

AUDIO FOR LIF(V)E and safety **`FC** AUSTRIA itec-audio.com





EN 54-16 certified voice alarm system



System overview

System components:

In the future, safety PA systems are going to replace the classic siren alarm. The reason for this is that these days only few people react to siren alarms, and alarms, evacuation signals, alarm cancellations, etc. can no longer be differentiated. In contrast, using clear voice instructions a building can be very efficiently evacuated in the event of fire or an emergency. The larger a building, and the more people there are in this building, the more important it is to install a modern safety PA system.

Our ITEC NET Development team has considered these requirements from the very beginning. Complete system monitoring, surveillance of emergency microphones, amplifiers, speech memories, speaker lines, and of the energy supply. Thanks to the decentralised concept, ITEC NET also allows for fully redundant systems at the highest safety level, and there is no single point of failure. A multitude of standards regulate planning, installation, operation and production of so-called safety PA systems. With ITEC NET we did our part to meet the manufacturer requirements for EN 54-16 certification, and in many areas we even exceeded them.

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ITEC NET - Highlights

(11)°	Ethernet based multichannel audio system for public address, music emergency and broadcast applications	SWITCH 4/1
())	Simultaneous transmission of up to 64 digital audio channels in studio quality (48 kHz / 24 bit), with a constant latency period of 1.33 ms (digital)	DIGIPOWER 1x250T
(1)	Distributed audio system no "single point of failure"	DIGIPOWER 2x250T
	Real-time configuration with ITEC NET - NET DESIGN: Allows system configuration changes during normal operation of the system	INDICATION BOARD / LEVEN 2
	Real-time audio transmission: Constant latency of 4.6 ms analog-in/analog-out	EOL 2 / EOL 3
(1)	Up to 4000 devices can work simultaneously together in a network	AVC-MIC
	Up to 16,000 output zones in one audio network	AVC-MONITORING
(Can also be used with standard Ethernet network components	
	Integrated 2 GB memory card for alarm texts and music files Recording Capacity 256 files, total time about 3 hours!	EARTH FAULT MONITORING
(1)	Integrated real-time recorder for delayed announcements	SOFTWARE ITEC NET
1	Speaker impedance and line monitoring during program mode	API SOFTWARE / UP REMOTE O
(ITEC NET application interface (TCP / IP) for connecting to security management systems	BACKUP POWER SUPPLY
	It has never been so easy to plan complex audio systems	NEODYMLINE WP
	System components certified according to EN 54-16	
	ITEC NET DESIGN configuration software	

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	ЗU





System component: Spider 44



ITECNET SPIDER





GENERAL	
EXTERNAL POWER SUPPLY	switching power sup
Current	300 mA (370 mA incl
	measures without ap
DIMENSIONS	482 x 44 x 180 mm (\
WEIGHT	3,1 kg
AUDIO	
AUDIO FREQUENCY RESPONSE	40 Hz-20 kHz/-1 dB
HARMONIC DISTORTION	<0,005 %
GENERAL DYNAMICS	103 dB
BALANCED INPUTS	max. free selectable
Phantom power	+12 V, optional +24
Input impedance	6,6 kOhm
BALANCED OUTPUTS	max. output level +1
SOUND PROCESSING	
PER OUTPUT	4-band fully paramet
	bandpassfilter: 1st -
Filter quality	selectable from 0.1 to
SERIAL INTERFACES	
RS 232/RS 485	9200/19200 baud
DIGITAL INPUTS	8 schmitt-trigger inpu
INPUT VOLTAGE	Low < 1,6 V / High >
MAX. ALLOWABLE VOLTAGE	18 V
INPUT CURRENT (@10 V)	about 0,2 mA
DIGITAL OUTPUTS	8 open-collector outp
MAXIMUM VOLTAGE	36 V
MAXIMUM OUTPUT CURRENT	200 mA per output /
ANALOG INPUTS	8 analog inputs on pl
RANGE	0-10 V DC
RESOLUTION	8 Bit
INPUT CURRENT (@10 V)	about 0,2 mA
DRY CONTACT ALARM RELAY	
MAX. VOLTAGE / MAX. SWITCHING POWER	48 V AC/DC / 500 mA
NETWORK	Ethernet 100 Base-T

