[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 35520X** **Issue 1**

[4] Product: **Ultraswitch DS/DM**

[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, EN 60079-1:2014, EN 60079-11:2012 and EN 60079-31:2014

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:

For Ex d version of product

II 2 G Ex db IIC T5 Gb -40°C ≤ Ta ≤ +85°C

II 2 D Ex tb IIIC T94°C Db IP66 -30°C ≤ Ta ≤ +70°C

For Ex ia version of product

II 1 G Ex ia IIC T4 Ga See Description of Product

II 1 D Ex ia IIIC T_{200} 135°C Da IP66 See Description of Product

Date of issue:
2025-12-11

NORSK AKKREDITERING
PROD 021

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

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[13] **Schedule**

[14] **EU-Type Examination Certificate No:** DNV 25 ATEX 35520X Issue 1

[15] **Description of Product**

PMV DS/DM limit switch enclosures provide local and remote position indication for automated valves. They may also be used as a junction box for direct installation of solenoid valves. The enclosure is made of Aluminium or Stainless-steel material, with two cable entries of ¾" NPT or M25 X 1.5 and provided with third cable entry as an optional without any opening. Certified Ex glands shall be used accordingly for Ex d and Ex t protection type.
The aluminium enclosure has order code of B, C, W and stainless-steel enclosure with S. NBR & Viton are the two gaskets used for the ingress protection. Connecting cables must be rated for service temperature above 116°C.
Internal parts are wiring terminals and the switches, up to four switches may be installed. No other active electronics exist in EUT. The Ex ia version of EUT is similarly built-up using the Ex d enclosure and having terminals and switches as internal parts. Each switch is used as a separated circuit. The safety input parameters are therefore dedicated for each single switch.
A wide range of switches could be ordered, which leads to a larger range of EUT's version. The order code of EUT is explained below.

Type designation

Product model code: XXXXXXXXXXXXXXXX (16 positions)

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
A	A	B	C	D	E	F	G	G	H	H	I	J	K	L	M

AA= Product & Connections (cable entry)

DS Explosion proof / Flame proof switchbox with 3/4" NPT cable entries

DM Explosion proof / Flame proof switchbox with M25x1,5 cable entries

B= Number of open cable entries (2 or 3)

C= Housing material / Surface treatment

x (x= anything but S) Aluminium housing, polyester powder coating different colors

S Stainless Steel housing

D= Shaft

x X= anything (different shaft external interface)

E= Indicator option

x If x=a number flat top if x=character ultradome

F= Qty of switches 0, 2 or 4 switches

GG= Switch options

	Manufacturer	Switch type	Ex ia	Ex d
M1	Honeywell	SPDT Mechanical switches 250VAC 10A		
MC	Honeywell	SPDT Mechanical switches 250°F	■	
MG	Honeywell	SPDT Mechanical - Gold Contacts		
MK	Essen	SPDT Mechanical switches 250VAC 10A		
P4	Aleph	SPST Proximity		
P5	Hamlin (Littlefuse)	SPDT Proximity		
PE	Flowserve	Sabre SPDT Proximity (PRS3, HSR630RT)		

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PP	Flowserve	Phazer SPDT Proximity	■	
PT	Flowserve	Phazer BRS SPST Proximity (Bestack R25U)		
N1	Pepperl & Fuchs	NJ4-12GM40_E, Proximity 3-wire NPN NO	■	
N3	Pepperl & Fuchs	SJ3.5-S1N (NAMUR)		
N8	Pepperl & Fuchs	NJ2-V3-N (NAMUR)		
N9	Pepperl & Fuchs	NBB3-V3-Z4	■	
NA	Pepperl & Fuchs	NBN4-12GM40-E2, Inductive. 3 wires PNP NO	■	
NC	Pepperl & Fuchs	NJ4-12GM-N		
ND	Pepperl & Fuchs	NCB2-12GM40-Z1 Proximity inductive 2-wire DC NC	■	
NE	Pepperl & Fuchs	NCB2-12GM35-N0 NAMUR with LED		
NF	Pepperl & Fuchs	NCN4-12GM35-N0 NAMUR with LED		
NG	Pepperl & Fuchs	NJ5-11-N-G	■	
NK	Pepperl & Fuchs	NCN4-12GM40-Z0 Proximity 2-wire DC NO	■	
NM	Pepperl & Fuchs	NJ2-11-SN-G		
NP	Pepperl & Fuchs	SJ3.5-N (NAMUR)		
NQ	Pepperl & Fuchs	NJ4-12GK-N (NAMUR)	■	
NR	Pepperl & Fuchs	NJ4-12GM40-E1, NPN NC	■	
NS	Pepperl & Fuchs	NJ4-12GM40-E2, PNP NO	■	
NT	Pepperl & Fuchs	NJ4-12GK40-E2, PNP NO	■	
NW	Pepperl & Fuchs	P&F SJ3.5-SN (NAMUR)		
NY	Pepperl & Fuchs	NJ4-12GK-SN		
F3	IFM	IF5250, 10-36VDC NC PNP, 150mA, 3-wire NC	■	
FC	IFM	IF5718, 10-36VDC NO PNP/NPN, 150mA, plastic	■	
F5	IFM	IF6001, 18-32 VDC, PNP NO	■	
F6	IFM	IF6034, 10-36VDC, NO PNP, 150mA, Stainless steel	■	
F7	IFM	IN0074, 20-250 AC/DC, NO, 350mA/100mA	■	
F8	IFM	IN0081, 20-250 AC/DC, NO, 350mA/100mA w/LED	■	

