

Translation

EU-Type Examination Certificate Supplement 5

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 12 ATEX E 117 X**

Product: **Radio telephone type XPR ****Ex, type XiR P**** Ex, type DP**** Ex and type DGP**** Ex**

Manufacturer: **Motorola Solutions Systems Polska**

Address: **Cezerwone Maki 83, 30-392 Krakow, Poland**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 12 ATEX E 117 X to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 12.2167 EU.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **General requirements**
EN 60079-11:2012 **Intrinsic Safety "i"**

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 2G Ex ib IIC T4 Gb**
II 2D Ex ib IIIC T130°C Db
I M2 Ex ib I Mb

DEKRA Testing and Certification GmbH
Bochum, 2020-05-29

Signed: Jörg-Timm Kilisch

Managing Director



13 **Appendix**

14 **EU-Type Examination Certificate**

**BVS 12 ATEX E 117 X
Supplement 5**

15 **Product description**

15.1 **Subject and type**

Radio telephone type XPR ****Ex, type XiR P**** Ex, type DP**** Ex and type DGP**** Ex

The asterix (*) in the type designation is replaced by numbers per the list below :

Name	Model number	Type description
VHF versions 136 to 174 MHz		
XPR 7550 Ex	PMUD3214ABCNAA	North American Full Keypad Model (NAG FKP)
DP4801 Ex	PMUD3214ABCEAA	Europe, the Middle East, Africa, Australia and New Zealand Full Keypad Model (EMEA FKP)
DP4801 Ex	PMUD3214APCEAA	Europe, the Middle East, Africa, Australia and New Zealand Full Keypad Model (EMEA FKP)
DP4801 Ex	PMUD3214ACCEAA	Europe, the Middle East, Africa, Australia and New Zealand Full Keypad Model (EMEA FKP)
XiR P8668 Ex	PMUD3214ABCAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUD3214ABFAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUD3214ABEAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUD3214ABDAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUD3214ACCAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUD3214ACDAAA	Asia Pacific Full Keypad Model (APAC FKP)
DGP 8550EX	PMUD3214ABCLAA	Latin American Caribbean Region Full Keypad (LACR FKP)
DGP 8050EX	PMUD3212ABALAA	Latin American Caribbean Region Non Keypad (LACR NKP)
XiR P8608 Ex	PMUD3212ABAAAA	Asia Pacific Non Keypad Model (APAC NKP)
XiR P8608 Ex	PMUD3212ACAAAA	Asia Pacific Non Keypad Model (APAC NKP)
DP4401 Ex	PMUD3211AAAEAA	Europe, the Middle East, Africa, Australia and New Zealand Non Keypad Model (EMEA NKP)
UHF versions 403 to 470 MHz		
XPR 7550 Ex	PMUE3750ABCNAA	North American Full Keypad Model (NAG FKP)
DP4801 Ex	PMUE3750ABCEAA	Europe, the Middle East, Africa, Australia and New Zealand Full Keypad Model (EMEA FKP)
DP4801 Ex	PMUE3750APCEAA	Europe, the Middle East, Africa, Australia and New Zealand Full Keypad Model (EMEA FKP)
DP4801 Ex	PMUE3750ACCEAA	Europe, the Middle East, Africa, Australia and New Zealand Full Keypad Model (EMEA FKP)
XiR P8668 Ex	PMUE3750ABCAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUE3750ABFAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUE3750ABEAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUE3750ABDAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUE3750ACCAAA	Asia Pacific Full Keypad Model (APAC FKP)
XiR P8668 Ex	PMUE3750ACDAAA	Asia Pacific Full Keypad Model (APAC FKP)
DGP 8550EX	PMUE3750ABCLAA	Latin American Caribbean Region Full Keypad (LACR FKP)
DGP 8050EX	PMUE3754ABALAA	Latin American Caribbean Region Non Keypad (LACR NKP)
XiR P8608 Ex	PMUE3754ABAAAA	Asia Pacific Non Keypad Model (APAC NKP)
XiR P8608 Ex	PMUE3754ACAAAA	Asia Pacific Non Keypad Model (APAC NKP)
DP4401 Ex	PMUE3755AAAEAA	Europe, the Middle East, Africa, Australia and New Zealand Non Keypad Model (EMEA NKP)

Description**Reason for the supplement:**

- Mechanical drawing updates for front housing assembly (add screw torque spec and revise manufacturer's name)
- Add battery variant
- Mechanical drawing update for Assembly Housing for battery
- Mechanical drawing update for battery latch
- Mechanical drawing update for cover for battery
- Documentation updates

Description of Product

The radio telephones types XPR **** Ex, XiR P**** Ex, DP**** Ex and DGP ****EX are portable radios that serve communication in the VHF (136 to 174 MHz) and UHF (403 to 470 MHz) band.

The radios telephones are only used with the battery type NNTN8359A or type NNTN8359B or type NNTN8359C or type NNTN8359CR and the Dust Cover with the part number 15012157001 or one of the approved accessories listed in this certificate.