Network component

TEC

- Ethernet-based multi-channel PA system for alarming, evacuation, music and broadcasting
- Simultaneous transmission of up to 64 digital audio channels in studio quality (48 kHz / 24 bit), with a constant latency period of 1.33 ms (digital)
- Distributed audio system no "single point of failure"
- Real-time configuration with ITEC NET NET DESIGN: Allows system configuration changes • during normal operation of the system.
- Real-time audio transmission: Constant latency of 4.6 ms analog-in/analog-out
- Up to 4000 devices can work simultaneously together in a network
- Up to 16,000 output zones in one audio network
- Integrated 2 GB memory card for alarm texts and music files. Recording Capacity 256 files, total time about 3 hours!
- Integrated real-time recorder for delayed announcements
- Speaker impedance and line monitoring during program mode •
- AVC: automatic volume control •
- ITEC NET application interface (TCP / IP) for connecting to security management systems
- Remote maintenance, remote control, various interfaces for fire alarm systems
- 24VDC power for supply using EN54-4-certified energy supply equipment

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ITTECNET & SPIDER 44
-
— 482 mm — — — — — — — — — — — — — — — — — —
— 431 mm —
pply or 24 V DC (18 V $<$ V $>$ 32 V)
luding line monitoring),
$W \times H \times D$). 19" / 1 rack unit
gain -20 dB to +60 dB
v alternatively +48 v
15 dB. output impedance 300 Ohm
tric equalizer ± 15 dB, delay: 0.023 ms-24.5 s 4th ORDER
o 70
puts on plug in-terminal strip
total 500 mA (sum of all outputs switched)
olug in-terminal strip
A
X. IFFE 802.3u

System component: Spider 04



ITECNET SPIDER 01





GENERAL	
EXTERNAL POWER SUPPLY	switching powe
Current	300 mA (370 m
	measures witho
DIMENSIONS	482 x 44 x 180
WEIGHT	3,1 kg
AUDIO	
AUDIO FREQUENCY RESPONSE	40 Hz-20 kHz/-*
HARMONIC DISTORTION	<0,005 %
GENERAL DYNAMICS	103 dB
BALANCED OUTPUTS	max. output lev
SOUND PROCESSING	
PER OUTPUT	4-band fully par
	bandpassfilter:
Filter quality	selectable from
SERIAL INTERFACES	
RS 232/RS 485	9200/19200 ba
DIGITAL INPUTS	8 schmitt-trigge
INPUT VOLTAGE	Low < 1,6 V / H
MAX. ALLOWABLE VOLTAGE	18 V
INPUT CURRENT (@10 V)	about 0,2 mA
DIGITAL OUTPUTS	8 open-collecto
MAXIMUM VOLTAGE	36 V
MAXIMUM OUTPUT CURRENT	200 mA per out
ANALOG INPUTS	8 analog inputs
RANGE	0-10 V DC
RESOLUTION	8 Bit
INPUT CURRENT (@10 V)	about 0,2 mA
DRY CONTACT ALARM RELAY	
MAX. VOLTAGE / MAX. SWITCHING POWER	48 V AC/DC / 5
NETWORK	Ethernet 100 Ba

Network component

TTEC

- · Ethernet-based multi-channel PA system for alarming, evacuation, music and broadcasting
- Simultaneous transmission of up to 64 digital audio channels in studio quality (48 kHz / 24 bit), with a constant latency period of 1.33 ms (digital)
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- Speaker impedance and line monitoring during program mode
- AVC: automatic volume control
- ITEC NET application interface (TCP / IP) for connecting to security management systems

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- Remote maintenance, remote control, various interfaces for fire alarm systems
- 24VDC power for supply using EN54-4-certified energy supply equipment



