



TYPE APPROVAL CERTIFICATE
No. ELE361621XG

This is to certify that the product below is found to be in compliance with the applicable requirement of the RINA type approval system.

<i>Description</i>	Public Address and Talk back Systems, Automatic Telephones
<i>Type</i>	MOTOTRBO series, ACM Series
<i>Applicant</i>	ZENITEL NORMAY AS P.O. Box 1068 Bekkajordet 3194 Horten NORWAY
<i>Manufacturer</i>	ZENITEL NORWAY AS
<i>Place of manufacture</i>	BROMSVEIEN 17 - P.O. BOX 1068 N-3194 HORTEN NORWAY
<i>Reference standards</i>	Rules for the Classification of Ships - Part C - Machinery, Systems and fire protection - Ch.3, Sect.6, Tab.1.

Issued in **HAMBURG** on **August 25, 2022**. *This Certificate is valid until* **August 24, 2027**

RINA Services S.p.A.
Giuseppe Russo

This certificate consists of this page and 1 enclosure

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MOTOTRBO series, ACM Series**Product description:**

MOTOTRBO series are digital two-way radios and portable

Power supply: 12V DC (for DM4xxx series)
 integrated battery (DP4xxx series)
 100-240V AC or 12V DC (for SLR5500)

Type	Characteristics
Fixed installed components	
DM4400e	UHF1 403-470MHz, 1-25W, 12.5/20.25kHz, numeric display
DM4401e	UHF1 403-470MHz, 1-25W, 12.5/20.25kHz, numeric display, BT/GNSS/Wi-Fi
DM4600e	UHF1 403-470MHz, 1-25W, 12.5/20.25kHz, alphanumeric display
DM4601e	UHF1 403-470MHz, 1-25W, 12.5/20.25kHz, alphanumeric display, BT/GNSS/Wi-Fi
DM4400e	UHF1 403-470MHz, 25-40W, 12.5/20.25kHz, numeric display
DM4401e	UHF1 403-470MHz, 25-40W, 12.5/20.25kHz, numeric display, BT/GNSS/Wi-Fi
DM4600e	UHF1 403-470MHz, 25-40W, 12.5/20.25kHz, alphanumeric display
DM4601e	UHF1 403-470MHz, 25-40W, 12.5/20.25kHz, alphanumeric display, BT/GNSS/Wi-Fi
Portable handheld	
DP4400e	UHF 403-527MHz, 4W, 12.5/20.25kHz, plain
DP4401e	UHF 403-527MHz, 4W, 12.5/20.25kHz, plain, BT/GNSS/Wi-Fi
DP4401 EX	UHF 403-527MHz, 1W, 12.5/20.25kHz, plain, BT/GNSS/Wi-Fi, for hazardous area
DP4600e	UHF 403-527MHz, 4W, 12.5/20.25kHz LKP, display
DP4601e	UHF 403-527MHz, 4W, 12.5/20.25kHz LKP, display, BT/GNSS/Wi-Fi
DP4800e	UHF 403-527MHz, 4W, 12.5/20.25kHz FKP, display
DP4801e	UHF 403-527MHz, 4W, 12.5/20.25kHz FKP, display, BT/GNSS/Wi-Fi
DP4801 EX	UHF 403-527MHz, 1W, 12.5/20.25kHz FKP, display, BT/GNSS/Wi-Fi, for hazardous area
Receiver	
SLR5500	UHF Repeater 400-470MHz, 1-50W, 12.5/20.25kHz,
Accessories	
254-2348	Foot switch
PMLN6852A	Noise Cancelling Heavy Duty Headset for DP4xxx series
C-C440	ATEX PTT adapter, Molex connector
DM8320	Microphone for DM4xxx series
HC-1	ATEX bone microphone
MT53H79A-77	Headset for DP4xxx series
PMLN6853A	Heavy duty headset Intrinsically safe
PMNN4489B	Battery pack 2900mAh for DP4xxx series
NNTN8359C	Battery pack, Lithium ion, 2075mAh for DP4xxx series
PMNN4544A	Battery pack 2450mAh for DP4xxx series
WPLN4255B	Single Unit Charger kit of WPLN4226A and PS000037A01 (EURO power supply)
NNTN8273A	Single Unit Charger
RMN5123A	Savox HC-1 - Helmet communication headset
PMMN4110A	Large omnidirectional remote
PMAE4082A	Folded monopole antenna

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Vingtor ACM family comprises the following models:

