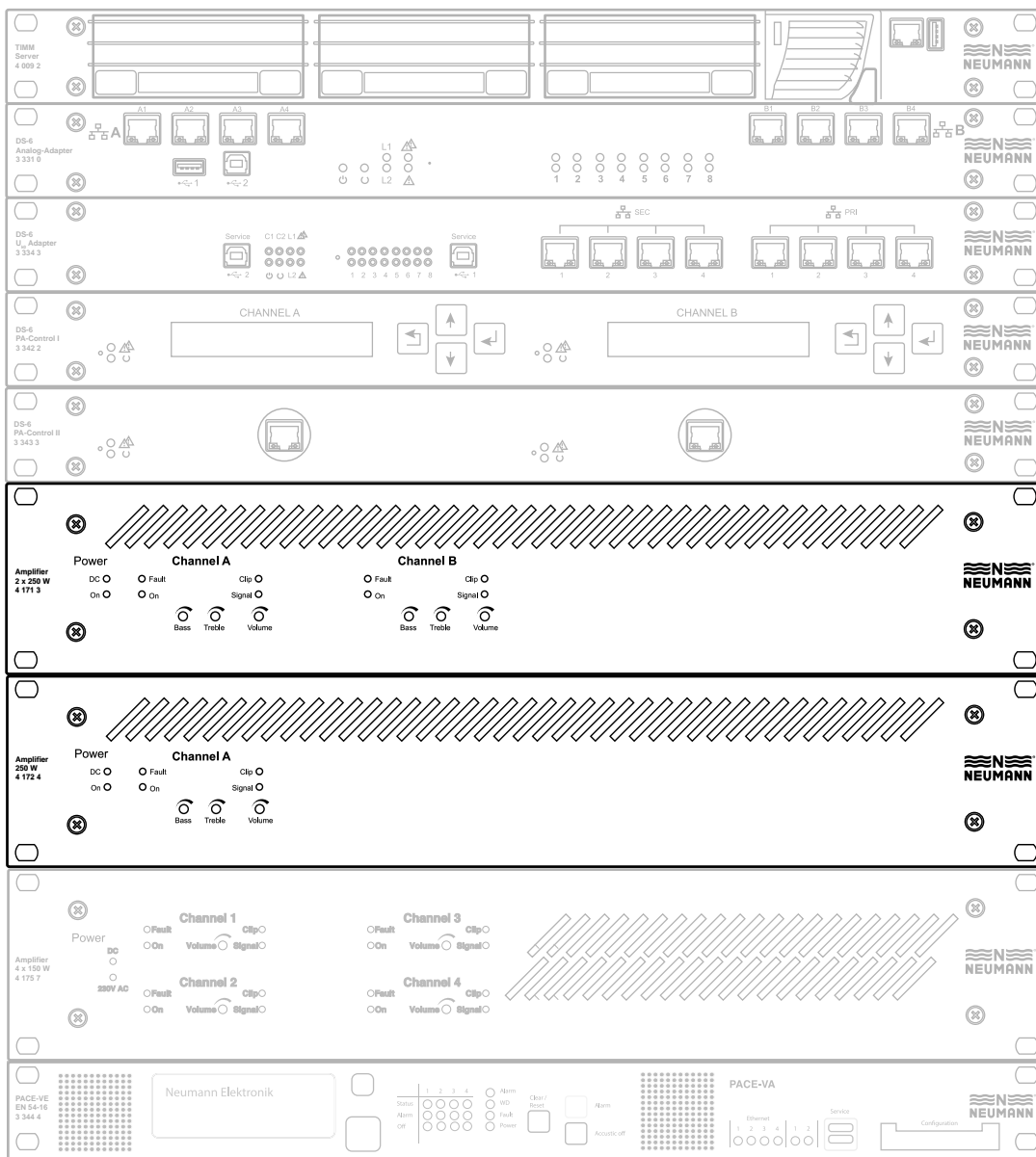
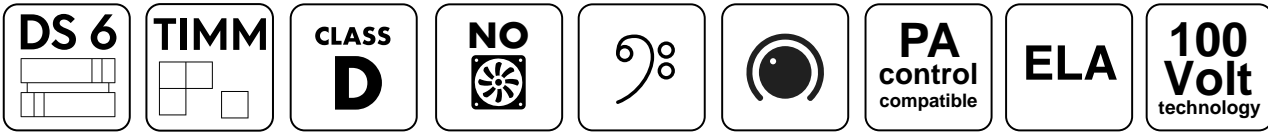


