

Multi Divider

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Multi Divider contains six equal channels that can be used to divide input frequency or to create trigger signals, when a distinct number of pulses is count. These counters may operate simultaneously or cascaded.

Function

Normally all divider channels get a common signal from *trig in*. A gate for this signal can be closed with *pause in* and opened with *run in*.

With LINK toggle button next counter will be disconnected from common input and connected to previous counter output.

Each channel contains one four digit counter. After reset it counts upwards at each OFF ON change at triggering input jack (ON: > 2.5 V). When preset value is reached, a pulse at *trig out* jack is provided.

When REPEAT is active, counter works in circle mode and starts counting from zero again. Otherwise counter stops. So in normal mode (no LINK active, no

REPEAT active) **Multi Divider** can be used to control six different events, that shall happen up to 9,999 input pulses from run start.

Examples

Frequency divider

Input frequency should be divided by 3, 4, 8, 12, 64.

- Adjust counter preset by up / down buttons, holding these buttons will repeat increment / decrement steps automatically.
- Reset counters.
- Open gate with an ON signal at [run in] or by pressing run button.

	Stage 1	Stage 2	Stage 3	Stage 4	Stage 5
preset	4	2	3	4	4
[REPEAT]	on	on	on	on	on
[LINK] next	on	on	off	on	(on/off)
output	f/4	f/8	f/3	f/12	f/64

Frequency divider and event control

Events should be triggered after each 32 pulses, once after 64, 98 and 128 pulses. In this example stage 2 is triggered by stage 1 in order to show mixed use of [REPEAT] mode on and off.

- Adjust counter preset by up / down buttons, holding these buttons will repeat increment / decrement steps automatically.
- Reset counters.
- Open gate with an ON signal at [run in] or by pressing run button.

Example:

	Stage 1	Stage 2	Stage 3	Stage 4
preset	32	2	98	128
[REPEAT]	on	off	off	off
[LINK] next	on	off	off	(on/off)
output	f/32	after 64	after 98	after 128



With this push button you can create a trig pulse.

LED flashes at every OFF ON change.

Any OFF ON change of control voltage triggers counters. (OFF: ≤ 2.5 V, ON: >2.5 V) only OFF ON change



Starts counting.



Starts counting with OFF ON change, when *pause in* is OFF; Starts counting if ON and *pause in* gets OFF.

Please note: For *RUN* and *PAUSE* both inputs and buttons are operating alternatively (as “radio buttons”).



Stops counting without affecting actual counter values.
Stops counting with OFF ON change, prevents counting when constantly ON.



Sets counter values to zero. After reset operation will be continued if device is not set to PAUSE.

Resets all counters to zero with OFF ON change, no result, if voltage stays further ON.

trig out



LED flashes at OFF ON change.

Gets ON (5 V), when counter value reaches preset value, stays on while [trig in] is ON.



You can change preset value by pressing up/down buttons.

KNOBS



When this button is ON, knobs are displayed instead of up/down buttons. With right mouse click on a knob, you can chose “Edit Value”. This lets you input large preset numbers very quick.

REPEAT

Activate this button, when you want to use a counter as frequency divider. (endless circle run mode)
Deactivate this button, when the counter should work as timer. (counter works only once)

LINK

The output of previous counter will trig next channel’s counter. This function is only useful, when REPEAT is ON for actual channel.