[1]

EU-TYPE EXAMINATION CERTIFICATE

[2] Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

[3] EU-Type Examination Certificate Number: **DNV 25 ATEX 35530X** **Issue 1**

[4] Product: **Ultraswitch WS/WM**

[5] Manufacturer: **PMV Automation AB**

[6] Address: **Korta Gatan 9**
SE-171 54
SOLNA, SWEDEN

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] DNV Product Assurance AS, notified body number 2460, 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 confidential reports listed in item 16.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018 and EN 60079-11:2012

Where additional criteria beyond those given here have been used, they are listed at item 18 in the Schedule.

[10] If the sign “X” is placed after the certificate number, it indicates that the product is subject to the “Specific Conditions of Use” listed under item 17 of this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the product shall include the following:

Ex **II 1G**	**Ex ia IIB T4/T5/T6 Ga**
Ex **II 1G**	**Ex ia IIC T4/T5/T6 Ga**
Ex **II 1D**	**Ex ia IIIC T_{200} 85°C Da**

Date of issue:
2025-12-10

NORSK AKKREDITERING
PROD 021

Asle Kaastad
For DNV Product Assurance AS
The Certificate has been digitally signed.

[13] **Schedule**

[14] **EU-Type Examination Certificate No:** DNV 25 ATEX 35530X Issue 1

[15] **Description of Product**

The equipment is a switchbox type to mount on the top of valve packages to indicate the valve position. The switchbox shows a visual indication of the valve position and a discrete electrical indication of the valve position, indicated by different types of limit switches.

Type designation

1	2	3	4	5	6	7	8	9	10
A	B	CC	D	E	F	G	H	II	JJ

A= Brand sticker
- X Automax
- B Automax painted blue (RAL 5000)
- A Accord
- P PMV
- V Valtek
- W Worcester Controls

B= Shaft type
- N NAMUR shaft, EN 15714
- S Low profile shaft
- T For NAF Turnex
- D Double "D" 1/4 Inch Flats

C= Body style
- WS General Purpose/I.S. Enclosure / 1/2" NPT Conduit entries
- WM General Purpose/I.S. Enclosure / M20x1,5mm Conduit entries

D= Number of conduit entries
- 2 2 conduit entries
- 4 4 conduit entries

E= Body material
- A Aluminium

F= Cover material
- A Aluminium
- P Polycarbonate Cover (clear)

G= Indicator
- 1 No indicator **(F = A only)**
- 2 Flat Arrow Indicator Yellow / Black
- 3 Flat Indicator Red/Green
- 4 Flat Indicator Black/Yellow
- H Black/Yellow Ultradome (Yellow open/Black Close)
- U Standard Ultradome (Red Close/Green Open)
- C 90° 3-Way Ultradome Red/Green **(F = A only)**
- D 180° 3-Way Ultradome **(F = A only)**
- R Reversed Standard Ultradome (Red Open/Green Closed)

H= Number of switch elements
- 0 No switches (empty housing)
- 1 1 Switch
- 2 2 Switches

I= Switch type - Standard
- 0 No switches (empty housing)
- D1 Device net
- FE NS5003 IS-2002-N
- FK NS5002 IS-2002-N
- FZ AS-i 2:1 Controller card 2x P4 switches
- M1 SPDT Mechanical 15A @ 250VAC ; 0,5A@125VDC SIL3 Capable
- MG SPDT Mechanical - Gold Contacts SIL3 Capable
- N1 NJ4-12GM40-E
- N2 NJ2-12GK-N
- N3 SJ3,5-S1N SIL3 Capable
- N4 NJ2-12GK-SN SIL3 Capable