Overview

# Amplifier 250/300 W & 2 x 250/300 W

## Class D technology



4 172 4  
4 171 3

Amplifier 250/300W & 2 x 250/300W  
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# Established Neumann Elektronik quality

**Class D technology**

**High efficiency**

**Low heat generation**

**No active ventilation required**

**Low installation depth**

**Control LEDs for all signal and operating states on the front panel: power ON, DC, signal OK, clipping, fault**

**Volume, treble and bass control accessible from the front (adjustable with screwdriver)**

**Transformer balanced inputs**

**Potential-free amplifier switch-on**

**Monitoring: fuse failure, overload, excess temperature**

**Protection circuit against open circuit, short circuit, overload**

**230V / 115V AC input voltage (switchable)**

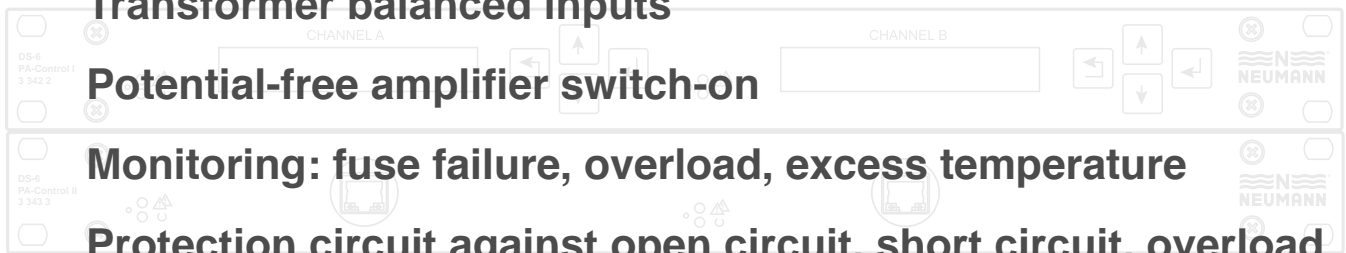
**48V / 60V DC input voltage / emergency power supply**

**Amplifier is open circuit and short circuit proof**

**100V and 50V output, earth-free**

**High quality toroidal output and mains transformers**

**All supply lines plugged in, with detachable bolt-on gates**



**4 172 4**  
**4 171 3**

Amplifier 250/300W & 2 x 250/300W  
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The 1-channel and 2-channel output stages are designed for permanent installation in ELA systems (DS-6, MDK, MF etc.) from Neumann Elektronik.

The amplifiers are designed in Class D technology.

This circuit concept guarantees high efficiency and has low heat generation.

The amplifiers generate a nominal output power of 1 x 250 / 300 W or 2 x 250 / 300 W at an operating voltage of 230 / 115 V AC or 48...60 V DC.

<b>Configuration</b>	4 172 4	250/300 W, 1-channel
	4 171 3	2 x 250/300 W, 2-channel

<b>Mechanical data</b>	<b>Dimensions</b>	19“, 2HE, 270mm deep
	<b>Weight</b>	
	4 172 4	approx. 11,5 kg
	4 171 3	approx. 15 kg

