

Overview

Voice alarm center unit PACE-VA EN 54-16

PACE
EN 54-16

TIMM

DS 6

100
Volt

CLASS
D

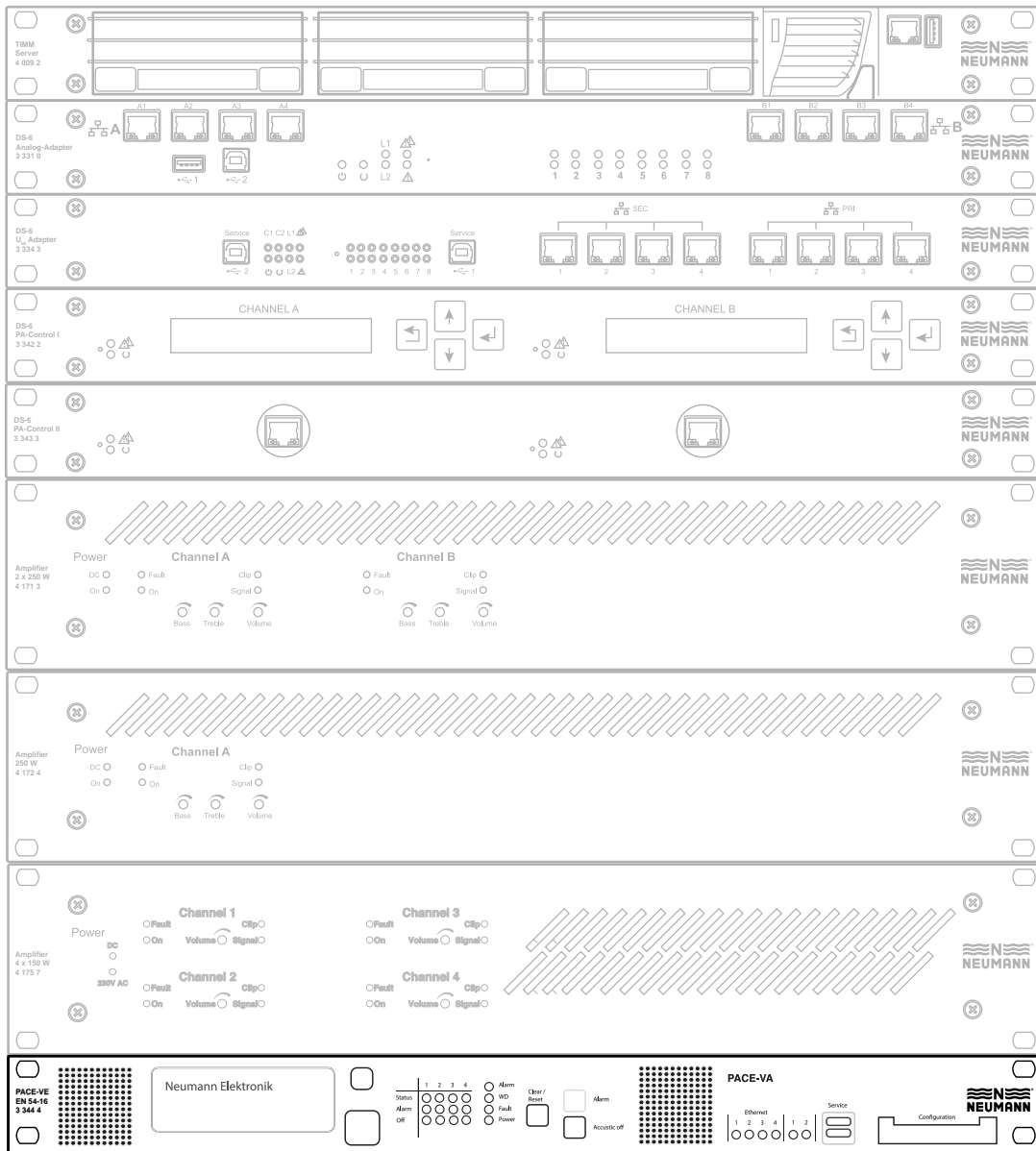
4-way
switch

19"

certified
EN 54-16

ultra
compact

1HE
19"
 4x 150W / 200W
or
2x 300W / 400W
or
1x 600W / 800W



3 344 4

Voice alarm center unit PACE-VA EN 54-16
Edition 01-2020 / Page 1
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Maximum comfort in difficult environments

