



# 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](http://www.iecex.com)

Certificate No.: **IECEX KTL 20.0012X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-05-28

Applicant: **SHIN HWA ENG Co., LTD.**  
242, Cheongneung-daero (Gojan-dong 80B 2L),  
Namdong-gu,  
Incheon, 21695  
**Korea, Republic of**

Equipment: **SMART POSITIONER, SP760 series**

Optional accessory:

Type of Protection: **Flameproof enclosure "d" and Dust ignition protection enclosure "t"**

Marking: Ex db IIC T6/T5 Gb  
Ex tb IIIC T80 °C/T90 °C Db

Approved for issue on behalf of the IECEX  
Certification Body:

**Park, Jong-koo**

Position:

Certification Manager

Signature:  
(for printed version)

Date:

2020 - 05 - 28

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.
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Certificate issued by:

**Korea Testing Laboratory**  
87, Digital-ro, 26-gil, Guro-gu  
Seoul  
Korea, Republic of





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Additional  
manufacturing  
locations:

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 60079-1:2014-06** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:7.0

**IEC 60079-31:2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

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:

KR/KTL/ExTR20.0012/00

Quality Assessment Reports:

KR/KTL/QAR19.0009/00

KR/KTL/QAR19.0009/01



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## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Smart Positioner, SP760 series, is made of aluminium alloy(ALDC12.1) and controls the valve stroke in responsive to an input signal of (4-20) mA. The equipment provides a degree of protection IP66 in accordance with IEC 60529 and IEC 60079-0. Certified cable entry device with IP66 should be used.

Conduit/cable entries: 1/2 NPT or M20 x P1.5 (2 EA)

Air connection: 1/4 NPT

Gauge connection: 1/8 NPT, 1/8 PT

## Ambient temperature

-30 °C ~ +70 °C (T6 or T80 °C) / +80 °C (T5 or T90 °C)

## Electrical data

Rated voltage: DC (4~20) mA

## Model Configuration

SP760(a)(b)(c)(d)(e)(f)(g)(h)

(a: Acting type): S(Single), D(Double)

(b: Motion type): L1(Linear/20-80 mm), L2(Linear/80-160 mm), R0(Rotary standard), R1(Fork), R2(Namur)

(c: Feedback): 0(None), 1(Position transmitter)

(d: Lock): 1(Fail safe), 2(Fail lock)

(e: Ex type): 0(None), 1(KCs), 2(IECEX), 3(ATEX), 4(NEPSI)

(f: Connection): N(Air: 1/4 NPT, Entry: 1/2 NPT), M(Air: 1/4 NPT, Entry: Metric)

(g: Position L/S): 0(None), 1(2xSDT)

(h: Option): 0(None), H(HART)

## SPECIFIC CONDITIONS OF USE: YES as shown below:

- Special fasteners with yield strength > 626 N/mm<sup>2</sup> shall be used.
- For details on flameproof joints, the manufacturer shall be contacted.
- WARNING - POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS.  
(For enclosure covered with a non-conductive material, propagating brush discharges shall be avoided.)
- Cable and cable glands suitable for at least 90 °C shall be used.