<b>Electrical data 4 172 4 1 channel</b>	<b>Operational voltage</b>	48...68 V DC 230 V/115 V AC
	<b>Max. power consumption</b>	6 A (bei 48...68 V DC) 1,4 A (230 V/115 V AC)
	<b>Supply voltage</b>	2 x 43V DC... 72V DC
	<b>Output power according to IEC 268.3/19.3</b>	300 W bei Netzbetrieb
	<b>Output power according to IEC 268.3/19.4</b>	250 W bei Netzbetrieb
	<b>Input voltage</b>	320 mV
	<b>Frequency range</b>	80 Hz bis 12 kHz ± 1db

<b>Electrical data 4 171 3 2 channels</b>	<b>Operational voltage</b>	48...68 V DC 230 V/115 V AC
	<b>Max. power consumption</b>	12 A (both channels) (at 48...68 V DC) 2,8 A (both channels) (at 230 V/115 V AC)
	<b>Supply voltage</b>	2 x 43V DC... 72V DC
	<b>Output power according to IEC 268.3/19.3</b>	2 x 300 W bei Netzbetrieb
	<b>Output power according to IEC 268.3/19.4</b>	2 x 250 W bei Netzbetrieb
	<b>Input voltage</b>	320 mV
	<b>Frequency range</b>	80 Hz bis 12 kHz ± 1db

<b>Environmental conditions</b>	<b>Permitted temperature range</b>	+5 ... +40°C
---------------------------------	------------------------------------	--------------

**4 172 4**  
**4 171 3**

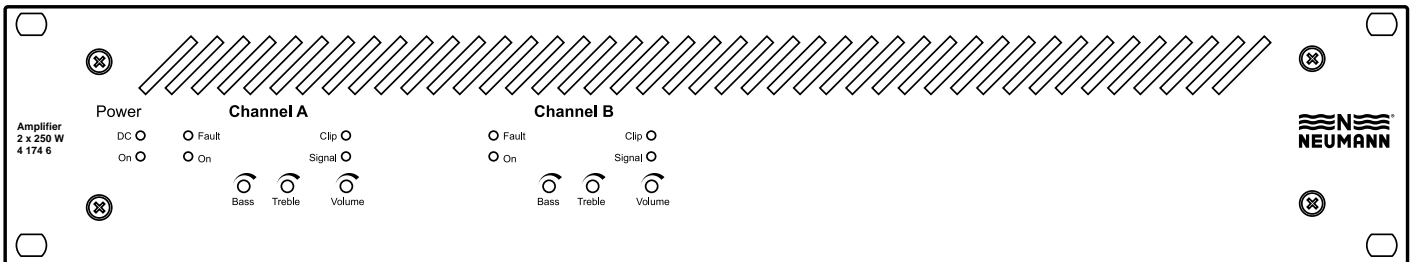
Amplifier 250/300W & 2 x 250/300W  
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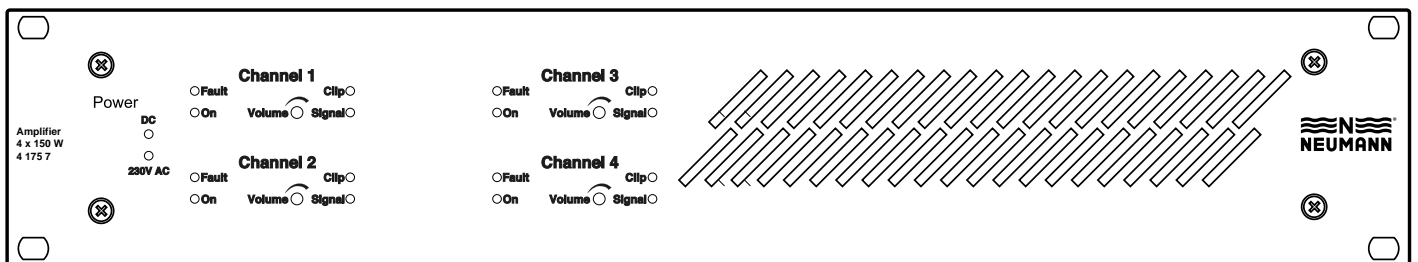
# Other amplifiers with established Neumann quality

## 4 174 6 Amplifier 2 x 250 Watt



The amplifier is identical in construction to the amplifier 4 171 3. The settings are defined in the factory and cannot be changed by customers on site. Some special functions can be optionally installed. Please contact us to find out more.