**EN 54-16 certified and
VDE 0833-4 and EN 50849 compliant**

up to 4 parallel streams simultaneously on the speaker lines

integrated TTS (Text-to-Speech) Engine

VoIP integration

low voltage emergency power supply with full performance

**DSP functions: filter, EQ, adjustable delay,
volume adjustment, channel mixer**

integrated Ethernet 4-port switch

up to 4 audio inputs

up to 4 audio outputs

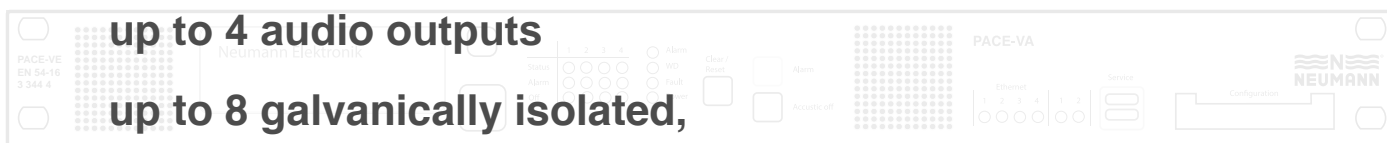
**up to 8 galvanically isolated,
quiescent current monitorable control inputs**

**up to 4 galvanically isolated control inputs
with additional quiescent current monitoring**

up to 8 galvanically isolated control outputs

**up to 4 galvanically isolated,
quiescent current monitorable control outputs**

**up to 4 galvanically isolated,
current-fed [I20mA] measuring inputs**



3 344 4

Voice alarm center unit PACE-VA EN 54-16
Edition 01-2020 / Page 2
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The PACE-VA is an ultra-compact, multi-channel sound reinforcement system.

The PACE-VA meets all requirements of EN 54-16 and is designed for use as a voice alarm system (SAA) in accordance with VDE0833-4 and supports the gradual evacuation by configuring alarm sequencers. The high availability during operation, a free network topology as well as the possibility of redundant interconnection allows the application of PACE-VA for all security levels and in all building classes.

Standard protocols are used for the connection of external network components, and the PACE system structure and configuration is very simple thanks to the auto-discovery function within WeNet. The monitoring of the transmission paths and the integrated error checking of all system interfaces and ports reduce the effort for inspection and maintenance.

A comprehensive range of products and accessories enables the flexible expansion and adaptation of the PACE-VA to different installation environments.

Mechanical data

Dimensions (H x W x D)	43,7mm x 482,5mm x 360 mm
Installation dimensions	width 19“, 1HE according to DIN EN 60297, installation depth: 360mm without connectors (space required for cabling \geq 90mm)
Weight	approx. 5,5 kg

Technical data

Nominal operating voltage (voltage range)	DC48V (DC42V ... DC60V) AC230V (AC100V ... AC260V) , 40 ... 60Hz
Peak input current	20A (DC48V), 3,5A (AC230V)
Inrush current	< 25A (DC48V), < 16A (AC230V)
Power dissipation (in idle mode) plus per active amplifier	25W
Speech reinforcement (-12dB)	+ 10W
Sound reinforcement (-9dB)max.	+ 15W
output power (0dB)	+ 30W
Connected load / max.power consumption	1kW

Amplifier data

Quantity	4 x Class D
Amplifier outputs [LS Out]	8 (4x with A/B wiring)
Amplifier type	100V, galvanically isolated
Output power	4 x 150W (4 x 200W according to EIA SE-101-A-19149) <ul style="list-style-type: none">• EN60268-3:2013 distortion limited output power• DIN EN 54-16 Output power requirement• FTC 63FR37233 Title 16, paragraph 1, part 432, rated power• EIA SE-101-A-1949
Power output configuration	4 x 150W (4 x 200W according to EIA SE-101-A-1949) 2 x 300W (2 x 400W according to EIA SE-101-A-1949) 1 x 300W, 2 x 150W (2 x 200W according to EIA SE-101-A-1949) 1 x 450W, 1 x 150W (1 x 200W according to EIA SE-101-A-1949) 1 x 600W (1 x 800W according to EIA SE-101-A-1949)
Frequency response	20Hz ... 20kHz (-3dB)
Damping factor	>50
S/N ratio	>100dB (S-AES17)
Crosstalk attenuation	>80dB
Distortion THD+N	<0,5% bei 1kHz
Monitoring	Impedance, power and earth fault measurement
Emergency outputs [Standby Amp]	4 connections

