



Certificate no.:
TAA00003VT

TYPE APPROVAL CERTIFICATE

This is to certify:

that the **Automatic Telephone System**

with type designation(s)
Zenitel Connect Pro

issued to

Zenitel Norway AS avd Horten
HORTEN, Norway

is found to comply with

Application:

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV.

Issued at **Høvik** on **2026-07-09**

This Certificate is valid until **2031-07-08**.

for **DNV**

DNV local unit: **East & South Norway CMC**

Approval Engineer: **Steinar Kristensen**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

The Zenitel Connect Pro Automatic Telephone system comprise the below equipment ¹⁾:

Central equipment:

Equipment type		Model no	Environment
Intercom central equipment	Communication Gateway	ICX-510	Protected
	IP Line Expansion module	IP-LCM-A	Protected
	FXS Gateway	FXS-GW-24P	Protected
Power supply equipment	Power Supply	Wago 787-1606	Protected
	Power Supply	Wago 787-1633	Protected
	AC-linefilter	Wago 787-980	Protected
Network Equipment	Flowire - Ethernet Converter, DC Voltage	FCDC3	Protected
	Exigo Power Injector, 6 Ports	EPIPR-6	Protected
	Cisco Firepower 1010 NGFW	FPR1010-NGFW-K9/IEC60945	Protected
	Cisco IE3200 8-port GE MARINE approved Switch	IE-3200-8T2S-E	Protected
	Cisco IE3200 8-port GE PoE+ MARINE approved Switch	IE-3200-8P2S-E	Protected
	Cisco IE3400 8-port GE MARINE approved Switch	IE-3400-8T2S-E	Protected
	Cisco IE3400 8-port GE PoE+ MARINE approved Switch	IE-3400-8P2S-E	Protected
	Cisco 16-port GE RJ45 Expansion Module for IE3400	IEM-3300-16T	Protected
	Cisco 16-port GE RJ45 PoE+ Expansion Module for IE3400	IEM-3300-16P	Protected
	Cisco C1300 8-port 1G PoE switch with 2x1G Combo	C1300-8FP-2G	Protected
	Cisco C1300 24-port 10G SFP+ switch with 2x10GE	C1300-24XS	Protected
	Cisco C1300 24-port 1G PoE switch with 4x1G SFP	C1300-24FP-4G	Protected
	Cisco C1300 48-port 1G Full PoE switch with 4x1G SFP	C1300-48FP-4G	Protected
	Cisco 24 Port Ethernet Switch – IEC60945	C1000-24FP-4G-L/IEC60945	Protected
	Cisco 48 Port Ethernet Switch – IEC60945	C1000-48P-4G-L/IEC60945	Protected
	CISCO 1000BASE-SX SFP transceiver module for MultiMode fiber	GLC-SX-MMD	Protected
	GLC-LH-SMD 1000BASE-LX/LH SFP transceiver module for SMF	GLC-LH-SMD	Protected
	Cisco GLC-TE 1000BASE-T 1G SFP Transceiver - RJ45	GLC-TE	Protected
	SFP 1000BASE-T 1G RJ-45 for Copper Network	SFP-GB-GE-T	Protected
	SFP 1000BASE-LH 1G SMD	SFP1G-LX-31	Protected
	SFP 1000BASE-SX 1G MMF	SFP1G-SX-85	Protected
	AC filter, 1-phase, 3A, 250VAC	LAN-FLT	Protected
	IP over two-wire switch	NV-PL-024-F	Protected
		NV-PL-048-F	Protected
		NV-PLLK	Protected

Field equipment:

¹⁾ Actual configuration may vary based on requirements for individual installations. Only modules listed in certificate are approved for installation.

