

HFAC - 26

GHz Wide Band Amplifier with Overload Detection for PMTs or MCPs

- Cutoff frequency 1.6 GHz
- Gain 26 dB
- Input and Output Impedance 50 Ω
- Low Frequency Limit < 5kHz
- Input Protection
- Monitoring of Detector Current / Overload Warning

The HFAC series amplifiers are used to amplify the output signals of high speed PMTs or MCPs, especially in single photon counting applications. The gain of the amplifier allows the detector to be operated at reduced signal current which extends the lifetime of MCP tubes. Furthermore, the amplifier gain helps to reduce noise pickup in long signal cables. The amplifiers have an input protection circuit which avoids damage by overload or by charged signal cables. Furthermore, two LEDs indicate overload conditions in the detector. A TTL signal is provided to switch off the light source or the detector supply voltage if the average detector current exceed the specified value.



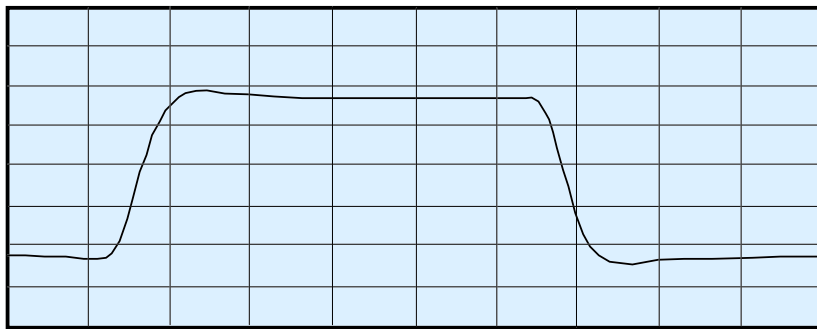
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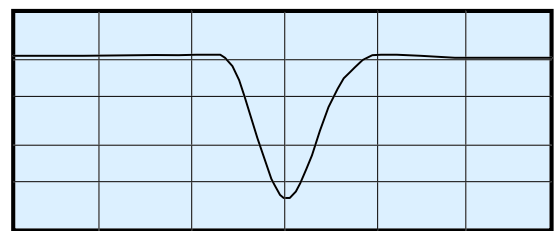
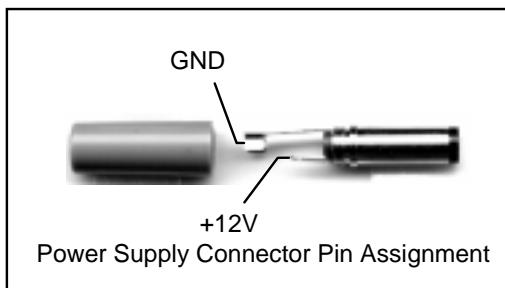

intelligent
measurement
and
control systems

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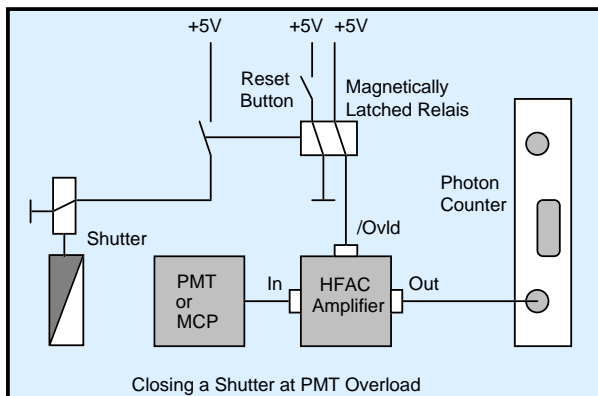
Input / Output Impedance	50 Ω
Connectors	SMA
Gain	26 dB non inverting
Bandwidth	1.6 GHz
Low Cutoff Frequency	5 kHz
Max. Output Voltage	1V
Noise Figure	5 dB
Detector Overload Current	0.1 μ A, 1 μ A or 10 μ A (specified by extension HFAC-26-xx)
Detector Overload Warning	yellow LED at 0.5 I_{max} red LED at I_{max} TTL L-signal at 1.2 I_{max}
Current Warning Response Time	1 ms
Power Supply Voltage	+12 ... +15 V
Power Supply Current	typ. 45 mA
Dimensions	52 x 38 x 31 mm



200 mV / div HFAC Step Response 500 ps / div



200 mV / div HFAC Impulse Response 500 ps / div



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