Physical-Technical Testing Institute
Ostrava - Radvanice

(1) # Type Examination Certificate

(2) **Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres (Directive 2014/34/EU)**

(3) Type Examination Certificate number:

FTZÚ 22 ATEX 0032X

(4) Product: **Hydraulic valves with the body, types RPEX, RPERX, RNEXH, PRMX, and screw-in cartridge valves, types SD2EX, SD1EX, SD3EX, SD2PX, PVRMX – non-electric part**

(5) Manufacturer: **ARGO-HYTOS s.r.o.**

(6) Address: **Dělnická 1306, 543 15 Vrchlabí, Czech Republic**

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

(8) The Physical-Technical Testing Institute 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 Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014.

The examination and test results are recorded in confidential Report number:

22/0032 dated 13.09.2022

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN ISO 80079-36:2016, EN ISO 80079-37:2016, EN ISO/IEC 80079-38:2016

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

(11) This type examination certificate relates only to the design of the specified product and not to specific items of equipment subsequently manufactured.

(12) The marking of the product shall include the following:

I M2 Ex h I Mb
II 2G Ex h IIC T4, T5, T6 Gb
II 2D Ex h IIIC T135°C, T100°C, T85°C Db

This certificate is valid till: **30.09.2027**

Responsible person:

Dipl. Ing. Lukáš Martinák
Head of Certification Body

FYZIKÁLNĚ TECHNICKÝ ZKUŠEBNÍ ÚSTAV, s.p. OSTRAVA-RADVANICE

Date of issue: 14.09.2022

Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic
tel.: +420 595 223 111, +420 604 203 525, e-mail: ftzu@ftzu.cz, www.ftzu.cz

(13) **Schedule**

(14) # Type Examination Certificate No. FTZÚ 22 ATEX 0032X

(15) Description of Product:

Hydraulic valves are devices intended for control of circuits of hydraulic mechanisms by connecting particular ports with the moving element inside the valve body. The moving part is either a steel spool or poppet, which work in the closed area filled with the working fluid and isolated from the outside area by NBR sealing. Their movement is ensured by one or two solenoids. When the solenoid is switched off, the spool or poppet return to the initial point by spring force. The valves RPEX3-06*S6 can be equipped with the position sensor.

Type key is a part of the Operating instructions.

Devices used with the valves:

Solenoid Schienle Magnettechnik+Elektronik type EX18 046 XXXX is device separately approved in certificate EPS 14 ATEX 1 744 X with type of protection:

Ex I M2 Ex mb I Mb	
Ex II 2G Ex mb IIC T4 T5 T6 Gb	AC version
Ex II 2D Ex mb IIIC T135°C T100°C T85°C Db	
Ex I M2 Ex eb mb I Mb	
Ex II 2G Ex eb mb IIC T4 T5 T6 Gb	DC version
Ex II 2D Ex tb IIIC T135°C T100°C T85°C Db	

Evaluation of used electrical devices and their connection is not part of this certification.

(16) Report Number: 22/0032

Responsible person:
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(13) **Schedule**

(14) # Type Examination Certificate No. FTZÚ 22 ATEX 0032X

(17) Specific Conditions of Use:

1. Maximum allowed temperature of the working fluid is 70°C.
2. Ambient temperature range:
   -30°C ≤ Ta ≤ +70°C for temperature class of the valves T4 and rated power of solenoid 10W
   -30°C ≤ Ta ≤ +55°C for temperature class of the valves T5 and rated power of solenoid 10W
   -30°C ≤ Ta ≤ +45°C for temperature class of the valves T6 and rated power of solenoid 10W
   -30°C ≤ Ta ≤ +60°C for temperature class of the valves T4 and rated power of solenoid 18W.
3. Type of protection of the electrical equipment installed together with the certified devices must correspond with the defined zone. In case of using an induction sensor, the range of ambient temperature and maximum surface temperature have to be modified according to the allowed parameters of the sensor.

(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (9) of this certificate.

(19) Drawings and Documents:

Number	Pages	Issue	Date	Description
298839	1	-	01.10.2019	Drawing RPERX-06
BOM_298839	1	-	06/2022	Bill of materials
14095_1cz	18	1	03/2022	Manual for use RPERX-06
484/9180	3	a	30.06.2020	Drawing RPEX3-06*S6*
BOM_484/9180	1	-	06/2022	Bill of materials
14094_1cz	20	1	03/2022	Manual for use RPERX-06*S6
484/0000	3	-	02.05.2019	Drawing RPEX3
BOM_4840000	1	-	06/2022	Bill of materials
14054_1cz	18	1	03/2022	Manual for use RPERX-06
488/9000	2	a	19.03.2018	Drawing RNEXH4-25*
BOM_488 900	1	-	06/2022	Bill of materials
344710	2	a	02.07.2020	Drawing RNEXH5-16*
BOM_344710	1	-	06/2022	Bill of materials

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(13) **Schedule**

(14) # Type Examination Certificate No. FTZÚ 22 ATEX 0032X

(19) Drawings and Documents (continuation):

Number	Pages	Issue	Date	Description
345449	1	0	15.06.2017	Drawing RN(H,EH,EXH)1(H)
BOM_345449	1	-	06/2022	Bill of materials
14077_1cz	25	1	04/2022	Manual for use RNEXH…
43846800	1	0	08.06.2021	Drawing PVRMX3
BOM_43846800	1	-	06/2022	Bill of materials
15184_1cz	18	1	04/2022	Manual for use PVRMX3
43904500	1	0	28.06.2021	Drawing PRMX2
BOM_43904500	1	-	06/2022	Bill of materials
15183_1cz	18	1	04/2022	Manual for use PRMX2
262608	1	0	10.10.2017	Drawing PRMX8
BOM_262608	1	-	06/2022	Bill of materials
15185_1cz	18	1	04/2022	Manual for use PRMX8
264649	1	-	12.08.2014	Drawing SD1EX-A3
BOM_264649	1	-	06/2022	Bill of materials
304311	1	-	29.06.2012	Drawing SD1EX-A2_S5
BOM_304311	1	-	02/2022	Bill of materials
297406	1	-	20.02.2013	Drawing SD1EX-A2_S6
BOM_297406	1	-	06/2022	Bill of materials
14088_cz	20	-	05/2022	Manual for use SD1EX-A2,A3
44077200	1	0	14.09.2021	Drawing SD2PX-B4
BOM_44077200	1	-	06/2022	Bill of materials
15186_1cz	19	1	04/2022	Manual for use SD2PX-B4
408/9330	1	-	25.03.2010	Drawing SD2EX-B
BOM_408 9330	3	-	06/2022	Bill of materials
14064_cz	21	-	05/2022	Manual for use SD2EX
342544	1	0	09.03.2020	Drawing SD3EX-C2
BOM_342544	1	-	02/2022	Bill of materials
408/9310	1	-	25.03.2010	Drawing SD3EX-B2
BOM_408 9310	1	-	06/2022	Bill of materials
14067_1cz	20	1	06/2022	Manual for use SD3EX

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(13) **Schedule**

(14) **Type Examination Certificate No. FTZÚ 22 ATEX 0032X**

(19) Drawings and Documents (continuation):

Number	Pages	Issue	Date	Description
16200900	1	0	22.11.2018	Drawing OS22
BOM_16200900	1	-	06/2022	Bill of materials
44847700	1	0	22.08.2022	Drawing
44836400	1	0	29.08.2022	Drawing
Popis a materiály ex ventilů CZ	20	-	2022	Description and materials of ex valves
-	14	-	18.08.2022	Risk analysis

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