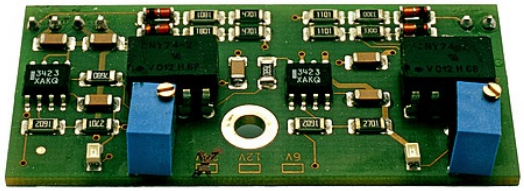
Overvoltage sensor for switchings of power supplies

The overvoltage sensor protects downstream consumers from defects of power supply with the help of a ramp-up supply voltage.



Specification:

Two OVP switchings (for + and -) on one printed circuit board

Voltage range up to +34 Volt resp. -34 Volt DC

All switching outputs are opto-coupled.

Each branch has two outputs (thyristor output for the short circuit of the output voltages and for the shut-down of the mains voltage via relays).

The shut-down time (until the firing of the thyristor) amounts about 40 microseconds.

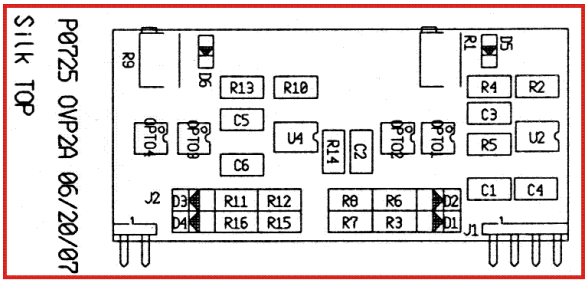
For the operation a auxiliary voltage of +5 Volt is necessary.

Three versions are available:

- Trigger range +4 to +9 Volt
- Trigger range +8 to +18 Volt
- Trigger range +16 to +34 Volt

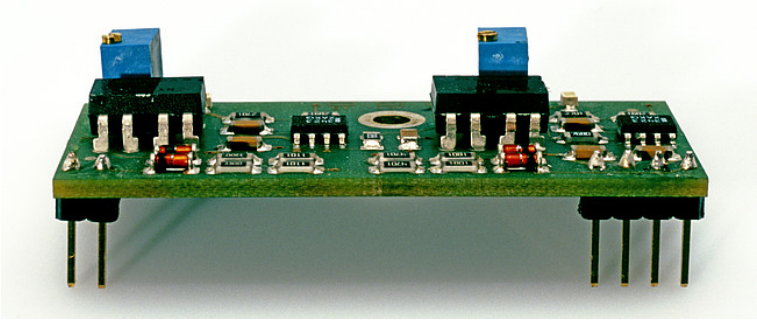
For the adjustment of the trigger voltage only a multimeter is necessary.

Component placement of the OVP printed circuit board:



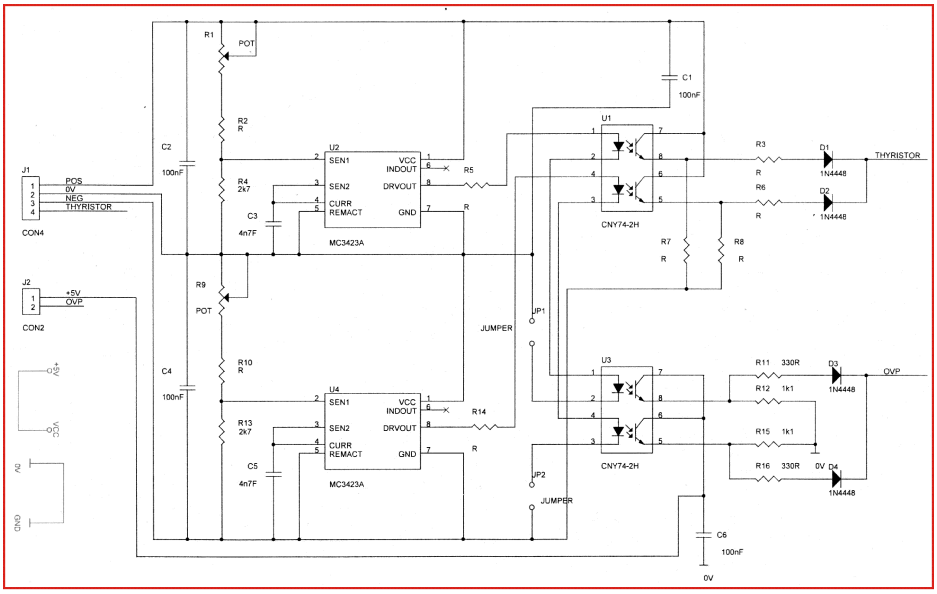
Bestückungsplan-OVP

Ports:
(Pin strips RM2.54; pins towards solder side; pins 0.6x0.6 mm)



CON1 - 1	Input voltage positive
CON1 - 2	0 Volt
CON1 - 3	Input voltage negative
CON1 - 4	Actuation thyristor
CON2 - 1	Auxiliary voltage + 5Volt
CON2 - 2	OVP signal

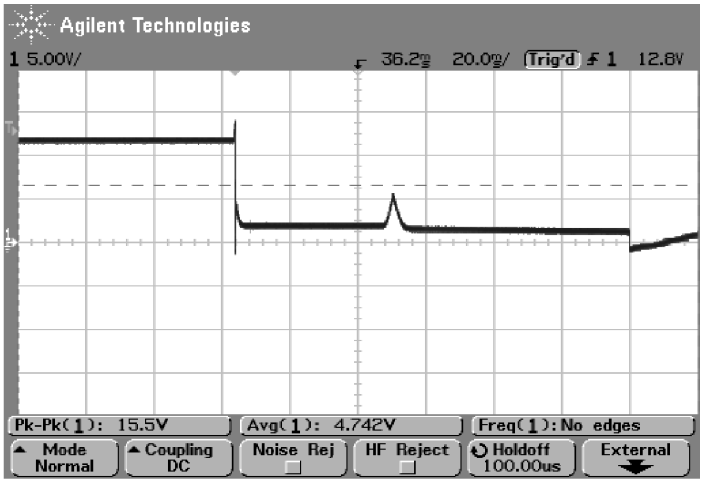
Circuit diagram of a OVP printed circuit board:



Stromlaufplan-OVP

Shut-down behavior:

(Switching with suppressor diodes, short-circuit thyristor and additional relay for the shut-down of the mains voltage)



OVP-Abschaltverhalten

Overvoltage sensor (OVP 6 Volt)	**Article no 073 000 1/6**
Overvoltage sensor (OVP 12 Volt)	**Article no 073 000 1/12**
Overvoltage sensor (OVP 24 Volt)	**Article no 073 000 1/24**

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