1008111030

TCIS-3

IP and SIP Intercom

IC-Edge IC-Edge

SIP

Door Intercom

ICX-AlphaCom

Avaya Certified

CISCO Certified

NEC Certified

UL Certified Intercom

Turbine

IP66

IK08

Automatic Volume

HD Voice

Automatic Gain Control

Active Noise Cancelling

Voice Activity Detection

DESCRIPTION

- Designed according to Disability Act requirements
- Audio Presence - crystal clear audio
- Amazing sound pressure levels when needed with automatic volume adjustment
- Background noise cancellation
- ONVIF Compatible
- Dirt, dust and water resistant - rating IP66
- Built to last with robust die-cast aluminum frame - rating IK08
- Supports wide set of IP and networking standards
- Black thermoplastic front plate with one button
- Ideal for Building Security and Public Environments

All IP stations in the 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 our 70+ 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

Audio quality - percentage articulation loss of consonants (Alcons) - at 70 dB	< 5%*
Audio quality - total harmonic distortion + noise, without noise reduction (THD+N) - at 70 dB	< 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 cancelling - suppression of musical noise	YES
Noise cancelling - suppression of static noise	YES
Noise cancelling - suppression of rapidly changing noise	YES
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	10 W 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 RJ 45
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 12.95 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

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HARDWARE

Button backlight	LED
Call indication	Icons/colors for hearing impaired
Door open 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
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 objects	Stainless steel mesh, acoustically transparent

NETWORKING AND PROTOCOLS

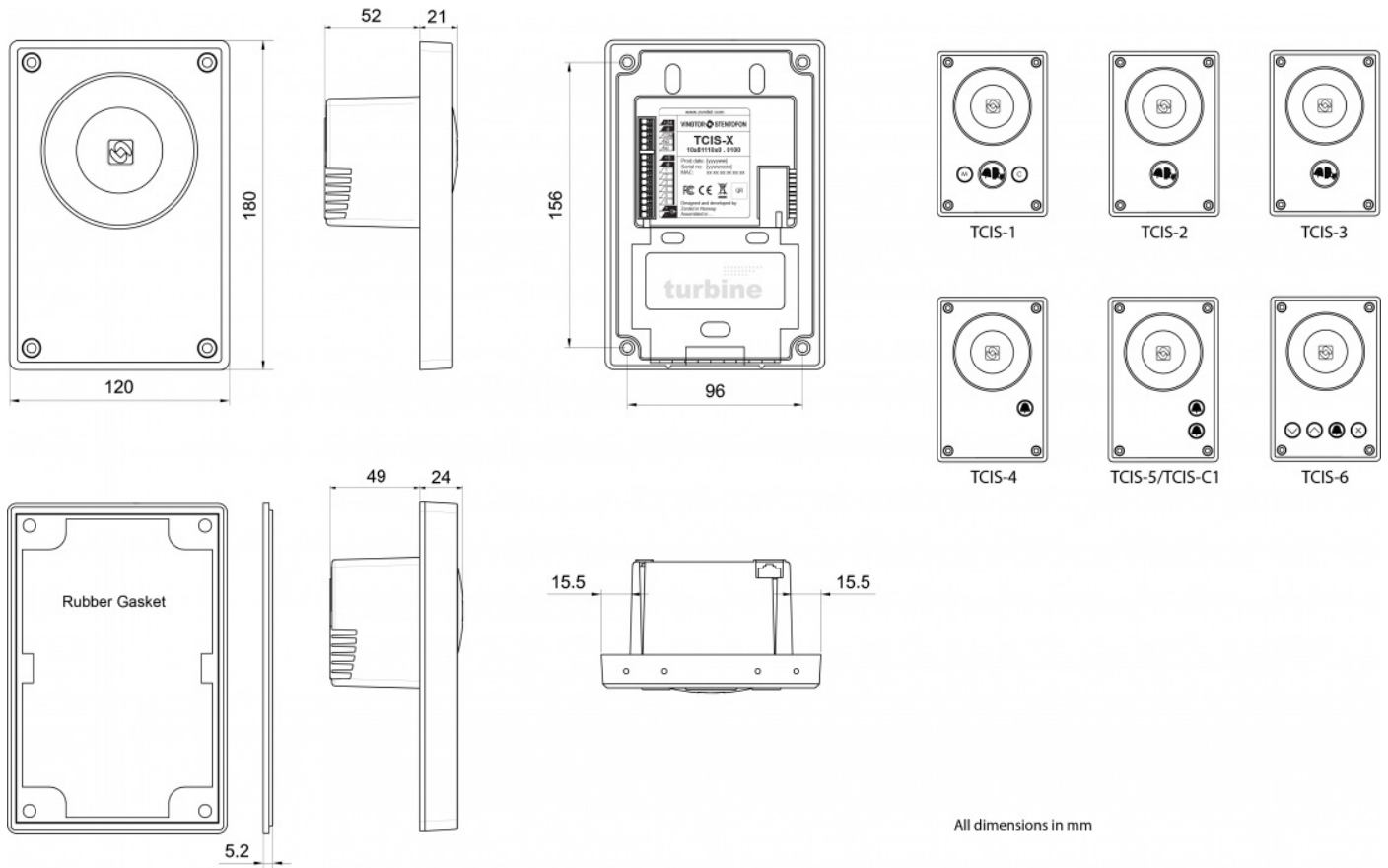|	
Protocols	IPv4 (with DiffServ), SIP, TCP, UDP, HTTPS, TFTP, RTP, SRTP, DHCP, SNMP, ONVIF, CCoIP® , NTP
LAN protocols	Power over Ethernet (IEEE 802.3 a-f) Network Access Control (IEEE 802.1x)
Management and operation	HTTP/HTTPS (Web configuration) DHCP and static IP. Remote automatic software upgrade. 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
Realtive 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.
Certifications	UL 60950-1, cUL 60950-1, CB to IEC 60950-1

OTHER SPECIFICATIONS

IP adress information	Speaks IP address after system boot
Button lifetime	> 1000 000 cycles
Country of manufacture	Poland

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TECHNICAL DIMENSIONS

52 | 21

180

120

156

96

TCIS-X
10x81110z0 .0100

turbine

Rubber Gasket

49 | 24

5.2

15.5 | 15.5

TCIS-1

TCIS-2

TCIS-3

TCIS-4

TCIS-5/TCIS-C1

TCIS-6

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

TOUCHLESS SENSOR
Item number: 2390020100