

19" Rack-Mountable Receiver Multicoupler series for the VHF through low UHF bands 30 MHz - 960 MHz

DESCRIPTION

- Multicouplers with 1 input and 4, 8, 12 or 16 outputs.
- For use where a number of receivers have to share the same antenna.
- Active wideband receiver multicoupler for the VHF and low UHF bands with 1 input and 4, 8, 12 or 16 outputs.
- Allows a number of receivers to share the same antenna without interaction and loss of signal.
- Wide frequency range: Covers 30 MHz – 960 MHz.
- If only a smaller frequency range is desired, a preselector filter can be built in to prevent possible interference from strong transmitters outside the frequency band of interest. Amphenol Procom offer a wide range of both band selective and narrow-band low-loss filters suitable for preselector use. Please refer to the preselector overview and specify frequency range when ordering.
- Other rack-mounted multicoupler series available:
 - PRO-ARHP: 100 kHz – 40 MHz
 - PRO-ARU: 690 MHz – 2700 MHz
- Ultra-high dynamic range amplifier built in to compensate for loss in multicoupler network.
- Push-pull high-current amplifier design ensures outstanding multicoupler linearity and high reject of especially even-order distortion products.
- Handles even very strong RF signals with negligible levels of IM and harmonic distortion.
- Low amplifier noise figure ensures lowest possible S/N deterioration of the received and distributed RF signals.
- High isolation between receiver outputs.
- Operates on 230 VAC or 115 VAC mains supply or 12 V, 24 V or 48 V DC** supply (depending on type, see ordering designations).
- Galvanically isolated power supply with power backup function.
- Automatic switching to DC supply if the mains supply fails.
- "POWER ON" lamp on front.
- Mains supply connector: IEC type fitted with noise filter.
- DC supply connector: Terminal block fitted with noise filter.
- RF connectors: N-female on all ports (other types on request).
- 19" rack module housing.
- Only 1 HU (PRO-AR4G-... and PRO-AR8G-...) or 2 HU (PRO-AR12G-... and PRO-AR16G-...) (1 height unit = 44.45 mm).
- Comes as standard with anodized alu. color front plate.
- As option available with black powder lacquered front plate.

** 48 V version only available as 4 ch.: PRO-AR4G-N.

Please Note:

Power cable is not included, must be ordered separately, see Accessories.



MODEL HOUSING

PRO-AR4G-N AND PRO-AR8G-N



PRO-AR12G-N AND PRO-AR16G-N



MODEL HOUSING - BACK SIDE

PRO-AR8G-N



EU AND UK DECLARATION OF CONFORMITY

Hereby Amphenol Procom declare that the product type PRO-AR...G 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-ARxG.pdf>

SPECIFICATIONS

Electrical		
Model	PRO-AR4G-N	PRO-AR8G-N PRO-AR12G-N PRO-AR16G-N
Gain (Input To All Outputs)	2 dB	2 dB
Frequency	30 - 960 MHz	
Effective Noise Figure All Outputs	< 5.5 dB	< 8.0 dB
Gain Variance	< ±2.0 dB	< ±2.0 dB
Max. Output Power @ 1 dB Compression (P1dB)	> +20 dBm	> +17 dBm
Noise Figure, Amplifier	< 4.0 dB	< 6.0 dB
Output 2. Order Intercept point (OIP2)	> +60 dBm	> +50 dBm
Output 3. Order Intercept point (OIP3)	> +33 dBm	> +25 dBm
Impedance	50 Ω	
Input VSWR	≤ 2.5:1 With Preselector: ≤ 2.0:1, typ. <1.5:1	
Output VSWR	< 1.5:1	
Max. Input Power (dBm)	18 dBm	
Isolation Between Outputs	30 - 100 MHz: > 20 dB 100 - 400 MHz : > 27 dB 400 - 800 MHz: > 20 dB 800 - 960 MHz: > 18 dB	
Input-Output Isolation	> 23 dB	> 46 dB
Power Supply	230 VAC models: 198 to 264 VAC 47 - 63 Hz/ Max. 0.16 A 115 VAC models: 100 to 127 VAC 47 - 63 Hz/ Max. 0.32 A	
Current Consumption	0.6 to 0.7 A PRO-AR4G-48 VDC: 125 mA	PRO-AR8G-... : 1.0 to 1.3 A PRO-AR12G-... : 1.4 to 1.7 A PRO-AR16G-... : 1.8 to 2.1 A
DC Supply, 12 VDC Types	10.8 to 14.4 VDC	10.8 to 14.4 VDC
DC Supply, 24 VDC Types	20 to 28 VDC	20 to 28 VDC
DC Supply, 48 VDC Types	40 to 60 VDC	Not available
No. of channels	4, 8, 12 or 16	
Mechanical		
Power Connector	3-terminal IEC60320-1 C14 (male)	
Connection(s)	N(f) (standard) BNC(f), TNC(f) or SMA(f) on request	
DC Connector	3-pole screw terminal block	
Dimensions	PRO-AR4G-..., PRO-AR8G-...: 19" x 1HU x 261 mm (483 x 44.45 x 261 mm) / (19.02 x 1.75 x 10.28 in.) PRO-AR12G-..., PRO-AR16G-...: 19" x 2HU x 261 mm (483 x 89.9 x 261 mm) / (19.02 x 3.54 x 10.28 in.)	
Altitude	0 to 2000 m	
Weight	PRO-AR4G-..., PRO-AR8G-... : Approx. 2.8 kg. / 6.17 lb. PRO-AR12G-..., PRO-AR16G-... : Approx. 4.4 kg. / 9.70 lb.	
Environmental		
Operating Temperature Range	-10°C to +60°C	-10°C to +50°C
Humidity	< 90% non-condensing	