	ITECNET © SPIDER 04	•
	_	М
— 482 mm —		
DC 24V	<u></u>	
AS NO USER REPROCEASE PARTS INSOL REPER BRANCHS TO CALL HED SERVICE FERSIONEL [] [] [] CN ET SPIDER [] []	Made in Austria www.itec-audio.com	
431 1111	1	
		-
er supply or 24 V DC (18 V $<$ V $>$ 32 V)		
A including line monitoring),		
out applied load on the 10 V DC Voltage		
mm (W x H x D), 19" / 1 rack unit		
	_	
	_	
1 dB		
al 15 dB output impodance 200 Ohm		
	_	
rametric equalizer + 15 dB. delay: 0.023	ms-24.5 s	
1st – 4th ORDER		
n 0.1 to 70		
ud		
er inputs on plug in-terminal strip		
High > 8 V		
or outputs on plug in-terminal strip		
tput / total 500 mA (sum of all outputs sw	itched)	
s on plug in-terminal strip		
500 mA		

ase-TX, IEEE 802.3u

System component: SpiderLine 16

1 2 3 4



ITECNET SPIDERLINE

Specifications: SpiderLine 16 ITEC ** NET





Network component

SITEC

- Ethernet-based multi-channel PA system for alarming, evacuation, music and broadcasting •
- Simultaneous transmission of up to 64 digital audio channels in studio quality (48 kHz / 24 bit), with a constant latency period of 1.33 ms (digital)

- Distributed audio system no "single point of failure"
- Real-time configuration with ITEC NET NET DESIGN: Allows system configuration changes • during normal operation of the system.
- Real-time audio transmission: Constant latency of 4.6 ms analog-in/analog-out
- Up to 4000 devices can work simultaneously together in a network
- Up to 16,000 output zones in one audio network
- Integrated 2 GB memory card for alarm texts and music files. Recording Capacity 256 files, total time about 3 hours!
- Integrated real-time recorder for delayed announcements
- Speaker impedance and line monitoring during program mode
- AVC: automatic volume control
- ITEC NET application interface (TCP / IP) for connecting to security management systems

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- Remote maintenance, remote control, various interfaces for fire alarm systems
- 24VDC power for supply using EN54-4-certified energy supply equipment.
- Backup concept conforming to standard, with option to switch to redundant • amplifier output stage

		ITECNET	SPIDERLINE 16	-
— 4	82 mm			
— 4	31 mm ——	nesmestan birke kasalari		

ca. 500 mA without pilot tone and without applied load on the 10 V DC Voltage . With internal pilot-tone amplifier in operation, depending on impedance (power) of the connected speakers, up to 5A.

482 x 44 x 357 mm (W x H x D), 19" / 1 rack unit

max. free selectable gain -20 dB to +60 dB

max. output level +15 dB, output impedance 300 Ohm

4-band fully parametric equalizer ± 15 dB, delay: 0.023 ms-24.5 s/bandpassfilter:

8 schmitt-trigger inputs on plug in-terminal strip

8 open-collector outputs on plug in-terminal strip

200 mA per output / total 500 mA (sum of all outputs switched))

System component: Spider Mike 2





GENERAL	
EXTERNAL POWER SUPPLY	switching power supply or 24 V
Current	260 mA, measured without app
DIMENSIONS	220 x 55 x 220 mm (W x H x D),
WEIGHT	2,2 kg (+ 1,9 kg each module)
AUDIO	
AUDIO FREQUENCY RE-	40 Hz-20 kHz/-1 dB
HARMONIC DISTORTION	<0,005 %
GENERAL DYNAMICS	103 dB
BALANCED INPUTS	max. free selectable gain -20 de
Phantom power	+12 V
Input impedance	6,6 kOhm
BALANCED OUTPUTS	OUT1: speaker 1 W; OUT2: bala
SOUND PROCESSING	
PER OUTPUT	4-band fully parametric equalize
	bandpassfilter: 1st - 4th ORDER
Filter quality	selectable from 0.1 to 70
SERIAL INTERFACES	
RS 232	9200/19200 baud
DIGITAL INPUTS	4 schmitt-trigger inputs on plug
INPUT VOLTAGE	Low < 1,6 V / High > 8 V
MAX. ALLOWABLE VOLTAGE	18 V
INPUT CURRENT (@10 V)	about 0,2 mA
DIGITAL OUTPUTS	6 open-collector outputs on plu
MAXIMUM VOLTAGE	36 V
MAXIMUM OUTPUT CURRENT	200 mA per output / total 500 m
ANALOG INPUTS	6 analog inputs on plug in-term
RANGE	0-10 V DC
RESOLUTION	8 Bit
INPUT CURRENT (@10 V)	ca. 0,2 mA
MICRO SD-CARD SLOT	
STORAGE CAPACITY	for Micro SD cards up to 2 GB
NETWORK	Ethernet 100 Base-TX, IEEE 802

