(1)

# EU-TYPE EXAMINATION CERTIFICATE

(2) **Directive 2014/34/EU of the European Parliament and of the council of 26 February 2014 Equipment intended for Explosive Atmosphere -ATEX Directive**

(3) **ProCert No** : SHEX2504000043MD

(4) **Certificate Number** : SGSNA25ATEX102401X

**Issue No** : 0

(5) **Equipment** : VF04E Series Limit Switch

(6) **Manufacturer** : Chongqing ChuanYi Control Valve Co.,LTD.

(7) **Address** : No.879 Caihe Rd.,Caijiagang Town,Beibei District,Chongqing,400707,P.R.C.

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

(9) SGS NORTH AMERICA, INC., Notified Body Number 3015 in accordance with Article 17 and Article 21 of the 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, using EU Type Examination Certificate module as detailed under Annex III of this Directive.

(10) Compliance with the Essential Health and Safety Requirements has been assured by compliance with the following Harmonized Standards **:**EN IEC 60079-0:2018, EN 60079-11:2012

Where additional criteria beyond those given here have been used, they are listed at item 16 in the Schedule.

(11) The marking of the product shall include the following

II 2 G Ex ia IIC T6...T4 Gb, II 2 D Ex ib IIIC T135°C Db

(12) **Product Description** : VF04E Series Limit Switch

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**QSF27-15-COC_1**
**Certification Body**

SGS Canada Inc.
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VF04E Series VF04E Limit Switch is a field instrument of the automatic control system and is used for detecting valve conditions. Also it can be used for interlock protection and remote warning indication for the important valves in the automatic control system.

The enclosure of this equipment is made of aluminium ADC12 or CF3M, proximity sensors certified, terminals and connecting wires inside are provided. The spindle is made of 304 stainless steel. The product has only one chamber. O-ring is installed between the cover and body to provide the IP67 class (IEC60529).

The function and safe parameters are listed as following.

| Sensor type | Ui (V) | Ii (mA) | Pi (mW) | Ci(nF) | Li(μH) |
|---|---|---|---|---|---|
| NJ2-V3-N | 16 | 52 | 169 | 40 | 50 |
| SJ3.5-SN | 16 | 52 | 169 | 30 | 100 |

The relationship between the ambient temperature and temperature class and maximum surface temperature is as below:

| Product typ | Sensor type | Ambient temperature(℃) | Temperature class | Maximum surface temperature |
|---|---|---|---|---|
| VF04E-R a b 0 | NJ2-V3-N | -40～+80 | T4 | T135°C |
| VF04E-R a b 0 | | -40～+60 | T5 | |
| VF04E-R a b 0 | | -40～+45 | T6 | |
| VF04E-R a b L | SJ3.5-SN | -50～+80 | T4 | |
| VF04E-R a b L | | -50～+60 | T5 | |
| VF04E-R a b L | | -50～+45 | T6 | |

**Type definition**

VF04E-R-a b c
1 2 3

Herein: 1 indicates Explosion protection/switch type:
AP-Intrinsic safety/inductive; FP-Intrinsic safety dustproof/inductive;
2 indicates Electrical interface:
0-M20X1.5, 1-NPT 1/2; 2-NPT 3/4
3 indicates Ambient temperature:
0-(-40°C~+80°C); L-(-50°C~+80°C)

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(13) If the sign "**X**" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed under item 15 of this certificate. {paragraph cannot be used for components}.
If the sign "**U**" placed behind the certificate number, it indicates that this certificate should not be confused with certificates issued for equipment of protective systems. This partial certification may not be used as basis for certification of an equipment or protective systems. "Schedule Of Limitations" is listed under item 15 of this certificate.

(14) This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(15) **Special conditions of safe use for "X"**:
1. The ambient temperature range is -50°C /-40°C～+45°C, +60°C or +80°C.
2. Wipe the enclosure of limit switch only with wet cloth to avoid the potential electrostatic charging risks.
3. Suitably certified cable glands or blanking elements shall be installed on all cable entries. The entry elements shall have an IP rating of IP 67 minimum.
4. Wires used for connection shall have insulation that is rated for at least 85°C minimum when the equipment is used in in ambient temperatures greater than 60°C.

(16) Essential health and safety requirements met by compliance with the requirements mentioned in item 10 and where required, the report listed in item 3.