N5	NJ4-12GK40-E	
N6	NJ4-12GK40-E1	
N7	NBB2-V3-E0	
N8	NJ2-V3-N SIL3 Capable	
N9	NBB3-V3-Z4	
NA	NBN4-12GM40-E2	
NB	NJ2-12GM-N	
NC	NJ4-12GM-N	
ND	NCB2-12GM40-Z1	
NE	NCB2-12GM35-N0	
NF	NCN4-12GM35-N0	
NG	NJ5-11-N-G SIL3 Capable	
NH	NCB4-12GM40-N0	
NK	NCN4-12GM40-Z0	
NL	NCB2-V3-N0	
NM	NJ2-11-SN-G SIL3 Capable	
NN	NBB2-V3-E2	
NP	SJ3.5-N SIL3 Capable	
NQ	NJ4-12GK-N SIL3 Capable	
NV	NJ2-11-N-G	
NW	SJ3,5-SN SIL3 Capable	
NX	NBB2-V3-E3	
NY	NJ4-12GK-SN SIL3 Capable	
P4	SPST Proximity	
P5	SPDT Proximity SIL3 Capable	
PE	Sabre™ SPDT Proximity SIL3 Capable	
PT	Phazer BRS™ SPST Proximity SIL3 Capable	

J= Certificate

15	Atex Ex ia	(F=A; (IIC/IIB Ga and IIIC Da) else (only IIC/IIB Ga)
21	IECEx ia	(F=A; (IIC/IIB Ga and IIIC Da) else (only IIC/IIB Ga)

Safety parameters

Gas: All switches are intended for Group II subdivision IIC, except from NS5002 and NS5003 that are intended for subdivision IIB.

The total electrical ratings for electrical switches depend on rating of the switch type mounted and maximum permissible ambient temperature for use in temperature class, and shall not exceed the following values:

Model code	SWITCH	C_i nF	L_i uH	U_i V	I_i mA	P_i mW	T_{min} °C	T_4 °C	T_5 °C	T_6 °C
F8	IN0081	N/A	N/A	250	100	2345	-25	N/A	N/A	N/A
FE	NS5003	80	110	15	50	120	-20	70	80	70
FG	IS5070	N/A	N/A	30	250	63	-25	N/A	N/A	N/A
FJ	IN5207	N/A	N/A	55	400	1840	-25	N/A	N/A	N/A
FK	NS5002	110	135	15	50	120	-20	80	80	70
M1	Mech. Silver	1	1	28	45	120	-40	78	60	45
MG	Mech. Gold	1	1	28	45	31.5	-40	78	60	45
N1	NJ4-12GM40-E	N/A	N/A	60	N/A	N/A	-25	N/A	N/A	N/A
N3	SJ3,5-S1N	30	100	16	52	169	-25	89	60	45
N4	NJ2-12GK-SN	50	150	16	52	169	-40	80	66	51
N8	NJ2-V3-N	40	50	16	52	169	-25	89	60	45
N9	NBB3-V3-Z4	N/A	N/A	60	100	N/A	-25	N/A	N/A	N/A
NB	NJ2-12GM-N	30	50	16	52	169	-25	81	77	62
C	NJ4-12GM-N	45	50	16	52	169	-25	67	64	49
ND	NCB2-12GM40-Z1	N/A	N/A	60	100	N/A	-25	N/A	N/A	N/A
NE	NCB2-12GM35-N0	90	100	16	52	169	-25	81	77	62
NF	NCN4-12GM35-N0	95	100	16	52	169	-25	81	77	62
NG	NJ5-11-N-G	45	50	16	52	169	-25	82	57	42
NH	NCB4-12GM40-N0	120	50	16	52	169	-25	74	66	51
NK	NCN4-12GM40-Z0	N/A	N/A	60	100	500	-25	N/A	N/A	N/A
NL	NCB2-V3-N0	100	100	16	52	169	-25	89	60	45
NM	NJ2-11-SN-G	50	150	16	52	169	-40	81	77	62
NN	NBB2-V3-E2	N/A	N/A	30	100	500	-25	N/A	N/A	N/A
NP	SJ3.5-N	50	250	16	52	169	-25	89	60	45