Alarm and business call station, network component

- Full-fledged ITEC NET system component, network device •
- Up to 4000 devices can work simultaneously together in a network
- Ethernet-based multi-channel PA system for alarming, evacuation, music and broadcasting •
- Simultaneous transmission of up to 64 digital audio channels in studio quality (48 kHz / 24 bit) •
- Real-time configuration with ITEC NET NET DESIGN: Allows system configuration changes • during normal operation of the system.
- Real-time audio transmission: Constant latency of 4.6 ms analog-in/analog-out •
- Gooseneck microphone, dynamic or electret condenser capsule
- Microphone and line monitoring
- redundant line connection for high-security connections
- Integrated 2 GB memory card for alarm texts and music files. Recording Capacity 256 files, • total time about 3 hours!
- Integrated real-time recorder for delayed announcements
- ITEC NET application interface (TCP / IP) for connecting to security management systems
- 24VDC power for supply using EN54-4-certified energy supply equipment



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DC (18 V < V > 32 V)			
lied load on the 10 V DC voltage (+ 30 mA per module)			
W + 220 mm of each module			
3 to +60 dB			
anced; max. output level +15 dB, output impedance 300 Ohm			
er ± 15 dB, delay: 0.023 ms-24.5 s			
1			
in-terminal strip			
g in-terminal strip			
A (sum of all outputs switched)			
inal strip			

System component: Fire Fighters Call Station





Fire Fighters Call Station and control panel (ÖNORM F 3033), network component

- Alarm call station with housing and operating panel according to standard
- Full-fledged ITEC NET system component, network device •
- Up to 4000 devices can work simultaneously together in a network
- Ethernet-based multi-channel PA system for alarming, evacuation, music and broadcasting •
- Simultaneous transmission of up to 64 digital audio channels in studio quality (48 kHz / 24 bit) •
- Real-time configuration with ITEC NET NET DESIGN: Allows system configuration changes • during normal operation of the system
- Real-time audio transmission: Constant latency of 4.6 ms analog-in/analog-out •
- Dynamic hand-held microphone •
- Microphone and line monitoring •
- Integrated 2 GB memory card for alarm texts and music files. Recording Capacity 256 files, total time about 3 hours!
- 24VDC power for supply using EN54-4-certified energy supply equipment



GENERAL	
EXTERNAL POWER SUPPLY	switching power supply or 24
Current	260 mA, measured without ap
DIMENSIONS	200 x 300 mm (W x H)
WEIGHT	4,5 kg
AUDIO	
AUDIO FREQUENCY RESPONSE	40 Hz-20 kHz/-1 dB
HARMONIC DISTORTION	<0,005 %
GENERAL DYNAMICS	103 dB
BALANCED INPUTS	max. free selectable gain -20
Phantom power	+12 V
Input impedance	6,6 kOhm
BALANCED OUTPUTS	OUT1: speaker 1 W; OUT2: b Ohm
SOUND PROCESSING	
PER OUTPUT	4-band fully parametric equal bandpassfilter: 1st – 4th ORD
Filter quality	selectable from 0.1 to 70
SERIAL INTERFACES	
RS 232	9200/19200 baud
DIGITAL INPUTS	4 schmitt-trigger inputs on plu
INPUT VOLTAGE	Low < 1,6 V / High > 8 V
MAX. ALLOWABLE VOLTAGE	18 V
INPUT CURRENT (@10 V)	about 0,2 mA
DIGITAL OUTPUTS	6 open-collector outputs on p
MAXIMUM VOLTAGE	36 V
MAXIMUM OUTPUT CURRENT	200 mA per output / total 500
ANALOG INPUTS	6 analog inputs on plug in-ter
RANGE	0-10 V DC
RESOLUTION	8 Bit
INPUT CURRENT (@10 V)	ca. 0,2 mA
MICRO SD-CARD SLOT	
STORAGE CAPACITY	for Micro SD cards up to 2 GB
NETWORK	Ethernet 100 Base-TX, IEEE 8



