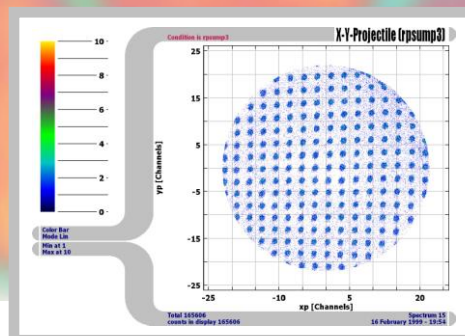
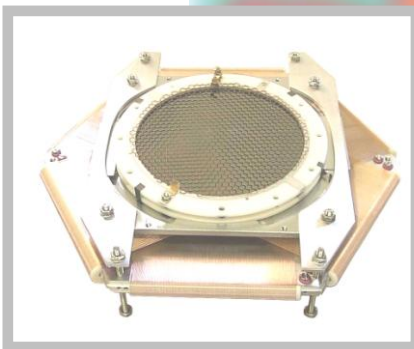


The FAMP8 and FAMP1+ Manual

Version (6.2.90.6)



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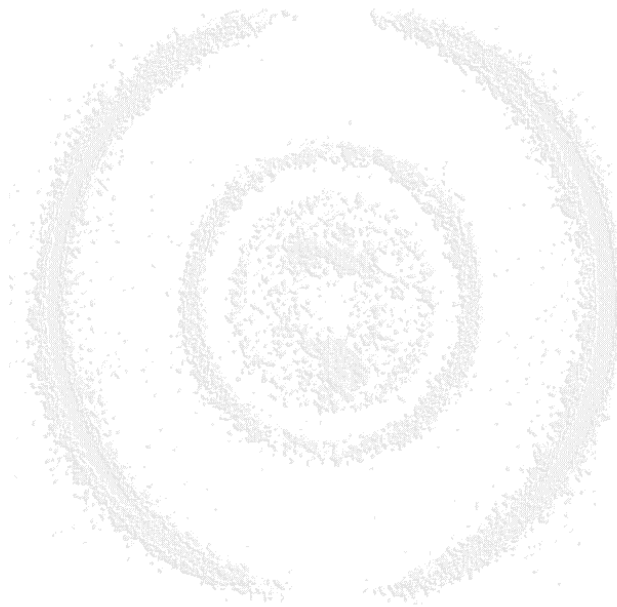
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The amplifiers FAMP8 and FAMP1+

The **RoentDek FAMP8** and **FAMP1+** are stand-alone amplifier units for the amplification of high frequency pulse signals as obtained from micro-channel plate detectors and various kinds of secondary electron amplifiers (photomultiplier, channeltron, etc.).

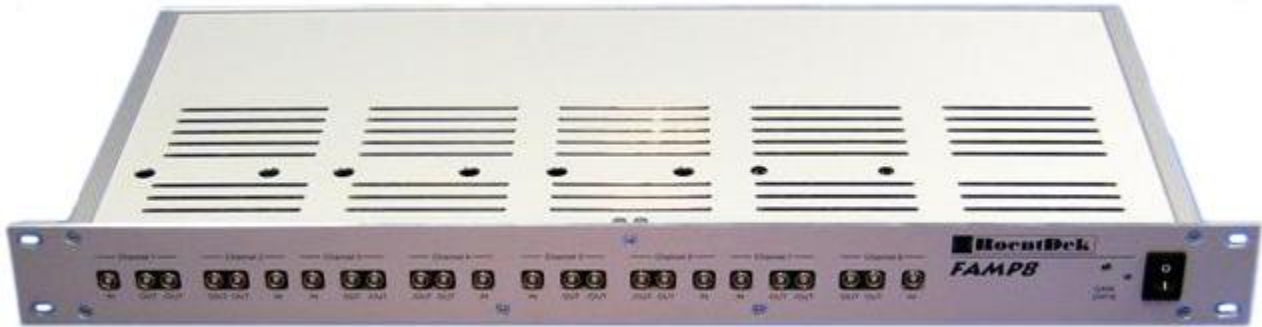


Figure 1: FAMP8. The holes in the top lid allow access to the on-board potentiometers for amplification gain adjustment of channels 1 to 6.

