TCIS-1
IP and SIP Intercom

UL Certified Intercom
NEC Certified
Alcatel-Lucent Certified
CISCO Certified
Avaya Certified
Turbine
Door Intercom
IP66
Automatic Volume
HD Voice
Automatic Gain Control
Active Noise Cancelling
Voice Activity Detection
DESCRIPTION

- Industrial IP intercom
- Audio Presence - crystal clear audio
- Amazing sound pressure levels when needed with automatic volume adjustment
- Background noise cancellation
- Dirt, dust and water resistant - rating IP-66
- Built to last with robust die-cast aluminum frame - rating IK 08
- Supports wide set of IP and networking standards
- Yellow thermoplastic front plate with one button plus M and C
- Ideal for Industrial Applications

All IP Intercom stations in the Vingtor-Stentofon Turbine series utilize the latest technology to create unparalleled audio quality. Some of the many features include: HD voice quality, Open Duplex, Active Noise Cancellation, MEMS microphone, a 10W Class D amplifier and our unique speaker grille design. These features, in conjunction with Vingtor-Stentofon’s 65+ years of experience with acoustic technology are only a few of the many factors that contribute to our superior audio quality.

See also: additional documentation on wiki.zenitel.com

SPECIFICATIONS

AUDIO

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audio quality - percentage articulation loss of consonants (Alcons) - at 70 dB</td>
<td>&lt; 5% *</td>
</tr>
<tr>
<td>Audio quality - total harmonic distortion + noise, without noise reduction (THD+N) - at 70 dB</td>
<td>&lt; 2% *</td>
</tr>
<tr>
<td>SPL rated power at 1m in open duplex</td>
<td>95 dB *</td>
</tr>
<tr>
<td>SPL rated power at 1m in half duplex</td>
<td>105 dB *</td>
</tr>
<tr>
<td>SPL rated power at 1m in program distribution and announcement</td>
<td>105 dB *</td>
</tr>
<tr>
<td>Noise cancelling - suppression of musical noise</td>
<td>YES</td>
</tr>
<tr>
<td>Noise cancelling - suppression of static noise</td>
<td>YES</td>
</tr>
<tr>
<td>Noise cancelling - suppression of rapidly changing noise</td>
<td>YES</td>
</tr>
<tr>
<td>Codecs</td>
<td>G.711, G.722, G.729</td>
</tr>
<tr>
<td>Frequency range, G.722 Codec</td>
<td>200 Hz – 7000 Hz</td>
</tr>
<tr>
<td>Audio technology</td>
<td>Modes: Full open duplex, switched open duplex</td>
</tr>
<tr>
<td></td>
<td>Adaptive jitter filter</td>
</tr>
<tr>
<td></td>
<td>Custom Ringing Tone</td>
</tr>
<tr>
<td></td>
<td>Audio Mixing – Conversation and Group Call</td>
</tr>
<tr>
<td></td>
<td>Sound Level Detection / scream alarm (only in AlphaCom)</td>
</tr>
<tr>
<td></td>
<td>Automatic gain control (microphone)</td>
</tr>
<tr>
<td>Internal speaker amplifier</td>
<td>10 W class D</td>
</tr>
<tr>
<td>Microphone technology</td>
<td>Digital MEMS, omnidirectional microphone</td>
</tr>
<tr>
<td>Automatic Volume Control (AVC)</td>
<td>Undistorted and clear audio</td>
</tr>
<tr>
<td>Acoustic Echo Cancellation (AEC)</td>
<td>Prevents audio feedback even at high volumes (95dB)</td>
</tr>
<tr>
<td>10W Speaker</td>
<td>Matches 10W amp for distortion-free broadcast level sound</td>
</tr>
</tbody>
</table>

* Tested with Audio Precision SYS 2722 equipment

HARDWARE

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet connector</td>
<td>1 x RJ 45</td>
</tr>
<tr>
<td>All other connectors</td>
<td>Tool less, spring loaded, vibration proof terminals</td>
</tr>
<tr>
<td>General inputs and outputs</td>
<td>6 (configurable)</td>
</tr>
<tr>
<td>Outputs</td>
<td>12mA as LED drivers</td>
</tr>
</tbody>
</table>