V DC (18 V < V > 32 V)oplied load on the 10 V DC voltage

dB to +60 dB

alanced; max. output level +15 dB, output impedance 300

lizer ± 15 dB, delay: 0.023 ms-24.5 s DER

ig in-terminal strip

lug in-terminal strip

mA (sum of all outputs switched)

minal strip

02.3u

System component: Switch 4/1

FX 1 2 3 4 ON • • • • • • • • A



ITECNET SWITCH

м В



GENERAL		
POWER SUPPLY	external switching powe	
Current consumption @ 24 V	160 mA in idle mode, +	
DIMENSIONS	482 x 44 x 125 mm (W x	
WEIGHT	2,4 kg	
NETWORK	NETWORK	
STANDARD	Compliant with IEEE 802	
	Compliant with IEEE 802	
PORTS		
COOPER	2 x 4 ports on RJ45 con	
Fiber optic	2 x fiber optic ports on S	
SERIAL INTERFACE		
RS 232	for configuration (in pre	

Network switch

STTEC

- ITEC NET is an audio network which is based on the IEE-802.3 Ethernet standards. Therefore, you can use existing network structures as well as all commercial components, such as network switches.
- The ITEC NET Switch4/1 ensures that the entire network can be built using components providing equal reliability, longevity and robustness. The availability of structurally identical components and spare parts must be ensured for many years, which applies to network switches just as to all other ITEC NET components. This enables us to always meet the requirements for EN 54-16 certification.
- 24VDC power for supply using EN54-4-certified energy supply equipment.

Specifications: Switch 4/1 ITEC NET

System component: DigiPower 1x250T



Specifications: DigiPower 1x250T ITEC NET



Power amplifier

- LED indicators for signal and operating conditions
- Monitoring contacts for battery
- Monitoring contacts for the output amplifier
- Low installation depth of only 260 mm
- All feed lines with plug-in, screw terminals
- Balanced Inputs
- Automatic standby mode
- Protection against open circuit, short circuit, over temperature, DC
- 230V AC and 24V DC power supply
- Switching on delay



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TYPE	1x250T
Output Power	1 x 250 V
Total Harmonic Distortion	< 0,2 %
Input sensitivity	1V @ 10
Output transformer	50 V / 10
DC current consumption in standby mode	400 mA
DC current consumption during 230V AC operation	40 mA
Inputs	symmetri
Supply voltage	230 V AC
Noise ratio 250W 1 kHz	85 dB
Frequency response	70 Hz ÷ 2
Operating temperature	-5° to +4
Protection circuits	DC, shor
Dimensions	482 x 88
Weight	11,2 kg

/			
kOhm			
V C			
cal on s	crew terminal		
/ 24 V [DC		
20 kHz /	/ -3 dB		
О°			
circuit,	resonance, ov	ver temperature	
x 260 m	im (W x H x D)	, 19" / 2HU	

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System component: DigiPower 2x250T







- LED indicators for signal and operating conditions
- Monitoring contacts for battery
- Monitoring contacts for the output amplifier
- 2 channels in a 19-inch, 2 units of height case
- Low installation depth of only 260 mm
- All feed lines with plug-in, screw terminals
- Balanced Inputs
- Automatic standby mode
- Protection against open circuit, short circuit, over temperature, DC
- 230V AC and 24V DC power supply •
- Switching on delay