HH= Certificate

15 ATEX ia

19 ATEX II 2 GD Ex db IIC T4 Gb -40°C to +85°C, Ex tb IIIC T113°C Db IP66, -30°C to +70°C

21 IECEx ia

25 IEC Ex db IIC T4 Gb -40°C to +85°C, Ex tb IIIC T113°C Db IP66, -30°C to +70°C

26 Inmetro BR

30 Kosha

I= Product approval marking

0 Self-adhesive marking label, Polyester

M Stainless Steel marking plate

J= Analog Output

0 None

4 4-20 mA transmitter

R Remote unit 100°; 10KOhm

K = Terminal Options

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0 No extra Terminals
2 2 Extra open terminals (Standard)
4 4 Extra open terminals (Optional, not possible for all switch options)
6 6 Extra open terminals (Optional, not possible for all switch options)

L = Options / Elastomers

0 Nitrile O-rings (Standard)
V Viton O-rings

M = Brand

x X= any character

Example

AA	B	C	D	E	F	GG		HH		I	J	K	L	M
DS	2	B	N	1	2	M1	-	19	-	0	0	2	0	P

■ **No possible combination/option**

Electrical Data

For Ex ia versions of equipment the safety parameter input is specified:

Model Code	Intrinsic safe parameters					Ta: Ambient range of equipment *)					Remark
	Ci nF	Li uH	Ui V	Ii mA	Pi mW	Min T	T4	T5	T6	T(IIIC)	(See Note)
M1	1	1	28	45	315	-40	78	60	45	85	
MG	1	1	28	45	315	-40	78	60	45	85	
MK	1	1	28	45	315	-55	78	60	45	85	
N3	30	100	16	52	169	-25	68	40	28	89	2
N8	40	50	16	52	169	-25	68	40	28	89	3
NC	45	50	16	52	169	-25	67	44	32	67	4
NE	90	100	16	52	169	-25	81	57	45	81	4
NF	95	100	16	52	169	-25	81	57	45	81	4
NM	50	150	16	52	169	-40	80	57	45	81	2
NP	50	250	16	52	169	-25	68	40	28	89	1
NW	30	100	16	52	169	-40	68	40	28	89	2
NY	70	150	16	52	169	-50	74	46	34	80	2
P4	1	1	28	45	315	-10	40			85	
P5	1	1	28	45	315	-40	80			85	
PE	1	1	28	45	315	-40	80	70	55	85	
PT	1	1	28	45	315	-40	80	70	55	85	

Note 1! For reference & additional values, see Certificate PTB 99 ATEX 2219 X or IECEx PTB 11.0091X
Note 2! For reference & additional values, see Certificate PTB 00 ATEX 2049 X or IECEx PTB 11.0092X
Note 3! For reference & additional values, see Certificate PTB 00 ATEX 2032 X or IECEx PTB 11.0021X
Note 4! For reference & additional values, see Certificate PTB 00 ATEX 2048 X or IECEx PTB 11.0037X
*) Ambient range depending on the selected T-class

Degrees of protection (IP Code)

IP66

Ambient temperature:

Ambient range depending on the selected T-class

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Routine tests
None

[16] **Report No**.: 2025-3224, rev 0
Project No.: PRJN-865263/01

[17] **Specific Condition(s) of Use**
The flamepath gaps are less than those given in the standards and shall not be enlarged. For the repair of Flameproof joints, the manufacturer shall be consulted.
Potential risk of electrostatic discharge. See instructions for guidance to minimize risk of electrostatic discharge.
Minimum cable size shall be 1mm² or 17 AWG for switches rated higher than 3A and minimum cable size shall be 0.8mm² or 18 AWG for switches rated at 3A or lower.

[18] **Essential Health and Safety Requirements**

Met by compliance with the requirements mentioned in item 9.

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[19] Drawings and documents

Number	Title	Rev.	Date
DSDM Mandatory IOM Content	DSDM Mandatory IOM content	2	2025-08-25
DSDM Model code	DSDM Model code	0	2025-08-25
IIC-100C	Label drawing ATEX & IECEx ia	1	2025-08-11
IIC-102C	Terminal connection drawing	0	2018-10-17
IIC-58C	Control drawing ATEX & IECEx	1	2025-06-25
IIC-App1	Tolerances	1	2018-09-07
IIC-App2	Material specification	3	2018-09-10
IIC-App3A	Critical enclosure dimensions	2	2019-02-14
IIC-App3S	Critical enclosure dimensions	1	2019-02-18
IIC-App4	Label drawing ATEX & IECEx db	5	2025-06-18
IIC-As1C	Cert. assembly drawing	7	2019-02-19
XC1414C	Shaft certification drawing	1	2017-05-30

[20] Certificate History

Issue	Description	Issue date	Report no.
0	Original issue (Replace Presafe 18 ATEX 12921X)	2025-08-29	PRJN-865263
1	This change concern update of label drawing for Ex db due to previous typing error of drawing number.	2025-12-11	2025-3224, 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

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