The antennas listed below can be connected to the radio telephones

For use with the 136 – 174 MHz versions

Part No	Description
PMAD4126A	GPS helical antenna (136 – 147 MHz) Ex
PMAD4127A	GPS helical antenna (147 – 160 MHz) Ex
PMAD4128A	GPS helical antenna (160 – 174 MHz) Ex
PMAD4129A	Stubby antenna 11cm (136 – 147 MHz) Ex
PMAD4130A	Stubby antenna 11cm (147 – 160 MHz) Ex
PMAD4131A	Stubby antenna 11cm (160 – 174 MHz) Ex
PMAD4132A	Wideband antenna (136 – 174 MHz) Ex

For use with the 403 to 470 versions

Part No	Description
PMAE4081A	DMR folded monopole (403 – 433 MHz) Ex
PMAE4082A	DMR folded monopole (430 – 470 MHz) Ex
PMAE4083A	DMR stubby antenna (403 – 433 MHz) Ex
PMAE4084A	DMR stubby antenna (430 – 470 MHz) Ex
PMAE4085A	DMR whip antenna (403 – 470 MHz) Ex

The following carry devises can be used with the radio telephones:

Part No	Description
PMLN6086A	ATEX Belt Clip 2.5-Inch Belt Width
PMLN6096A	Hard Leather Carry Case 2.5-Inch Swivel Belt Loop for Non-Keypad Radio
PMLN6097A	Hard Leather Carry Case 2.5-Inch Swivel Belt Loop for Full-Keypad Radio
PMLN6098A	Soft Leather Carry Case 2.5-Inch Swivel Belt Loop for Non-Keypad Radio
PMLN6099A	Soft Leather Carry Case 2.5-Inch Swivel Belt Loop for Full-Keypad Radio
PMLN5610A	2.5-Inch Replacement Swivel Belt Loop



The following audio accessories, separately certified, can be connected to the radios:

Part No	Description	Certificate
PMMN4067B	ATEX CSA Remote Speaker Microphone	BVS 12 ATEX E 027 X
PMLN6047A	Audio Adapter with Molex jack	BVS 12 ATEX E 074 X

The Audio Adapter with Molex jack is only approved for use in gas hazardous (Group II) and dust hazardous (Group III) environments.

Furthermore the following audio accessories, separately certified, with a secondary audio interface to allow the connection of headsets can be connected to the radios:

PMMN4094A	ANC RSM ATEX 20 Ohm Standard Cable	BVS 15 ATEX E 054X
PMNN4100A	ANC RSM ATEX 20 Ohm Long Cable	BVS 15 ATEX E 054X
PMMN4110A	OMNI RSM 20 Ohm Standard Cable	BVS 15 ATEX E 054X
PMMN4111A	OMNI RSM 20 Ohm Long Cable	BVS 15 ATEX E 054X

FL5263-34 PTT Adapter for use with Headset
(Motorola Part Number PMLN6368A)
Nemko 13 ATEX1521X
(Issue 2)
Approved for use in Mining (Group I) and Gas hazardous (Group II) environments
Ambient temperature range: $-20\text{ °C} \leq T_a \leq +50\text{ °C}$

FL4063-50-34 Small PTT adaptor
(Motorola Part Number PMLN6803A)
Nemko 13 ATEX1521X
(Issue 2)
Approved for use in Mining (Group I) and Gas hazardous (Group II) environments
Ambient temperature range: $-20\text{ °C} \leq T_a \leq +50\text{ °C}$

AK6760T Key Switch (PTT unit)
(Motorola Part Number PMLN7310ASP01)
Presafe 15 ATEX 6928
(Issue 1)
Approved for use in Gas hazardous (Group II) environments.

The headsets listed below can be connected to the audio accessories.
Other accessories that have certified compatible interface parameters may also be connected.

MT7H79F-50 Standard Headset with microphone
(Motorola Part Number PMLN6087A)
Nemko 09 ATEX E 1114 X
(Issue 2)
Approved for use in Gas hazardous (Group II) environments.
Ambient temperature range: $-20\text{ °C} \leq T_a \leq +50\text{ °C}$

MT7H79P3E-50 Standard Headset with microphone
(Motorola Part Number PMLN6092A)
Nemko 09 ATEX E 1114 X
(Issue 2)
Approved for use in Gas hazardous (Group II) environments.
Ambient temperature range: $-20\text{ °C} \leq T_a \leq +50\text{ °C}$

MT72H540P3E-50 Standard Headset with microphone
(Motorola Part Number PMLN6333A)
Nemko 09 ATEX E 1119 X
(Issue 2)
Approved for use in Gas hazardous (Group II) environments.
Ambient temperature range: $-20\text{ °C} \leq T_a \leq +50\text{ °C}$

MT7H79B-50 Headset series, Tactical XP
(Motorola Part Number PMLN7531A)
Nemko 09 ATEX1114X
(Issue 2)
Approved for use in Gas hazardous (Group II) environments.
Ambient temperature range: $-20\text{ °C} \leq T_a \leq +50\text{ °C}$