Environmental conditions

Permissible operating temperature range	0°C ... +42°C
Storage temperature range	0°C ... +60°C
Operating humidity	5% ... 85%
Ingress Protection	IP30 according to DIN EN 60529
Protection class	Class I (EN 61140)

Interfaces

4x Audio inputs [AudioIn]	
Input level	-9dBu nominal, +6dBu maximal, symmetrisch
Input impedance Z_{in}	> 10k Ohm
Frequency range	20Hz ... 20kHz
Sound noise ratio SNR	> 90dB (A-bewertet)
Distortion THD+N	< 0,1%
4x Audio outputs [AudioOut]	
Output level	-9dBu nominal, +6dbu maximal, balanced
Output impedance Z_{out}	> 100 Ohm
Frequency range	20Hz ... 20kHz (-3dB)
Sound noise ratio SNR	> 100dB (A-rated)
Distortion THD+N	< 0,1%
2 USB-A Ports [Service]	1x host, 1x device (configurable as host)
4 Ethernet Ports [ETH1] [ETH2] [ETH3] [ETH4], PoE	10/100 BaseT In total per device: WM- 1x class 0 or 1x class 3 or 3x class 2 or 4x class 1
8x GP inputs [GpIn] [GpInMon]	9 - 60V, 0.5mA, galvanically isolated, all optionally quiescent current monitored (DIN VDE 0833-4) 4x optionally quiescent current monitoring (to connect manual call points)
8x GP outputs [GpOut]	< 60V, < 0.1A, galvanically isolated
4x GP Outputs fire detection system [GpOutMon]	2x NC (normally closed) and 2x NO (normally opened) quiescent current monitored (DIN VDE 0833-4) galvanic isolated
4x Current-fed measuring inputs (for measuring microphones) [I20mA]	4-20mA (with 24V source) galvanic isolated to earth
2x Control power [GpPwr]	< 12V, min. 50mA
1x Desktop microphone station [TS]	For desktop microphone station TS10

Essential software functions

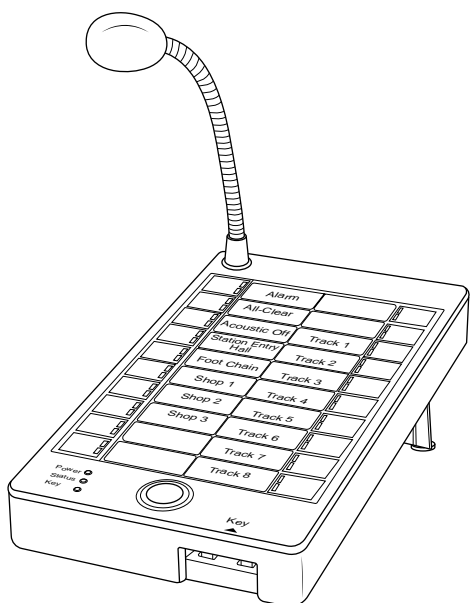
DSP functions	Filter, EQ, delay, adjustable delay, frequency shifter, volume adjustment, channel mixer, high pass and low pass filter per input channel
Supported audio codecs for speech	G.711 PCMU/PCMA 8kHz G.722 16kHz broadband, Speex 8kHz narrow band, Speex 16kHz broadband, Speex 32kHz ultra-broadband, PCM linear 16Bit, 8 - 48kHz
Supported audio codecs for sounds and announcements (files)	MPEG Audio Layer III (MP3) PCM Linear 16Bit, 48kHz (WAV)
VoIP protocols	SIP, RTP, RTSP, RTCP
Other announcement device functions	Text-to-Speech

Accessories

ART.-NO.	ARTICLE	DESCRIPTION
13554	Desktop station PACE-CS20	DIN EN 54-16, 20 keys
13565	Desktop station PACE-CS20R	DIN EN 54-16, 20 keys redundant
13576	Desktop station PACE-CSTP	DIN EN 54-16, touch screen
13587	Desktop station PACE-CSTPR	DIN EN 54-16, touch screen redundant
13598	Fire department call station PACE-CS5A	DIN EN 54-16, 5 + 2 keys

