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.

1. 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 a four digit counter. After reset it counts upwards at each off-on change at *trig in* 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.

2. Example setups

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 to 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

3. Controls and jacks

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)

Pushing this button allows counting.

CV allows counting with OFF-ON change.

Please note: For *RUN* and *PAUSE* both inputs and buttons are operating alternatively (as "radio buttons"). If CV get active at **run in** and **pause in** at same time, counting will pause.

Pushed button stops counting without affecting actual counter values.

Stops counting with OFF-ON change.

Reset button sets counter values to zero. After reset normal operation will be continued if device is not set to PAUSE.

A CV OFF-ON change resets all counters to zero. If voltage stays further ON, it has no effect.
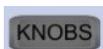
LED flashes at OFF-ON change.

Ouputs a 5 v trigger pulse, when counter value reaches preset value.

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

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 values very quick.

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)

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