Equipment type		Model	Environment
Flush (console) mount intercom, PA Call Station/Talk Back Station		CRM-V-2	Protected
		IP-CROR	Protected
Desktop intercom		IPDM-V2	Protected
		IPDMHB-V2	Protected
		IPDMHB-V2_P	Protected
		IPDMH-V2	Protected
Desktop analogue telephone		DT-800M	Protected
VAF-2 Flush (console) mount analogue telephone, PA Call Station		VAF-2	Protected
Wall mount analogue telephone		HSB-4	Exposed
Speakers (20 Ohm)		VML-1520	Exposed
Turbine series intercom stations - TCIS = IP interface - TFIE = Industrial, IP interface - TFIx = Ex version, analogue interface - TMIS = Mini, IP interface - Note : The use of "x" in Model identifies variants of the products, where x is a number between 1 and 6 or a letter		TCIS-x	Exposed
		TFIE-xx	Exposed
		TFIX-x-V2	Exposed
		TMIS-x	Protected
Turbine IP station/ amplifier/ interface kit Note: Where x relates to encapsulation type		TKIS-x	Protected
		TKIE-x	Protected
IP Vandal Resistant Intercom		IPVRS-1	Protected
		VR3G-1	Protected
		VR3G-1P	Protected
IP HotLine Station, Handset Only, with TKIS-2		IPHLS	Exposed
IP Heavy Duty Telephone		IPHDT-KY	Exposed
		IPHDT-Y	Exposed
		IPHDT-KDY	Exposed
		IPHDT-DY	Exposed
Ex Approved Cable for Headset with PTT		TAX-2b	Exposed
Network loudspeakers		ELSII-10H	Protected
		ELSIR-10C	Exposed
Access Panels	Exigo Call Panel, PTT Button, Pluggable Microphone, Ethernet	ECPIR-P	Protected
	Exigo Call Panel, PTT + 3 Buttons, Pluggable Microphone, Ethernet	ECPIR-3P	Protected
	Exigo Alarm Panel, 8 Buttons, Ethernet	EAPIR-8	Protected
	Exigo Button Expansion Module, 8 Buttons	EBMDR-8	Protected
	Exigo Industrial Access Panel, 1 Button, Ethernet	EAPII-1	Exposed
	Exigo Industrial Access Panel, 6 Buttons, Ethernet	EAPII-6	Exposed
	Exigo Industrial Ex Access Panel, 1 Button, Flowire	EAPFX-1-V2	Exposed
	Exigo Industrial Ex Access Panel, 6 Buttons, Flowire	EAPFX-6-V2	Exposed

Two-way UHF radio

Equipment type		Model	Environment
UHF	Mobile two-way radios MotoTrbo DM4XXXe for UHF on-board	DM4400e	Protected
		DM4401e	Protected
		DM4600e	Protected
		DM4601e	Protected
	Portable two-way radios MotoTrbo R7 series for UHF on-board	MotoTrbo R7 FKP Premium	Portable
		MotoTrbo R7 FKP Capable	Portable
		MotoTrbo R7 NKP Premium	Portable
		MotoTrbo R7 NKP Capable	Portable
		MotoTrbo R7a	Portable
		MotoTrbo R7Ex FKP	Portable
		MotoTrbo R7Ex NKP	Portable
	MotoTrbo SLR5500 Repeater for UHF on-board	SLR5500	Protected
	Active antenna combiners:	ZEN-COMB-2CH	Protected
ZEN-COMB-3CH		Protected	
ZEN-COMB-4CH		Protected	

Application/Limitation

1. The system is to be installed and in accordance with the manufacturer's documentation.
2. Any Ex-equipment (equipment to be used in areas with explosive atmosphere) listed in this certificate is subject to separate Ex- approvals.
3. UHF equipment may be fitted with headsets and microphones for handsfree communication. Installation to be performed in accordance to installation documentation. UHF repeater SLR5500 may provide dual LAN communication link between units, and be interfaced to Connect Pro for announcement on loudspeakers.