Model	Ref. Code	Description
CRM-V-2	1008431000	IP Flush Master Station -V2
CRM-V-HS	1008097100	Handset module for IP Flush Master
CRM-V-GN	1008097500	Noise cancelling Gooseneck Microphone for Flush Master Station
CRM-V-DAK48	1008010100	DAK Key Expansion Module for CRM-V, 48 programmable DAK keys
VMP-503	1020600315	Main Station with Loudspeaker, wall mounting, for use with ACM exchanges
VMP-530	1020600305	Main Station Waterproof, wall mounting, for use with ACM exchanges
VMP-211	3006202024	Wall Mounted Handset for use with main station VMP-503 /VMP-530
VMP-250	1020600700	Wall Mounted Handset Waterproof, Heavy Duty Industrial Handset
VMP-36-PEL-Ad	1020600787	Headset with Boom Mic and 10 meter cable for connect. to VPM station
VMP-36-PELP-Ad	1020600788	Headset with Boom Mic and 10 meter cable, for connect. to plug box CD-7-VMP
AK6070T	3006090490	Throat Microphone for AK5850 series
VMP-503PA	3006202031	Portable Main Station with loudspeaker for use with ACM exchanges, 5m cable
VMP-503PA/15	3006202037	Portable Master Station Main Station with loudspeaker for use with ACM exchange, 15 m cable
IPDMH-V2	1008401000	IP desk master with handset -V2
VMP-D619	1007034310	Desk /Wall Master Station Display and Handset, for use with ACM exchange
VMP-619	1007034210	Desk/ Wall master Station with Handset, for use with ACM exchange
DT-800M	2212000100	Desktop Analog Telephone, for use with ACM system
VAF-1	2213000300	Analog Bridge and ECR console telephone, PA call station
HSB-03	3005000025	Analog Multipurpose, wall mount Telephone, waterproof, for use with Headset P-MT7
HAS-3	3005000022	Handset for HSB-03, with cradle and push button switch
HAS-3WT	3005000023	Handset for HSB-03, with cradle and push button switch
P-MT7-A	1020600776	Headset for Analog Telephone and Talk-Back System
KNSP-09	2213000100	Heavy Duty Analog Telephone , wall mounting
KNSP-01	2213000200	Heavy Duty Analog Telephone , wall mounting, with door
P-290	3005000030	Portable analogue intercom
DA24	2213001002	Analog Industrial Ex Telephone , 16 push button keypad
DA24ID	3005000016	Ex Proof telephone, 16 push button keypad with illuminated keypad
DA24H	2213001003	Ex Proof telephone with headset
DSP-15EExeN	2340010001	Loudspeaker 15 W, EX proof, with stainless steel bracket
VML-1520	3006100088	Hom Loudspeaker I SW, for use with ACM or talk- back stations
TCAS-x	1008114010/20/ 30	Analog Intercom turbine Series IP 66
TCIS-x	1008111010/15/ 20/ 30/40/50/60	IP and SIP Intercom IP66
TFIE-x	1 0081220 I 0/15/ 20/ 30/36	IP and SIP Intercom IP66 for industrial environments
TFIX-x-V2	1008123110/20/ 30	Ex IP Intercom Station
TA-10	1008140100	Relay module, Dual DPDT high-power relays for TFIE-x
TA-22B	1008140225	10 m cable with plug box with PTT for industrial headset
TA-23	1008140230	Industrial Handset for Turbine with PTT
EMMAI-2H	1023533312	Handheld Microphone, IP66
EMMAX-IH	1023533511	Handheld Industrial Ex Microphone for Exigo / Turbine
AK5850xx	AK5850HS	Ex Headset IP 66

