

Data Sheet

Electrohydraulic Actuators

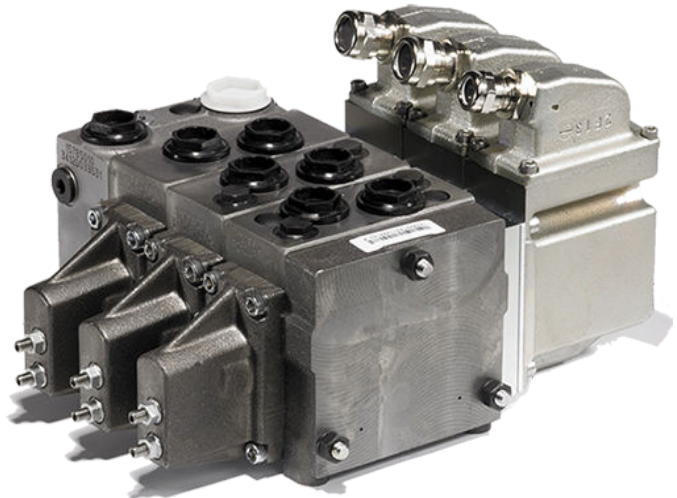
PVE-EX



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 off shore 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

Group I		Group II	
Type	Part No.	Type	Part No.
PVEO-EX-12V	11156462	PVEO-EX-24V	11156467
PVEO-EX-24V	11123165	PVEH-EX	11156463
PVEO-DI-EX-24V	11156461	PVES-EX	11156464
PVEH-DI-EX	11127696	PVEH-U-EX	11156465
PVEH120-DI-EX	11166357	PVES-U-EX	11156466
PVEO120-DI-EX-12V	11170401	PVES120-U-EX	11156568
		PVEO120-EX-24V	11156468
		PVES120-EX	11156567
		PVEH120-EX	11161000



**Danfoss Power
Solutions Aps**
6430 Nordborg
Denmark

CVR No.: 25 81 43 63
Telephone: +45 7488 4444
Telefax: +45 7488 4400
Homepage: danfoss.com
powersolutions.danfoss.com

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)

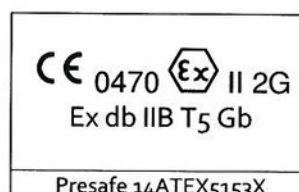
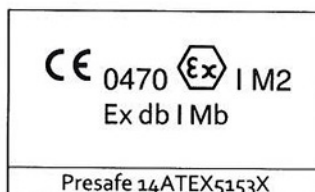
Group I: PVEO-EX-12V, PVEO-EX-24V, PVEO-DI-EX-24V, PVEH-DI-EX, PVEH120-DI-EX, PVEO120-DI-EX-12V

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)

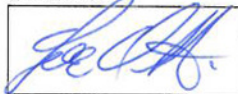
11123165, 11127696, 11156461, 11156462, 11156463, 11156464, 11156465, 11156466, 11156467, 11156468, 11156567, 11156568, 11161000, 11166357, 11170401

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.



QAN Notified body: 0470

Continued...

Date 2017.02.07	Issued by Lars Althof Director R&D Engineering	Date 2017.02.07	Approved by Lars Otten  Senior Director Global R&D & Eng
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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. DOC12067222

Revision No. 01

Status

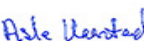
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EU-Type Examination Certificate

- [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 5153X Issue 2
- [4] Product: Electrohydraulic actuator for proportional valve
- [5] Manufacturer: Danfoss Power Solutions ApS
- [6] Address: Nordborgvej 81, 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 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 section 16.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: EN 60079-0:2012/A11:2013, EN 60079-1:2014.
- [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:


 I M2 Ex db I Mb, Ta -40°C to +60°C
 II 2 G Ex db IIB T5 Gb, Ta -40°C to +60°C


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



Date of issue: 2016-12-21

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

		IECEX Certificate of Conformity	
INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres for rules and details of the IECEx Scheme visit www.iecex.com			
Certificate No.:	IECEX PRE 14.0008X	Issue No: 2	Certificate history: Issue No. 2 (2016-12-21) Issue No. 1 (2015-08-21) Issue No. 0 (2014-12-15)
Status:	Current	Page 1 of 4	
Date of Issue:	2016-12-21		
Applicant:	DANFOSS POWER SOLUTIONS ApS Nordborgvej 81 DK-6430 Nordborg Denmark		
Equipment:	Electrohydraulic actuator for proportional valve		
Optional accessory:			
Type of Protection:	Ex-d		
Marking:	Ex db I Mb, -40°C < Tamb < +60°C Ex db IIB T5 Gb, -40°C < Tamb < +60°C		
Approved for issue on behalf of the IECEx Certification Body:		Asle Kaastad	
Position:		Certification Manager	
Signature: (for printed version)			
Date:		2016-12-21	
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 the Official IECEx Website.			
Certificate issued by:			
DNV Nemko Presafe AS Gaustadalleen 30 P.O.Box 73 Blindern 0314 Oslo Norway			

	
矿用产品安全标志证书 SAFETY CERTIFICATE OF APPROVAL FOR MINING PRODUCTS	
安全标志编号: J2014084 APPROVAL No.	有效期: 2014.6.3 ~ 2019.6.3 PERIOD OF VALIDITY
单位名称: 丹佛斯动力系统 (Danfoss Power Solutions ApS) COMPANY	
产品名称: PVEH-Ex 矿用隔爆型电液比例驱动器 NAME OF PRODUCT 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。 APPLICATION PLACE Strictly using in accordance with the relevant rule for mining safety.	
执行标准: GB3836-2010 Q/DNF0SS01-2012 STANDARD	
备注: 该产品配套用Dania A/S生产的11106421壳体、11106547顶部壳体、中国国泰鸣精密机件(深圳)有限公司生产的M20X.15电缆引入装置。 DESCRIPTION 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 	
国家安全生产监督管理总局监制	

