EU-Type Examination Certificate

Certificate No:
ACE24ATEX003X Rev00

Issued 07/03/2024

[1] **EU - TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System Intended for use in Potentially Explosive Atmospheres**
Directive 2014/34/EU

[3] EU – Type Examination Certificate Number: ACE24ATEX003X Rev00

[4] Product: EJX51 Series Explosion-proof Junction box

[5] Manufacturer: Shenyang Huaxing Explosion-Proof Equipment Co., Ltd.

[6] Address: No.6, Hongsha Street, Yuhong District Shenyang City, Liaoning Province, P.R.China

[7] This equipment or protective system and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8] Advanced Consulting and Engineering Iberia SL (A.C.&E. Iberia S.L.), Notified body Accreditation nº: NB3024 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and 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
The examination and test results are recorded in the confidential Report nº.
EX_EXE001_24_24-346; EX_EXT001_24_24-346

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-7:2016/A1:2019 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
EN 60079-31:2014 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
EN 60079-0:2018 Explosive atmospheres–Part 0: Equipment – General requirements

[10] If the sign “X” is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the point 17 of This certificate.

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

II 2G Ex eb IIC T5…T6 Gb
II 2D Ex tb IIIC T80°C Db

Date: 07/03/2024

Advanced Consulting and Engineering Iberia SL
Notified Body No NB3024
Digitally signed by: MARCONI MATTEO
Date: 07/03/2024 11:28:05

Matteo Marconi, CEO

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[13] **SCHEDULE**

[14] EU-Type Examination Certificate No:ACE24ATEX003X Rev00

[15] Description of equipment

15.1 Construction Overview

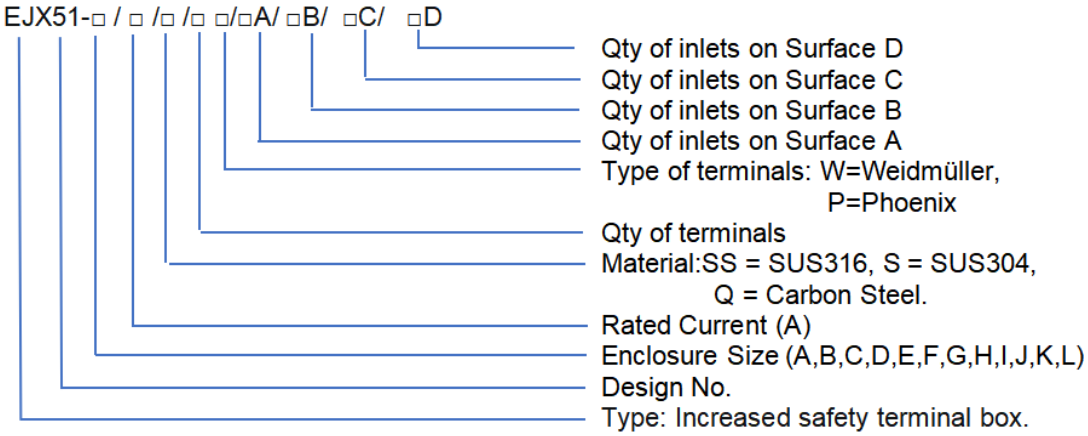
The EJX51 series Explosion-proof junction box is composed of an enclosure and a cover, both are manufactured from Q235 carbon steel or SUS 304 stainless steel or SUS 316 stainless steel (the size remains the same when the material varies). The surface of the enclosure is treated with electrostatic paint when the material is carbon steel and stainless steel, or brushed when the material is stainless steel. The sealing of the enclosure is made of foamed polyurethane or made of nitrile rubber. Terminals and rails are installed in the compartment, Ex component includes terminal blocks are installed to provide electrical connection, the type of the terminals are Weidmüller WDU/WPE Series or Phoenix UK/UKH Series. To secure these terminals, some bars of terminal strips is installed and secured by hexagon bolts or self-tapping screws. Different numbers of holes are provided on four critical surfaces of the box to install with Ex cable glands. Both external and internal earthings are provided. The degree of protection of the enclosure is IP66, according to en EN IEC 60079-0 and EN 60529.