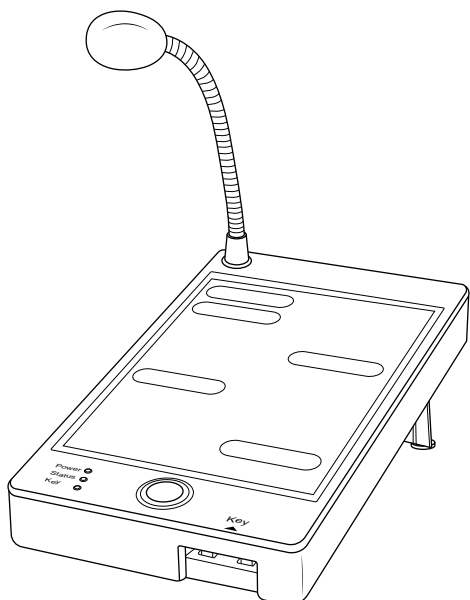
Voice alarm center unit PACE-VA EN 54-16

Complementary intercom stations



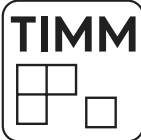
**Desktop station
PACE-CS20
DIN EN 54-16, 20 keys**

Art.-No. 1 355 4



**Desktop station
PACE-CSTP
DIN EN 54-16, Touch screen**

Art.-No. 1 357 6



Control centre

Industrial control

Video

Telephone

Process control

Access control

Evacuation

emergency call

Personal radio

Fire alarm system

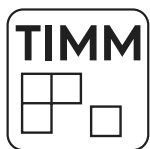
Intercom

Emergency exit control

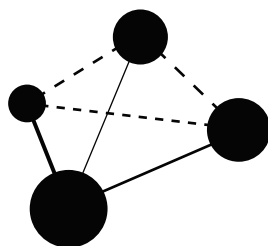
Public address system

Radio

Building services engineering



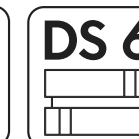
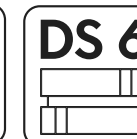
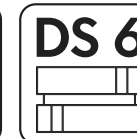
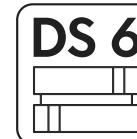
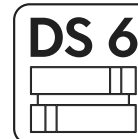
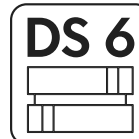
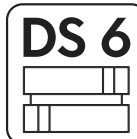
TIMM ComServer



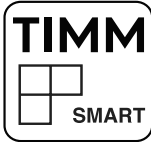
IP network



1-n



1-n



↓↑



↓↑



↓↑



↓↑



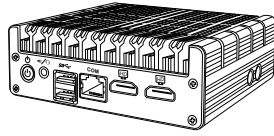
I/O Modul
NE 4 475 0

↓↑



CANopen

↓↑



NE 3 358 9
TIMM SMART



WEB Server



Config / state



SNMP / MIB

Com Server Application

Gateway Application

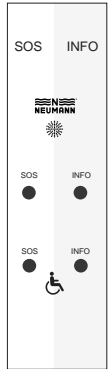
Speechbox* NE 5 067 8

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_{k0} 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

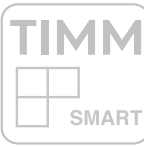
DS 6 Call station (panel-mounted) NE 1 28X X¹

DS 6 Crane call station NE 1 156 3

DS 6 WFD IP Call station NE 1 5XX X¹

DS 6 WFD IP Compact call station NE 1 87X X¹

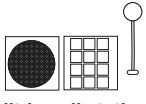
¹⁾: various models; product numbers depending on individual requirements.



I/O Modul
N 4 475 0



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



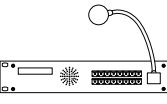
Built-in call station
(panel assemblies)
N 1 29X X¹



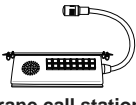
MTSD IP42
Call station
N 1 085 4



MTSD
Call station
N 1 045 0



Rack mounting station
19 Zoll
N 1 27X X¹



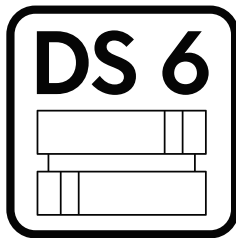
Crane call station
N 1 156 3



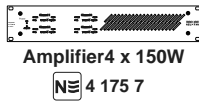
WFD IP
Weatherproof
compact call station
N 1 87X X¹



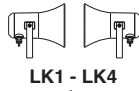
WFD IP Weatherproof
intercom station
N 1 59X X¹
N 1 681 6



