



Intercom

TCIS-2

Outdoor Audio Intercom



The Zenitel Turbine Intercom provides an Audio-only solution. Key features include Full Duplex audio, Group calling, AVC, AEC, HD voice, Outdoor IP66, IK10, 95dB at 1 m (Open Duplex). 105 dB at 1m (Half Duplex), POE powered, 6 x I/O, 12mA LED driver output.



-  Door Intercom
-  Alcatel-Lucent Certified
-  Avaya Certified
-  CISCO Certified
-  NEC Certified
-  UL Certified Intercom
-  Turbine
-  IP66
-  IK10
-  Automatic Volume
-  HD Voice
-  Automatic Gain Control
-  Active Noise Canceling
-  Voice Activity Detection

Key Features

- Open Duplex at 95dB, thanks to an anechoic speaker design and rigid aluminum frame.
- Active Noise Reduction (up to 30dB) and Automatic Volume Control allow you to hear, be heard and understood in high-noise environments.
- Digital MEMS microphones capture a much wider spectrum of the human voice, which results in superior audio processing.
- Class-D 10W amplifier with matching 10W speaker allows you to broadcast at up to 105dB
- Supports a wide set of IP Protocols (SIP, SNMP, HTTP, TFTP, Syslog)
- Configure the units using a standard web browser or, to save time, configure the units in bulk, using a dedicated software tool.
- Control relay and I/Os over IP
- Powered via PoE or local 24-48 VDC
- Upload custom audio messages for a better user experience
- SIP, UL, Cisco Certified, Avaya Certified, NEC Certified
- -40° to 70° C (-40° to 158 ° F), UV Resistance

*Note: Optional mount (TA-1/TA-18/TA-5) required for installation

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Specifications

AUDIO	
Audio quality - percentage articulation loss of consonants (Alcons) - at 70dB	< 5%*
Audio quality - total harmonic distortion + noise, without noise reduction (THD+N) - at 70dB	< 2%*
SPL rated power at 1m in open duplex	95 dB*
SPL rated power at 1m in half duplex	105 dB*
SPL rated power at 1m in program distribution and announcement	105 dB*
Noise canceling	YES (Suppression of musical noise, static noise, rapidly changing noise)
Codecs	G.711, G.722, G.729
Frequency range, G.722 Codec	200 Hz - 7000 Hz
Audio technology	Modes: Full open duplex, switched open duplex Adaptive jitter buffer Custom Ringing Tone Audio Mixing - Conversation and Group Call Sound Level Detection / scream alarm (only in AlphaCom) Automatic gain control (microphone)
Internal speaker amplifier	10W Class D
Microphone technology	Digital MEMS, omnidirectional microphone
Automatic Volume Control (AVC)	Undistorted and clear audio
Acoustic Echo Cancellation (AEC)	Prevents audio feedback even at high volumes (95dB)
10W Speaker	Matches 10W amp for distortion-free broadcast level sound *Tested with Audio Precision SYS 2722 equipment
HARDWARE	
Ethernet connector	1 x RJ45
All other connectors	Tool less, spring loaded, vibration proof terminals
General inputs and outputs	6 (configurable)
Outputs	12mA as LED drivers
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 12.95W)
External power supply	24VDC (16 - 48V)
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)	180mm x 120mm x 73mm (7.1" x 4.7" x 2.9")
Dimensions with flush mount	180mm x 120mm x 24mm (7.1" x 4.7" x 0.9")
Dimensions with on wall box	180mm x 120mm x 86mm (7.1" x 4.7" x 3.4")
Weight	1kg / 2.2lbs
Faceplate material	3mm / 0.12" stainless steel - AISI 316L
Base / frame material	3mm / 0.12" Aluminum alloy - A413.0, AISI12Fe, painted
Electronics cover material	Polycarbonate (translucent)

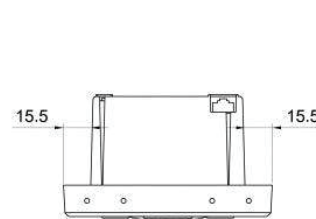
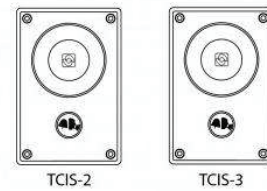
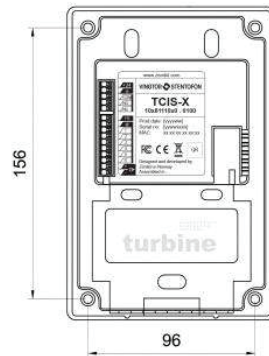
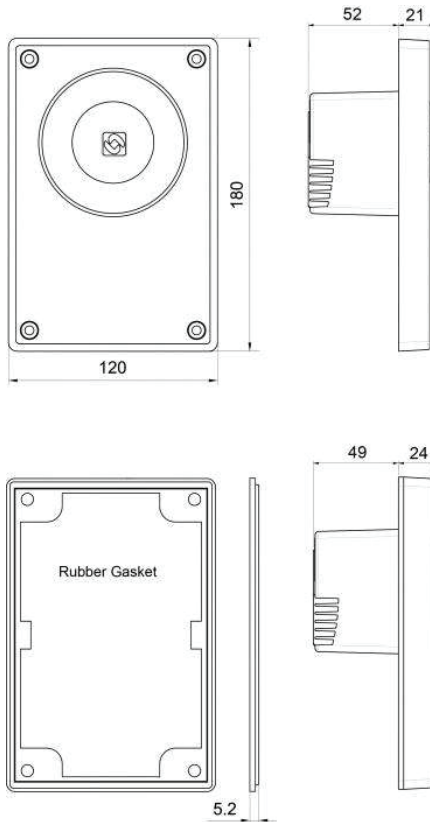
CONSTRUCTION (cont'd)	
Gasket material	Silicone rubber
Fastening bracket material	SECC Steel
Button material	3mm / 0.12" Polycarbonate (transparent)
Button travel length	1.25mm
Button activation force	350 gf
Button push-cycles before failure	300,000
Anechoic Design	Open flow anechoic design eliminates "standing waves"
Loudspeaker poke protection (large diameter object)	3D cast aluminum speaker grille
Loudspeaker poke protection (small diameter object)	Stainless steel mesh, acoustically transparent
NETWORKING AND PROTOCOLS	
Protocols	IPv4 (with DiffServ), SIP, TCP, UDP, HTTPS, TFTP, RTP, SRTP, DHCP, SNMPv2C, Vingtor-Stentofon CColP®, NTP
LAN protocols	Power over Ethernet (IEEE 802.3 a-f) Network Access Control (IEEE 802.1x)
Management and operation	HTTP/HTTPS (Web administration and configuration) DHCP and static IP. Remote automatic software upgrade. Centralized monitoring.
Advanced supervision fuctions	Eg. network test, tone test, status reports, uptime, button status
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, RFC 2976 (SIP info)
Max length extension numbers	20 digits
ENVIRONMENT AND COMPLIANCES	
IP rating	IP-66, tested according to EN 60529 (applies when mounted in TA-1 back-box)
IK rating	IK10, 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 Reuquires use of EN 50155 approved PoE switch
Certifications	UL 60950-1, cUL 60950-1, CB to IEC 60950-1
OTHER SPECIFICATIONS	
IP address information	Speaks IP address after system boot
Button lifetime	> 1000 000 cycles
Country of manufacture	Poland

Technical Dimensions

CAD

Dimensions (H x W x D approximate)

7.1" x 4.7" x 2.9" (180mm x 120mm x 73mm)



All dimensions in mm

Accessories



TA-1



TA-5



TA-18



TA-14