The following are the details of the terminal blocks.

item	Components used	Type	Manufacture	Certificate No.	Ex marking
1	Terminal blocks	WDU/WPE Series	Weidmüller Interface GmbH & Co. KG	IECEx ULD 14.0005U IECEx DEK 21.0033U DEMKO 14 ATEX 1338U KEMA 01 ATEX2186U	Ex eb IIC Gb
2	Terminal blocks	UK/UKH Series	PHOENIX CONTACT GmbH & Co. KG	IECEx PTB 19.0039U IECEx KEM 06.0029U IECEx KEM 06.0034U KEMA 98 ATEX1651U KEMA 98 ATEX1786U PTB 19 ATEX 1014U	Ex eb IIC Gb
Note 1 . The Weidmüller Terminal blocks and the PHOENIX Terminal blocks is certified according to IEC 60079-0:2017 Edition:7.0 and IEC 60079-7:2017 Edition:5.1, it is the same version standard on this product.					

And the suitable application location for it as below: For gas is zone 1 and zone 2, this explosion-proof junction box for gas group, it is IIC; for gas protection, it is Gb.
For dust is zone 21 and zone 22, this explosion-proof junction box for dust group, it is IIIC; for dust protection, it is Db.

15.2 Model designation:



When the box is mounted on the wall, with the cover towards front, the surface of the upper side shall be defined as surface A, the surface on the bottom side of the box is to be surface B, the surface on the left side of the box is to be surface C, and the surface on the right side of the box is to be surface D.

The design number and the enclosure size code:

No.	Design Number	Outer dimensions (Length×Width×Depth) (mm)
1	EJX51-A	250×150×100
2	EJX51-B	300×200×100
3	EJX51-C	300×200×160
4	EJX51-D	350×250×100
5	EJX51-E	350×250×160
6	EJX51-F	350×300×130
7	EJX51-G	380×300×130
8	EJX51-H	380×300×160
9	EJX51-I	380×300×220
10	EJX51-J	380×380×100
11	EJX51-K	380×380×160
12	EJX51-L	380×380×220

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The amount of holes which can be processed on the enclosure:

Design Number	Diameter of the hole,mm											
	Φ20.5		Φ25.5		Φ32.5		Φ40.5		Φ50.5		Φ63.5	
	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D	A/B	C/D
EJX51-A	7	3	5	3	2	4	2	3	2	3	2	1
EJX51-B	8	5	6	4	5	3	4	3	4	2	3	2
EJX51-C	16	10	12	8	10	6	7	6	6	3	3	2
EJX51-D	9	7	7	5	6	4	5	3	4	3	3	2
EJX51-E	18	14	14	10	11	8	9	6	7	4	3	2
EJX51-F	18	14	14	10	11	8	9	6	7	4	3	3
EJX51-G	20	17	16	12	13	10	8	10	7	4	3	3
EJX51-H	23	20	18	14	15	12	11	9	7	4	4	3
EJX51-I	28	25	23	19	17	16	13	12	10	7	8	6
EJX51-J	11	11	8	8	6	6	5	5	5	5	4	4
EJX51-K	22	22	16	16	12	12	9	9	7	7	4	4
EJX51-L	33	33	24	24	18	18	14	14	11	11	8	8

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The model and the number of terminal blocks installed inside, the cross-sectional area and the corresponding current of conductor when using Weidmüller WDU/WPE series:

Cross-sectional area of conductor(mm^2)		1.5	2.5	4	6	10	16
Terminal current (A)		15	20	25	40	55	75
Terminal model (Weidmüller)		WDU/WPE 1.5/ZZ	WDU/ WPE 2.5	WDU/ WPE 4	WDU/ WPE 6	WDU/ WPE10	WDU/ WPE 16
Terminal tightening torque		0.5N·m	1N·m	1.5N·m	2N·m	3N·m	3.5N·m
Number of Terminals	EJX51-A	25	25	20	15	12	10
	EJX51-B	30	30	27	20	16	14
	EJX51-C	30	30	27	20	16	14
	EJX51-D	75	75	64	27	20	16
	EJX51-E	75	75	64	27	20	16
	EJX51-F	75	75	64	27	20	16
	EJX51-G	100	100	80	32	24	20
	EJX51-H	100	100	80	32	24	20
	EJX51-I	100	100	80	32	24	20
	EJX51-J	125	125	80	32	24	20
	EJX51-K	125	125	96	48	40	36
	EJX51-L	125	125	96	48	40	36

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The model and the number of terminal blocks installed inside, the cross-sectional area and the corresponding current of conductor when using Phoenix UK/UKH series:

Cross-sectional area of conductor (mm^2)		1.5	2.5	3	5	6	10
Terminal current (A)		15	20	18	28	40	50
Terminal model (Phoenix)		UK 1.5 N	UK 2.5 N	UK 3 N	UK 5 N	UK 6 N	UK 10 N
Terminal tightening torque		0.5N·m	1N·m	0.8N·m	1.5N·m	2N·m	3N·m
Number of Terminals	EJX51-A	25	25	20	20	15	12
	EJX51-B	30	30	27	27	20	16
	EJX51-C	30	30	27	27	20	16
	EJX51-D	75	75	64	64	27	20
	EJX51-E	75	75	64	64	27	20
	EJX51-F	75	75	64	64	27	20
	EJX51-G	100	100	80	80	32	24
	EJX51-H	100	100	80	80	32	24
	EJX51-I	100	100	80	80	32	24
	EJX51-J	125	125	80	80	32	24
	EJX51-K	125	125	96	96	48	40
	EJX51-L	125	125	96	96	48	40

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Cross-sectional area of conductor (mm^2)		16	35	50	95	150	240
Terminal current (A)		64	100	125	175	250	350
Terminal model (Phoenix)		UK 16 N	UK 35	UKH 50	UKH 95	UKH 150	UKH 240
Terminal tightening torque		3.5N·m	4N·m	6N·m	15N·m	25N·m	25N·m
Number of Terminals	EJX51-A	10	8	0	0	0	0
	EJX51-B	14	10	0	0	0	0
	EJX51-C	14	10	8	6	6	6
	EJX51-D	16	14	0	0	0	0
	EJX51-E	16	14	10	8	8	6
	EJX51-F	16	14	10	8	8	0
	EJX51-G	20	15	15	10	10	8
	EJX51-H	20	15	15	10	10	8
	EJX51-I	20	15	15	10	10	8
	EJX51-J	20	15	0	0	0	0
	EJX51-K	36	18	15	15	12	12
	EJX51-L	36	18	15	15	12	12

Maximum Dissipated Power:

Design Number	Maximum Dissipated Power (W), when Ta:-40°C to +40°C	Maximum Dissipated Power (W), when Ta:-40°C to +55°C
EJX51-A	38.79	41.01
EJX51-B	52.81	55.85
EJX51-C	72.62	76.79
EJX51-D	68.49	72.43
EJX51-E	92.25	97.55
EJX51-F	90.44	95.63
EJX51-G	95.98	101.50
EJX51-H	109.45	115.74
EJX51-I	136.38	144.22
EJX51-J	97.83	103.45
EJX51-K	127.93	135.28
EJX51-L	158.03	167.11

T-Class:

Group	Ta: -40°C to +40°C	Ta: -40°C to +55°C
Group II (Gas)	T6	T5
Group III (Dust)	T80°C	T80°C

15.3 Electrical parameters：
Rated voltage:Max. 480VAC/DC;
Rated current: Max. 350A;

15.4 Ambient temperature:-40°C ~+40/55°C;

15.5 Ingress Protection class: IP66

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[13] **SCHEDULE**

[14] EC-Type Examination Certificate No: ACE24ATEX003X Rev00

[16] Test documents are listed in the test report nº
EX_EXE001_24_24-346 EX_EXT001_24_24-346.

[17] Special conditions for safe use

- Ambient temperature range: -40°C to +40/55°C;
- End user shall use certified cable gland suitable type of protection for final installation purpose;
- WARNING–DO NOT OPEN WHEN ENERGIZED;
- WARNING - DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT.

[18] Essential Health and Safety Requirements
Assured by compliance with harmonized standards mentioned in [9]

[19] Documents and technical datasheets:

Title	Object	Revision	Date
No.HXWS202304011	Dissipation power table	V1.0	11/05/2023
EJX51-00-00	General Assembly Drawing	Ed.1	11/10/2023
User Manual-EJX51 Series Explosion-proof Junction box	User Manual	V1.0	06/2023

The documents above-mentioned are strictly confidential and they are of only use of authorities.
A copy of the documents are saved by A.C.&E. Iberia S.L.

[20] Certificate History

Number of certificate	Rev.	Comments	Date
ACE24ATEX003X Rev00	00	Firs issue	07/03/2024

Date: 07/03/2024

Advanced Consulting and Engineering Iberia SL
Notified Body No NB3024

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Matteo Marconi, CEO