



MINPROEKT" EAD

CERTIFICATE

- [1] Supplement № 1 to Module B EY-TYPE-EXAMINATION CERTIFICATE (Translation)
- [2] Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - Directive 2014/34/EU (ATEX)
- Module B EU-type-examination Certificate Number: №: MP 17 ATEX 0149 U [3]
- [4] Product (Equipment or protective system): "Rotary switch ExGN x.x..."- component
- [5] Applicant: JSC "VELAN"
- Address: 1 Velanovskaya str., Zelenokumsk, Stavropol Region, 357911 Russia [6]
- [5] Manufacturer: JSC "VELAN"
- Address: 1 Velanovskaya str., Zelenokumsk, Stavropol Region, 357911 Russia
- [7] This product (equipment or protective system) and any acceptable variation thereto are specified in details in the schedule to this certificate as well as the documents therein referred to.
- [8] Minproekt EAD, notified body No.1877 in accordance with Article 17 of the Council Directive 2014/34/EU (ATEX) of 26th February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective system, intended for use in potentially explosive atmospheres, specified in Annex II of the Directive. The examination and test results are recorded in:

Confidential Test reports № 36/14.11.2014; № 08/06.03.2017; № 31/21.09.2018

- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with: EN 60079-0:2012; EN 60079-1:2014; EN 60079-7:2015.
- If the sign "X" is placed after the certificate number, it indicates that this equipment or protective system is [10] subject to special conditions for save use, specified in the schedule to this certificate.
- This EU-type-examination Certificate on Module B relates only to the design and the construction of this [11] specified equipment or protective system in accordance with Directive 2014/34/EU. This certificate does not cover the requirements of the Directive on the forthcoming procedures relating to the production process and the delivery of the product.
- The marking of the equipment or protective system shall include the following: [12]

II 2 G Ex d_b e_b IIC T Gb

(T до 25A – T5; 63A – T3)

I M2 Ex db eb I Mb

-60°C≤Ta≤+60°C

This certificate does not authorize the manufacturer or his authorized representative to affix the CE mark followed by the identification number of the Notified Body as well as the marketing and / or use. The certificate is valid until 26.09.2023 if there is no change in the conditions under which it was issued.

Sofia, 26.09.2018

Executive Director: /dipl. eng St. Bosnev/ Page 1/3

"Minproekt" EAD, Sofia 1756, Bulgaria, 14 "Kliment Ohridski" avenue Division "Scientific and Research Activity" tel.:02/975-82-20,fax:02/975-33-48 e-mail: office@minproekt.com

tel.: 07718/2340

e-mail: minproektvs@abv.bg

www.minproekt.com

- [13] Schedule
- [14] Supplement № 1 to Certificate on "Module B: EU-type-examination certificate №: MP 17 ATEX 0149 U (Translation)
- [15] Characteristics of the type, subject to the examination
 - 1. Technical description

The Rotary switch ExGN xx ..., is a switching element that uses cam breakers and switches located in a flameproof enclosure. This enclosure is made of a composite polyamide "Armamid PA SV 20-5 APM". The control of the switch is accomplished with a transitional shaft, where the cam (eccentric) are located.

Technical data of the product.

1.1. Type designation:

Switch Ex component for incorporated switch

Type of the incorporated switch

Nominal value of the working current (12, 20, 25, 63) A

Type of wiring diagram

- 1.2 Technical characteristics:
- operating temperature range: -60°C + +60°C;
- relative humidity of the environment: upto (98 ±2) % at temperature (35±2) ⁰C
- nominal operating current (12, 20, 25, 63) A
- Application field

The Rotary switch ExGN xx ...is an Ex-component which is subject to be incorporated into Exenclosures with any type of Ex-protection. The Rotary switch ExGN xx ... can be incorporated into Group I and Group II equipment.

Sofia, 2018-09-26

Executive Director: /dipl. eng St. Bosney/

"Minproekt "EAD, Sofia 1756, Bulgaria 14 "Kliment Ohridski" avenue tel.: 02/975-82-20, fax: 02/ 975-33-48

e-mail: office@minproekt.com – Sofia www.minproekt.com Division "Scientific and Research Activity" tel.: 07718/2340

Schedule

Supplement № 1 to Certificate on "Module B: EU-type-examination certificate №: MP 17 ATEX 0149 U (Translation)

- [16] Test reports No 36/14.11.2014; № 08/06.03.2017; № 31/21.09.2018
- [17] Special requirements for safety use the certificate is for "Rotary switch ExGN xx" Component for incorporation. The Rotary switch ExGN xx is designed for a working temperature range of -60°C≤T_a≤+60°C, different from the standard.
- [18] Essential requirements

18.1. According to Directive 2014/34/EU (ATEX) and the manufacturer instructions, the product is intended for incorporation in equipment that are not allowed in Zone 0 and areas of mines, dangerous in terms of methane gas (firedamp) and combustible coal dust (Category M1).

