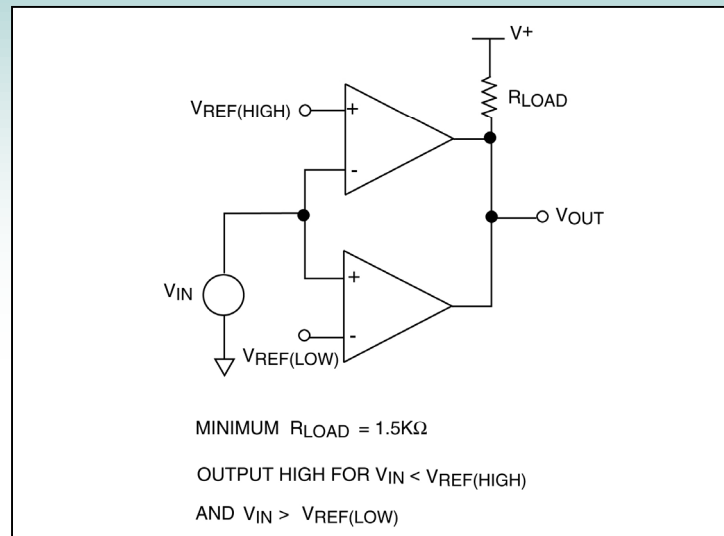


Dual Limit Window Comparator



Description

This window comparator circuit has 2 limits, a lower limit and an upper limit, which can produce up to 2 separate outputs, each dedicated to either a warning or an alarm condition. These outputs can be tied together in a wired-OR configuration simply by shorting them together to produce a desired response, with output drivers built-in. For example, VL1 and VH1 can be connected together to produce a single output whenever the input signal voltage level goes below VL1 **or** higher than VH1 limits. This type of signal can be used as a warning signal or a control signal whenever VL1 or VH1 has been exceeded. Alternatively, each of the VL1 and VH1 outputs can be used as a separate, independent output signal. Note that this circuit works with either open-drain or push-pull types of comparator output, depending upon the load(s) to be driven. The load, in many cases, can act as a pull-up, so that a pull-up resistor is not required. Alternatively, push-pull outputs can actively pull-up the output to shutdown the load. In either case an output resistor is not needed and its associated power consumption is eliminated.

Recommended Components

- ALD2301 and ALD2303 for open-drain outputs
- ALD2302 for push-pull outputs
- ALD2321 for high precision applications

Other Related Circuit Ideas

- [Schematic no. cd_23001.0](#) Double Dual Limit Window Comparator
- [Schematic no. cd_23003.0](#) Dual Limit Photo-Detector Monitor
- [Schematic no. cd_23006.0](#) Push-Pull Complementary Power MOSFET Driver