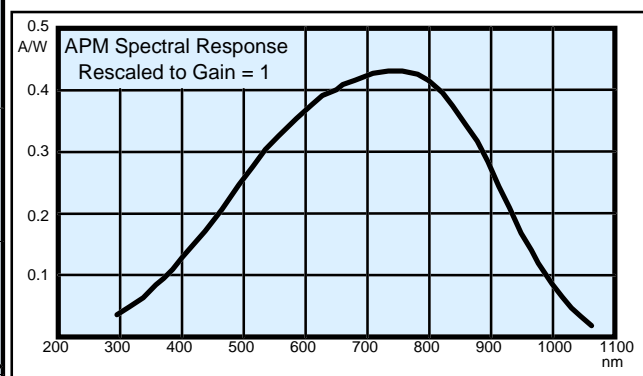
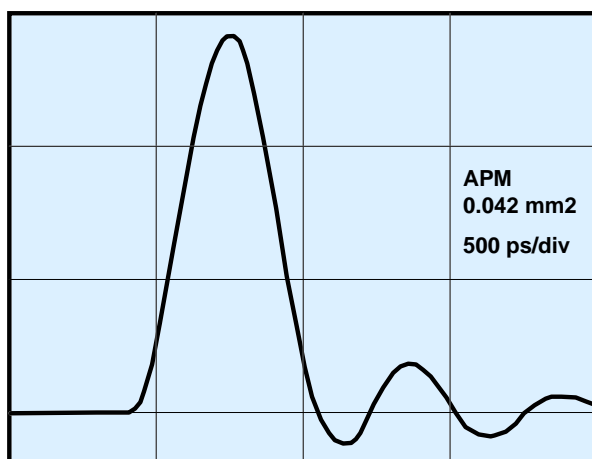


# APM - 400

## High Speed Avalanche Photodiode Module

- Active Area from 0.03 mm<sup>2</sup> to 7 mm<sup>2</sup>
- High Speed: Down to 150 ps Pulse Rise Time / 320 ps FWHM
- Single +12V supply
- Internal Temperature Compensation
- Spectral Range from 330 nm to 1100 nm

The APM-400 is a high speed avalanche photodiode module for the detection of pulsed light signals and for trigger applications. It includes the bias voltage supply for the avalanche photodiode along with a temperature compensation circuit for the diode gain. Due to its single +12V supply the device can be powered directly from the **bh** Sampling / Boxcar Module PCS-150, the **bh** Time-Correlated Single Photon Counting Modules or from a conventional +12V power supply.



Becker & Hickl GmbH  
Nahmitzer Damm 30  
12277 Berlin  
Tel. 030 / 787 56 32  
Fax. 030 / 787 57 34  
<http://www.becker-hickl.de>  
email: [info@becker-hickl.de](mailto:info@becker-hickl.de)

  
intelligent  
measurement  
and  
control systems

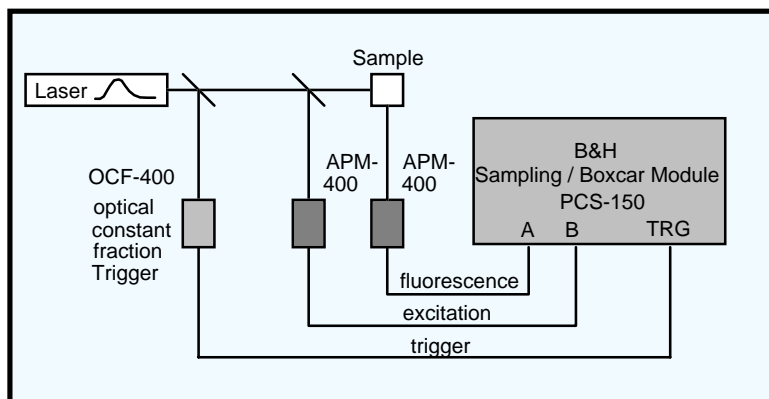
# APM - 400

## Specification

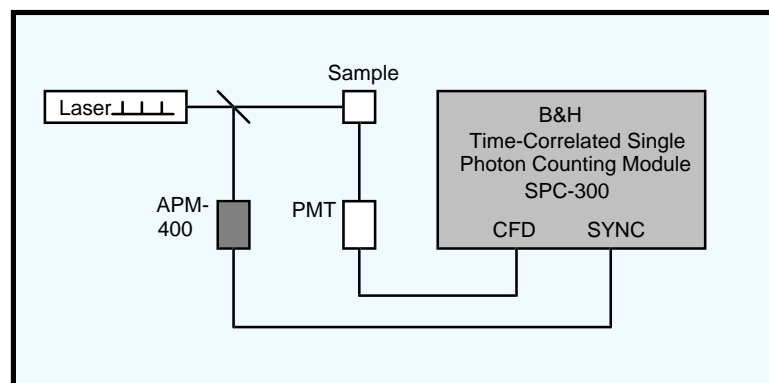
Active Area (please specify)	0.03	0.042	0.19	0.78	1.77	7.0	mm <sup>2</sup>
FWHM (630nm, 50 Ohm)	0.45	0.32	0.4	0.5	2.3	3	ns
Pulse Rise Time	0.15	0.16	0.2	0.25	1.1	1.2	ns
Gain (Adjustable by Trimpot)	1 to > 100						
Output Polarity	positive (APM-400 P) or negative (APM-400 N)						
Spectral Range	330 to 1050						nm
Peak Sensitivity Wavelength	750						nm
Quantum Efficiency (630 nm)	75						%
Dimensions	91 mm x 38 mm x 30 mm						
Signal Connector	SMA						

## Applications:

Laser induced Fluorescence  
Excitation with N<sub>2</sub> Laser,  
Recording of Fluorescence and  
Excitation Signal by Sampling /  
Boxcar Technique



Triggering of Time-Correlated  
Single Photon Counting  
Experiments



## Maximum Ratings

Supply Voltage	-0.3 V ... +13 V
DC Output Current	0.5 mA
Light Pulse Power	100 kW (Duration < 2 ns)
Average Light Power	100 mW
Operating Temperature	0°C ... +70°C

Becker & Hickl GmbH  
Nahmitzer Damm 30  
12277 Berlin  
Tel. 030 / 787 56 32  
Fax. 030 / 787 57 34  
<http://www.becker-hickl.de>  
email: [info@becker-hickl.de](mailto:info@becker-hickl.de)



intelligent  
measurement  
and  
control systems