(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** : SHEX2410000068MD

(4) **Certificate Number** :SGSNA24ATEX111901X

Issue No :0

(5) **Equipment** : HVP Intelligent Positioner, HVP3 Series

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

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

(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 ia IIIC T85°C…T135°C Db. See the general product information for list of T-classes and associated ambient temperature ranges

(12) **Product Description** : HVP3 Series Intelligent Positioner

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HVP3 Series HVP Intelligent Positioners are used to control the position of a control valve used in industrial process control. It can be used in explosive gas and explosive dust atmospheres. It's a 2-wire equipment with 6 electronics boards including main board, reed switch board, feedback board, terminal board, LCD board, IP board. The input and output signal of the positioner are both 4 to 20mA analog signal. A potentiometer is used to detect the valve position.

To support field operation and operation without open the enclosure, a LCD display and three magnetic buttons are applied. Buttons are mounted outside of the enclosure. The material of the enclosure is aluminium alloy or stainless steel. And a piezoelectric valve is applied to convert electronic signal to pressure.

The function and safe parameters are listed as following.

Terminals	Function	Ui	Ii	Pi	Ci	Li
		V	mA	mW	μF	μH
IN+,-	4 to 20mA	28	93	0.651	0	145.5
OUT+,-	Voltage and output	28	93	0.651	0	0

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

Ambient temperature (°C)	**Temperature class**	**Maximum surface temperature**
-40 to +75	T4	T135°C
-40 to +55	T5	T100°C
-40 to +40	T6	T85°C

Type definition:

	Order No.										
Intelligent Positioner	HVP										
Intrinsically Safe Dust by Intrinsically Safe		31									
Spring Return			S								
Linear Rotary				L R							
None					0						

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HART Protocol	1							
None Feedback Lightning Protection Feedback and Lighting Protection		0 1 4 5						
Cable Gland: NPT1/2 M20x1.5-6H Customized			1 0 2					
Air Fitting: NPT1/4 Rc1/4				1 0				
Ambient Temperature: -30°C≤Ta≤+75°C -40°C≤Ta≤+75°C					S L			
Pressure Gauge: None Yes (stainless steel)						0 1		
Corrosion resistance: Aluminium alloy (standard coating) Aluminium alloy (reinforced coating) Stainless steel							0 1 2	
Identification Code								-00

(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"**:

a. The ambient temperature range is -40°C~+40°C, +55°C or +75°C.

b. When installed, the breathing device of the product shall be tilted downward to prevent liquid from entering the inside of the enclosure.

c. Observe the warning:

POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS.

WARNING-DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT!

d. The temperature class and the Tamb. Range are shown as follows.

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Ambient temperature (°C)	Temperature class	Maximum surface temperature
-40 to +75	T4	T135°C
-40 to +55	T5	T100°C
-40 to +40	T6	T85°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: Nov 19, 2024

Vijay Rangarajan

Vijay Rangarajan

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

Transformer test as the routine test according to clause 11.2 of EN 60079-11:2012:
The test voltage 500VAC at least is applied to the insulation of input and output winding and 500VAC at least is applied to the insulation of core and windings. The current flowing during this test shall not increase above that which is expected from the design of the circuit and shall not exceed 5 mARMS at any time. During this test, no breakdown shall occur.

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

Issue 0				
S. No	**Drawing No.**	**Description**	**Rev.**	**Date**
1	HK-00.0-00-IEC	Assembly Drawing of HVP3X Intelligent Valve Positioner	A	2023-09-20
2	HK-00.0-01Y	Terminal box end cover	A	2023-09-20
3	HK-05.0-01Y	Display end cover	A	2023-09-20
4	HK-05.0-02	Glass window	A	2023-09-20
5	HK-07.0-01XY	Main body	A	2023-09-20
6	HK-06.0-01	Potentiometer	A	2023-09-20
7	HK-06.0-02-IEC	Potentiometer fixing plate	A	2023-09-20
8	HK-00.0-06X-ATEX	HVP3X nameplate	-	2024-10-28
9	HK-02.0-01Y	Base	A	2023-09-20
10	HK-02.0-03	Small vent plug	A	2023-09-20
11	HD-03-02	Vent plug	A	2023-09-20
12	HK-07.2-01-	Wire connector	A	2023-09-20
13	HK-01.1-01-IEC	Schematic Diagram of HVP30 Mainboard	A	2023-09-20
14	HK-01.1-02-IEC	Top Layer Wiring Diagram of HVP30 Mainboard	A	2023-09-20
15	HK-01.1-03-IEC	Top Layer Character Diagram of HVP30 Mainboard	A	2023-09-20
16	HK-01.1-04-IEC	Bottom Layer Wiring Diagram of HVP30 Mainboard	A	2023-09-20
17	HK-01.1-05-IEC	Bottom Layer Character Diagram of HVP30 Mainboard	A	2023-09-20
18	HK-01.1-06-IEC	HVP30 mainboard BOM	A	2023-09-20
19	HK-01.2-01-IEC	Schematic Diagram of HVP30 Feedback Board	A	2023-09-20
20	HK-01.2-02-IEC	Top Layer Wiring Diagram of HVP30 Feedback Board	A	2023-09-20