Model code	SWITCH	C_i nF	L_i uH	U_i V	I_i mA	P_i mW	T_{min} °C	T_4 °C	T_5 °C	T_6 °C
NQ	NJ4-12GK-N	45	50	16	52	169	-25	80	66	51
NR	NJ4-12GM40-E1	N/A	N/A	60	200	600	-25	N/A	N/A	N/A
NS	NJ4-12GM40-E2	40	50	60	200	169	-25	N/A	60	N/A
NT	NJ4-12GK40-E2	40	50	16	52	169	-25		60	
NV	NJ2-11-N-G	30	50	16	52	169	-25	81	77	62
NW	SJ3,5-SN	30	100	16	52	169	-50	89	60	45
NY	NJ4-12GK-SN	70	150	16	52	169	-50	80	66	51
P4	Aleph PS-6132	1	1	28	45	31.5	N/A	40	N/A	N/A
P5	Hamlin 59135-030	1	1	28	45	31.5	-40	60	N/A	N/A
PE	SABRE IV	1	1	28	45	31.5	-40	80	70	55
PP	PHAZER IV	1	1	28	45	31.5	-40	80	80	69
PT	PHAZER BRS IV	1	1	28	45	31.5	-40	80	85	75

The dots in the labelling represent free definable parameters. These free definable parameters can be omitted or replaced by letters or digits and are covered by this certificate.

When assigning the actual sensor to the table uses the model description which describes the sensor best. Letters and digits describe the different types according to the model description key.

The sum of all capacitances and inductances, including tolerance and a 10 m cable, result to the given values for Ci and Li shown above.

Dust: All switches are intended for Group III subdivision IIIC.
Electrical parameters: Equal to parameters for gas certification.

Degrees of protection (IP Code)
IP66/67 according to IEC 60529

Ambient temperature:
-40°C to +80°C

Routine tests
None

[16] **Report No**.: 2025-3225 Rev.0
Project No.: PRJN-193397-2020-PA-NOR/03

[17] **Specific Condition(s) of Use**

●The Rotary Limit Switch Box is marked with the following warning marking: "WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS".

●The classification **Ex ia IIIC T_{200} 85°C Da** is applicable only to product type key:

A	B	CC	D	**E**	**F**	G	H	II	JJ

Letters E and F being A(aluminium): E = **A** and F = **A**
Device with body and cover made of aluminium. External indicator may be of plastic material.

●Enclosure material limits for EPL Ga are exceeded, as aluminium content is greater than 10%. User must determine the suitability of the equipment for the particular application, for example, to avoid an ignition hazard due to impact or friction.

●The Intrinsic Safety Parameters must not exceed the values indicated in the control drawing, W-43-AEC.

●The ambient temperature is indicated in the control drawing, W-43-AEC.

●The T classification is indicated in the control drawing, W-43AEC.

●All switches are intended for gas Group IIC. The FE (NS5002) and FK (NS5003) are intended for Gas group IIB. It is indicated in the control drawing, W-43-AEC.

●Separate ATEX certified IP66/67 cable glands or plugs according to Table 10 EN 60079-14 shall be used.

[18] **Essential Health and Safety Requirements**
Met by compliance with the requirements mentioned in item 9.

[19] **Drawings and documents**

Number	Title	Rev.	Date
W-44-E	Nameplate (label) for IECEx ia	2	2025-10-06
W-44-A	Nameplate (label) for ATEX ia	2	2025-10-06
W-43-AEC	Control drawing for ATEX and IECEx	0	2025-05-23
WSWM-ia-IOM_mandatory _content	IOM mandatory content	0	2025-05-28
M040017C	Cert. Assembly drawing	F	2013-08-28
W-App2	Material specification	6	2021-02-10
PRS-As410	Phazer BRS IV	0	2023-10-25
PRS-As420	Phazer IV	0	2023-10-25
PRS-As430	Sabre IV	0	2023-10-25
WSWM_ia_Modelcode	Model for WSWM Ex ia	7	2025-05-28
UTV-SR-GENERAL-24	Spec. For Elastomers in PMV Products	0	2014-01-10

[20] **Certificate History**

Issue	Description	Issue date	Report no.
0	Original issue (Replace Nemko 13 ATEX 1537X)	2025-06-23	PRJN-193397-2020-PA-NOR/02
1	Schedule documents W-44-E and W-44-A have been revised due to previously typing error. P4 switch schematic changed from A1_2 to A3_2 and Label material update.	2025-12-10	2025-3225 Rev.0

Compliance of the product with the applicable safety requirements of the relevant industrial standards has not been verified and is not covered by this certificate.

END OF CERTIFICATE