

Figure 52: Comparator in differential mode

**Note:** Depending on the device, not all the analog inputs may be available for each MUX. See definitions for [PSEL](#) and [EXTREFSEL](#) for more information about which analog pins are available on a particular device.

When [HYST](#) register is turned on while in this mode, the output of the comparator (and associated events) will change from ABOVE to BELOW whenever  $V_{IN+}$  becomes lower than  $V_{IN-} - (V_{DIFFHYST} / 2)$ . It will also change from BELOW to ABOVE whenever  $V_{IN+}$  becomes higher than  $V_{IN-} + (V_{DIFFHYST} / 2)$ . This behavior is illustrated in [Hysteresis enabled in differential mode](#) on page 250.

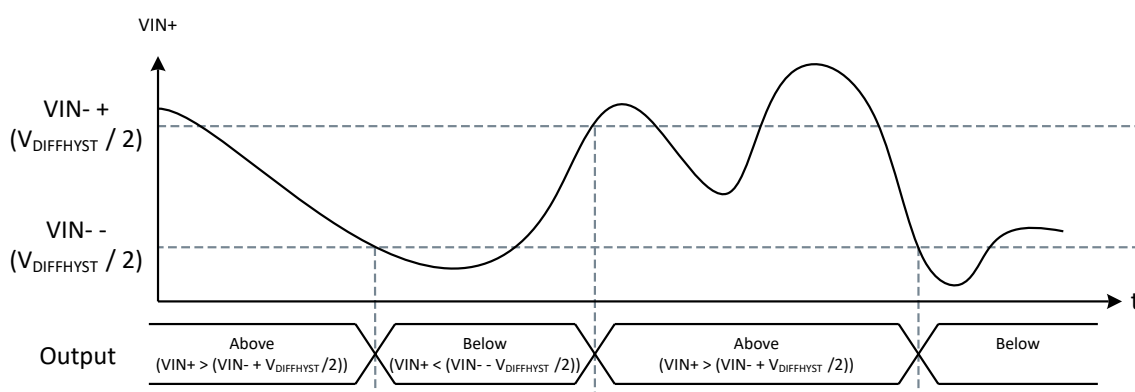


Figure 53: Hysteresis enabled in differential mode