

Fast pulse pre-amplifier

Features

- DC-coupled, 50 ohm impedance.
- Gain +32 dB
- DC to .200 MHz -3dB bandwidth.
- Very compact package.



Applications

- Fast pulse counting device readout (matched for plastic scintillators, continuous-dynode electron multipliers, avalanche photodiodes).
- Fast pulse counting detector readout

Options

- CP10-B is matched to plastic scintillators, CDEMs, avalanche diodes
- See CP10-A for fast halide crystal scintillators

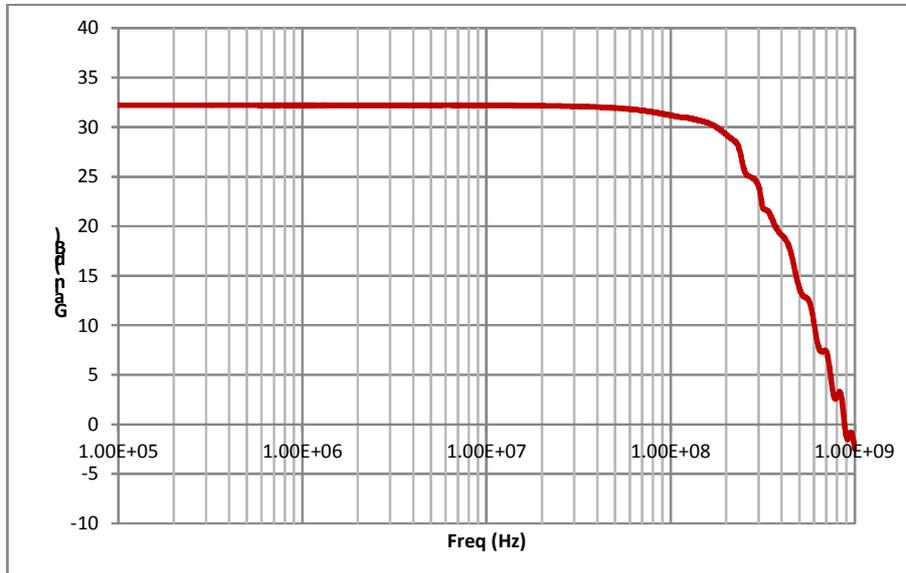
Specifications

Input impedance	50 ohms (when powered).
Gain	+32 dB +/- 0.5 dB into 50 ohm load
Bandwidth	DC to 200 MHz (-3 dB) Unity gain at > 900 MHz
Risetime	< 8 nsec (10% to 90%)
Output impedance	50 ohms
Noise	< 2 mV RMS at output, DC to 100 MHz
Output drive	>= +/- 1.7 V into 50 ohm load >= +/- 3.4 V into high impedance load
Maximum output cable length	Able to drive >= 30 metre RG-174 or RG-316

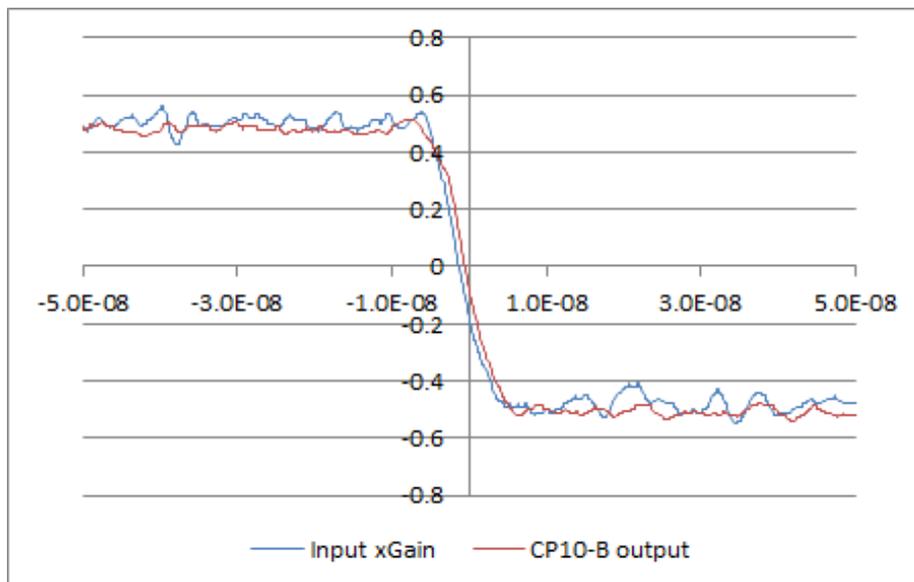


Specifications (continued)

Frequency response



Step response



Datasheet

CP10-B

Specifications (continued)

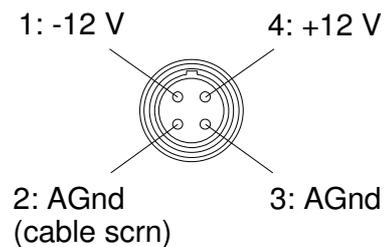
Power input	+12V (+2/-4 V) DC, 50 mA and -12V (+4/-2 V), 50 mA
Displays	Power on LED
Case	Machined Al alloy case with tapped hole pattern for mounting.
Weight	80 g (3 oz)
Operating environment	10 to 35 C (15 to 25 C recommended to reduce drift and offset) , < 70% humidity, non-condensing, vibration < 0.1g all axes (1 to 1000 Hz)
Shipping and storage environment	-10 to 50 C, < 80% humidity, non-condensing, vibration < 1g all axes, 1 to 1000 Hz

Connectors

Signal input Lemo coaxial size 00

Power Lemo 0B four-pin female
(mating cable connector FGG.0B.304)

(view on CP10 connector / solder side
of mating cable connector)



Signal output Lemo coaxial size 00

Ordering information

CP10-B Pre-amplifier suitable for plastic scintillator / photomultipliers, continuous-dynode electron multipliers, avalanche photodiodes.