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Model	Ref. Code	Description
TAX-2B	1008150025	Ex-Approved Plugbox & Cable for Headset with PT
TAX-3	1008150030	Ex Handset
CL-200T	2131000100	Ceiling Loudspeaker Steel Firedome
EHS-24	3006102038/39/40/41/42	Rotary Light 24V de
EHS-220	3006102033/34/35/36/37	Rotary Light 220Vac
EHS-110	2340200001/02/03/04 3006102032	Rotary Light 110 Vac
BLKS-24	3006102022/2340200005/ 2340200014/3006102023/ 3006102084	BLK5 Flash Beacon IP65 24VDC
BLKS-230	3006102019/3006102020/ 3006102081/3006102021	BLK5 Flash Beacon IP65 230VAC
BLKS-1150	3006102018	BLK5 Flash Beacon IP65 I 15VAC, orange globe
PD2100AC	3006102059	Indication light with lifeboat symbol, 240Vac; bulb E14b/15Wn
A-100	3006102002	Electronic Alann 24Vdc
A-100AC	3006102003	Electronic Alann 220Vac
HB-105	2340200021	Telephone tone Caller, 60 to 100Vac power line
SON -16	3006102067/68/69/70/71	Combined Audio and Visual 24Vdc
AL-1000	3006102006	Combined Audio and Visual 230Vac
AL-105N-WR	3006102005/9011410001/ 9011301001/2340200009/ 2340200016/3006102007/ 3006102009	Combined audio and visual, I 06dB
CRB-7	3006102026	Relaybox for Telephone Signal Units Waterproof
IRR-3	1020600992	General Purpose Relay box
PLM-32	3006202009/10	Cabinets for Outdoors Installations
PLM-43	3006202011/12 2810010010	Cabinets for Outdoors Installations
PLM-54	3006202013/14	Cabinets for Outdoors Installations
CD-4	1020159000	Plugbox Waterproof
CD-7-VMP	3006202007	Watertight plugbox
SB01	3005020052	Socket Box
PT-625A	3005000034	RJI I Jack Surface
	1009800100	Desk station accessory kit
ECPIR-P	1023200030	Exigo Call Panel, PTT Button, Pluggable Microphone, Ethernet
ECPIR-3P	1023200033	Exigo Call Panel, PTT+ 3 Buttons, Pluggable Microphone, Ethernet
EAPIR-8	1023201008	Exigo Alarm Panel, 8 Buttons, Ethernet
EBMDR	1023253008	Exigo Button Module, 8 Buttons
EAPII-1	1023201201	Exigo Access Panel Industrial, 1 Button, Ethernet
EAPII-6	1023201206	Exigo Access Panel Industrial, 6 Buttons, Ethernet
EAPFX-1-V2	1023221611	Exigo Industrial Ex Acces Panel, 1 Button
EAPFX-6-V2	1023221616	Exigo Industrial Ex Access Panel, 6 Buttons
76R1005	3006090378	Stainless steel cabinet A2 indoor
76R1007	3006090380	Stainless steel cabinet A2 indoor

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Model	Ref. Code	Description
ICX-500	1002000100	Intelligent communication server
ICX-510	1002000200	Intelligent communication server
IPDMHB-V2	1008401100	IP Desk Master with Handset (black)-V2
FCDC3 Flowire	1008080310	Ethernet Converter, DC Voltage, Gen2
Fixed installed components		
ZEN-COMB-2CH		2-channel combiner
ZEN-COMB-3CH		3-channel combiner
ZEN-COMB-4CH		4-channel combiner
Portable handheld		
MDH06RDN9XA2AN	MOTOTRBO R7, UHF 400-527MHz, 4W, 12.5/20/25kHz, FKP, BT, WIFI, GNSS Premium Motorola R7 Radio, FKP, BT, WIFI, GNSS, Premium	
MDH06RDN9WA2AN	MOTOTRBO R7, UHF 400-527MHz, 4W, 12.5/20/25kHz, FKP, BT, WIFI, GNSS Capable Motorola R7 Radio, FKP, BT, WIFI, GNSS Capable	
MDH06RDC9XA2AN	MOTOTRBO R7, UHF 400-527MHz, 4W, 12.5/20/25kHz, NKP, BT, WIFI, GNSS Premium Motorola R7 Radio, NKP, BT, WIFI, GNSS, Premium	
MDH06RDC9WA2AN	MOTOTRBO R7, UHF 400-527MHz, 4W, 12.5/20/25kHz, NKP, BT, WIFI, GNSS Capable Motorola R7 Radio, NKP, BT, WIFI, GNSS Capable	
MDH06RDC9VA2AN	MOTOTRBO R7a, UHF 400-527MHz, 4W, 12.5/20/25kHz, NKP, No BT, No WIFI, No GNSS Motorola R7a Radio, NKP, No BT, No WIFI, No GNSS	
Accessories		
PMNN4488A	Battery pack 3000mAh for DP4xxx series	
PMNN4491C	Battery pack 2100mAh for DP4xxx series	
PMNN4525B	Battery pack 1950mAh for DP4xxx series	
PMNN4807A	Battery pack 2200mAh for R7 series	
PMNN4808A	Battery pack 2450mAh for R7 series	
PMNN4809A	Battery pack 2850mAh for R7 series	
PMNN4810A	Battery pack 3200mAh for R7 series	
PMLN8085A	Behind-the-Head Headset, GCAI Mini	
PMLN8086A	Over-the-Head Headset	
PMLN8265A	Over-the-Head Headset, NEXUS	
PMLN8266A	Behind-the-Head Headset, NEXUS	
PMLN8267A	Hardhat Mount Headset, NEXUS	
PMLN8297A	PTT NEXUS Adapter, GCAI-MINI	
C-C440	Body Switch for Handsfree Operation of DP4xxx	
PMPN4577A	MOTOTRBO IMPRES Single Unit Charger, EU	

