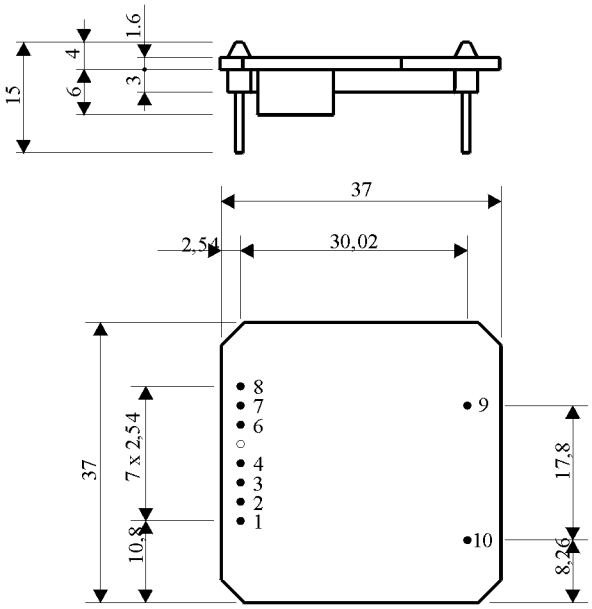
HV1000

High Voltage Modul for the MCA

The high voltage module is designed to be plugged into the MCA527L and to supply common detectors with high voltage. It is the downgraded variant of the HV3600 module and sufficient to supply detectors as NaI, CdZnTe or similar. It is fully compatible to it in terms of mechanical construction and control. The difference is lower possible output voltage and omitted casing. It can also be used for other purposes and in other devices. Its basic parameters are a voltage from 20 to 1200 V (positive or negative) and a maximum output power of 0.28 W.

Measures Top view



Pin description

1	ID1	Open: positive module internally connected: negative module
2	ID2	
3	VB	Supply voltage input 6.5 V ... 12 V
4	PGND	Supply voltage ground
6	AGND	Control voltage ground
7	VC	Control voltage input: 0…1 V corresponds to 0…1200 V output voltage
8	VREF	Reference voltage output 0...1 V
9	HVGND	High voltage ground
10	HV	High voltage output 10 V … 1200 V

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Specifications:

output voltage:	+10V to +1200V (positive module) -10V to -1200V (negative module)
output power:	<=280 mW
output current:	depending on Voltage, >500µA for 600V, >=250µA for 1200V
input voltage range:	6.5 ...12 V, 7.5V nominal
efficiency: (for input voltage range 6 to 9V, full load and all output voltages)	up to 70%
power consumption for no load, no output voltage, 7.5V battery voltage:	<4.2 mA
power consumption for no load; 7.5V battery voltage:	<6.3 mA/ 600V, <8.7mA / 1200V
max. power consumption for full load: (for all battery and output voltages)	500 mW
internal output capacity:	~100 nF
Control voltage range:	0 - 1V
control voltage transfer factor:	1200 +/- 2%
output ripple and noise voltage	< 70 mVpp
output offset voltage	+/- 5V
temperature stability	+/- 200 ppm/°C
output voltage stability (for all battery voltages	100ppm/V
operating temperature	0 °C to 60 °C
physical. dimensions	37 x 37 x15 mm

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