



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX NEP 23.0027X** Page 1 of 3 [Certificate history:](#)
Status: **Current** Issue No: 0
Date of Issue: 2024-04-23
Applicant: **NIHON KOSO Co., Ltd. KOSO ENGINEERING DIVISION**
1-16-7, NIHOMBASHI, CHUO-KU, TOKYO, 103-0027
Japan
Equipment: **Smart Valve Positioner KGP2XXX**
Optional accessory:
Type of Protection: **Ex ia**
Marking: **Ex ia IIC T4/T5 Ga**
Tamb.: -40°C ~ +80°C (T4), or -40°C ~ +60°C (T5)

Approved for issue on behalf of the IECEx
Certification Body:

Guo Aihua

Position:

General Manager

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

**Shanghai Inspection and Testing Institute of Instruments
and Automatic Systems Co., Ltd. (SITI/IAS)/
National Supervision and Inspection Center for Explosion
Protection and Safety of Instrumentation (NEPSI)
103 Cao Bao Road
Shanghai 200233
China**



SITI/IAS
Worldwide Access



IECEX Certificate of Conformity

Certificate No.: **IECEX NEP 23.0027X**

Page 2 of 3

Date of issue: 2024-04-23

Issue No: 0

Manufacturer: **NIHON KOSO Co., Ltd.**
KOSO ENGINEERING DIVISION
1-16-7, Nihombashi, Chuo-ku
Tokyo, 103-0027
Japan

Manufacturing locations: **NIHON KOSO Co.,Ltd. KOSO ENGINEERING DIVISION**
51-1, SASAYAMA, KITAYOKOTA,
SUKAGAWA-SHI, FUKUSHIMA,
962-0313
Japan

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-11:2011](#) Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[CN/NEP/ExTR23.0030/00](#)

Quality Assessment Report:

[NL/DEK/QAR17.0019/04](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX NEP 23.0027X**

Page 3 of 3

Date of issue: 2024-04-23

Issue No: 0

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:



Refer to Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Enclosure need sufficient de-energizing static electricity, before conduct wiring and adjustment.
2. The enclosure contains aluminium must be protected from impact or friction when located in areas classified Zone 0.
3. The enclosure has an ingress protection of rating of IP66. The user shall ensure that the external plugs or conduits or cable glands that used will provide a degree of protection of IP66, after they are connected to the socket.
4. The apparatus is not capable of withstanding the 500V insulation test required by Clause 6.3.13 of IEC 60079-11:2011. This must be taken into account when installing the equipment.

Annex:

[IECEX NEP 23.0027X Annex.pdf](#)

<p>Shanghai Inspection and Testing Institute of Instruments and Automatic Systems Co., Ltd. (SITIIS)</p> <p>National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)</p> <p>103 Cao Bao Road, Shanghai 200233, China</p>	 
<p>Annex to IECEx Certificate of Conformity of IECEx NEP 23.0027X</p>	

General product information:

KGP2XXX series smart valve positioner is a control device mounted on the pneumatic actuator for control valve, which positions a control valve according to a 4 to 20mA signal from a higher-level control system or a control device.


The dimensions of the equipment is about 203mm×128mm×131mm. The enclosure of this product consists of an aluminum die-cast housing, a front cover and one LCD. The main PCB board and torque motor coil, which are the main units, are installed inside the enclosure. The potentiometer itself is composed of a metal housing, and has a sensor board inside and a rotating shaft exposed from the housing. And this unit is attached to the housing of the main body with the shaft on the outside.

There is one earthing terminal on the enclosure, the connection of earthing terminal refer to “Specific Conditions of Use” for more information. The in-output terminal block is attached to the left side of the main PCB by soldering, and the board is covered with a resin PCB cover.

Type designation

KGP2①②③-④⑤⑥⑦-⑧

- ① identifies proof type:
0: Dust water proof
B: CCC certification
D: IECEx certification
E: ATEX certification
- ② identifies Feedback type:
0: Linear motion standard type
1: Linear motion long stroke type
2: Rotary motion type
3: Rotary motion VDI/VDE3845 type
- ③ identifies Communication type:
0: 4~20mA & Without HART & Without Position feedback
1: 4~20mA & Without HART & With Position feedback
2: 4~20mA & With HART & Without Position feedback
3: 4~20mA & With HART & With Position feedback
- ④ identifies Actuator type:
S: Single acting actuator
D: Double acting actuator
- ⑤ identifies Pressure gauge block type

<p>Shanghai Inspection and Testing Institute of Instruments and Automatic Systems Co., Ltd. (SITI/IAS)</p> <p>National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)</p> <p>103 Cao Bao Road, Shanghai 200233, China</p>	
<p>Annex to IECEx Certificate of Conformity of IECEx NEP 23.0027X</p>	

- ⑥ identifies Pressure gauge range
- ⑦ identifies Pressure gauge unit
- ⑧ identifies Option

Electrical Rating:

The smart valve positioner has one terminal with five terminal ports:

Input signal(port 1,2): $U_i=28V$, $I_i=93mA$, $P_i=651mW$, $C_i=1.4nF$, $L_i=0.1mH$.

PT signal(port 4,5): $U_i=28V$, $I_i=93mA$, $P_i=651mW$, $C_i=1.4nF$, $L_i=0.1mH$.

No connection(port 3).