Supply's +5 Volts
Terminal 9 and 13 connected to Power Supply Ground
Terminal 14 and 8 are not connected (Seem to be the same as 1 and 7 respective)

Terminal 2 has two "states":

a) Connected to Power Supply's +5 Volts −> The LED emits light
b) Disconnected from Power Supply's +5 Volts −> The LED doesn't emit light and the relay makes click.

If the test connection is ok, the following step would be to wire:

− output of the 74F00 to Reed Relay's Terminal 1
− input of a 74HC to Reed Relay's Terminal 7
− output of an other 74F00 to Reed Relay's Terminal 2

As much as I can assume, the terminal 2 of the reed relay chip is the one that controls the "open" and "close" states between terminals 1−7 and respective 14−8. Is this assumtion right?

So, do you have any new suggestions?

Thank you very much and sorry about my electronics/electricity languaje

Best Regards

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- ***Follow−Ups***:
  - ♦ ***Re: How to wire a Reed Relay***
    - ◊ *From:* John Fields

- ***References***:
  - ♦ ***How to wire a Reed Relay***
    - ◊ *From:* Lathe_Biosas

- Prev by Date: ***Re: Problem with Spice − it won't allow me to change bounds of graph***

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