11



TYPE	2x250T
Output Power	2 x 250 V
Total Harmonic Distortion	< 0,2 %
Input sensitivity	1V @ 10
Output transformer	2 x 50 V
Power consumption in standby mode (230V)	10 W
Power consumption at full load (230V)	630 W
DC current consumption in standby mode	400 mA
DC current consumption during 230V AC operation	40 mA
Inputs	symmetr
Supply voltage	230 V A0
Noise ratio 250W 1 kHz	85 dB
Frequency response	70 Hz ÷
Operating temperature	-5 $^{\circ}$ bis +
Protection circuits	DC, shor
Dimensions	482 x 88
Weight	16,5 kg



/ or 1 x 500 W
kOhm
100 V
cal on screw terminal
: / 24 V DC
20 kHz / -3 dB
40°
t circuit, resonance, over temperature
x 260 mm (W x H x D), 19" / 2HE







Design: switch board mounting

Indication panel according to EN 54-16 for visual and audible status indication

- Display panel according to EN54-16 for visual and acoustic status indication
- Colour-coded visual display of operation, faults and voice alarming
- Fault indication with acoustic warning signal
- Button for acoustic warning acknowledgment
- 24VDC power supply
- All inputs and outputs galvanically isolated from supply voltage (DC/DC converter on the board)
- Potential-free relay contact signalises unit's operating state (closed when voltage supply OK / operational)
- All connections on pluggable terminal blocks
- Design: 19", 1 RU (optional 142 x 65 mm aluminium plate for switch board mounting) Open Frame design

System component: Level 2 Control Panel





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Control panel to EN 54-16

- Control panel in compliance with EN 54-16
- Manual voice alarm trigger button (red)
- Voice alarm LED (red)
- Manual voice alarm reset button (black)
- Voice alarm silence button (green)
- Silence LED (green)
- Fault indication reset button (black)
- Model: 19", 1RU

END-OF-LINE module "passive"

- Passive loudspeaker monitoring module
- Line monitoring module according to EN 54-16
- Suitable for 100V systems
- standard 2 wire speaker cable

POWER SUPPLY	8-100V AC
POWER CONSUMPTION	1 W
PROTECTION	IP54
# MODULES PER AMPLIFIER	4 (max.)
# MODULES PER SPEAKER LINE	1
# MODULE PER SPIDER / SPIDER LINE	16 (max.)
LINE POWER	300 W (max.)
DIMENSIONS	40 x 13 x 24 mm
WEIGHT	ca. 25 g
WIRING	2 x 1,5 mm ²

System component: EOL 3

END-OF-LINE module "active"

- Line monitoring module according to EN 54-16
- Suitable for 100V systems
- No additional cabling through active communication (standard 2-wire)
- Addressable monitoring component

POWER SUPPLY	8-100V AC
POWER CONSUMPTION	Max 150 mW typ 100 n
PROTECTION	IP54
# MODULES PER AMPLIFIER	16 (max.)
# MODULES PER SPEAKER LINE 1	16 (max.)
# MODULE PER SPIDER / SPIDER LINE	64 (max.)
LINE POWER	500 W (max.)
DIMENSIONS	71 x 61 x 30 mm
WEIGHT	ca. 100 g
WIRING	2 x 1,5 mm ²









mW			

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Component for automatic SPL-leveling of speaker-zones in dependence of environmental noise levels

- Electret condenser microphone with IP65 protective housing
- Supply via phantom power (no separate power supply needed)
- Balanced output
- Mic level or line level (particularly immune to interference) •
- Easy assembly and installation •
- Connection to 3-pin plug-in terminal
- Linear frequency response of 100 Hz 10 kHz



Monitoring component. Line monitoring of AVC microphones

- · Open Frame module for installation in the system cabinet
- Easy installation, prepared for DIN-rail 35 mm
- All connections on plug terminal blocks ٠
- Collective fault relay contact (fault / OK) ٠
- Suitable for both mic level and line level
- Monitoring / summing up to four microphones .
- Provides the connected microphones with phantom voltage 12V •
- Exclusion of non-active lines by jumpers •