## 4 175 7 Amplifier 4 x 150 Watt Amplifier 2 x 300 Watt



The 4-channel power amplifier with 150W output each is designed for permanent installation in ELA systems and is intended for connecting loudspeakers in 100V technology.

By external wiring the amplifier can be switched to 2-channel operation with 300W each. Each power amplifier is designed in Class D technology. This circuit concept guarantees a high efficiency and has a low heat development and a low standby consumption.

The amplifiers generate a nominal output power of 4 x 150 W or 2 x 300 W with a power supply of AC 230 V and/or DC 48 V for redundant operation.

4 172 4  
4 171 3

Amplifier 250/300W & 2 x 250/300W  
Edition 01-2020 / Page 4  
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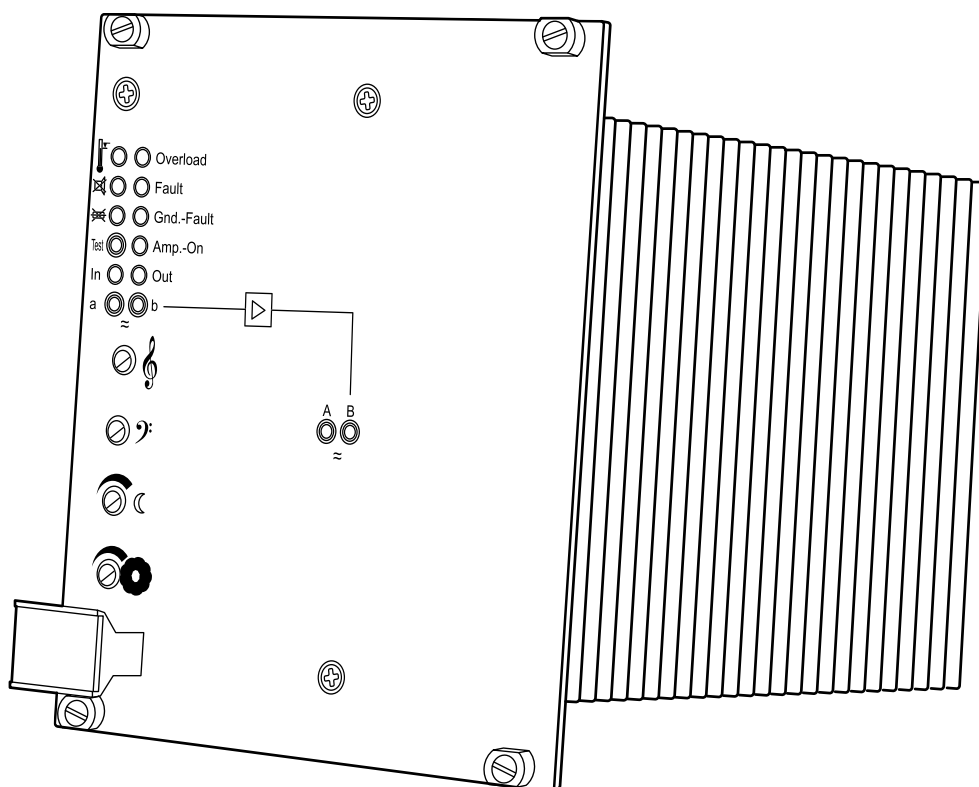
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# Other amplifiers with established Neumann quality

**4 150 0 Amplifier 25 / 50 W**

**4 160 1 Amplifier 100 W**



The 25 / 50 W amplifier as well as the 100 W amplifier are designed in 100 Volt technology. The very compact amplifiers are used to amplify the power of Neumann Elektronik ELA, DS-6 and MDK systems, and also offer the possibility of connection to all voice communication centres with analogue interfaces.