Type Approval documentation

DNV No	Document ID	Rev.	Description
113	F180022E1	E1	Report: Phoenix Testlab, EMC test report for Motorola DM4601e UHF radio
105	REP019873A	A	Report: Nemko, EMC test report for Zenitel Multipurpose Kit ZMK-1
104	REP072640B	B	Report: Nemko, Compass safe distance and salt mist test report for BSWT-6T, CL-200T-AG, CL-200T, CLWT-135T-FD, CLMQ-200T, CL-135T-W/FD, VLS-15T/F and VLS-30T/F speakers
103	(6725)143-0636	2025-05-27	Report: BV, Rain and sprat test report for VLS-15F horn speaker
102	31521-2	1	Report: Applica, Radiated emission and immunity testing for Alphacom intercom system
101	DPL/003/018/24	2024-02-13	Report: CTM, EMC test report for HSB-4 Analog Telephone
100	5/BT/2024	2024-02-02	Report: KOMAG, IPX6 test report for HSB-4 Analog Telephone
99	DPL/003/017/24	2024-02-13	Report: CTM, Temperature tests report for HSB-4 Analog Telephone
98	DPL/003/009/24	2024-02-20	Report: CTM, Vibration test report for HSB-4 Analog Telephone
97	REP038399	2024-04-23	Report: Nemko, Corrosion test report for HSB-4 Analog FXS telephone
96	A100K12372	0.2	Manual: Zenitel, Technical Manual- Radio with Zenitel Connect Pro
94	A100K12361	1.0	Report: Zenitel, Performance test report for Zenitel Connect Pro system
92	A100K12341	1.0	Manual: Zenitel, Technical Manual for Zenitel Connect- Maritime
90	RP-70714-01	10	Report: Motorola, Environmental test report for R7Ex UHF-B1 IIC UHF radio
89	1161	2025-02-14	Certificate: BSH, Compass safe distance for R7Ex UHF radio
88	U241088E1	2025-02-24	Report: Phoenix Testlab, EN 60945 Solar radiation and oil resistance test report for R7Ex UHF1 IIC UHF radio
87	RP-71373-01	A	Report: Motorola, Corrosion test report for R7Ex UHF-B1 IIC UHF radio
86	0717N01-MARITIME-00001	Ac	Report: Motorola, EMC test report for R7Ex radio

DNV No	Document ID	Rev.	Description
84	0717N01-MARITIME-00003	A	Report: Motorola, EMC test report for R7Ex radio
83	0717N01-MARITIME-00002	A	Report: Motorola, EMC test report for R7Ex radio
73	F180661E1	2018-06-06	Report: Phoenix Testlab, EMC test report for DP4801 Ex incl ancillary equipment
71	F161176E1	2016-08-19	Report: Phoenix TestLab, IEC 60945 EMC test report for DP4801e
69	F160035E2	2016-02-26	Report: Phoenix TestLab, IEC 60945 EMC test report for SLR5500
66	E113486E1	2011-11-10	Report: Phoenix TestLab, IEC 60945 EMC test report for DM4601 Fixed UHF radio
65	716	2011-10-10	Certificate: BSH, Compass Safe Distance for DM4601-UHF LP and DM4601-VHF LP
64	933	2016-02-10	Report: BSH, Compass Safe Distance for Motorola SLR 5500 Repeater
62	U180661E2	2018-05-28	Report: Phoenix Testlab, Oil resistance test report for DP4801 Ex (MDH56QCN9PA3AN)
61	U180661E1	2018-05-30	Report: Phoenix Testlab, Solar radiation test report for DP4801 Ex (MDH56QCN9PA3AN)
60	U161176E1	2016-09-06	Report: Phoenix TestLab, IEC 60945 Environmental test report for DP4801
59	U160035E1	2016-02-08	Report: Phoenix Testlab, IEC 60945 Environmental test report for Motorola SLR 5500 with Filter FMT05B03
58	U113486E1	2011-11-14	Report: Phoenix TestLab, IEC 60945 Environmental test report for DM4601
57	RP-58563-01	A	Report: Motorola, Environmental test report for DP4801 Ex
51	F211357E1	2021-11-02	Report: Phoenix Testlab, EMC test report for R7 UHF radio with charger
48	118-30784-2	2019-06-14	Report: Force Technology, Marine type testing of 2 channel and 4 channel UHF Maritime Combiners
47	A100K11700	03	Report: Zenitel, DNV Approval of Upgraded ACM System including UHF On-board Radio Capabilities
46	954	2016-09-12	Certificate: BSH, Compass safe distance measurement for DP4801e
32	188/BT/2024	2024-12-17	Report: KOMAG, Environmental test report of CLMQ-200T, CLWT-135T-FD, BSWT-6T, CL-200T, CL-135T-W/FD, CL-200T-AG, VLS-15T/F, VLS-30T/F loudspeakers
31	187/BT/2024	2024-12-06	Report: KOMAG, Vibration test report of CLMQ-200T, CLWT-135T-FD, BSWT-6T, CL-200T, CL-135T-W/FD, CL-200T-AG, VLS-15T/F, VLS-30T/F loudspeakers
29	31845	0	Report: Applica, Environmental testing of Wago 787-1633, Wago-1606 and Wago 787-980
28	31844	0	Report: Applica, Environmental testing of PoE-Injector
27	31707-02	0	Report: Applica, Environmental testing of Zenitel DT-800M Telephone
26	31707-01	0	Report: Applica, EMC testing of Zenitel DT-800M Telephone
24	P22-0154	2023-06-28	Report: EKTOS, EMC and environmental test report for FXS-GW-xxP gateway and NV-PL-0xx IP over two-wire switch
23	22332-10	2021-11-11	Report: Professional Testing (EMI), Inc, EMC test report for Cisco IE-3x00 Catalyst Industrial Ethernet Switch Series
22	21585-10/30	2021-12-15	Report: Professional Testing (EMI), Cisco IE-3x00 Environmental and EMC Test Report
21	EDCS-22688037	2021-11-02	Report: Cisco, Vibration test report for Cisco IE-3x00 Series switches
20	P21-0145	2022-01-31	Report: EKTOS, EMC and environmental test report for Zenitel Network Equipment C1000 + FPR1010-NGFW-K9 Firewall system
18	REP094442-B	2025-06-20	Report: Nemko, IEC 60945 test report for LAN system consisting of four Cisco Catalyst 1300 switches with SFP's
17	DANAK-19/14910	2015-01-13	Report: DELTA, EMC and environmental test report for networking equipment
16	20047	0	Report: Applica, Environmental test report for Turbine Compact
15	21399	0	Report: Applica, Vibration test report for IP-LCM IP Line Connection Module
14	E14083.00	2014-06-11	Report: Nemko, EMC and environmental test report for Turbine Industrial intercom
13	2013-3236	00	Report: DNV, EMC test report for TCIS-6 Turbine Compact