18.2. Other essential safety requirements are covered by the standards pointed in [9].

[19] List of the technical record parts

19.1. Operating Instructions with a supplement for a 63A version.

19.2. Conceptual design and manufacturing drawings and schemes, consisting of:

Drawing № ПИНЮ.642319.001 СБ; specifications ПИНЮ.642319.001 – 8 sheets; ПИНЮ.301541.002 – 1 sheet; Drawings № № ПИНЮ. 301541.002 СБ; ПИНЮ.685614.008 СБ; specification

ПИНЮ.68<mark>5614.</mark>008 – 1 sheet; Drawings № № ПИНЮ.713451.001; ПИНЮ.715613.002;

ПИНЮ.725153.001; ПИНЮ.725153.002; ПИНЮ.726341.001; ПИНЮ.735364.001; ПИНЮ.735364.002;

ПИНЮ.745425.002; ПИНЮ.745425.003; ПИНЮ.753615.001; ПИНЮ.754142.010; ПИНЮ.754152.006;

ПИ<mark>НЮ.754</mark>176.064; ПИНЮ.757445.012; ПИНЮ.754312.075. Additionally presented drawings:

ПИНЩ.642319.005 СБ; specification ПИНЮ.642319.005 – 5 sheets; Drawings №№

ПИНЮ.725153.003; ПИНЮ.301541.038 СБ; ПИНЮ.735364.003; ПИНЮ.754176.064 с/з.

19.3. Additional information:

19.3.1. Technical conditions for polyamide filled with hard combustible "Armamid"

19.3.2. Quality certificate № 21781/П/07.06.2014 for polyamide "Armamid" type ПА СВ 20-5АПМ.

19.3.3. GOST 10587-84.

19.4. Updated technical documentation.

Sofia, 2018-09-26

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e-mail: office@minproekt.com – Sofia

www.minproekt.com

Division "Scientific and Research Activity" tel.: 07718/2340





MINPROEKT" EAD

CERTIFICATE

Module B EU-TYPE-EXAMINATION CERTIFICATE [1]

(Translation)

- Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Directive [2] 2014/34/EU (ATEX)
- Module B EC-type-examination Certificate Number: №: MP 18 ATEX 0172 X [3]
- [4] Product (Equipment or protective system): "Rotary switch YExGN-x.x.x..."
- Applicant: JSC "VELAN" [5]
- Address: 1 Velanovskaya str., Zelenokumsk, Stavropol Region, 357911 Russia [6]
- [5] Manufacturer: JSC "VELAN"
- [6] Address: 1 Velanovskaya str., Zelenokumsk, Stavropol Region, 357911 Russia
- This product (equipment or protective system) and any acceptable variation thereto are specified in details [7] in the schedule to this certificate as well as the documents therein referred to.
- Minproekt EAD, notified body No.1877 in accordance with Article 17 of the Council Directive 2014/34/EU [8] (ATEX) of 26th February 2014, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment or protective system, intended for use in potentially explosive atmospheres, specified in Annex II of the Directive. The examination and test results are recorded in:

Confidential Test reports № 23/24.11.2015; № 04/24.01.2018

- Compliance with the Essential Health and Safety Requirements has been assured by compliance with: [9] EN 60079-0:2012; EN 60079-1:2014; EN 60079-7:2015; EN 60079-31:2014,
- If the sign "X" is placed after the certificate number, it indicates that this equipment or protective system is [10] subject to special conditions for safe use, specified in the schedule to this certificate.
- This EC-type-examination Certificate on Module B relates only to the design and the construction of this [11] specified equipment or protective system in accordance with Directive 2014/34/EU. This certificate does not cover the requirements of the Directive on the forthcoming procedures relating to the production process and the delivery of the product.
- [12] The marking of the equipment or protective system shall include the following:

1 ExGN

2 ExGN

3 ExGN

II 2 G Ex d IIC T6 Gb

II 2 G Ex ed IIC T5 Gb

II 2 G Ex d IIC T6 Gb

II 2 D Ex tb IIIC T85°C IP66 Db



II 2 D Ex th IIIC T100°C IP66 Db

II 2 D Ex tb IIIC T85°C IP65 Db

IM2 ExdIMb

- 60°C≤Ta≤+60°C

This certificate does not authorize the manufacturer or his authorized representative to affix the CE mark followed by the identification number of the Notified Body as well as the marketing and / or use. This certificate is a supplement to Certificate MP 15 ATEX 0172 X Certificate MP 15 ATEX 0172 X

alid until 20 02 2023 if there is no change of the conditions in which it has been issued This Supplement to the Certific

