

Low Noise Amplifier / Preamplifier for the 4 m, 3 m and 2 m bands 68 - 240 MHz

DESCRIPTION

- Miniature high-dynamic range low-noise preamplifier for the 4 m LMR band, the FM radio band, the VHF air band, the 2 m LMR band and the DAB radio band.
- Covers 68 - 240 MHz.
- For use where additional preamplification may be required:
 - In receiver systems to ensure low system noise figure
 - As buffer amplifier in RF signal distribution systems
 - As buffer amplifier to compensate high cable loss
 - As preamplifier for measuring instruments
- Adjustable gain.
- Very low noise figure ensures best possible S/N ratio of weak RF signals.
- Excellent large signal behaviour ensures handling of strong RF signals with very low level of IM and harmonic distortion.
- Low power consumption.
- Models for 12 VDC or 24 VDC supply voltage available (please see ordering designations).
- DC supply on solder terminal.
- RF connectors: N-female on input and output ports (other types on request).
- Low weight.
- Wide temperature range.
- Sturdy aluminium box.
- PRO-LNAHP-4-3-2 is coated with black vinyl to prevent corrosion.



SPECIFICATIONS

Electrical	
Model	PRO-LNAHP-4-3-2
Frequency	68 - 240 MHz
Amp. Gain	18 dB (Gain adjustment 3 dB to 18 dB)
Max. Output Power @ 1 dB Compression (P1dB)	> +17 dBm @ max. gain
Noise Figure	Max. 1.5 dB, typ. < 1.2 dB
Output 2. Order Intercept point (OIP2)	> +47 dBm @ max. gain
Output 3. Order Intercept point (OIP3)	> +31 dBm @ max. gain
Impedance	50 Ω
Max. Input Power (dBm)	17 dBm
Input-Output Isolation	> 20 dB
VSWR	< 3.5:1 (typ. < 2.0:1)
DC Supply	11 to 14 V DC / 60 mA

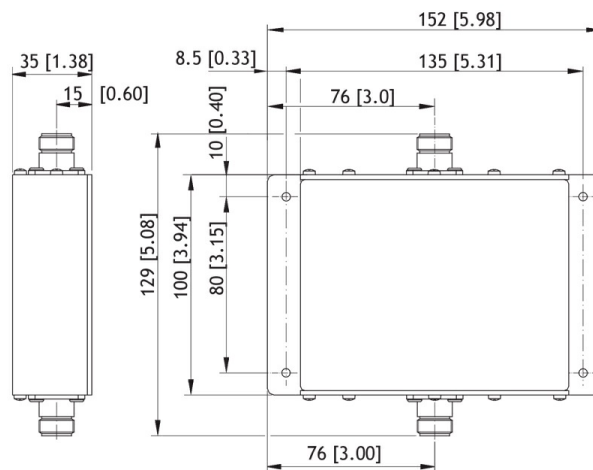
Mechanical	
Connection(s)	N(f) (standard), BNC, TNC or SMA on request
Dimensions	129 (incl. conn.) x 152 (incl. flanges) x 35 mm 5.08 x 5.98 x 1.38 in.
Weight	0.35 kg / 0.77 lb.
Mounting	4.3 mm dia. (4 holes)

Environmental	
Operating Temperature Range	-30 °C to +60 °C

ORDERING

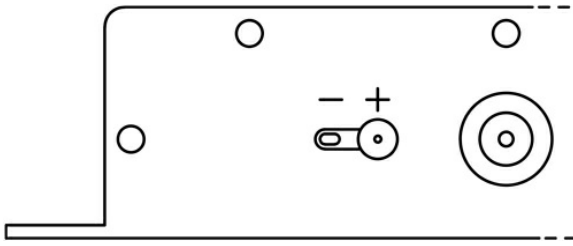
Model	Product No.
PRO-LNAHP-4-3-2-12V-N	210000175
PRO-LNAHP-4-3-2-24V-N	210002296

