



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 SIR 20.0030X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-09-25

Applicant: **PMV Automation AB**
Korta gatan 9
S17154 Solna
Sweden

Equipment: **Valve Controller / Aviator II**

Optional accessory:

Type of Protection: **Flameproof db**

Marking: Ex db IIB T4/T3 Gb
Ta = -20°C to +40°C T4
Ta = -20°C to +60°C T3
IP 65

Approved for issue on behalf of the IECEx
Certification Body:

Neil Jones

Position:

Certification Manager

Signature:
(for printed version)

Date:

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:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom





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Manufacturer: **PMV Automation AB**
Korta gatan 9
S17154 Solna
Sweden

Additional
manufacturing
locations:

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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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:

[GB/SIR/ExTR20.0173/00](#)

Quality Assessment Report:

[NO/NEM/QAR08.0008/10](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The AVIATOR II series Valve Controller consists of a switch assembly mounted in a flame-proof enclosure which is optionally provided with a solenoid and/or spool valve. The Solenoid and Spool valve options do not form part of this assessment.

Minimum Ambient Temperature: -20°C

Maximum Ambient Temperature: +40°C (T4) & +60°C (T3)

Aviator II Nomenclature – (Ex d IIB T3/T4)

A N XV U 2 M1 14 0 A 3A1 P R N 1

I – II – III – IV – V – VI – VII – VIII – IX – X – XI – XII – XIII – XIV

Refer to the Annexe for the Key to Alpha-numeric data

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The following flame-proof gaps are less than those allowed by Table 2 of IEC 60079-1:2014 Ed.7;
 - Flat Joint between cover and base
 - Cylindrical joint between shaft and cover
 - Cylindrical joint between shaft and base.For maximum gaps refer to User Instructions, FCD ACENIOM0100-02.
2. Flameproof joints are not to be repaired or altered in any way after approval.

Annex:

[IECEx SIR 20.0030X Issue 0 Annexe.pdf](#)

Annexe to: IECEx SIR 20.0030X Issue 0
Applicant: Flowserve PMV Automation AB
Apparatus: Valve Controller / Aviator II



Key to Alpha-numeric data

I Manufacturer Label

- Single Alpha-numeric Character

II Shaft Type

- Single Alpha-numeric character

III Housing

- XV – Aluminium Housing with 3/4 NPT Conduit
- XM – Aluminium Housing with M25 conduit

IV Position Indicator

- Single Alpha-numeric Character

V Quantity of Switch Elements

- Single Alpha-numeric Character

VI Switch Element Type

- M1 - SPDT Mechanical
- MG – SPDT Mechanical – Gold Plated
- MB – DPDB Mechanical – Licon
- P4 – SPST Proximity
- PE – Sabre SPDT Proximity
- PP - Phazer SPDT Proximity
- PL - Phazer SPDT Proximity w/LED
- PT – BRS SPDT Proximity
- PX – BRS SPDT Proximity w/LED
- N8 – P+F NJ2-V3-N
- NQ – P+F NJ4-12GK-N (Namur)
- NR – P+F NJ4-12GM40-E1
- NS - P+F NJ4-12GM40-E2
- NT - P+F NJ4-12GK40-E2
- NP – P+F SJ3-5N (Namur)
- FA – As-I card with (2) P4 Switches

VII Certification Type

- 14 – General Purpose
- 19 – Ex d IIB ATEX II 2G T5
- 23 – Explosion Proof CL I,II Div 1,2 Groups C,D,E,F,G AEx d IIB T5 Ex d IIB T5 ATEX II 2G ;Ex d IIB T5
- 25 – Ex d IIB IECEx T5

VIII Number Of Coils

- 0 – Integral Single Coil (Internally Mounted)

IX Solenoid Coil Voltage

- 0 – None
- A – 110Vac/50Hz, 120Vac/60Hz (2 Watt)
- C - 220Vac/50Hz, 240Vac/60Hz (2 Watt)
- F – 12Vdc (2 Watt)
- G - 24Vdc (2 Watt)
- H –12Vdc Low-Power (0.67 Watt)
- J – 24Vdc Low-Power (0.67 Watt)
- K – 24Vdc (Intrinsically Safe)
- P – 24Vdc Ultra Low Power (Piezo 0.006 Watt)

X Spool Valve

- Single Alpha-Numeric Character

XI Paint Options

Date: 25 September 2020

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Annexe to: IECEx SIR 20.0030X Issue 0
Applicant: Flowserve PMV Automation AB
Apparatus: Valve Controller / Aviator II



- Single Alpha-Numeric Character
XII Spool Valve Exhaust Mufflers
- Single Alpha-Numeric Character
XIII Override Options
- Single Alpha-Numeric Character
XIV Other
- Single Alpha-Numeric Character not affecting Explosion Proof design concepts.

Marked electrical ratings are determined by the provided switch and the optional solenoid coil as follows:

Switch

Suffix M1 = rated 250Vdc, 0.025A - 125Vdc, 0.05A; 125Vac, 15A – 250Vac, 15A
Suffix MG = rated 24Vdc, 10A – 125Vdc, 0.1A; 125Vac, 10A – 250Vac, 10A.
Suffix P4 = rated 24Vdc, 1A – 200Vdc, 25A; 120Vac, 0.4A – 250Vac, 0.1A.
Suffix PE = rated 24Vdc, 0.001A – 150Vdc, 1A; 120Vac, 0.001A – 250Vac, 0.001A.
Suffix PP, PL = rated 24Vdc, 0.05A – 500Vdc, 3A; 120Vac, 0.05A – 250Vac, 0.4A.
Suffix PT, PX = rated 24Vdc, 0.001A – 115Vdc, 3A; 120Vac, 0.001A – 240Vac, 0.5A
Suffix N8, NQ, NP = rated 5-25Vdc Load Current <1mA (w/target) >3mA(w/o target)
Suffix NR, NS, NT = rated 200mA max. Current 10-60Vdc
Suffix FA = (select 24Vdc coil) 24Vdc, 1A – 200Vdc, 0.25A; 120Vac, 0.4A – 250Vac, 0.1A
Pilot Solenoid Coil/Valve (optional)
Suffix A = 110Vac, 50Hz – 120Vac, 60Hz 150psig
Suffix C = 220Vac, 50Hz – 240Vac, 60Hz 150psig
Suffix F = 12Vdc, 2Watts, 150psig
Suffix G = 24Vdc, 2Watts, 150psig
Suffix H = 12Vdc, 105psig
Suffix J = 24Vdc, 0.67Watts, 105psig
Suffix K = 24Vdc, (15.5Vdc, 0.67Watts), 105psig
Suffix P = 24Vdc, 0.006Watts, 150psig