

1008111030

## TCIS-3

Turbine Compact IP Standard 3



**NEC** NEC CERTIFIED



**CISCO** Certified



**Avaya** Certified

### Turbine



**IP66**



**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
- 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
- Black thermoplastic front plate with one button
- Ideal for Building Security and Public Environments

All IP 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.

## SPECIFICATIONS

### AUDIO

Audio quality - speech transmission index (STI) - at 70 dB	> 0.8*
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
Frequency range, G.722 Codec	200 Hz – 7000 Hz
Audio technology	Modes: Full open duplex, switched open duplex
	Adaptive jitter filter
	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

## AUDIO

Microphone technology	Digital MEMS, omnidirectional microphone
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\*Tested with Audio Precision SYS 2722 equipment

## HARDWARE

Ethernet connector	1 x RJ 45
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All other connectors	Tool less, spring loaded, vibration proof terminals
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General inputs and outputs	6 (configurable)
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Outputs	12mA as LED drivers
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Change-over relay (NO+NC+COM)	Max: 250VAC/220VDC, 2A, 60W
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Power options	PoE and or external power supply
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PoE (power over Ethernet)	IEEE 802.3af standard, Class 0 (0.44W to 12.95 W)
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External power supply	24 VDC (16 – 48 V)
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Power consumption	Idle 1.8W, max 12W (depending on volume)
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Audio line out / induction loop signal	600 Ohm
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Button backlight	LED
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Call indication	Icons/colors for hearing impaired
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Door open indication	Icons/colors for hearing impaired
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## CONSTRUCTION

Dimensions (HxWxD)	180 x 120 x 70 mm / 7.1" x 4.7" x 2.8"
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Dimensions after flush mount	180 x 120 x 20 mm / 7.1" x 4.7" x 0.8"
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Dimensions with on wall box	180 x 120 x 82 mm / 7.1" x 4.7" x 3.3"
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Weight	0.8 kg / 1.8 lbs
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Faceplate material	3 mm / 0.12" PMMA, colour printed on back side
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Base / frame material	3 mm / 0.12" Aluminum alloy - A413.0, AlSi12Se, anodized and painted
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Electronics cover material	Polycarbonate (translucent)
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Gasket material	Silicone rubber
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Fastening bracket material	SECC Steel
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Button material	3 mm / 0.12" Polycarbonate (transparent)
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Button travel length	1.25 mm
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Button activation force	350 gf
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Button push-cycles before failure	300 000
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Vandal resistant fasteners	Stainless steel, security TORX (with pin), T25
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Loudspeaker poke protection, large diameter object	3D cast aluminum speaker grille
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Loudspeaker poke protection, small diameter objects	Stainless steel mesh, acoustically transparent
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## NETWORKING AND PROTOCOLS

Created: 01.07.2014, updated: 18.12.2015

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## NETWORKING AND PROTOCOLS

Protocols	IPv4 (with DiffServ), SIP, TCP, UDP, HTTPS, TFTP, RTP, 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 + Vingtor-Stentofon Pulse™ Remote automatic software upgrade Centralized monitoring
Advanced supervision functions	E.g network test, tone test, status reports (only in AlphaCom)
SIP support	RFC 3261 (SIP base standard) RFC 3515 (SIP refer) RFC 2976 (SIP info)
DTMF support	RFC 2833, 2976 (SIP info)

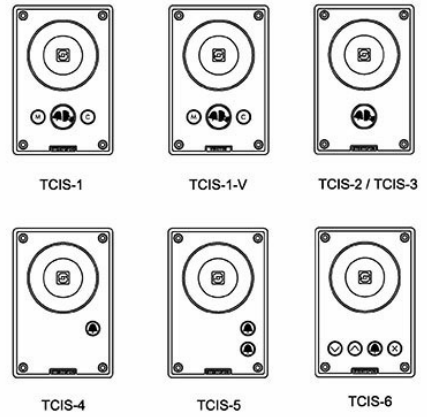
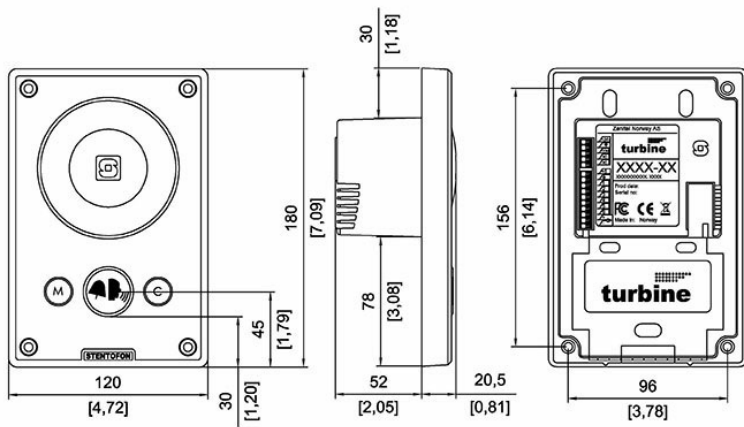
## ENVIRONMENT AND COMPLIANCES

IP rating	IP-66, tested according to EN 60529
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/EN 61000-6 Light and heavy 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

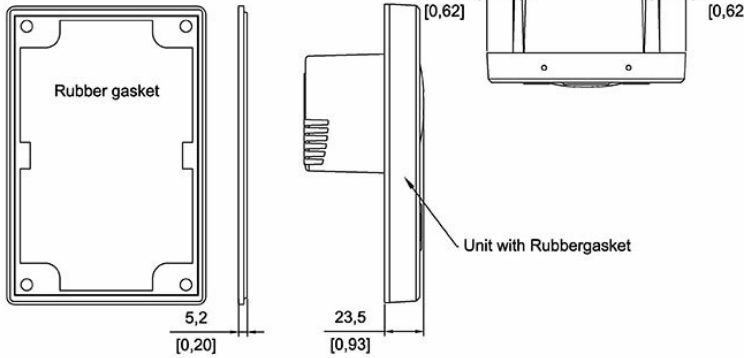
## OTHER SPECIFICATIONS

System boot time	Under 10 seconds
IP adress information	Speaks IP address after system boot
MTBF (mean time between failure)	Value from final calculation
Button lifetime	> 1000 000 cycles
Country of manufacture	Norway

## TECHNICAL DIMENSIONS



Part included in the package



The drawing cover following items:

1008111010	TCIS-1	Turbine Compact IP Standard-1
1028111010	TCIS-1-V	Turbine Compact IP Standard-1 VINGTOR
1008111020	TCIS-2	Turbine Compact IP Standard-2
1008111030	TCIS-3	Turbine Compact IP Standard-3
1008111040	TCIS-4	Turbine Compact IP Standard-4
1008111050	TCIS-5	Turbine Compact IP Standard-5
1008111060	TCIS-6	Turbine Compact IP Standard-6

## ACCESSORIES



1008140010

**TA-1**



1008140020

**TA-2**



1008140050

**TA-5**