Specifications:	AVC – MIC	ITEC 🕷 NET
•		





TYPE	electret condenser microphone
POWER SUPPLY	12VDC phantom power (up to 48 V possible)
CURRENT	ca. 2mA @12V
OUTPUT LEVEL (MIC)	12 µV/Pa
OUTPUT LEVEL (LINE)	+ 25 dB
CASE MATERIAL / COLOR	ABS / light gray, similar to RAL7035
PROTECTION	IP54
DIMENSIONS	98 x 64 x 38 mm (length x width x depth)
WEIGHT	ca. 140 g
CONDUIT	PG 9 cable joint (cable OD 2.5 - 8mm)

POWER SUPPLY	24VDC
CURRENT	ca. 100 mA
POWER SUPPLY MICROPHONES	12VDC (gal
MONITORING PER LINE	open, short,
RELAY CONTACT	max. 48 Volt/
DESIGN	Open Frame
DIMENSIONS	75 x 70 x 40
WEIGHT	0,1kg
MOUNTING	DIN-rail 35 m





Specifications: AVC - Monitoring ITEC IN NET

Ivanically isolated from power supply) short to ground /500 mA module for cabinet installation mm (height x width x depth) nm



Component for ground fault monitoring of safety-relevant components, such as firefighters- and security callstations and remote-control panels

- Open Frame module for the installation in a system cabinet •
- Easy installation, prepared for DIN-rail 35 mm
- All connections on plug terminal blocks
- Collective fault at relay changeover contact (Fault / OK)
- Switch to lower sensitivity (10k) by jumper setting

Specifications: Earth Fault Monitoring ITEC INET

Connector 24 VDC and protective conductor



POWER SUPPLY	24VDC (= the voltage to be monitored)
CURRENT	ca. 100 mA
THRESHOLD	50 kOhms (10 kOhms if JP1 and JP2 closed)
RELAY CONTACT	max. 48 Volt / 500 mA
DESIGN	Open Frame module for cabinet installation
DIMENSIONS	75 x 70 x 40 mm (height x width x depth)
WEIGHT	0,1 kg
MOUNTING	DIN-rail 35 mm
CURRENT THRESHOLD RELAY CONTACT DESIGN DIMENSIONS WEIGHT MOUNTING	ca. 100 mA 50 kOhms (10 kOhms if JP1 and JP2 closed) max. 48 Volt / 500 mA Open Frame module for cabinet installation 75 x 70 x 40 mm (height x width x depth) 0,1 kg DIN-rail 35 mm

Software

ITEC NET DESIGN is a Windows-based application for configuring and monitoring the entire ITEC NET network. Included is a TCP/IP interface (ITEC NET API) allowing a direct link to other control systems, such as media control or security management systems. In addition NET DESIGN offers the possibility to update the DSP- and control software from any point of the network. The huge number of monitoring and logging capabilities ensures a safe operation within this large audio and data distribution system.

A particular highlight is the exceptional possibility of real-time configuration: The technician can configure "ITEC NET Systems" in real-time during operation without the need for a system re-boot afterwards. The software runs on Windows XP / Server 2003 / Windows 7 / Server 2008







In this window you will find all ITEC NET components plus

Photos or sketches of the system floor plan can be used as background information with a free arrangement of all components. The "jump to " function guickly finds all devices with direct access to the configuration pages.



Keypad Config Table

Different functions can be assigned to each soft key, e.g.: Zone selection Talk kev All Zones Chime Delete Alarm texts + / -, up / down, etc.

System component: API Software

ITEC NET

Remote-control component

This TCP/IP based software interface for ITEC NET offers all necessary functions to operate and monitor a system. Using the free available software "ITEC tablet designer" an application has been implemented. This program allows you easily to manage complex PA systems via an amateur safe and self-explanatory graphical user interface. The user interface can be arranged freely and is highly flexible due to its modular design. Another request to the interface, that had been implemented, was the connection of "ITEC NET" to higher-level security management systems to combine all security relevant disciplines in a large building (fire alarm systems, access systems, video surveillance, etc.).



