

## PRO-AR...G

19" Rack-Mountable Receiver Multicoupler series for the VHF through low UHF bands 50 MHz - 960 MHz

- Multicouplers with 1 input and 4, 8, 12 or 16 outputs.
- For use where a number of receivers have to share the same antenna.

➤ [User Manual](#)



### DESCRIPTION

- 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 50 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. Procom A/S 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-ARS: 10 kHz – 108 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 mains supply or 12 V or 24 V DC supply (depending on type, see ordering designations).
- Galvanically isolated power supply with backup function.
- Automatic switching to DC supply if the 230V 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).
- Available with black powder lacquered front plate.

### ORDERING DESIGNATIONS

STANDARD TYPE	PRODUCT NO.	NO. OF OUTPUTS
PRO-AR4G-N	210000127	4
PRO-AR4G-N-24V	210000165	4
PRO-AR8G-N	210000129	8
PRO-AR8G-N-24V	210000152	8
PRO-AR12G-N	210000482	12
PRO-AR12G-N-24V	210001638	12
PRO-AR16G-N	210000111	16
PRO-AR16G-N-24V	210001183	16

### HOW TO ORDER CUSTOMIZED TYPES:

PRO-AR	B	8	-N(f)	-BPF	-24 V
↓	↓	↓	↓	↓	↓
Series	Front plate	No. of outputs	Connector type	Preselector filter**	DC voltage
PRO-AR	Blank = blank* Black coated = B	4 outputs = 4 8 outputs = 8 12 outputs = 12 16 outputs = 16	N-female = -N(f) TNC-female = -TNC(f) BNC-female = -BNC(f)	No filter = blank* Band pass = -BPF High pass = -HPF Low pass = -LPF	12 VDC = blank* 24 VDC = -24 V

\* "blank" means sign omitted.

\*\* Preselector pass band [MHz] to be stated after the ordering designation.

SPECIFICATION

ELECTRICAL	
FREQUENCY RANGE	50 MHz - 960 MHz
NOMINAL GAIN INPUT TO ALL OUTPUTS	2.0 dB
GAIN RIPPLE	< ± 2.0 dB
NOISE FIGURE AMPLIFIER	< 4.0 dB
EFFECTIVE NOISE FIGURE ALL OUTPUTS	PRO-AR4G-N: < 5.5 dB
	PRO-AR8G-N: < 8.0 dB
	PRO-AR12G-N: < 8.0 dB
	PRO-AR16G-N: < 8.0 dB
MAX. OUTPUT POWER @ 1dB COMPRESSION (P1dB)	> +17 dBm
OUTPUT 2 <sup>ND</sup> ORDER INTERCEPT POINT (OIP2)	> +70 dBm
OUTPUT 3 <sup>ND</sup> ORDER INTERCEPT POINT (OIP3)	> +30 dBm
MAX. NON-DESTRUCTIVE INPUT POWER	+ 18 dBm
ISOLATION, OUTPUT TO OUTPUT	> 20 dB
ISOLATION, OUTPUT TO INPUT	> 23 dB
NOMINAL IMPEDANCE	50 Ω
INPUT SWR	Max. 2.5, typically < 2.0
OUTPUT SWR	Max. 1.5, typically < 1.3
MAINS SUPPLY VOLTAGE / CURRENT	207 to 264 VAC / Max. 0.16 A
DC SUPPLY VOLTAGE 12 V types	10.8 to 14.4 VDC
DC SUPPLY VOLTAGE 24 V types	20 to 28 VDC
DC SUPPLY CURRENT	PRO-AR4G-N: 0.6 to 0.7 A
	PRO-AR8G-N: 1.0 to 1.3 A
	PRO-AR12G-N: 1.4 to 1.7 A
	PRO-AR16G-N: 1.8 to 2.1 A

MECHANICAL	
MAINS SUPPLY CONNECTOR	3-terminal IEC60320-1 C14 (male)
DC SUPPLY CONNECTOR	3-pole screw terminal block
RF CONNECTORS	N-female (standard) BNC, TNC or SMA on request
DIMENSIONS (W x H x D)	PRO-AR4G-N and PRO-AR8G-N: 19" x 1HU x 261 mm (483 x 44.45 x 261 mm) / (19.02 x 1.75 x 10.28 in.)
	PRO-AR12G-N and PRO-AR16G-N: 19" x 2HU x 261 mm (483 x 89.9 x 261 mm) / (19.02 x 3.54 x 10.28 in.)
WEIGHT	PRO-AR4G-N and PRO-AR8G-N: Approx. 2.8 kg. / 6.17 lb.
	PRO-AR12G-N and PRO-AR16G-N: Approx. 4.4 kg. / 9.70 lb.

ENVIRONMENTAL	
TEMPERATURE RANGE	-10°C to +50°C
MAX. AIR HUMIDITY	Max. 85% @ 30°C

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 136-174	Band pass	136 - 174 MHz
BPF 136-225	Band pass	136 - 225 MHz
BPF 146-174	Band pass	146 - 174 MHz
BPF 174-240	Band pass	174 - 240 MHz
BPF 210-225	Band pass	210 - 225 MHz
BPF 210-240	Band pass	210 - 240 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

High slope band selective standard PRO filters (other filters on request):

TYPE DESIGNATION	FILTER TYPE	PASS BAND FREQUENCY RANGES	STOP BAND ATTENUATION / FREQUENCY RANGES
PRO-BPF 118-144-N	Band pass	118 - 144 MHz	≥45 dB 0-108 MHz and 170 - 520 MHz
PRO-BPF 174-240-N	Band pass	174 - 240 MHz	≥30 dB 0-167 MHz and 250 - 520 MHz
PRO-BPF 225-400-N	Band pass	225 - 400 MHz	≥45 dB 0-175 MHz and 470 - 1000 MHz
PRO-LPF 225-N	Low pass	0 - 225 MHz	≥50 dB 267-500 MHz
PRO-HP144-N	High pass	144 - 1000 MHz	≥60 dB 0-108 MHz
PRO-HP225-N	High pass	225 - 1000 MHz	≥70 dB 0-175 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 112-136MHz	1.5 MHz
BPF 2/4-[BW]	Band pass	To be ordered within 144-175MHz	To be specified as 2 or 4 MHz
BPF 70/4-HX	Band pass	To be ordered within 380-470MHz	To be ordered within 3-15 MHz
BPF 900/4	Band pass	To be ordered within 820-960MHz	Typ. 7 MHz

## MODEL HOUSING

### PRO-AR4G-N and PRO-AR8G-N



### PRO-ARB4G-N and PRO-ARB8G-N



### PRO-AR12G-N and PRO-AR16G-N



## EU DECLARATION OF CONFORMITY

Hereby PROCOM A/S declare that the product type [navn på produktet] is in compliance with EU Directive 2014/53/EU.

The full text of the EU Declaration of Conformity is available at:

<http://procom.dk/images/pdf-for-catalogues/Declaraiion-of-Conformity-PRO-ARxG.pdf>

