



1008211010 TCIS-1SIP

SIP Station



# Description

- Industrial SIP intercom
- ✓ Audio Presence crystal clear audio
- Amazing sound pressure levels when needed with automatic volume adjustment
- Background noise cancellation

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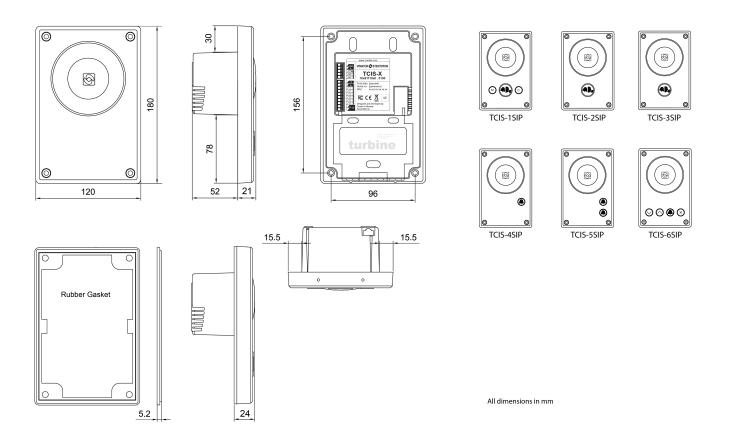
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- Oirt, dust and water resistant rating IP-66
- O Built to last with robust die-cast aluminum frame rating IK 08
- Supports wide set of IP and networking standards
- Yellow thermoplastic front plate with one button plus M and C
- Ideal for Industrial Applications

All SIP Intercom 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 65+ years of experience with acoustic technology are only a few of the many factors that contribute to our superior audio quality.

## **Technical Dimensions**



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# 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 filter
	Custom Ringing Tone
	Audio Mixing – Conversation and Group Call

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Internal speaker amplifier	10 W class D
Microphone technology	Digital MEMS, omnidirectional microphone
*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 consumtion	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

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## 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, large diameter object	3D cast aluminum speaker grille
Loudspeaker poke protection, small diameter objects	Stainless steel mesh, acoustically transparent

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### **NETWORKING AND PROTOCOLS**

ProtocolsIPv4 (with DiffServ), SIP, TCP, UDP, HTTPS, TFTP, RTP, SRTP, DHCP, SNMP, Vingtor-Stentofon CCOIP®, NTPLAN protocolsPower over Ethernet (IEEE 802.3 a-f) Network Access Control (IEEE 802.1x)Management and operationPower over Ethernet automatic software upgrade / Centralized monitoringAdvanced supervision functionsE.g. network test, tone test, status reportsSIP SupportE.g. network test, tone test, status reportsSIP SupportRFC 3261 (SIP base standard) RFC 3515 (SIP info), SIP using TLS, RFC 5630 SIPS URI schemeDTMF SupportRFC 2833, 2976 (SIP info)		
LAN protocols(IEEE 802.3 a-f) Network Access Control (IEEE 802.1x)Management and operationHTTP/HTTPS (Web configuration) DHCP and static IP / Remote automatic software upgrade / Centralized monitoringAdvanced supervision functionsE.g. network test, tone test, status reportsRFC 3261 (SIP base standard) RFC 3515 (SIP refer) RFC 2976 (SIP info), SIP using TLS, RFC 5630 SIPS URI schemeDTME SupportRFC 2833, 2976 (SIP	Protocols	SIP, TCP, UDP, HTTPS, TFTP, RTP, SRTP, DHCP, SNMP, Vingtor-Stentofon
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SIP Support   standard) RFC 3515     (SIP refer) RFC 2976     (SIP info), SIP using     TLS, RFC 5630 SIPS     URI scheme     PTME Support     RFC 2833, 2976 (SIP	-	-
DIME Support	SIP Support	standard) RFC 3515 (SIP refer) RFC 2976 (SIP info), SIP using TLS, RFC 5630 SIPS
	DTMF Support	•

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## **ENVIRONMENT AND COMPLIANCES**

IP ratingIP-66, tested according to EN 60529 (applies book box)IK ratingIK 08, tested according to EN 62262Operating temperature range-40° to 70° CStorage temperature range-40° to 70° CRealtive humidity< 95% not condensingCorrosionSalty mist, tested according to EN60945VibrationTested according to EN60945UV-resistantYESEMCCE and FCC Part 15 EN 60121-32 Railway application EN 60121-4 Railway application UN Regulation 10, revision 4 + Corr.1 + Amend.1EMCIEC/EN 60945 Marine equipment IEC/EN 60045 Anine equipment industry iEC/EN 50155 Railway application UN Regulation 10, revision 4 + Corr.1 + Amend.1CompliancesIEC/EN 60045 Anine equipment industry iEC/EN 50155 Railway application Solf adition ido orientry aystems * With additional conformal additional conformal additional conformal additional conformal additional conformal additional conformal additional conformal additional conformal additional conformal config Regulation 2005-0, CB to IEC 60950-1, CB to IEC 60950-1, CB to IEC 60950-1		
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range40° to 70° CStorage temperature range-40° to 70° CRealtive humidity< 95% not condensing	IK rating	-
range-40+10 / 0 · CRealtive humidity< 95% not condensing		-40° to 70° C
CorrosionSalty mist, tested according to EN60945VibrationTested according to EN60945UV-resistantYESEMCCE and FCC Part 15 EN 50121-3-2 Railway application EN 50121-4 Railway application UN Regulation 10, revision 4 + Corr.1 + Amend.1EMCIEC/EN 60945 Marine equipment IEC/EN 61000-6-1 and IEC/EN 50155 Railway application * 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 switchCertificatesUL 60950-1, cUL 60950-1, CB to IEC		-40° to 70° C
Corrosionaccording to EN60945VibrationTested according to EN60945UV-resistantYESEMCCE and FCC Part 15 EN 50121-3-2 Railway application EN 50121-4 Railway application UN Regulation 10, revision 4 + Corr.1 + Amend.1EMCIEC/EN 60945 Marine equipment IEC/EN 60945 Marine equipment IEC/EN 60945 Marine equipment IEC/EN 6000-6-1 and IEC/EN 6000-6-1 and IEC/EN 50155 Railway application * 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 switchCertificatesUL 60950-1, cUL 60950-1, CB to IEC	Realtive humidity	< 95% not condensing
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## **OTHER SPECIFICATIONS**

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

# Accessories





TA-2

Turbine Compact Onwall Back Box

US 2-Gang 3½" Deep Backbox



TA-5

Bracket for US 2 GANG Double Depth Back Box



**Turbine Adapter Plate** 



TA-18

TA-1

Turbine Compact Flush-Mount Back Box



TA-14

Microphone windshield for TCIS / TCIV

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