Sofia, 20.02.2018

Page 1/3

Executive Director: /dipl. eng St. Bosnev/

"Minproekt" EAD, Sofia 1756, Bulgaria, 14 "Kliment Ohridski" avenue Division "Scientific and Research Activity" tel.:02/975-82-20,fax:02/975-33-48

e-mail: office@minproekt.com

tel.: 07718/2340

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www.minproekt.com

- [13] Schedule
- [14] Certificate on Module B: EU-Type-Examination №: MP 18 ATEX 0172 X (Translation)
- [15] Characteristics of the type, subject to the examination
 - 1. Technical description

The rotary switch YExGN-xxx ..., is made in three modifications. 1 Ex GN, 2 Ex GN and 3 Ex GN. 1 Ex GN and 3 Ex GN consist of a housing and a lid made of aluminum alloy AK12. 2 Ex GN consists of a housing and a lid made of material DMC-20-OPMA. A rotary switch, type Ex GN (component for incorporation) is placed within the housing.

2. Technical data of the product.

2.1. Type designation:

An index indicating the type of the explosion protection: 1-ExdIIC; 2- ExedIIC; 3-ExdI; ExdIIC

explosion-proof switch

Rated operating current (12, 20, 25)A

Scheme. It is chosen according to the switching circuit diagram

Climatic performance and

Climatic performance and placement category: V5-for performance 3; HL1- for performance 1, 2 v 3

2.2. Technical data:

- operating temperature range: -60°C ÷ +60°C;

- relative humidity of the environment: to (98±2)% at a temperature (25±2)°C without moisture condensing;
- nominal modes: 8 hours; extended; repeatedly momentary with 120 cycles of operation;
- mechanical resistance of switching: 1x10⁶ switching;
- operating voltage max. 660V (AC) and max. 600V (DC);
- IP code IP66;
- electrical parameters, according to the manufacturer's instructions.
- Application field

The rotary switches YExGN-x.x.x..., are intended for remote control of stationary or mobile equipment in hazardous areas according to their explosive marking and the version 3 Ex GN may also be used in coal mines, dangerous in respect of hazardous gas, methane and coal dust.

Sofia, 2018-02-20

Executive Director: /dipl. eng St. Bosnev/

"Minproekt "EAD, Sofia 1756, Bulgaria 14 "Kliment Ohridski" avenue

tel.: 02/975-82-20, fax: 02/ 975-33-48 e-mail: office@minproekt.com – Sofia

www.minproekt.com

Division "Scientific and Research Activity"

tel.: 07718/2340

Schedule

Certificate on Module B: EU-Type-Examination №: MP 18 ATEX 0172 X (Translation)

- [16] Test reports No 23/24.11.2015; No 04/24.01.2018
- [17] Special requirements for safety use The rotary switch YExGN-x.x.x..., is intended for a ambient temperature range of -60°C≤Ta≤+60°C, different from the standard.

[18] Essential requirements

18.1. According to Directive 2014/34/EC (ATEX) and the manufacturer instructions, the product is not allowed for zone 0 and zone 20 and the areas of mines, dangerous in terms of methane gas (firedamp) and combustible coal dust (Category M1).

18.2. Other essential safety requirements are covered by the standards pointed in [9].

[19] List of the technical record parts

- 19.1 Operating Instructions
- 19.2 List of the harmonized standards (in the operating instruction)
- 19.3 Conceptual design and manufacturing drawings and schemes, consisting of:

1ExGN, 3ExGN

Drawing № ПИНЮ.301116.005 CБ; Drawing № ПИНЮ.301261.047 CБ; Specification ПИНЮ.301261.047; Drawing № ПИНЮ.642319.003 CБ; Specification ПИНЮ.642319.003 — 14 sheets; Drawing № ПИНЮ.713543.005; Drawing № ПИНЮ.725223.003.

2FYGN

Drawings №№ ΠИНЮ.301152.016 СБ; ПИНЮ.642315.001 СБ; specification ΠИНЮ.642315.001 – 18 sheets; Drawings №№ ПИНЮ.735312.052; ПИНЮ.735312.053. Drawing of the explosion proof means. Additional information: Report on aluminum alloy 02/07/2015 Up-to-date technical documentation.

Sofia, 2018-02-20

Executive Director:
/dipl. eng St. Bosnev/

"Minproekt "EAD, Sofia 1756, Bulgaria 14 "Kliment Ohridski" avenue

tel.: 02/975-82-20, fax: 02/ 975-33-48

e-mail: office@minproekt.com - Sofia www.minproekt.com Division "Scientific and Research Activity"