



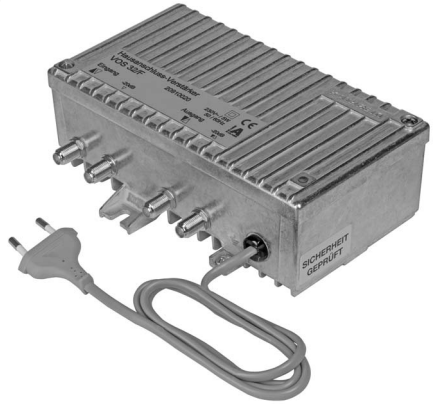
House connection amplifier

Return path amplifier

VOS 32/F	20910020
VOS 40/F	20910012
VGR 28/30	20910008
VGR 28/65	20910009

House connection amplifier

- House connection amplifier for modern HFC networks
- Built-in power supply
- Die-cast housing with F-type connectors
- LED to indicate operation mode
- Variable interstage gain setting using on-board plug-in attenuators (delivery condition: with interstage attenuation)
- The maximum operation levels are also valid for operation with interstage attenuation
- Interstage equaliser (6 dB) connectable with bridging plugs (pre-emphasis)
- Return path optional, individually fittable:
5-30 MHz mit VGR 28/30
5-65 MHz mit VGR 28/65
(delivery condition: without return path amplifier, with null bridges)
- Integrated variable attenuator and adjustable equaliser
- Test socket on output -20 dB (with directional coupler)
- Test socket on input -20 dB (connectable with bridging plug) for return path levelling
- Conforms to: EN 60728-11, EN 50083-2 and EN 60065
- For indoor installation

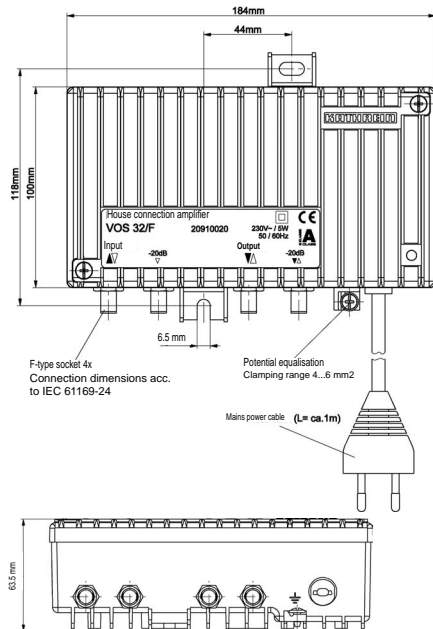


The amplifier complies with the requirements in the EMC Directive 2004/108/EC and Low-Voltage Directive 2006/95/EC applicable at the time of shipping

Dimensions and Installation

Only to be undertaken by authorised personnel

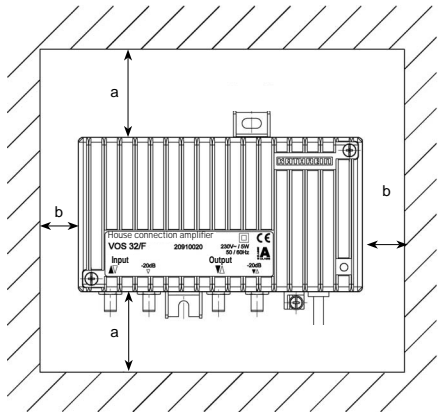
Unplug from the mains before installation. The safety regulations in accordance with EN 60728-11 and EN 60065 are to be observed!



Permissible installation

Caution!

Do not install on flammable materials!



a) Clearances to containing surfaces: ≥ 150 mm

b) Clearances to containing surfaces: ≥ 50 mm

Technical data

Type		VOS 32/F	VOS 40/F
Order no.		20910020	20910012
Forward path			
Frequency range	MHz	47 (85)-862	47 (85)-862
Gain (switchable)	dB	26/32	34/40
Amplitude deviation	dB	± 1.5	± 1.5
Setting range variable attenuator	dB	0-20	0-20
Setting range equaliser	dB	0-20	0-20
Setting range Interstage attenuation (switchable with bridging plugs)	dB	0/6	0/6
Setting range Interstage equaliser (switchable with bridging plugs)	dB	0/6	0/6
Maximum operating level ¹⁾ (60-dB CTB/CSO)			
- flat	dBμV	100/100	104/110
- with 6 dB interstage pre-emphasis	dBμV	102/102	107/110 ³⁾
Recommended operating level ¹⁾ (66-dB CTB/66-dB CSO)			
- flat	dBμV	-	-
- with 6 dB interstage pre-emphasis	dBμV	-	105/105 ³⁾
Noise figure (Interstage attenuation 6/0 dB)	dB	7/6	7/6
Number of outputs		1	1
Return path			
		See data of VGR 28/xx	See data of VGR 28/xx
General			
Impedance input/output	Ω	75	75
Return loss input/output ²⁾	dB	14	14
RF connections		F-type connector	F-type connector
Test socket output with directional coupler (5-862 MHz)	dB	-20	-20
Test socket output return path (5-65 MHz)	dB	-20	-20
Nominal input voltage	V _{AC}	230	230
Power consumption (without/with return path amplifier)	W	4/5	6/7
Operational display		LED green	LED green
Protection class		II	II
Protection category (to EN 60529)		IP 50	IP 50
Temperature range	°C	-20 to +55	-20 to +55
Dimensions	mm	184 x 134 x 63	184 x 134 x 63
Packing unit/weight	pc./kg	1 (10)/1.7	1 (10)/1.4