The **RoentDek FAMP8** hosts 8 channels of bipolar amplifiers with a bandwidth of 2-300MHz on AC-coupled 50 Ω impedance input (LEMO) and both inverting/non-inverting outputs in a 19" rack mount case (one height unit). The nominal amplification factor is about 55 and can be adjusted with potentiometers on the top lid for 6 of the channels within $\pm 10\%$ and from 0 to 110% for 2 of the channels (7/8) with one potentiometer on the front panel. The maximum linear output signal height is approximately $\pm 1.5V$. Amplification of inverting and non-inverting output may differ within 10%.* The unit has a power consumption of 30 Watt (2.5A at +12V) and is equipped with an over-temperature protection. It comes with an external power supply for 100-250V AC (50-60Hz) mains power (typ. power consumption < 35W).

Size (approx.): 484mm x 45mm x 202mm (width x height x depth)
Insertion depth (including power connector): 262mm
Weight: 1400g (without power adapter)



Figure 2: Detail of the FAMP8 front panel.

* Input impedance may vary when amplification is altered.

The **RoentDek FAMP1+** is a single amplifier for high frequency pulse signals as obtained from microchannel plate detectors and all kinds of secondary electron amplifiers (photomultiplier, channeltron, etc.). It is identical in function to the **FAMP8** model (channels 7/8).

This amplifier has a bipolar input with bandwidth of 2-300MHz on AC-coupled 50Ω impedance socket (LEMO 00 series) and both inverting/non-inverting outputs (LEMO 00 series sockets). The nominal amplification factor is about 55, adjustable from 0 to 110%. The maximum linear output signal height is approx. ±1.5V. Amplification of inverting and non-inverting output may differ within 10%.

The unit has a power consumption of < 4 Watt (0.3A at +12V). It comes with an external power supply for 100-250V AC (50-60Hz) main power (typ. power consumption < 30W).

Size (approx.): 110mm x 65mm x 40mm (width x height x depth)

Weight: 300g (without power adapter)

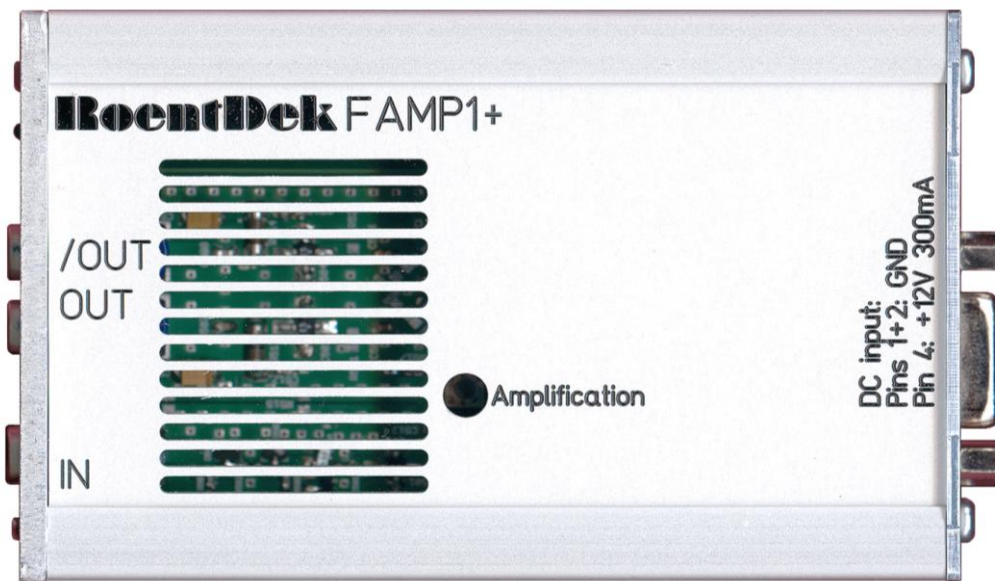


Figure 3: FAMP1+ top lid

The **RoentDek FAMP8/FAMP1+** units are especially suited for signal amplification of all **RoentDek** delay-line detectors with **FT12(16)TP** (or similar) signal decouplers.

They can be used for detector readout in combination with a CFD and TDC or with a fast ADC system (e.g. **FADC8**).