The PVE-EX is a range of electrohydraulic actuators designed for the hazardous environments. This makes the PVE-EX modules suitable for the mining and offshore industries.

The PVE-EX ranges are built on the proven technology from the analog PVE Series 4, an electrohydraulic platform widely used around the world. The design has been optimized to cope with the needs of the EX industries like fast and easy inspection of interior parts.

The PVE-EX covers actuators for EX db group I and II certified to meet specific requirements around the world.

Features

The PVE-EX is developed according to and in compliance with:

- EN ISO 4413:2010 Hydraulic fluid power
  - General rules and safety requirements for systems and their components
- EN 60079-0:2012/A11:2013, IEC 60079-0:2011 Explosive atmospheres
  - Part 0: Equipment - General requirements
- EN/IEC 60079-1:2014 Electrical apparatus for explosive gas atmospheres
  - Part 1: Flameproof enclosures “d”
- Safety Certificate of Approval for Mining Products

PVE-EX Ex db types with part numbers, Group I and Group II

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<tr>
<th>Type</th>
<th>Group I Part No.</th>
<th>Type</th>
<th>Group II Part No.</th>
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EC-DECLARATION OF CONFORMITY

Danfoss Power Solutions Aps

declare under our sole responsibility that the following product(s) / component(s)

**Product(s)**
Description

**Variant(s)**
Group I: PVEO-EX-12V, PVEO-EX-24V, PVEO-DI-EX-24V, PVEH-DI-EX, PVEH120-DI-
EX, PVEO120-DI-EX-12V
Group IIB: PVEO-EX-24V, PVEH-EX, PVEH-U-EX, PVES-EX, PVES-U-EX, PVEO120-EX-
24V, PVEH120-EX, PVES120-EX, PVES120-U-EX

**Part number(s)**
11112156, 21115660, 21115661, 21115662, 21115663, 21115664, 21115665, 21115666, 21115667,
11115668, 21115669, 21115670, 21115671, 21115672, 21115673, 21115674, 21115675, 21115676

Covered by this declaration is in conformity with the following directive(s), standard(s) or
other normative document(s), provided that the product is used in accordance with our
instructions.

![CE conformity mark]

QAN Notified body: 0470

Continued...

<table>
<thead>
<tr>
<th>Date</th>
<th>Issued by</th>
<th>Approved by</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017.02.07</td>
<td>Lars Althof, Director R&amp;D Engineering</td>
<td>Lars Otten, Senior Director Global R&amp;D &amp; Eng</td>
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Danfoss only vouches for the correctness of the English version of this declaration. In the event of the declaration being translated into
any other language, the translator concerned shall be liable for the correctness of the translation.

ID No. DOC35492322  Revision No. 03  Status  Page 1 of 2
EU-Type Examination Certificate

[2] EQUIPMENT OR PROTECTIVE SYSTEM INTENDED FOR USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES DIRECTIVE 2014/34/EU

[3] EU-Type Examination Certificate Number: Presafe 14 ATEX S153X Issue 2


[6] Address: Nordborgvej B1, DK-6430 Nordborg, Denmark

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

[8] DNV Nemko Presafe AS, notified body number 2460, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 25 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 section 16.


[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:

- IM2 Ex db | Mb, Ta -40°C to +60°C
- II 2 G Ex db IIB T5 Gb, Ta -40°C to +60°C

Date of issue: 2016-12-21

Asle Kaastad
For DNV Nemko Presafe AS
Information on electronic signature www.presafe.com

This certificate may only be reproduced in its entirety and without any change, schedule included.

DNV Nemko Presafe AS, Gaustadallén 30, 0373 Oslo, Norway
IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

Certificate No.: IECEx PRE 14-0005X
Status: Current
Date of Issue: 2016-12-21
Applicant: DANFOSS POWER SOLUTIONS ApS
            Nordborgvej 81
            DK-4430 Nordborg
            Denmark
Equipment: Electrohydraulic actuator for proportional valve
Optional accessory: 
Type of Protection: Ex-d
Marking:
    Ex db Iia T6, -40°C < Tamb < +60°C
    Ex db II T5 Gb, -40°C < Tamb < +60°C

Approved for issue on behalf of the IECEx Certification Body:
Asle Haastad
Position: Certification Manager
Signature:
Date: 2016-12-21

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferrable and remains the property of the issuing body.
3. The status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate Issued by:
DNV Norska Presafe AS
Geiatrafagaten 30
P.O.Box 73 Blindem
0314 Oslo
Norway
SAFETY CERTIFICATE OF APPROVAL FOR MINING PRODUCTS

批准编号: J2014084
有效日期: 2014.6.3 ~ 2019.6.3

单位名称: 丹佛斯动力系统 (Danfoss Power Solutions ApS)

产品名称: PVEH-Ex 矿用隔爆型电液比例驱动器
PVEH-Ex mining explosion-proof electro-hydraulic proportional actuator

使用场所: 严格按煤矿安全有关规定使用。
Strictly using in accordance with the relevant rule for mining safety.

执行标准: GB3836-2010 Q/DNFOSS01-2012

备注: 该产品配套用 Dania A/S 生产的 11106421 壳体、11106547 顶盖壳体、中国因泰达精精密件 (深圳) 有限公司生产的 M20X.15 电缆
This product use 11106421 housing and 11106547 top housing from Dania A/S,
M20X1.5 cable gland from Cathy.

发证部门
ISSUED BY
2014-6-3