(17) This Notification may be withdrawn if the manufacturer does not satisfy the requirements of the Directive or fails to maintain a quality system that can demonstrate compliance to Annex IV (or) Annex VII (or) Annex V of EU Directive 2014/34/EU.

Authorized by

Effective date: Oct 24, 2025

Vijay Rangarajan

Vijayaraghavan Rangarajan
Certification Manager- Hazardous Locations

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(18) **Routine (Factory) Tests:**

N/A

| (19) | **Critical Drawings and Documentation-Tabulated based on Issue Number** |
|---|---|

| **Issue 0** | | | | |
|---|---|---|---|---|
| **S. No** | **Drawing No.** | **Description** | **Rev.** | **Date** |
| 1 | NE-00.0-00A | Assembly Drawing of VF04E Inductive Limit Switch | A | 2024-11-27 |
| 2 | NE-00.0-00B | Assembly Drawing of VF04E Low-temperature Type Inductive Limit Switch | A | 2024-11-27 |
| 3 | NE-000-01 | End cover | A | 2024-11-27 |
| 4 | NE-000-02X | Primary chamber | A | 2024-11-27 |
| 5 | NE-000-03 | Insert | A | 2024-11-27 |
| 6 | NE-000-04 | VF04E Wiring terminal block | A | 2024-11-27 |
| 7 | NE-000-05 | Transparent hood | A | 2024-11-27 |
| 8 | NE-000-06 | Indicator cover | A | 2024-11-27 |
| 9 | NE-000-07 | Indicator | A | 2024-11-27 |
| 10 | NE-000-08 | Compression ring of transparent hood | A | 2024-11-27 |
| 11 | NE-000-09 | Cord | A | 2024-11-27 |
| 12 | NE-000-10X | VF04E nameplate | A | 2024-11-27 |
| 13 | NE-000-11 | M8 hexagon socket head cap bolt with waisted shank | A | 2024-11-27 |
| 14 | NE-000-12 | Wiring terminal fixing plate | A | 2024-11-27 |
| 15 | NE-000-13 | Sealing sticker | A | 2024-11-27 |
| 16 | NE-000-14 | Schematic Diagram for Wiring of Inductive Limit Switch | A | 2024-11-27 |
| 17 | NE-010-00A | Main shaft components | A | 2024-11-27 |
| 18 | NE-010-00B | Low-temperature type main shaft components | A | 2024-11-27 |
| 19 | NE-010-00C | Mechanical main shaft components | A | 2024-11-27 |
| 20 | NE-010-01 | Main shaft | A | 2024-11-27 |
| 21 | NE-010-02X | Inductive cam | A | 2024-11-27 |
| 22 | NE-010-03 | Low-temperature type main shaft | A | 2024-11-27 |
| 23 | NE-010-04 | Sensor chip | A | 2024-11-27 |
| 24 | NE-010-05 | Brake wheel | A | 2024-11-27 |
| 25 | NE-020-00A | Inductive switch components | A | 2024-11-27 |
| 26 | NE-020-00B1 | Low-temperature inductive switch component | A | 2024-11-27 |

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|---|---|---|---|---|
| 27 | NE-020-00B2 | Low-temperature inductive switch component II | A | 2024-11-27 |
| 28 | NE-020-00C | Microswitch component | A | 2024-11-27 |
| 29 | NE-020-00D | Inductive switch components | A | 2024-11-27 |
| 30 | NE-020-01 | Switch fixing plate I | A | 2024-11-27 |
| 31 | NE-020-02 | Switch fixing plate II | A | 2024-11-27 |
| 32 | APL410-100-002 | Brake wheel | A | 2024-11-27 |
| 33 | APL410-100-003 | Cam | A | 2024-11-27 |
| 34 | APL410-100-004 | Pre-tightened spring | A | 2024-11-27 |
| 35 | APL410-200-004 | Washer I | A | 2024-11-27 |
| 36 | APL410-200-005 | Washer II | A | 2024-11-27 |
| 37 | APL410-900 | Schematic Diagram of Electric Wiring | A | 2024-11-27 |
| 38 | APL410-1100 | Explosion-proof plug | A | 2024-11-27 |
| 39 | HK-00.0-02 | Special flat washer φ8 | A | 2024-11-27 |
| 40 | CY11-2025A-01 | Product Manual | A | 2024-11 |

| (20) | **Certification History** |
|---|---|
| **Iss. No** | **Purpose** |
| 0 | Initial release |

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