



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX DNV 25.0045X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2025-06-23

Applicant: **PMV Automation AB**
Korta Gatan 9
SE-171 54 Solna
SWEDEN
Sweden

Equipment: **Ultraswitch WS/WM**

Optional accessory:

Type of Protection: **Ex ia**

Marking: Ex ia IIB T4/T5/T6 Ga
Ex ia IIC T4/T5/T6 Ga
Ex ia IIIC T₂₀₀ 85°C Da

Approved for issue on behalf of the IECEx
Certification Body:

Ståle Sandstad

Position:

Certification Manager

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

DNV Product Assurance AS
Veritasveien 1
1363 Høvik
Norway





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Manufacturer: **PMV Automation AB**
Korta Gatan 9
SE-171 54 Solna
Sweden
Sweden

Manufacturing locations: **PMV Automation AB**
Korta Gatan 9
SE-171 54 Solna
Sweden
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This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[NO/DNV/ExTR25.0043/00](#)

Quality Assessment Report:

[NO/NEM/QAR08.0008/14](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

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. See the enclosed Annex for the details of type.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The Rotary Limit Switch Box is marked with the following warning marking: "WARNING – POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS".
- 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-43C.
- The ambient temperature is indicated in the control drawing, W-43C.
- The T classification is indicated in the control drawing, W-43C.
- 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-43C
- Separate IECEx certified IP66/67 cable glands or plugs according to Table 10 IEC 60079-14 shall be used.

Annex:

[ANNEX to IECEx certificate number IECEx DNV 25.0045X.pdf](#)

Annex to certificate: IECEx DNV 25.0045X

T-class and T-ambient based on IECEx certificates.

Note: concerned certificates with their respective indexes, as indicated in the table below

- 1 IECEx PTB 11.0021X 003
- 2 IECEx PTB 11.0037X 006
- 3 IECEx PTB 11.0091X 003
- 4 IECEx PTB 11.0092X 003
- 5 IECEx BVS 060003X 011

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

Annex to certificate: IECEx DNV 25.0045X

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
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

Annex to certificate: IECEx DNV 25.0045X

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
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.

Ambient temperature: $-40^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$

Electrical parameters: Equal to parameters for gas certification.

Ingress protection code

IP66/67 according to IEC 60529