



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx KTL 17.0028X

Issue No: 0

Certificate history:

[Issue No. 0 \(2018-02-07\)](#)

Status: **Current**

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Date of Issue: **2018-02-07**

Applicant: **Yeonil Engineering Co., Ltd.**
21, Garisae 1-ro 17beon-gil, Gangseo-gu, Busan
Korea, Republic of

Equipment: **Heater box, YIEEXB*-**.*.*.***

Optional accessory:

Type of Protection: **Flameproof enclosures "d"**

Marking:
Ex db IIB T6 ... T1 Gb

Approved for issue on behalf of the IECEx
Certification Body:

Park Jong-koo

Position:

Certification Manager

Signature:
(for printed version)

Date:

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 the [Official IECEx Website](#).

Certificate issued by:

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





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Manufacturer: **Yeonil Engineering Co., Ltd.**
21, Garisae 1-ro 17beon-gil, Gangseo-gu, Busan
Korea, Republic of

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

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

*This Certificate **does not** indicate compliance with electrical 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/ExTR17.0030/00](#)

Quality Assessment Report:

[KR/KTL/QAR17.0008/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Heater, YIEEXB*-*-*-**, includes heater tubes welded to the enclosure. The temperature classification is based on the maximum temperature of the heated fluid that is used to determine the maximum temperature of the heater mounting flange. The heater elements must be wholly immersed in the process fluid. The temperature sensor shall be fitted in the heater box to monitor the temperature. The equipment gives a degree of protection IP66 according to IEC 60529.

Thermal data

Ambient temperature: -20 °C to +60 °C

Temperature class: T1, T2, T3, T4, T5, T6

Corresponding Fluid temperature/Process temperature: 440 °C, 290 °C, 195 °C, 130 °C, 95 °C, 80 °C

Electrical data

Rated voltage: max. 690 Vac

Rated wattage: max. 720 kW

Model configuration

Refer to the annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- Special fasteners with property class at least A2-70 shall be used.
- The length of flameproof joints is greater than the values specified in the table IEC 60079-1 standard.

Schedule of Limitations

- The equipment shall be installed so that the surface temperature of the terminal box part above the flange shall be lower than 70 °C.

Annex:

[Annex to IECEx KTL 17.0028X\(issue0\).pdf](#)

87, Digital-ro 26-gil, Guro-gu, Seoul, Korea	ktl 한국산업기술시험원 Korea Testing Laboratory
Reference IECEx document	IECEx KTL 17.0028X(issue0)
Reference project number	PI170690

[Annex to IECEx KTL 17.0028X(issue0)] Relevant type designations

Model Number	Flange Size	max. Power (kW)	Circle type
			Terminal Box Size (mm)
YIEEXB1	2 1/2"	10	Φ224 × 200
YIEEXB2	3"	20	Φ250 × 200
YIEEXB3	4"	30	Φ250 × 200
YIEEXB4	6"	40	Φ300 × 200
YIEEXB5	8"	80	Φ350 × 200
YIEEXB6	10"	120	Φ430 × 300
YIEEXB7	12"	140	Φ465 × 300
YIEEXB8	14"	200	Φ515 × 300
YIEEXB9	16"	290	Φ565 × 300
YIEEXB10	18"	390	Φ620 × 300
YIEEXB11	20"	490	Φ670 × 300
YIEEXB12	22"	660	Φ715 × 300
YIEEXB13	24"	720	Φ770 × 300

YIEEXB*-a-b-c-d-e

a(heating type): C(socket), F(flange)

b(heating element outer diameter)

b(heating element outer diameter)	inch	mm
2	0.315	8.00
4	0.430	10.92
6	0.475	12.06
8	0.492	12.50
F	0.551	14.00
H	0.630	16.00
J	0.685	17.40
K	0.685	17.40

c(rated voltage)

d (rated votlage)	Rated voltage (Vac)
12	120
20	200
22	220
23	230
24	240
38	380
40	400
41	415
44	440
46	460
48	480
60	600
69	690

d(wattage density): 0(0 watts per square inch, WSI) ... 120(120 WSI)

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e(cable entry)

Terminal box Number	Metric	NPT
1	M16, M20	1/2NPT, 3/4NPT
2	M16, M20, M25	1/2NPT, 3/4NPT, 1NPT
3	M16, M20, M25	1/2NPT, 3/4NPT, 1NPT
4	M16, M20, M25, M32	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT
5	M16, M20, M25, M32, M40	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT
6	M16, M20, M25, M32, M40, M50	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT, 2NPT
7	M16, M20, M25, M32, M40, M63	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT, 2NPT, 2-1/2NPT
8	M16, M20, M25, M32, M40, M63	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT, 2NPT, 2-1/2NPT
9	M16, M20, M25, M32, M40, M63	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT, 2NPT, 2-1/2NPT
10	M16, M20, M25, M32, M40, M63	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT, 2NPT, 2-1/2NPT
11	M16, M20, M25, M32, M40, M63	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT, 2NPT, 2-1/2NPT
12	M16, M20, M25, M32, M40, M63	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT, 2NPT, 2-1/2NPT
13	M16, M20, M25, M32, M40, M63	1/2NPT, 3/4NPT, 1NPT, 1-1/4NPT, 1-1/2NPT, 2NPT, 2-1/2NPT