Thanks to various operating voltages, flexible use is possible. A special area of application is the public address and alarm system for small areas and fire compartments in office buildings, warehouses and industrial areas, production environments, building yards and factory yards.

**4 172 4**  
**4 171 3**

Amplifier 250/300W & 2 x 250/300W  
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# Other amplifiers with established Neumann quality

## 1 570 3 Additional amplifier 25 W for outdoor call stations

When used in conjunction with an additional amplifier and loudspeaker, the supplementary loudspeaker can assume the function of a call loudspeaker. Only the first call is transmitted to the station from the additional loudspeaker. Calls after an intercom answer are then automatically transmitted only via the intercom loudspeaker. After a pause of approx. 20 seconds, this function returns to its original state. The amplifier has a 100V output ungrounded.

## 1 841 4 WL - 1 W Universal amplifier

This WL amplifier is used in call stations from Neumann Elektronik. It contains separate amplifiers for the operation of a microphone and a loudspeaker, and the necessary control electronics for automatic activation and calling up special functions.

It is designed as a plug-in module consisting of a printed circuit board with a plug connector. The components were mainly used in SMT design for production on automatic placement machines. Four large controllers for individual level adjustment of the microphone and loudspeaker amplifier are located on the front side of the printed circuit board.

WL - 1 W universal amplifier can also be supplemented with the 25 W additional amplifier (No.: 1 570 3).

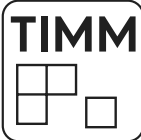
4 172 4  
4 171 3

Amplifier 250/300W & 2 x 250/300W  
Edition 01-2020 / Page 6  
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The Neumann logo consists of three wavy horizontal lines above a stylized letter 'N', which is also flanked by three wavy horizontal lines. Below this graphic, the word 'NEUMANN' is written in a bold, uppercase, sans-serif font.

**NEUMANN**



**Control centre**

**Industrial control**

**Video**

Telephone

Process control

Access control

Evacuation

emergency call

Personal radio

Fire alarm system

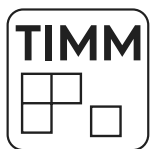
Intercom

Emergency exit control

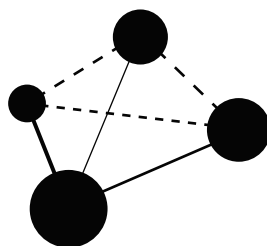
Public address system

Radio

Building services engineering



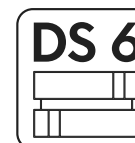
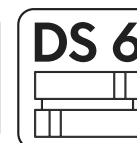
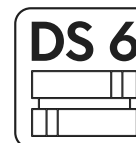
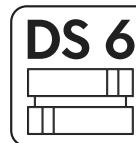
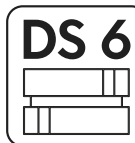
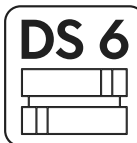
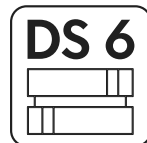
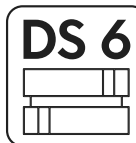
TIMM ComServer



