



HANSHIN

Marine Telephone System



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Auto Telephone Exchanger

The system is also specially made to keep a good performance under the bad environment of vessel at sea.



System Feature

- ## Telephone Specification

[illegible]

System Function

DESCRIPTION	HX-120 / HX-72	HX-26
System Capacity	○ Extension: max. 118 lines (HX-120), 70 lines (HX-72) ○ External : 4 lines (option: max. 40 lines)	○ Extension: max. 26 lines ○ External : 2 lines (option: max. 12 lines)
Major Function		
Inter-communication	○	○
Automatic Call-back	○	○
Call Transfer (Camp-on)	○	○
External Call & Trunk	○ 4 lines (Shore Line, Satcom & etc.)	○ 2 lines (standard: Shore Line, option: Satcom)
Add-on Conference	○ all lines	○ all lines
Priority Call	○	○
Call Split	○	○
Wake-up Call (Morning Call)	○	×
Simultaneous Call	○ max. 15 lines	○ max. 4 lines
Self Ring Test	○	○
Paging Call	○ 3 lines (All, Group-A, Group-B)	○ 1 line (All)
Group Call	○ option (max. 6 groups)	×
Remote Display Unit	○ option	×
Alarm and Display for System Failure	○	×
Alarm for Handset Off-hook	○	○
Display for Handset Off-hook	○ max. 6 lines	×
Pluse/Tone Conversion	○	○
Automatic Main/Em'cy Power Changeover	○	○
Redial, Hold & Speak-phone (Hands-free)	○ Desk type, Wall type (N.W.T)	○ Desk type, Wall type (N.W.T)

System Specification & Configuration

DESCRIPTION	HX-120	HX-72	HX-26
Major System Specification			
Loop Resistance	Internal: max. 400 Ω, External: max. 1.5kΩ		
Dial Signal	Internal: Tone/Pulse/Digital, External: Tone/Pulse		
Switch Mode	Space division matrix		
Control Mode	8/16 bits CPU		
Line Specification			
Subscriber Line Impedance	600 Ω		
Insertion Loss	less than 6dB		
Cross Talk	more than 60dB		
Line Resistance	200 Ω		
Insulation	more than 1MΩ		
Dial Signal Configuration			
Frequency Distortion	less than ±1%		
Frequency Deviation	less than ±0.75%		
Signal Level	High: -14dBV, Low: -11dBV		
Operating Environment			
Operating Temperature	0° ~ 50°C		
Operating Humidity	10 ~ 90%		
Electronic Configuration			
Power Supply	AC110V ±10%, 0.66A, 50/60Hz AC220V ±10%, 0.43A, 50/60Hz DC24V ±10%, 2.2A	AC110V ±10%, 0.36A, 50/60Hz AC220V ±10%, 0.18A, 50/60Hz DC24V ±10%, 1.67A	AC110V ±10%, 0.57A, 50/60Hz AC220V ±10%, 0.28A, 50/60Hz DC24V ±10%, 2.65A
Power Consumption	System: 80W Internal telephone: 0.85W	System: 40W Internal telephone: 0.85W	System: 60W Internal telephone: 0.85W
Rack Size(W×H×D mm)	560×805×360	630×730×235	440×570×156

Auto-Tel



Desk Type



Wall Type



Wall Type



Flush Type



Portable Type

Common Battery Telephone

Common Battery Telephone System is useful communication system when main AC power is not supplied.

The system is operated by DC 24V power source in common for communication and signal transmission of the bell and lamp, and it is used for important conversation between wheel house and engine control room, or general conversation between some stations. It is specially designed in consideration of hard marine environment at sea, and made of solid material.

Acquired CE mark from the DNV class.

