

Eurasian Economic Union

Certificate of Conformity

N EAЭC EAЭC KZ 7500361.01.01.06826

Series KZ N 0241824

Certification body: BIN 051140007834, Limited Liability Partnership "KAZEXPOAUDIT", legal address: Republic of Kazakhstan, Almalinskiy district, Almaty city, Baitursynuly street, 58/non-residential premise 18 , index: 050012, actual address: Republic of Kazakhstan, Almalinskiy district, Almaty city, Zhambyl street, 106B, apartment 1, index: 050012, phone: +7 (727) 390 90 72, e-mail: info@kazexpoaudit.kz, certificate: KZ.O.02. .0361 from 09/07/2019.

Applicant: BIN 220440012994, Limited Liability Partnership "Schmidt & Schmidt", legal address: Republic of Kazakhstan, Astana, Saryarka district, Samal Microdistrict, building 12 ZIP: 010000, e-mail: kontakt@schmidt-and-schmidt.kz, phone: +77172696317

Manufacturer: Bifold Fluidpower Limited, address: United Kingdom of Great Britain and Northern Ireland, Broadgate, Oldham Broadway Business Park. Chadderton, Greater Manchester, OL9 9XA

Products: Equipment for use in potentially explosive atmospheres: solenoid actuators: series 24, 74, 27, 77, 28, 58, 78, 57, 67 complete with valves series FP, BXS, SPR, SVP, SY, SVL, monifolds series XS; Products manufactured in accordance with the manufacturer's technical documentation, Directive 2006/42/EC on machinery and equipment, Directive 2014/34/EC on equipment and protective systems intended for use in potentially explosive atmospheres; serial production

Customs code: 8481209009, 8481201009

Comply with the requirements: TR CU 012/2011 "On safety of equipment for operation in explosive environments" approved by the decision of the Commission of the Customs Union on October 18, 2011 № 825;

Certificate of conformity is issued on the basis of Protocol of research (tests), issued by laboratories (centres), accredited (certified) in national accreditation systems (attestation) № SVZ/012/250423/2-1 of 25/04/2023, Testing Centre of "KAZEXPOAUDIT" LLP (certificate: KZ.T.02.0360); Act of the results of the analysis of the production status conducted by expert-auditor Demidova Nadezhda Aleksandrovna № /ASP-1 of 07/09/2023. .0360); Act on the results of the analysis of the standing of production, conducted by expert-auditor Demidova Nadezhda Alexandrovna № 07092023/ASP-1 from 07/09/2023g., Limited Liability Partnership "KAZEXPOAUDIT" (certificate: KZ.O.02.0361); Certification Scheme 1c;

Additional information: Service life: 10 years; Storage life 2 years at temperature from -20°C to +40°C, at humidity 90%. Authorized representative agreement No. 21646 dated 20.10.2022; (see Supplement 0120792-0120794) (see Supplement 0120791).

Valid from 08.12.2023 to 07.12.2028

Manager (authorized person) _____(signature)_____ Torchik Kristina
of the certification body

Expert _____(signature)_____ Olmuchometova Meruert Sekenkezy

Stamp

Eurasian Economic Union

Supplement

to the Certificate of Conformity N EAЭC EAЭC KZ 7500361.01.01.06827

Additional information: GOST 31610.0-2019 Explosive atmospheres Part 0 Equipment. General requirements; GOST IEC 60079-1-2023 Explosive atmospheres Part 1: Equipment protection by flameproof enclosures "d"; GOST 31610-7-2017 Explosive atmospheres Part 7: Equipment protection by increased safety "e"; GOST 31610-11-2014 Explosive atmospheres Part 11: Equipment protection by intrinsic safety "i"; GOST 31610-18-2016 Explosive atmospheres Part 18: Equipment protection by encapsulation "m"; GOST IEC 60079-31-2013 Explosive atmospheres Part 31: Equipment dust ignition protection by enclosure "t"; GOST 32407-2013 (ISO/DIS 80079-36) Explosive atmospheres Part 36: Non-electrical equipment for explosive atmospheres. Basic method and requirements; GOST ISO/DIS 80079-37-2013 Explosive atmospheres Part 37: Non-electrical equipment for explosive atmospheres Non-electrical type of protection constructional safety "c", control of ignition sources "b", liquid immersion "k".

