(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** :SHEX2504000044MD

(4) **Certificate Number** :SGSNA25ATEX101601X
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 City, 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 60079-1:2014, EN IEC 60079-31:2024

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 db IIB T6…T4 Gb,
II 2 G Ex db IIC T6…T4 Gb
II 2 D Ex tb IIIC T85°C ...T135°C Db

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

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VF04E Series Limit Switch is a field instrument for automatic control system and is used for detecting valve conditions. It can also be used for interlock protection and remote warning indication for the critical valves in the automatic control system.

The enclosure of the switch is made of aluminium ADC12 or CF3M. The internal proximity sensors are certified and terminals, connecting wires are provided inside the switch. 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 ingress rating of IP67.

The switch type, switch model and safe parameters are listed as following.

Switch Type	Switch Model	manufacturer	Rated Voltage	Rated Current
Inductive	NJ2-V3-N×2	Pepperl+Fuchs	8V DC	52mA
Inductive	SN3.5-SN×2	Pepperl+Fuchs	8V DC	52mA
Mechanical	/	/	24V DC,220V AC	5A
Inductive	BD2-S0-Q13-0.15M-DT	Kerui	8V DC	30mA

The relationship between the ambient temperature and temperature class and maximum surface temperature is specified in the special conditions of safe use (X-conditions) of this ATEX EU-TYPE certificate.

Type definition

VF04E-R-a b 0
1 2

Herein: 1 indicates Explosion protection/switch type:
DM-Flameproof/mechanical; DP-Flameproof/inductive;
TM-Dustproof enclosure/mechanical; TP-Dustproof enclosure/inductive.
2 indicates Electrical interface: 0-M20X1.5, 1-NPT 1/2; 2-NPT 3/4

(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.

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(15) **Special conditions of safe use for "X"**:

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

Ambient temperature(°C)	Ex marking	Maximum surface temperature
-40~+80	Ex db IIB T4 Gb	T135°C
-40~+60	Ex db IIB/IIC T4/T5 Gb	T100°C/T135°C
-40~+45	Ex db IIB/IIC T6…T4 Gb	T85°C … T135°C

2. Contact the original manufacturer for information of dimension of flameproof joint. Repairs of the flameproof joints may only be made by the manufacturer or on behalf of the manufacturer under his own responsibility.
3. Special fastener performance rating is A2-70.
4. Wires used for connection shall have insulation that is rated for at least 85°C minimum for the maximum ambient temperature greater than 60°C.
5. Wipe the surface of Ex equipment by wet cloths to remove potential electrostatic charging risks.
6. The end user shall not open the enclosure when energized, in explosive gas or dust atmospheres.
7. Cable entry devices used shall be metric or NPT type and be separately certified to ATEX Ex "d" and "t" requirements with appropriate ingress rating.

(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 17, 2025

Vijay Rangarajan

Vijayaraghavan Rangarajan
Certification Manager- Hazardous Locations

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

One whole product should be subjected to the static over pressure test with test pressure 2.0MPa and after the tests of enclosure, no permanent deformation or damage happened. And no leakage through the walls of the enclosure occurs.

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

Issue 0				
S. No	**Drawing No.**	**Description**	**Rev.**	**Date**
1	NE-00.0-00C	Assembly Drawing of VF04E PExplosion-proo Type Limit Switch	A	2024-11-27
2	NE-000-01	End cover	A	2024-11-27
3	NE-000-02X	Primary chamber	A	2024-11-27
4	NE-000-03	Insert	A	2024-11-27
5	NE-000-04	Wiring terminal block	A	2024-11-27
6	NE-000-05	Transparent hood	A	2024-11-27
7	NE-000-06	Indicator cover	A	2024-11-27
8	NE-000-07	Indicator	A	2024-11-27
9	NE-000-08	Compression ring of transparent hood	A	2024-11-27
10	NE-000-09	Cord	A	2024-11-27
11	NE-000-10X	VF04E nameplate	A	2024-11-27
12	NE-000-11	M8 hexagon socket head cap bolt with waisted shank	A	2024-11-27
13	NE-000-12	Wiring terminal fixing plate	A	2024-11-27
14	NE-000-13	Sealing sticker	A	2024-11-27
15	NE-000-14	Schematic Diagram for Wiring of Inductive Limi Switch	A	2024-11-27
16	NE-010-00A	Main shaft components	A	2024-11-27
17	NE-010-00B	Sensor chip	A	2024-11-27
18	NE-010-00C	Mechanical main Pshaft components	A	2024-11-27
19	NE-010-01	Main shaft	A	2024-11-27
20	NE-010-02X	Inductive cam	A	2024-11-27
21	NE-010-03	Low-temperature type main shaft	A	2024-11-27
22	NE-010-04	Sensor chip	A	2024-11-27
23	NE-010-05	Brake wheel	A	2024-11-27
24	NE-020-00A	Inductive switch components	A	2024-11-27
25	NE-020-00B1	Low-temperature inductive switch component I	A	2024-11-27
26	NE-020-00B2	Low-temperature inductive switch component II	A	2024-11-27
27	NE-020-00C	Microswitch component	A	2024-11-27
28	NE-020-00D	Inductive switch components	A	2024-11-27

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29	NE-020-01	Switch fixing plate I	A	2024-11-27
30	NE-020-02	Switch fixing plate II	A	2024-11-27
31	CY11-2025A-01	Product Manual	A	2024-11

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

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