¹⁾ According to EN 60728-3; CENELEC raster 42 carriers, the level values also apply for interstage attenuation

²⁾ According to EN 60728-3 (category C); as of 40 MHz => 14 dB -1.5 dB/octave, but => 10 dB

³⁾ As of serial number G1B38xxxxxx

Basic safety precautions

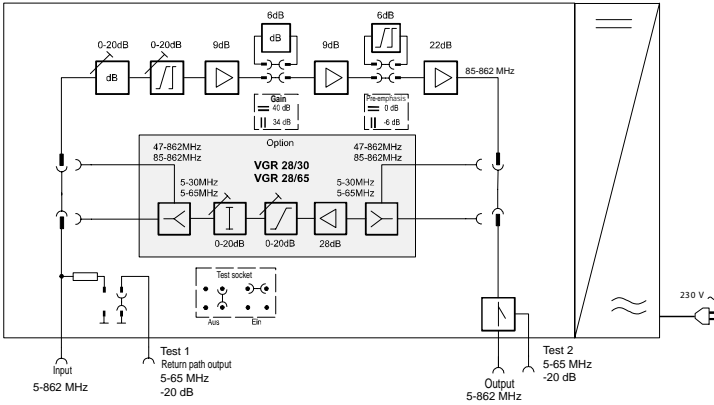


Caution!

The amplifier supply voltage is 230-V AC and is dangerous on direct physical contact!

- Do not touch live parts
- The power plug must be easily operable as the means of cutting power to the amplifier, i.e. the wall outlet must be close to the amplifier and easily accessible
- The power must be cut when installing or removing the amplifier
- Do not operate the amplifier if the standard power supply protective cover is not fitted.

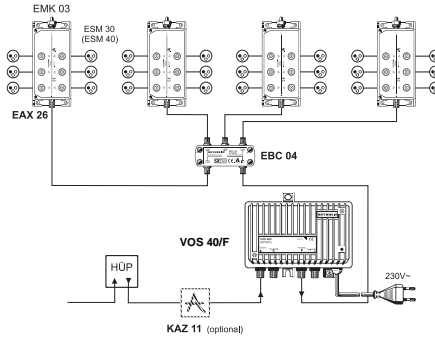
Block diagram: VOS 40/F



Gain for VOS 32/F:
= 32 dB
|| 26 dB

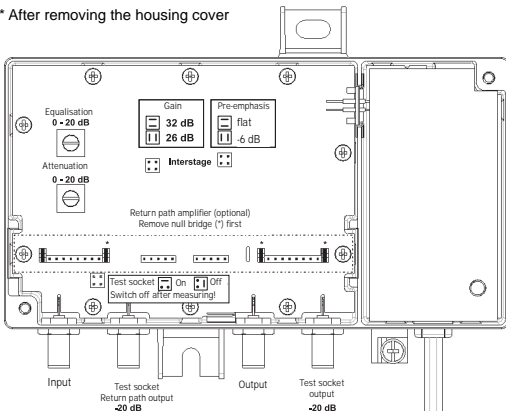
Application example

Standard house distribution network for 24 connections in a central star structure with modem outlets.



Control elements and plug-in module*

* After removing the housing cover



Gain for VOS 40/F:
= 40 dB
|| 34 dB

Return path amplifier

VGR 28/30 20910008
VGR 28/65 20910009

- Suitable amongst others for house connection amplifier VOS 32/F (not included in the delivery scope of VOS 32/F and VOS 40/F)
- Adjustable equaliser and attenuator (Delivery status: max. attenuation) on output



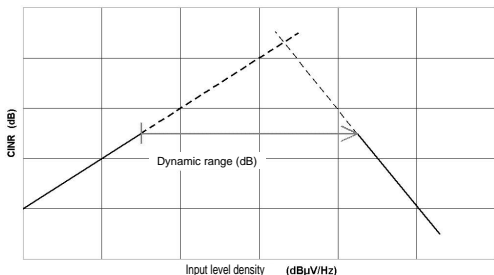
Type		VGR 28/30	VGR 28/65
Order no.		20910008	20910009
Frequency range	MHz	5-30	5-65
Gain	dB	28	
Attenuator setting range (amplifier output)	dB	0-20	
Equaliser setting range (amplifier output)	dB	0-20	
Input level density (CINR: 55 dB) ¹⁾	dB μ V/Hz	-6	
Dynamic range (input level density)	dB	19	
Max. output level 60 dB IM2/IM3	dB μ V	112/118	
Noise figure	dB	5	
Dimensions (W x H x D)	mm	130 x 17 x 38	
Packing unit/weight	pc./kg	1 (10)/0.08	

¹⁾ According to EN 60728-3 (section 4.7)

CINR (Carrier to Interference-plus-Noise Ratio)

Note:

The purpose of this graphic is to explain the terms "input level density" and "dynamic range". It is not possible to derive any electrical data from the graphic. See also: EN 60728-3 (section 4.7)



Electronic equipment is not domestic waste - in accordance with directive 2002/96/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL dated 27th January 2003 on used electrical and electronic appliances, it must be disposed of properly.

At the end of its service life, take this unit for disposal to an appropriate official collection point.