MOUNTING DETAILS



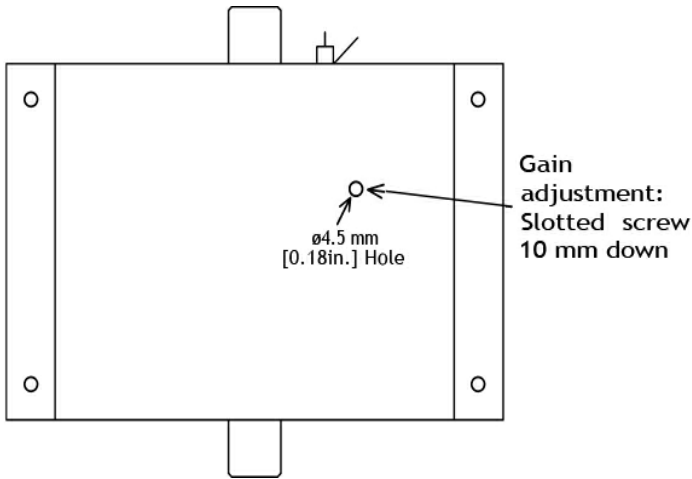
All dimensions are given in mm [in.]

POWER SUPPLY CONNECTION

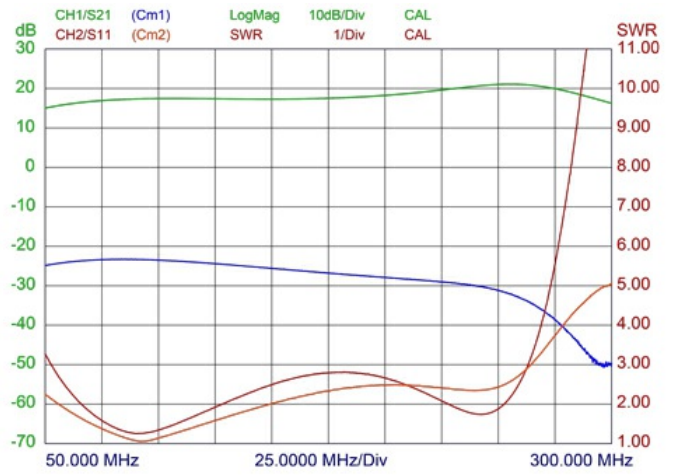


GAIN ADJUSTMENT

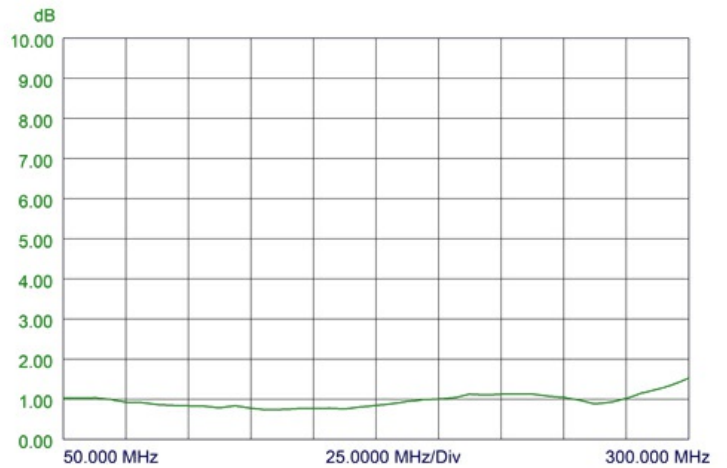
- > The PRO-LNAHP is provided with gain adjustment option.
- > Gain is adjusted by turning a gain adjustment screw located 10 mm below a 4.5 mm hole on the top of the PRO-LNAHP housing. See drawing below.
- > Access to the adjustment screw hole is made by removing the black label on the top of the box.
- > The adjustment screw is a slotted type, which can be adjusted by an ordinary 2.5 mm screwdriver.



TYPICAL GAIN AND VSWR CURVE



TYPICAL NOISE FIGURE



EU AND UK DECLARATION OF CONFORMITY

Hereby Amphenol Procom declare that the product type PRO-LNAHP-4-3-2 is in compliance with EU Directive 2014/53/EU and the UK Radio Equipment Regulations 2017 (S.I. 2017 No. 1206).
The full text of the Declaration of Conformity is available at:

<https://amphenolprocom.com/images/shop/catalog/pdf-for-catalogues/Declaration-of-Conformity-PRO-LNAHP.pdf>