Created: 01.07.2014, updated: 10.02.2020
HARDWARE

Change-over relay (NO+NC+COM) Max: 250VAC/220VDC, 2A, 60W

Power options PoE and or external power supply

PoE (power over Ethernet) IEEE 802.3af standard, Class 0 (0.44W to 12.95 W)

External power supply 24 VDC (16 – 48 V)

Power consumption Idle 1.8W, max 12W (depending on volume)

Audio line out / Induction loop signal 600 Ohm

Button backlight LED

Call indication Icons/colors for hearing impaired

CONSTRUCTION

Dimensions (HxWxD) 180 x 120 x 73 mm / 7.1” x 4.7” x 2.9”

Dimensions after flush mount 180 x 120 x 24 mm / 7.1” x 4.7” x 0.9”

Dimensions with on wall box 180 x 120 x 86 mm / 7.1” x 4.7” x 3.4”

Weight 0.8 kg / 1.8 lbs

Faceplate material 3 mm / 0.12” PMMA, colour printed on back side

Base / frame material 3 mm / 0.12” Aluminum alloy - A413.0, AlSi12Fe, painted

Electronics cover material Polycarbonate (translucent)

Gasket material Silicone rubber

Fastening bracket material SECC Steel

Button material 3 mm / 0.12” Polycarbonate (transparent)

Button travel length 1.25 mm

Button activation force 350 gf

Button push-cycles before failure 300 000

Loudspeaker poke protection, small diameter objects Stainless steel mesh, acoustically transparent

Loudspeaker poke protection, large diameter object 3D cast aluminum speaker grille

Anechoic Design Open flow anechoic design eliminates "standing waves"

NETWORKING AND PROTOCOLS

Protocols IPv4 (with DiffServ), SIP, TCP, UDP, HTTPS, TFTP, RTP, SRTTP, DHCP, SNMP, Vingtor-Stentofon CCoIP®, NTP

LAN protocols Power over Ethernet (IEEE 802.3 a-f) Network Access Control (IEEE 802.1x)

Management and operation HTTP/HTTPS (Web configuration) DHCP and static IP. Remote automatic software upgrade. Centralized monitoring.

Advanced supervision functions E.g. network test, tone test, status reports

SIP Support RFC 3261 (SIP base standard) RFC 3515 (SIP refer) RFC 2976 (SIP info), SIP using TLS, RFC 5630 SIPS URI scheme

DTMF Support RFC 2833, 2976 (SIP info)

ENVIRONMENT AND COMPLIANCES

IP rating IP-66, tested according to EN 60529 (applies when mounted in TA-1 back box)

IK rating IK 08, tested according to EN 62262

Operating temperature range -40° to 70° C

Storage temperature range -40° to 70° C

Relative humidity < 95% not condensing

Corrosion Salty mist, tested according to EN60945

Vibration Tested according to EN60945

UV-resistant YES

EMC CE and FCC Part 15 EN 50121-3-2 Railway application EN 50121-4 Railway application UN Regulation 10, revision 4 + Corr. 1 + Amend.1

Compliances IEC/EN 60945 Marine equipment IEC/EN61000-6-1 and IEC/EN61000-6-3 (light industry) IEC/EN 50155 Railway application * IEC/EN 50486 Equipment for use in audio-video door-entry systems * With additional conformal coating Requires use of EN 50155 approved PoE switch

Certificates UL 60950-1, cUL 60950-1, CB to IEC 60950-1

OTHER SPECIFICATIONS

IP adress information Speaks IP address after system boot
OTHER SPECIFICATIONS

Button lifetime > 1000 000 cycles
Country of manufacture Poland

TECHNICAL DIMENSIONS

All dimensions in mm

ACCESSORIES

TA-1 Item number: 1008140010
TA-2 Item number: 1008140020
TA-5 Item number: 1008140050
TURBINE ADAPTER PLATE Item number: 1072160000
TA-18 Item number: 1008140180

TA-14 Item number: 1008140140