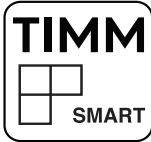
IP network



1-n



1-n



↓↑



↓↑



↓↑



↓↑



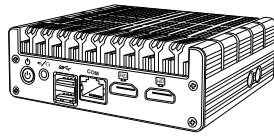
I/O Modul  
NE 4 475 0

↓↑



CANopen

↓↑



NE 3 358 9  
TIMM SMART



WEB Server



Config / state



SNMP / MIB

Com Server Application

Gateway Application

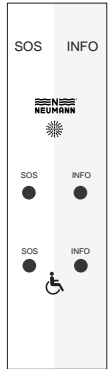
Speechbox\* NE 5 067 8

SIP-Trunk\* NE 5 065 6

Phone Server\* NE 5 034 2

MODBUS / TCP-IP\* NE 5 068 9

CANopen\* NE 3 373 6



←  
→  
NIS

↓↑

DS 6 U<sub>k0</sub> II Adapter NE 3 334 3

and / or

DS 6 PA Control I NE 3 342 2

and / or

DS 6 PA Control II NE 3 343 3

and / or

DS 6 Analog adapter x8 NE 3 331 0

and / or

DS 6 Plug-in unit analog NE 2 390 4

and / or

DS 6 PACE EN 54-16 NE 3 344 4

↔

DS 6 PC Call station „all-in-one“ NE 1 296 8

DS 6 MTSD Call station NE 1 045 0

DS 6 MTSD IP42 Call station NE 1 0854

DS 6 Intercom call station (rack-mounted) NE 1 278 8  
NE 1 279 9

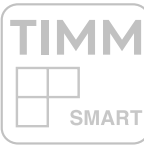
DS 6 Call station (panel-mounted) NE 1 28X X<sup>1</sup>

DS 6 Crane call station NE 1 156 3

DS 6 WFD IP Call station NE 1 5XX X<sup>1</sup>

DS 6 WFD IP Compact call station NE 1 87X X<sup>1</sup>

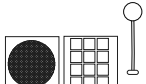
<sup>1)</sup>: various models; product numbers depending on individual requirements.



I/O Modul  
N 4 475 0



PC Call station  
„all-in-one“  
N 1 296 8



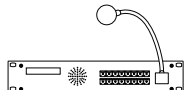
Built-in call station  
(panel assemblies)  
N 1 29X X<sup>1</sup>



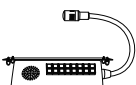
MTSD IP42  
Call station  
N 1 085 4



MTSD  
Call station  
N 1 045 0



Rack mounting station  
19 Zoll  
N 1 27X X<sup>1</sup>



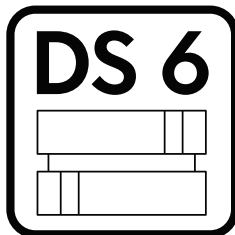
Crane call station  
N 1 156 3



WFD IP  
Weatherproof  
compact call station  
N 1 87X X<sup>1</sup>



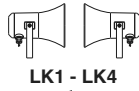
WFD IP Weatherproof  
intercom station  
N 1 59X X<sup>1</sup>  
N 1 681 6



MTSD  
U<sub>k0</sub> Call Station  
N 1 84X X<sup>1</sup>



Amplifier 4 x 150W  
N 4 175 7



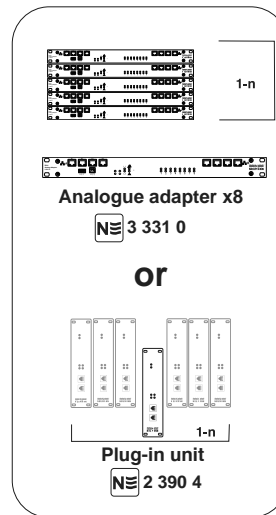
LK1 - LK4



Third-Party  
Hardware



UHF (Ultra High Frequency)



Analogue adapter x8  
N 3 331 0

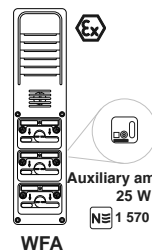
Plug-in unit  
N 2 390 4



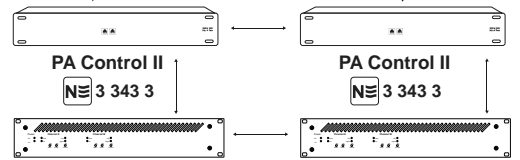
MTSA  
Call station  
N 1 75X X<sup>1</sup>