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21	HK-01.2-03-IEC	Top Layer Character Diagram of HVP30 Feedback Board	A	2023-09-20
22	HK-01.2-04-IEC	Bottom Layer Wiring Diagram of HVP30 Feedback Board	A	2023-09-20
23	HK-01.2-05-IEC	Bottom Layer Character Diagram of HVP30 Feedback Board	A	2023-09-20
24	HK-01.2-06-IEC	HVP30 feedback board BOM	A	2023-09-20
25	HK-03.1-01A-IEC	Schematic Diagram of HVP30 Feedback Board	A	2023-09-20
26	HK-03.1-02A-IEC	Top Layer Wiring Diagram of HVP30 Wiring Board	A	2023-09-20
27	HK-03.1-03A-IEC	Top Layer Character Diagram of HVP30 Wiring Board	A	2023-09-20
28	HK-03.1-04A-IEC	Bottom Layer Wiring Diagram of HVP30 Wiring Board	A	2023-09-20
29	HK-03.1-05A-IEC	HVP30Bottom Layer Character Diagram of HVP30 Wiring Board	A	2023-09-20
30	HK-03.1-06A-IEC	HVP30 wiring board BOM	A	2023-09-20
31	HK-08.1-01	Schematic Diagram of Dry-reed Board	A	2023-09-20
32	HK-08.1-02	Top Layer Wiring Diagram of Dry-reed Board	A	2023-09-20
33	HK-08.1-03	Top Layer Character Diagram of Dry-reed Board	A	2023-09-20
34	HK-08.1-04	Bottom Layer Wiring Diagram of Dry-reed Board	A	2023-09-20
35	HK-08.1-05	Bottom Layer Character Diagram of Dry-reed Board	A	2023-09-20
36	HK-08.1-06	HVP30 dry-reed board BOM	A	2023-09-20
37	HK-01.3-02-IEC	Schematic Diagram of HVP30DCDC Module	A	2023-09-20
38	HK-01.3-03-IEC	Top Layer Wiring Diagram of HVP30DCDC Module	A	2023-09-20
39	HK-01.3-04-IEC	Top Layer Character Diagram of HVP30DCDC Module	A	2023-09-20
40	HK-01.3-05-IEC	Bottom Layer Wiring Diagram of HVP30DCDC Module	A	2023-09-20
41	HK-01.3-06-IEC	Bottom Layer Character Diagram of HVP30DCDC Module	A	2023-09-20
42	HK-01.3-07-IEC	HVP30DCDC encapsulation	A	2023-09-20
43	HK-04.1-01	Top Layer Wiring Diagram of HVP30 Transition Board	A	2023-09-20

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44	HK-04.1-02	Top Layer Character Diagram of HVP30 Transition Board	A	2023-09-20
45	HK-04.1-03	Bottom Layer Wiring Diagram of HVP30 Transition Board	A	2023-09-20
46	HK-04.1-04	Bottom Layer Character Diagram of HVP30 Transition Board	A	2023-09-20
47	HK-01.1-07-IEC	Schematic block diagram of HVP30 mainboard	A	2023-09-20
48	HL-000-01	End cover for terminal	A	2023-09-20
49	HL-000-02X	Main body	A	2023-09-20
50	HL-000-03	Base	A	2023-09-20
51	HL-000-05	End cover for display	A	2023-09-20
52	HD-01.2-06F	Feedback Coupled Coil	A	2023-09-20
53	-	Datasheet of components	-	-
54	-	HVP3 Series Intelligent Valve Positioner Manual	CY11-2024A-01	-

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

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