OctoCount

Build #2, 2025-02-07

OctoCount contains 16 digital counters, separated in two groups. Lower group (channel 1 to 8) is equipped with mono input sockets and with red displays. Upper group (channel 9 to 16) can only used with poly input connector. Their displays are green.

When a cable is connected to poly input, mono inputs get deactivated.

Each counter has five digits and a reset button. When counting range gets exceeded, display will stay showing 99999.

Counters do a step when input signal gets higher or lower than 2.5 volts. A switch lets you chose, whether rising or falling CV slope is significant. At least a pulse duration of one sample (default 1/48,000 sec) will force a count step. So **OctoCount** can operate with frequencies up to 24 kHz.

Each counter can get cleared by pushing it's reset button. On top right there is a "master" reset. When this button is pushed, all 16 counters will be reset to zero. A master reset can also provided by a rising CV pulse at the reset input.

This module must be fed with *countable* signals. Countable means, that the signals should have a “clean” structure, as saw tooth, triangle, rectangle or sine do. Signals with much harmonics or noise will provide wrong count results.

OctoCount uses a fixed threshold of 2.5 volt for indicating countable pulses. Every time the signal gets higher or lower than that threshold (depending on slope switch position), referred counter counts a pulse.

Controls and connectors

When a poly cable is connected to this socket, all 16 counters (number is depending on actual polyphony) are fed with pulses and the eight mono inputs become inactive.

Sliding switch beside the poly connector allows to select a counter group to display. In lower position channels 1 to 8 with red displays are visible.

In upper position green displays show content of counters 9 to 16.

This sliding switch lets you select, if rising or falling edge of a pulse has to be count.

Mono input connectors are used for lower counter group, when no cable is connected to poly input.

Right of each counter display there is a reset push button. It effects currently visible counter. So any of the 16 counters can be reset separately.