System Feature

- Easy operation, compact and small unit
- Simple installation and easy maintenance
- Three types of system are available
 - Direct calling
 - Master & Slave calling
 - Mutual selective calling

Operating Specification

Operating Condition	Temperature	-10℃ ~ +50℃
	Humidity	5% ~ 95%
Operating Power Supply	DC24V	

Telephone Specification

Model Function	Desk Type		Wall Type										Flush Type				Portable Type	
	HCD-601		HCW-701										HCF-801				HCP-901	
	A1	A3	A1	A3	A3N	B1	B3	C1	C3	D1	D3	A1	A3	D1	D3	A1	A3	
Non-water Tight	•	•										•	•	•	•			
Water Tight			•	•		•	•	•	•	•	•					•	•	
Dimmer										•	•			•	•			
Direct(Master/Slave)	•		•			•		•		•		•		•		•		
Selector(max.12)		•		•	•		•		•		•		•		•		•	
Sub-receiver						•	•											
Headset Connector								•	•									
Built-in Relay for External Bell			•	•	•	•	•	•	•	•	•	•	•	•	•			

Common - Tel



Desk Type



Wall Type



Flush Type



Portable Type

Sound Powered Telephone

Sound Powered Telephone System is very useful communication system under the emergency situation because this system keeps normal operating condition even though the main AC power and emergency DC power source are not supplied. It is specially designed in consideration of hard marine environment at sea, and made of solid material.

Acquired CE mark from the DNV class.

System Feature

- Easy operation, compact and small unit
- Simple installation and easy maintenance
- Communication available for 10~15 min with one-time charging
- Enable to recharge by rotating the handle of generator when system is operating
- Three types of system are available
 - Direct calling
 - Master & Slave calling
 - Mutual selective calling

Operating Specification

Operating Condition	Temperature	-10℃ ~ +50℃
	Humidity	5% ~ 95%
Generator's Output	AC60V ~ AC90V	

Telephone Specification

Model Function	Desk Type		Wall Type									Flush Type				Portable Type	
	HSD-601		HSW-701									HSF-801				HSP-901	
	A1	A3	A1	A3	B1	B3	C1	C3	D1	D3		A1	A3	D1	D3	A1	A3
Non-water Tight	•	•										•	•	•	•		
Water Tight			•	•	•	•	•	•	•	•						•	•
Dimmer										•				•	•		
Direct (Master/Slave)	•		•		•		•		•			•				•	
Selector (max.12)		•		•		•		•		•			•		•		•
Sub-receiver					•	•											
Headset Connector							•	•									
Built-in Relay for External Bell			•	•	•	•	•	•	•	•		•	•	•	•		

Sound - Tel



Desk Type



Wall Type



Flush Type



Portable Type

Intrinsically Safe Telephone System

General Description

I.S Telephone System is for inter-communication installed in hazardous or flammable area in consideration of the bad environment of vessel at sea.

This telephone system is also specially designed and manufactured to comply with the intrinsically safety construction standard of IEC 60079-0 / 60079-11 and Ex ia I C T6 protection type, and this apparatus has been tested and inspected the KIMM(Korea Institute of Machinery & Materials) under authority vested by the government of Republic of Korea.

Two types of I.S Auto Telephone System and I.S Common Battery Telephone System are available. 4, 8, 12 lines of I.S Common Battery Telephone according to the customer's request are available, and it is easy and simple to install because power break switch, power supply, barrier circuit, external alarm relay control and terminal block are built-in one barrier box.

I.S Auto Telephone / Barrier Box / Connection Box



Wall Type



Wall Type
w/Sub-receiver



Wall Type
w/Headset Connector



Portable Type



Barrier Box



Connection Box

I.S Common Battery Telephone / Barrier Box / Connection



Wall Type



Wall Type
w/Sub-receiver



Wall Type
w/Headset Connector



Portable Type



Barrier Box (4 lines)



Barrier Box (8 lines)



Barrier Box (12 lines)