DNV No	Document ID	Rev.	Description
12	E14084.01	01	Report: Nemko, EMC and environmental test report for TFX-X intercom and EAPFX-X Ex access panels
11	E19084.00	2019-06-12	Report: Nemko, EMC test report for Flowire - FCDC3
10	E19125.01	2019-12-09	Report: Nemko, Environmental test report for Flowire - FCDC3
9	E20115.00	2020-11-04	Report: Nemko, EMC and environmental test report for IP Intercom stations CRM-V-2 and IP-CROR
8	E20116.00	2020-11-03	Report: Nemko, EMC and environmental test report for IP Intercom stations IP Desk Master station with Handset-V2 and IP Desk Master-V2
7	E21182.00	2021-10-28	Report: Nemko, EMC test report of Ex Intercoms and Access Panels- V2, TFX-1-V2, TFX-2-V2, TFX-3-V2, EAPFX-1-V2, EAPFX-6-V2
6	REP10010	A	Report: Nemko, Compass safe distance test report for HSB-4 and VAF-2 analogue telephones
5	DPL/003/432/24	2	Report: CTM, Low temperature test report for HSB-4 Analog Telephone
4	DPL/003/431/24	June 2025	Report: CTM, EMC test report for VAF-2 Analog Telephone
3	DPL/003/430/24	June 2025	Report: CTM, Low temperature test report for VAF-2 Analog Telephone
1	30811	0	Report: Applica, EMC and environmental testing of ICX-510

Tests carried out

- Performance testing: DNV Type Approval Programme 848.25 - Automatic Telephone System (June 2023)
DNV-RU-SHIP Part 6 Chapter 3 - for Two-way voice communication and handsfree two-way voice communication.
- Environmental testing: IEC 60945 (2002) incl. Corr.1 (2008)

Marking of product

The Manufacturer and Type Designation to be applied to the equipment in a clearly visible location. In addition the equipment shall be marked with serial number, safe distance to magnetic compass, power consumption and/or supply voltage.

Periodical assessment

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

The scope of the periodical/renewal assessment is to verify that the production quality conditions stipulated for the type approval are complied with and that no alterations are made to the product design or its components and/or materials without appraisal by the Society.

This certificate is only valid if required periodical assessments are carried out with satisfactory results. To check the validity of this certificate, please look it up in <https://approvalfinder.dnv.com>

Manufactured by:

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