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Equipment for operation in potentially explosive atmospheres: solenoid actuators series 24, 74, 27, 77, 28, 58, 78, 57, 67 complete with valves series FP, BXS, SPR, SVP, SY, SVL, manifolds series XS.

1. Application area

Solenoid actuators series 24, 74, 27, 77, 28, 58, 78, 57, 67 complete with valves of FP, BXS, SPR, SVP, SY, SVL series, manifolds of XS series (hereinafter referred to as actuators, valves) are designed for use as flow control elements for hydraulic and pneumatic systems. Field of application - hazardous areas according to Ex marking.

2. Information on products, ensuring their identification

Ex-marking according to GOST 31610.0-2019 depending on actuator series, valves in Table 1

Table 1

Name of the equipment	Ex-marking according to GOST 31610.0-2019
Solenoid actuators series 24, 74	1Ex eb mb IIC T4...T3 Gb X Ex tb IIIC T120°C Db X
Solenoid actuators series 27, 77	1Ex db IIC T6...T4 Gb X Ex tb IIIC T85°C Db X
Solenoid actuators series 28	0Ex ia IIC T6 Ga X или 0Ex ia IIC T4 Ga X Ex ta IIIC T98°C Da X или Ex ta IIIC T133°C Da X
Solenoid actuators series 78	1Ex ia IIC T6 Gb X или 1Ex ia IIC T4 Gb X Ex ta IIIC T98°C Db X или Ex ta IIIC T133°C Db X
Solenoid actuators series 58	0Ex ia IIC T6 Ga X
Solenoid actuators series 57, 67	1Ex db IIB T6...T4 Gb X Ex tb IIIC T80°C...T130°C Db X
Valves serie FP, BXS, SPR, SVP, SY, SVL	II Gb c X / II Db c X
Manifolds series XS	II Gb c X / II Db c X

Explosion protection marking applied to the equipment and specified in the manufacturer's technical documentation must contain a special explosion safety marking in accordance with Annex 2 of TR TS 012/2011 and Ex-marking according to GOST 31610.0-2019 (Table 1).

Main technical data:

Solenoid actuators 24, 74:

Maximum operating voltage, V DC.....50
Degree of protection of the enclosure against external influences.....IP66/IP67
Ambient temperature range:
Temperature class T3, input power ≤ 3 W.....from -25°C to +55°C
Temperature class T3, input power ≤ 4,5 W.....from -25°C to +45°C
Temperature class T3, input power ≤ 6,8 W.....from -25°C to +40°C
Temperature class T4, input power ≤ 4 W.....from -25°C to +50°C

Solenoid actuators 27, 77:

Maximum operating voltage, V AC/DC.....240
Maximum input power, W.....14
Degree of protection of the enclosure against external influences.....IP66/IP67
Ambient temperature range
Temperature class T6 (T85°C).....from -60°C to +40°C
Temperature class T5 (T100°C).....from -60°C to +55°C
Temperature class T4 (T135°C).....from -60°C to +90°C

Solenoid actuators 28, 78:

Maximum operating voltage, U_i , V DC.....	31
Maximum input current I_i , mA.....	210
Maximum input power P_i , W.....	1,5
Degree of protection of the enclosure against external influences.....	IP66/IP67
Ambient temperature range:	
Temperature class T6 (T98°C).....	from -60°C to +60°C
Temperature class T4 (T133°C).....	from -60°C to +95°C

Solenoid actuators 58:

Maximum operating voltage, U_i , V DC.....	35
Maximum input current I_i , mA.....	600
Maximum input power P_i , W.....	3
Degree of protection of the enclosure against external influences.....	IP66
Ambient temperature range:.....	
from -60°C to +60°C	

Solenoid actuators 57, 67:

Maximum operating voltage, V DC.....	35
Degree of protection of the enclosure against external influences..... IP66	
Ambient temperature range:	
Temperature class T6/T80°C, input power 5,7 W.....	from -40°C to +40°C
Temperature class T5/T100°C, input power 5,7 W.....	from -40°C to +60°C
Temperature class T6/T85°C, input power 6,5 W.....	from -40°C to +40°C
Temperature class T4/T105°C, input power 6,5 W.....	from -40°C to +60°C
Temperature class T5/T90°C, input power 8 W.....	from -40°C to +40°C
Temperature class T4/T110°C, input power 8 W.....	from -40°C to +60°C
Temperature class T5/T100°C, input power 10 W.....	from -40°C to +40°C
Temperature class T4/T120°C, input power 10 W.....	from -40°C to +60°C
Temperature class T4/T110°C, input power 12 W.....	from -40°C to +40°C
Temperature class T4/T130°C, input power 12 W.....	from -40°C to +60°C

3. Description and means of ensuring explosion protection

Solenoid actuators series 24, 74, 27, 77, 28, 58, 78, 57, 67 complete with FP, BXS, SPR, SVP, SY, SVL series valves, XS series manifolds are 2/2 or 3/2 stroke valves with direct actuator. The body is made of aluminum alloy or stainless steel. The valves are versatile and can be used as two or three way normally closed or normally open valves. The actuators consist of a housing with a cover, inside which the solenoid coil and connection terminals are housed. The housings are provided with holes for cable glands.

Explosion protection of solenoid actuators of series 24, 74, 27, 77, 28, 58, 78, 57, 67 depending on the version is provided by compliance with the requirements of TR CU 012/2011 "On safety of equipment for operation in explosive atmospheres"; GOST 31610.0 2019 "Explosive atmospheres. Part 0: Equipment. General requirements"; GOST IEC 60079-1-2013 "Explosive environments. Part 1. Equipment with type of explosion protection "flameproof enclosures "d""; GOST 31610.7-2017 "Explosive atmospheres. Part 7. Equipment. Increased protection type "e"; GOST 31610.11-2014 Explosive atmospheres. Part 11. Equipment with type of explosion protection "intrinsically safe electrical circuit "i"; GOST 31610.18-2016 Explosive atmospheres. Part 18. Equipment with type of explosion protection "sealed with compound "m"; GOST IEC 60079-31-2013 Explosive atmospheres. Part 31. Equipment with protection against dust ignition by "t" shells.

Explosion protection of FP, BXS, SPR, SVP, SY, SVL series valves, XS series manifolds is ensured by compliance with the requirements: TP TC 012/2011 "On safety of equipment for operation in explosive environments"; GOST 32407-2013 (ISO/DIS 80079-36) Explosive environments. Part 36. Non-electrical equipment for explosive atmospheres. General requirements and test methods; GOST ISO/DIS 80079-37-2013 Explosive atmospheres. Part 37. Non-electrical equipment for explosive atmospheres. Non-electrical equipment with types of explosion protection "structural safety "c", ignition source control "b", liquid immersion "k".

4. Marking

Marking applied to the bodies of pipeline valves shall include the following data:

- name, trademark and address of the enterprise - manufacturer;
- type designation;
- explosion protection marking;
- EX mark;
- name of the certification body and number of the certificate of conformity;
- month and year of

5. Special application conditions

The sign "X" in the explosion protection marking of pipeline valves indicates their special conditions of use consisting of the following:

- external electrical circuits must be connected via cable glands certified in accordance with TR CU 012/2011. For actuators of series 27, 77, 57, 67, cable entries must be made through cable glands with type of explosion protection "flameproof enclosure "d" with gas subgroup, protection class IP and ambient temperature range not lower than specified on the actuator. Unused openings must be sealed with plugs with the same explosion protection parameters;

- electric power supply of actuators of series 28, 58, 78 with the type of explosion protection "intrinsically safe electric circuit "i" must be provided by spark protection barriers having valid certificates of conformity to the requirements of TR CU 012/2011, allowing their use in hazardous areas with the appropriate field of application. The electrical parameters of the intrinsic safety barriers must fulfil the parameters specified on the actuators;

- a safety device capable of withstanding a short-circuit current of 1500 A must be installed in the power supply circuit of solenoid actuators series 24, 74.

Special conditions marked with X sign must be reflected in the accompanying documentation to be supplied with each product.

Making changes in the design of valves and (or) documentation concerning explosion protection means must be coordinated with KAZEXPOAUDIT LLP.