Documents:

A-Com - Silenta Ltd; A100K10675,VSP-12-Way,Userguide; A100K10678,VSP Batteryless Telephone System;
A100K10756,VSP-M,Userguide; A100K10758,VSP-M,Technical Manual; A100K10872 v.3.1 VSP-EX Installation &
User Manual; A100K10873,VSP-12-Way,Technical,Manual;
Data sheet: - MOTOTRBO DP4000 SERIES ACCESSORIES EMEA version 1 (05/2012);
- MOTOTRBO™ DM4000e Series EAv1 (05/16); - MOTOTRBO™ DP4000e Series EAv1 (05/16);
- MOTOTRBO™ SLR 5500 REPEATER EAv1 (06/15); DP4000 EX; Savox C-C440;
User guide: - Motorola DP4801EX; DP4401 EX; 6816787H01-G;
EN_MOTOTRBO_DP4000_Ex_ATEX_Brochure;

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Test reports:

BSH: - 716 dated 10. Oktober 2011; 933 dated 2016-02-10; 954 dated 2016-09-12; 999 dated 2018-05-23;
- 1002 dated 2018-05-23; 1004 dated 2018-05-23; 1005 dated 2018-05-23;

CTCS: - 11196 dated 21.04.2011 - EN300720-1+2;

DEKRA EXAM GmbH: - BVS 12 ATEX E 117 X + 1. Suppl. dated 24. June 2013

Motorola: - DoC-15111200192-H dated 19-Jun-2017; DoC-15120100203-D dated 19-Jun-2017;

- DoC-15120100204-E dated 19-Jun-2017; DoC-15120300208-E dated 19-Jun-2017;

- DoC-17052900731-B dated 19-Jun-2017; DoC-17060600747-B dated 19-Jun-2017;

- DoC-15021700073-B dated 04-Mar-2016; DoC-16041400281-D dated 07-AUG-2018;

- RP-58563-01 Rev. A dated 2 May 2018;

Phoenix Testlab: - E113486E1 dated 10 November 2011; F160035E1 dated 26.02.2016; F160035E2 dated 26.02.2016;

- F161176E1 dated 19.08.2016; U113486E1 dated 14 November 2011; U161176E1 2nd Version dated 02.09.2016;

- U160035E1 dated 05.02.2016; F180661E1 dated 06.06.2018; U180661E1 dated 30.05.2018;

- U180661E2 dated 28.05.2018;

UL: - E465428-20160205-Certificate_of_Compliance_Intrinsically_safe_radios

Vingtor Stentofon: - A100K11700 dated 5.01.2017; ZD11641 rev02, Block Diagram, DNV Test of UHF radio system;

Remarks:

- Each particular application and installation is to be specifically approved and tested.
 - Installation of Public Address System to be in compliance with IMO MSC 808, IMO LSA Code VII para 7.2.2
 - Where an individual loudspeaker has a device for local silencing, an override arrangement from the control station(s), including the navigation bridge, is to be in place.
 - Where the installation of the equipment in hazardous area(s) is necessary, it is to be selected based on its suitability for the hazardous area so classified.
 - The products fulfill EC-Code: EC21.
 - The EMC requirements for installation on the Bridge and Deck Zones will be fulfilled by the equipment.
 - The Receiver SLR5500 is to be provided with Line filter of type FMT05FB03 in power supply line.
 - The products are subject to the compliance with RINA Rules Pt.C, Ch.3, Sec.6, Tab.1.
 - The installation shall comply with the Manufacturer's recommendation and to the satisfaction of Flag state.
 - The minimum safe distance of the equipment to a standard or a steering magnetic compass is to be considered.
- This certificate cancels and replaces the certificate no.: ELE301218XG.

HAMBURG August 25, 2022