Electric Specification

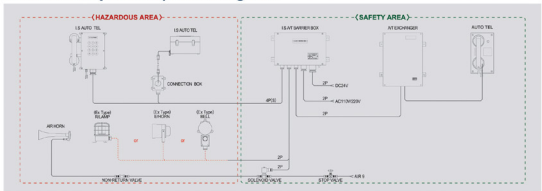
	I.S Auto Telephone	I.S C.B.T		I.S Auto Telephone Barrier Box	I.S C.B.T
Voice Open Voltage	max. 21V	max. 15V	Power Supply	AC110/220V, DC24V	AC110/220V, DC24V
Voice Short Current	max. 46mA	max. 60mA	Hook/Call SW Zener Voltage	28V	24V
Hook/Call SW Short Current	max. 10mA	max. 10mA	Hook/Call SW Short Current	max. 10mA	max. 10mA
Side Tone Attenuation	-30dB or less	-30dB or less	Voice Signal Zener Voltage	28V	15V
Transmitter/Receiver Level	Adjustable	Adjustable	Voice Signal Short Current	max. 46mA	max. 60mA
Operating Environment	-20°C ~ +40°C, 5% ~ 95%	-20°C ~ +40°C, 5% ~ 95%	External Alarm	3 ports	3 ports

Apparatus Specification

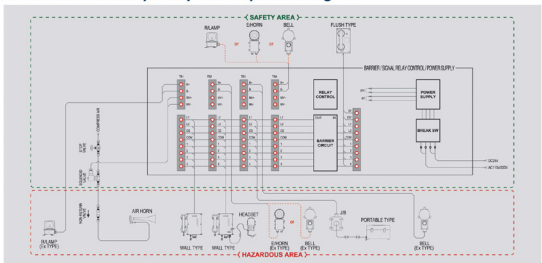
	Model	Description	Installation Place
I.S Auto Telephone System	HAW-710A	Wall type tel(IP56)	Hazardous area
	HAW-710B	Wall type tel(IP56) w/sub-receiver	Hazardous area
	HAW-710C	Wall type tel(IP56) w/headset connector	Hazardous area
	HAP-910	Portable type tel(IP52)	Hazardous area
	HAC-050	Connection box(IP68)	Hazardous area
I.S Common Battery Telephone System	HAB-050	Barrier box(IP64)	Safety area
	HCW-710A1/A2/A3	Wall type tel(IP56)	Hazardous area
	HCW-710B1/B2/B3	Wall type tel(IP56) w/sub-receiver	Hazardous area
	HCW-710C1/C2/C3	Wall type tel(IP56) w/headset connector	Hazardous area
	HCF-810	Flush type tel(IP52)	Hazardous area
	HCF-810D3	Flush type tel w/dimmer	Safety area
	HCP-910A1/A2/A3	Portable type tel(IP52)	Hazardous area
	HCC-050	Connection box(IP56)	Hazardous area
	HCB-050A/B/C	Barrier box(IP53) w/power supply, break switch & relay control	Safety area

■ 4 lines: A1/B1/C1/A, 8 lines: A2/B2/C2/B, 12 lines: A3/B3/C3/C

I.S Auto Telephone System Diagram



I.S Common Battery Telephone System Diagram



Ex Type Accessories

EX Electron Horn and EX Buzzer are designed for general announcing with advanced technology, and complies with the standard of IEC 60079-0 & 60079-11.

EX Electron Horn



HEE-020

- Source Voltage : DC24V/AC110V/220V
- Alarm Output Power : max. 20W
- Volume : approx 110dB
- Housing : Aluminum
- Exp. Protection : Ex d IIC T6
- KIMM Cert. No. : EX24FLP997

EX Buzzer



HEB-010

- Source Voltage : DC24V/AC110V/220V
- Volume : approx 98dB
- Housing : Aluminum
- Exp. Protection : Ex d IIC T6
- KIMM Cert. No. : EX24FLP998

EX Warning Light with Bell



SEB-220-R

- Source Voltage : DC24V/AC110V/220V
- Alarm Output Power : max. 20W
- Volume : approx 90dB
- Housing : Aluminum
- Exp. Protection : Ex d IIB T6
- Lamp Color : Red, Green, Yellow

Accessories

Trouble Alarm Box



HTA-040A

Connection Box



HFC-041A

Relay Box



HSR-032

Headset



HAH-050B

Electric Horn



HEH-220A/024D

Rotating Lamp



HRL-162/164

Bell



HBE-220/024

Connection Box(W.T)



HTB-020

HPC-020

*Specification subject to change without notice.



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ISO / KS A 9001