U<sub>k0</sub> II Adapter 8x  
N 3 334 3



WFA  
Weatherproof call station  
N 1 5XX X<sup>1</sup>

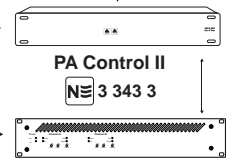


PA Control II  
N 3 343 3

Amplifier  
N 4 1XX X<sup>1</sup>

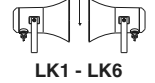


LK1 - LK6

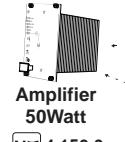


PA Control II  
N 3 343 3

Amplifier  
N 4 1XX X<sup>1</sup>

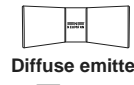


LK1 - LK6

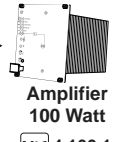


Amplifier  
50Watt  
N 4 150 0

LK1 - LK4<sup>2)</sup>



Diffuse emitter  
N 4 805 7

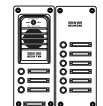


Amplifier  
100 Watt  
N 4 160 1

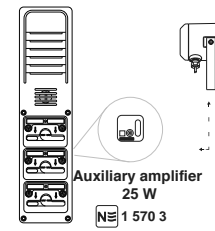
LK1 - LK4<sup>2)</sup>



Diffuse emitter  
N 4 805 7



WFAK Analogue  
call station compact  
WFAK Additional housing  
N 1 9XX X<sup>1</sup>



WFA  
Weatherproof call station  
N 1 5XX X<sup>1</sup>

Auxiliary amplifier  
25 W  
N 1 570 3



WFA  
Weatherproof call station  
N 1 5XX X<sup>1</sup>



Auxiliary amplifier  
25 W  
N 1 570 3

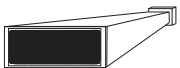
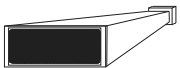
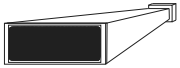
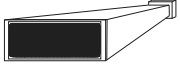
WL 1 Watt  
Universal amplifier  
N 1 841 4



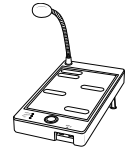
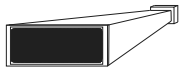
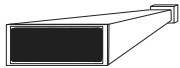
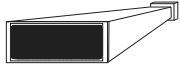
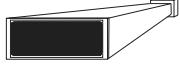
1) different models;  
product numbers according to  
individual requirements  
2) optional



tunnel horn/ boundary horn speaker  
NE 4 76X X



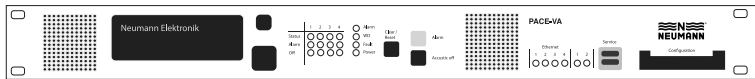
tunnel horn/ boundary horn speaker  
NE 4 76X X



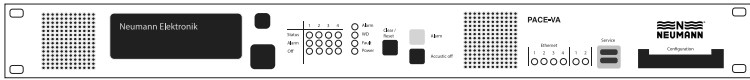
Desktop call station PACE-CSTP  
DIN EN 54-16, Touch screen  
NE 1 357 6



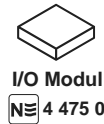
Desktop call station PACE-CS20  
DIN EN 54-16, 20 Keys  
NE 1 355 4



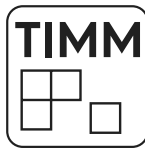
Voice alarm center unit  
PACE-VA, EN54-16  
NE 3 344 4



1-n



I/O Modul  
NE 4 475 0



MODBUS  
TCP-IP



CANopen



Emergency call station  
NE 1 0XX X<sup>1)</sup>



1-n



Control center  
(OMC)

1-n



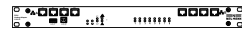
MTSD  
Desktop call station  
NE 1 045 0



PC call station  
„all-in-one“  
NE 1 296 8



I/O Modul  
NE 4 475 0



Analogue adapter x8  
NE 3 331 0

1-n

<sup>1)</sup> different models; product numbers according to individual requirements



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**Lahnstrasse 31-33  
45478 Mülheim an der Ruhr  
Germany**

**[info@neumann-elektronik.com](mailto:info@neumann-elektronik.com)  
[www.neumann-elektronik.com](http://www.neumann-elektronik.com)**

**4 172 4  
4 171 3**

Amplifier 250/300W & 2 x 250/300W  
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