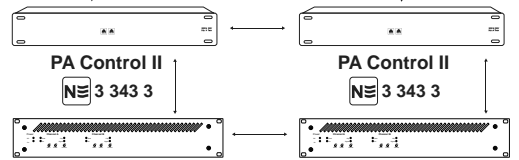
MTSD
U_{k0} Call Station
N 1 84X X¹



Amplifier 4 x 150W
N 4 175 7



LK1 - LK4

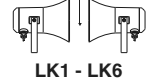


PA Control II
N 3 343 3

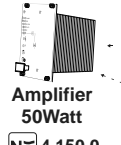


LK1 - LK6

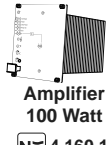
Amplifier
N 4 1XX X¹



LK1 - LK6

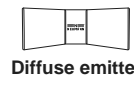


Amplifier
50Watt
N 4 150 0



Amplifier
100 Watt
N 4 160 1

LK1 - LK4²⁾



Diffuse emitter
N 4 805 7

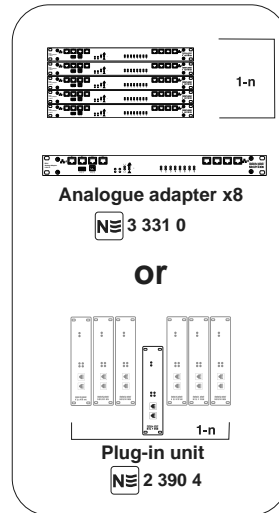
LK1 - LK4²⁾



Diffuse emitter
N 4 805 7

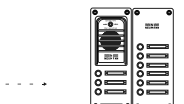


UHF (Ultra High Frequency)

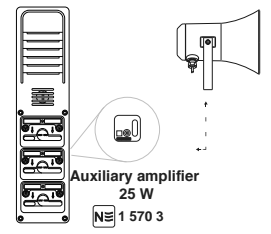


Analogue adapter x8
N 3 331 0

Plug-in unit
N 2 390 4



WFAK Analogue
call station compact
WFAK Additional housing
N 1 9XX X¹



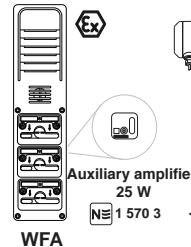
WFA
Weatherproof call station
N 1 5XX X¹



MTSA
Call station
N 1 75X X¹



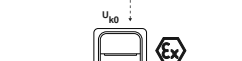
U_{k0} II Adapter 8x
N 3 334 3



WFA
Weatherproof call station
N 1 5XX X¹



WL 1 Watt
Universal amplifier
N 1 841 4



U_{k0} II Adapter 8x
N 3 334 3



WFD-Ex
Explosion-proof call
station U_{k0}
N 1 5XX X¹



WFA
Weatherproof call station
N 1 5XX X¹



WFA Weatherproof call station
with additional housing U_{k0}
N 1 59X X¹
N 1 6XX X¹

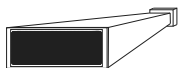
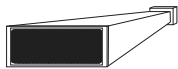
1) different models;
product numbers according to
individual requirements
2) optional



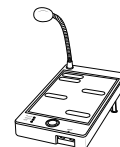
tunnel horn/ boundary horn speaker
NE 4 76X X



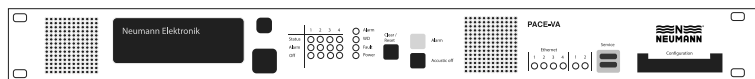
tunnel horn/ boundary horn speaker
NE 4 76X X



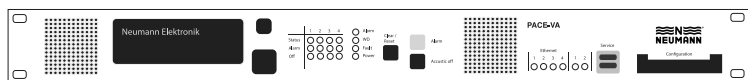
Desktop call station PACE-CSTP
DIN EN 54-16, Touch screen
NE 1 357 6



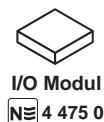
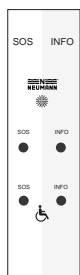
Desktop call station PACE-CS20
DIN EN 54-16, 20 Keys
NE 1 355 4



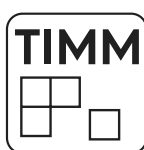
Voice alarm center unit
PACE-VA, EN54-16
NE 3 344 4



1-n



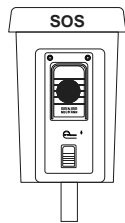
I/O Modul
NE 4 475 0



MODBUS
TCP-IP



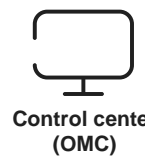
CANopen



Emergency call station
NE 1 0XX X¹⁾



1-n



1-n



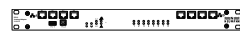
MTSD
Desktop call station
NE 1 045 0



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

¹⁾ different models; product numbers according to individual requirements



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3 344 4

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Edition 01-2020 / Page 12
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