Related products

CP10-A Fast pre-amplifier (suitable for crystal halide scintillators)

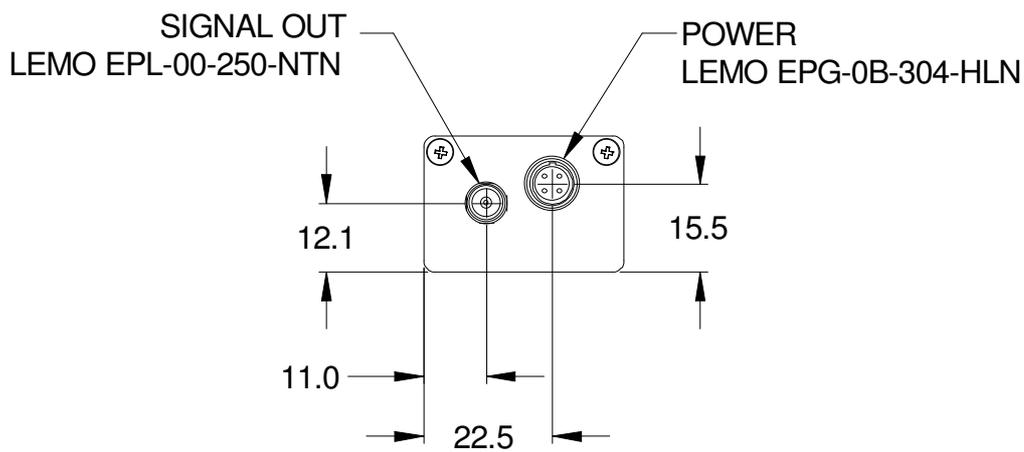
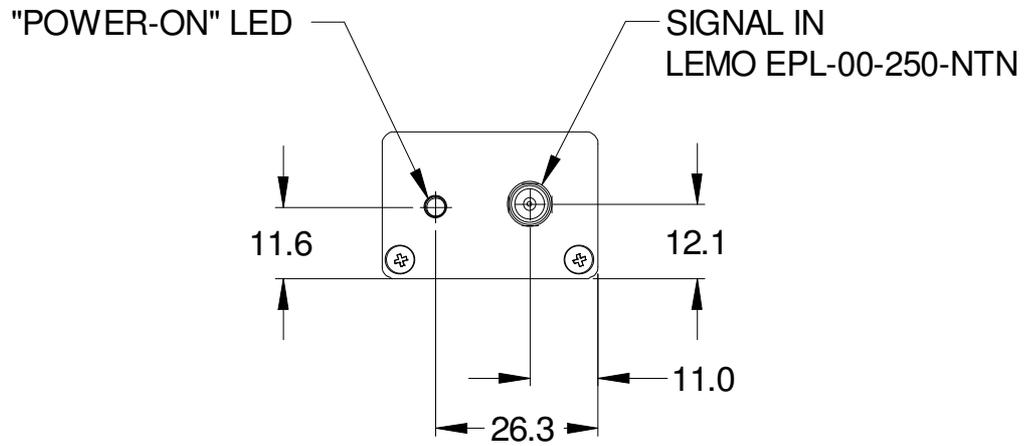
C400 Four channel pulse detector controller (fast window discriminators and scalers, supplies HV bias and pre-amp power).



Pyramid Technical Consultants

Datasheet

CP10-B



Dims mm

Pyramid Technical Consultants, Inc.,
1050 Waltham Street Suite 200
Lexington MA 02421 USA
Tel: +1 781 402 1700 (USA),
+44 1273 492001(UK)

Email: support@ptcusa.com

www.ptcusa.com

The information herein is believed accurate at time of publication, but no specific warranty is given regarding its use. All specifications are subject to change.

All trademarks and names acknowledged.

CP10B_DS_11042501

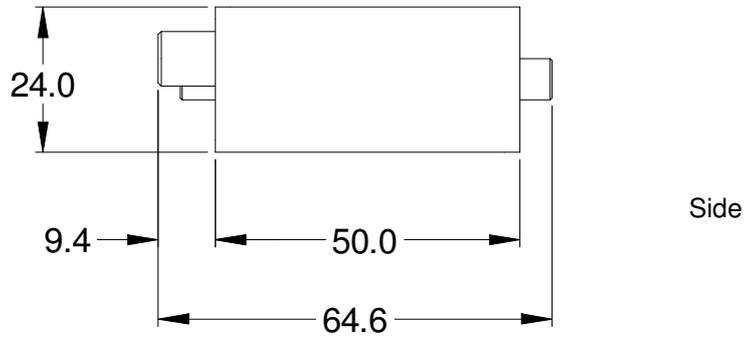


Pyramid Technical Consultants

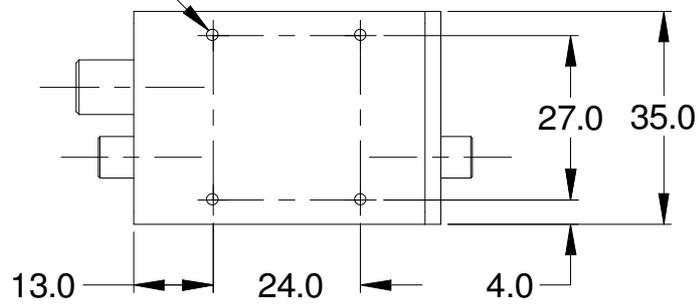
PSI System Controls and Diagnostics

Datasheet

CP10-B



2X
TAPPED HOLE
M2.5X0.45 x 5



Base

Dims mm



Pyramid Technical Consultants