MT1H7F2-07-51 Headset series, Tactical XP
(Motorola Part Number PMLN6090A)
Nemko 10 ATEX 1029 X
(Issue 2)
Approved for use in Mining (Group I) and Gas hazardous (Group II) environments.
Ambient temperature range: $-10\text{ °C} \leq T_a \leq +40\text{ °C}$

MT1H7P3E2-07-51 Headset series, Tactical XP
(Motorola Part Number PMLN6089A)
Nemko 10 ATEX 1029 X
(Issue 2)
Approved for use in Mining (Group I) and Gas hazardous (Group II) environments.
Ambient temperature range: $-10\text{ °C} \leq T_a \leq +40\text{ °C}$

MT1H7B2-07- 51 Headset series, Tactical XP Nemko 10 ATEX 1029X
 (Motorola Part Number PMLN7535A) (Issue 2)
 Approved for use in Mining (Group I) and Gas hazardous (Group II) environments.
 Ambient temperature range: $-10\text{ °C} \leq T_a \leq +40\text{ °C}$

The accessories, the antennas and the battery can only be connected or disconnected outside the potentially hazardous environment.

The permissible ambient temperature range for the radio, the battery type NNTN8359A or type NNTN8359B or type NNTN8359C or type NNTN8359CR, the ATEX CSA Remote Speaker Microphone type PMMN4067B, the ANC RSMs type PMMN4094A and PMNN4100A, the OMNI RSM type PMMN4111A and PMMN4110A and the Audio Adapter with Molex Jack type PMLN6047A is $-20\text{ °C} \leq T_a \leq +55\text{ °C}$.

The battery type NNTN8359A, NNTN8359B, NNTN8359C and NNTN8359CR can only be charged outside the hazardous environment with chargers listed in the safety leaflet (document 68012007083).

15.3 Parameters

15.3.1 Electrical Data

15.3.1.1 Frequency range

VHF-versions	136 – 174 MHz
UHF-versions	403 – 470 MHz

15.3.1.2 Output power

2 W max. (ib)

15.3.1.3 Supply voltage

The radio is supplied by the battery type NNTN8359A or NNTN8359B or NNTN8359C or NNTN8359CR with the following supply voltage:

Nominal voltage:	7.6 V DC
Peak open voltage:	8.4 V DC

15.3.1.4 When the Audio Adapter PMLN6047A (BVS 12 ATEX E 074 X) is used with the radios and the batteries types NNTN8359A or NNTN8359B or NNTN8359C or NNTN8359CR the following interface parameters have to be considered for secondary audio devices connected to the audio adapter:

Max. output voltage:	$U_o = 8.4\text{ V}$
Max. output current:	$I_o = 75\text{ mA}$
Max. output power:	$P_o = \text{linear characteristic}$
Effective internal capacitance:	$C_i = \text{negligible}$
Effective internal inductance:	$L_i = \text{negligible}$

Connectable values for the Group IIC and IIIC in combination:

Max. external capacitance:	$C_o = 0.1\text{ }\mu\text{F}$
Max. external inductance:	$L_o = 2\text{ mH}$

15.3.2 Ambient temperature range

$-20\text{ °C} \leq T_a \leq +55\text{ °C}$

15.3.3 Ingress protection for the radio telephone and the battery

IP64

16 Report Number

BVS PP 12.2167 EU, as of 2020-05-29



17 **Special Conditions for Use**

- 17.1 The antennas can only be connected / disconnected to the radios outside the hazardous environment.
- 17.2 The ATEX CSA Remote Speaker Microphone type PMMN4067B can only be connected / disconnected outside the hazardous environment.
- 17.3 The Audio Adapter type PMLN6047A with Molex jack can only be connected / disconnected outside the hazardous environment.
- 17.4 The ANC RSM type PMMN4094A and type PMMN4100A can only be connected / disconnected outside the hazardous environment.
- 17.5 The OMNI RSM type PMMN4110A and type PMMN4111A can only be connected / disconnected outside the hazardous environment.
- 17.6 The PPT Adapter type FL5263-34 PTT and type FL4063-50-34 can only be connected / disconnected outside the hazardous.
- 17.7 The Key Switch type AK6760T can only be connected / disconnected outside the hazardous environment.
- 17.8 For all separately certified accessories additional safety conditions listed in these certificates will apply.
- 17.9 When the Audio Adapter type PMLN6047A is connected, the radio can only be used in gas (Group II) or dust (Group III) hazardous environments.
- 17.10 When the PTT Adapter type FL5263-34 or the Small PPT Adapter type FL4063-50-34 with one of the approved headsets is connected, the radio can only be used in Mining (Group I) or Gas (Group II) hazardous environments.
- 17.11 When the Key Switch type AK6760T is connected, the radio can only be used in a gas (Group II) hazardous environments.
- 17.12 The battery type NNTN8359A or type NNTN8359B or type NNTN8359C or type NNTN8359CR can only be changed or charged outside the hazardous environment.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, dated 2020-05-29
BVS-Ha/Mu A 20180233



Managing Director