Power supply

Backup power supply for system designs according to EN 833-4 and TRVB S 158 The digital power supply ITEC DSV54-4 is certified according to EN 54-4:1997 + A2: 2006. It is used to supply the components of the individual modules and for charging / monitoring of the emergency batteries. The power supply is intended for a connection to a 230 V/50 Hz (±15 %) power network and has to be connected via a two-pole pre-fuse of maximum 16 A. The integrated power supply provides power up to 300 W at 24 V DC. Thus during mains operation, in addition to the load current that is needed to recharge the batteries within 24 hours on at least 80 % of its rated capacity, sufficient power for the supply of 24 V system components (Spider44, SpiderMike2, Switch4 /1) is available (e.g.: 6 A for charging batteries with 160 Ah total capacity and 6 A for other devices). Supply voltage, connected batteries and the pre-fuses of the low-voltage outlets are monitored by the ITEC DSV54-4. Errors are reported via LEDs on the front side and via potential-free relay changeover contacts. The internal resistance of the batteries is also measured cyclical. In case the resistance gets greater than 20 mΩ, it is reported at the front side via LEDs and relay contacts. The device is equipped with a deep discharge protection, which is activated when the battery voltage drops below 1.8 V/cell and which ensures a reliable protection of the batteries.

System component: UP Remote Control Panel ITEC IN NET



Remote-control component

Wall-mount control panel, featuring program selection, output volume control, preset recall funktions. RS 485 communication protocol supports up to 16 panels. - Supporting and powered by ITEC NETand all ITEC Mixer- and Splitter series.









System component: NeodymLine WP



Decades of experience in the installation of professional sound systems have taught us that the impact of room acoustics on the speech intelligibility of sound events reproduced by speaker systems is more than important. All new standards in voice alarm sound reinforcement also require the compliance with respect to intelligibility values for announcements and CIS values greater than 0,7. In practice however it means, that for sound installations of halls and stands, the use of ceiling speakers, sound projectors and horn loudspeakers (even if certified) doesn't provide the desired results. Therefore we offer you for reverberant spaces strongly focusing sound columnes and for high-performance full-range applications our highpower fullrange speakers both as certified PA speakers. The most important ITEC PA speakers, which will be used within 100V full range applications as well as in voice alarm sound reinforcement systems, are currently under certification

Certified High-Power Speaker Systems

Achieving good speech intelligibility- and high SPL-values are required by all of the appropriate international standards. With "normal" ceiling speakers, sound-projectors and hornspeakers these requirements often can not be fullfilled, especially in highly reverberant rooms and halls. This is the reason for we decided to bring a couple of our highpower sound columnes and some of our fullrange highpower cabinets into certification acc. to EN 54-24 (in progress):

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ITEC NeodymLine series







MODELS	NEODYMLINE 4	NEODYMLINE 8	NEODYMLINE 16
Rated load	50 W / RMS	50 W / RMS	100 W / RMS
Nominal pressure dB/1W/1m	96	99	100*
Max SPL dB/50 (100) W	113	116	121*
Frequency response -6 dB	137 Hz - 14,8 kHz	125 Hz - 15,7 kHz	114 Hz - 14,8 kHz
Integrated power switch	(100) / 50 / 25 / 12,5 / 6.25 W	(only for 100 V-application)	
Housing and mounting hardware	Welded aluminium housings weatherproof, speaker grille	for weather-proof outdoor insta galvanized, powder coated, 2 n	llations (IP33), all drivers nounting brackets
Driver	4 Pcs. 3 "cone neodymium	8 Pcs. 3 "cone neodymium	16 Pcs. 3 "cone neodymium
Dimensions (W x H x D)	100 x 602 x 100 mm	100 x 967 x 100 mm	100 x 1918 x 100 mm
Weight	3.7 kg	5.4 kg	10.8 kg
Color	White, black		

* Extrapolated (sound line arrangements combine the individual driver sound energy and are therefore measured in the far field) Acoustically the "ITEC NeodymLine16" has to calculated with a sound pressure level decrease /distance doubling of only 3-4dB)

TEST CHARTS: ITEC NEODYMLINE 4, 8, 16

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