ORDERING DESIGNATIONS

CONTACT FOR SYSTEM-SPECIFIC PRODUCT NO.

Use the guide below to make the name of the PRO-AR you would like to buy. Remember to buy the Power cable separately if needed.

Model	Front plate	No. of outputs	AC Power	DC Power	Antenna Connector	Rx Connector	Number of loads	Preselector filter
PRO-AR	Blank = blank *** Black lacquered = B	4 outputs = 4G 8 outputs = 8G 12 outputs = 12G 16 outputs = 16G	230VAC = 230V 115VAC = 115V	12VDC = 12V 24VDC = 24V 48VDC = 48V **	N-female = N TNC-female = TNC BNC-female = BNC	N-female = N TNC-female = TNC BNC-female = BNC	No load = blank * One 1W load = 1L Two 1W loads = 2L Three 1W loads = 3L	No filter = blank See tables with preselectors below
Naming Example								
PRO-AR	B	8G	-230V	/12V	-N	/N	-1L	BPF 118-137-C

Naming Example: PRO-ARB8G-230V/12V-N/N-1L BPF 118-137 C

* Terminating unused ports will secure the electrical performances of the RMC.

** 48V version only available as 4 ch.: PRO-AR4G-N.

*** "Blank" means sign omitted.

ACCESSORIES

Model	Product No.
Power Cable EU , with Ground	210002646
Power Cable UK , with Ground	210002647
Power Cable US , with Ground	210002648

LOW-LOSS PRESELECTOR FILTERS FOR PRO-AR...G, OVERVIEW

Band selective standard blackbox filters (other filters on request)

TYPE DESIGNATION	FILTER TYPE	PASS BAND FREQUENCY RANGE
BPF 66-88	Band pass	66 - 88 MHz
BPF 88-108	Band pass	88 - 108 MHz
BPF 112-136	Band pass	112 - 136 MHz
BPF 118-137	Band pass	118 - 137 MHz
BPF 118-174	Band pass	118 - 174 MHz
BPF 136-225	Band pass	136 - 225 MHz
BPF 146-174	Band pass	146 - 174 MHz
BPF 225-400	Band pass	225 - 400 MHz
BPF 300-500	Band pass	300 - 500 MHz
BPF 800-1000	Band pass	800 - 1000 MHz
LP 174-FME	Low pass	0 - 174 MHz
HP 380-FME	High pass	380 - 1000 MHz

Narrow band standard BP filters:

TYPE DESIGNATION	FILTER TYPE	CENTER FREQUENCY	-1 dB BANDWIDTH
BPF 4/4-[BW]	Band pass	To be ordered within 66 - 88 MHz	To be specified as 2, 4 or 6 MHz
BPF 3/4	Band pass	To be ordered within 112 - 136 MHz	1.5 MHz
BPF 2/4-[BW]	Band pass	To be ordered within 144 - 175 MHz	To be specified as 2, 4 or 6 MHz
BPF 70/4-HX	Band pass	To be ordered within 380 - 470 MHz	To be ordered within 3 - 15 MHz
BPF 900/4	Band pass	To be ordered within 820 - 960 MHz	Typ. 7 MHz