[1] EU-TYPE EXAMINATION CERTIFICATE

[2] Equipment or Protected System Intended for use in Potentially explosive atmospheres Directive 2014/34/EU

[3]	**EU-Type Examination Certificate Number:**	**Nemko 13ATEX1537X**	**Issue 2**
[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] Nemko AS, notified body number 0470, 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 report no. 193397

[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

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

[11] 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

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

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

Oslo, 2021-04-20

Geir Hørthe
Certification Manager

[13] Schedule

[14] EU-TYPE EXAMINATION CERTIFICATE No Nemko 13ATEX1537X Issue 2

[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 *One position where x =any character*

B= Shaft type, external interface does not affect certification

x where x= any character

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

3 3 conduit entries. (2 acc. to "C" + entry opposite side with second option C.)

4 4 conduit entries. (2 acc. to "C" + entries opposite side with second option C.)

E= Body material

A Aluminum

R Engineered resin Not ATEX II 1D Ex ia IIIC Da

F= Cover material

A Aluminum

R Engineered resin Not ATEX II 1D Ex ia IIIC Da

P Polycarbonate Cover (clear) Not ATEX II 1D Ex ia IIIC Da

G= Indicator (Specifies if indicator is present, flat or dome shaped, and the colour of the indicator.

x where x= any character

H= Number of switch elements

0 0 Switches

1 1 Switch

2 2 Switches

I= Switch type 1 x 2 x

FE NS5003 IS-2002-N

FK NS5002 IS-2002-N

M1 SPDT Mechanical 15A @ 250VAC ; 0,5A@125VDC

MG SPDT Mechanical - Gold Contacts

N2 NJ2-12GK-N

N3 SJ3,5-S1N

N4 NJ2-12GK-SN

N8 NJ2-V3-N

NB NJ2-12GM-N

NC NJ4-12GM-N

NE NCB2-12GM35-N0

NF NCN4-12GM35-N0

NG NJ5-11-N-G

NH NCB4-12GM40-N0
NL NCB2-V3-N0
NM NJ2-11-SN-G
NP SJ3.5-N
NQ NJ4-12GK-N
NV NJ2-11-N-G
NW SJ3,5-SN
NY NJ4-12GK-SN
P4 SPST Proximity
P5 SPDT Proximity
PE Sabre™ SPDT Proximity
PT Phazer BRS™ SPST Proximity

J= Certificate
14 General Purpose
15 Atex Ex ia
21 IECEx ia
27 FM IS
28 CSA Ni
29 CSA IS
40 Atex Ex ia, FM IS, CSA IS
41 Inmetro Ex ia
42 Kosha Ex ia
43 CCC/Nepsi Ex ia
45 TR CU Ex ia
60 Certificate according to position G

Safety Data

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	Namur Switch Option Type	Ui	Ii	Pi	Ci	Li	Amb-min	T6	T5	T4	T3	T2 – T1
		V	mA	mW	nF	µH	°C	°C	°C	°C	°C	°C
FE	NS5003	15	50	120	80	110	-20	70	70	70	70	70
FK	NS5002	15	50	120	80	110	-20	70	80	80	80	80
N2	NJ2-12GK-N	16	52	169	45	50	-25	51	66	80	80	80
N3	SJ3,5-S1N	16	52	169	30	100	-25	28	40	68	68	68
N4	NJ2-12GK-SN	16	52	169	50	150	-40	34	46	74	74	74
N8	NJ 2-V3-N...	16	52	169	40	50	-25	28	40	68	68	68
NB	NJ2-12GM-N	16	52	169	30	50	-25	45	57	80	80	80
NC	NJ4-12GM-N	16	52	169	45	50	-25	32	44	67	67	67
NE	NCB2-12GM35-N0	16	52	169	90	100	-25	45	57	80	80	80
NF	NCN4-12GM35-N0	16	52	169	95	100	-25	45	57	80	80	80
NG	NJ5-11-N-G	16	52	169	45	50	-25	42	57	80	80	80
NH	NCB4-12GM40-N0	16	52	169	120	50	-25	34	46	74	74	74
NL	NCB2-V3-N0...	16	52	169	100	100	-25	45	60	80	80	80
NM	NJ2-11-SN-G	16	52	169	50	150	-40	45	57	80	80	80
NP	SJ3.5-N	16	52	169	50	250	-25	28	40	68	68	68
NQ	NJ4-12GK-N	16	52	169	45	50	-25	51	66	80	80	80
NV	NJ2-11-N-G	16	52	169	30	50	-25	45	57	80	80	80
NW	SJ3,5-SN	16	52	169	30	100	-40	28	40	68	68	68
NY	NJ4-12GK-SN	16	52	169	70	150	-40	34	46	74	74	74

Model code	Mechanical and Reed Switch Option Type	Ui	Ii	Pi	Ci	Li	Amb-min	T6	T5	T4	T3	T2 – T1
		V	mA	mW	nF	µH	°C	°C	°C	°C	°C	°C
M1	Mechanical switch silver	28	45	31,5	Neg	Neg	-40	45	60	78	78	78
MG	Mechanical switch gold	28	45	31,5	Neg	Neg	-40	45	60	78	78	78
P4	Aleph PS-6132	28	45	31,5	Neg	Neg	-10	-	-	40	40	40
P5	Hamlin 59135-030	28	45	31,5	Neg	Neg	-40	-	-	80	80	80
PE	Sabre	28	45	31,5	Neg	Neg	-40	55	70	80	80	80
PT	Phazer BRS	28	45	31,5	Neg	Neg	-40	55	70	80	80	80

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 II subdivision IIIC.
Ambient temperature: -40°C ≤ Ta ≤ +80°C
Electrical parameters: Equal to parameters for gas certification.

Ingress protection code
IP66/67 according to IEC 60529

[16] Report No. 193397

Descriptive Documents

Number	Title	Rev	Date
M040017C	Cert. Assembly drawing	F	2013-08-28
W-App2	Material specification	6	2021-02-10
PRS-As101C	Phazer BRS	2	2020-08-31
PRS-As301C	Saber PRS-3	2	2020-08-31
W-44C-A	Product Label - ATEX	1	2020-08-26
W-44C-E	Product Label - IECEx	0	2020-08-26
W-43C	Control drawing	1	2020-10-06
WS-WM Model code	Model code WSWM	6	2021-02-09
UTV-SR-GENERAL-24	Spec. For Elastomers in PMV Products	0	2014-01-10

Certificate History and Associated Nemko Reports

Issue	Date	Report	Description
0	2013.07.05	231635	Prime Certificate released
1	2013.12.19	242717	“ta” certification added.
2	2021-04-20	193397	Update to latest standard EN 60079-0:2018, EN 60079-11: 2012

[17] Specific Conditions 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-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.

[18] Essential Health and Safety Requirements

Essential Health and Safety Requirements (EHSRs) are covered by the standards listed at item 9