



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 BAS 16.0123X Issue No: 0 Certificate history:
Issue No. 0 (2017-02-03)

Status: **Current** Page 1 of 3

Date of Issue: **2017-02-03**

Applicant: **Emerson Hazardous Electrical Equipment (Shanghai) Co. Ltd.**
Zone A, 1st Floor, Building 5,
No. 758 RongLe Dong Road,
Songjiang,
Shanghai, 201613
China

Equipment: **Type ASSE Series of Junction Boxes**
Optional accessory:

Type of Protection: **Increased Safety. Intrinsically safe and Dust protected**

Marking: **Ex eb IIC T* Gb Ta -35°C to +[†]°C
Ex eb ia IIC T* Gb Ta -35°C to +[†]°C
Ex ia IIC T* Gb Ta -35°C to +[†]°C
Ex tb IIIC T80°C Db IP66 Ta -35°C to +[†]°C or Ex tb IIIC T95°C Db IP66 Ta -35°C to +[†]°C
* = temperature classification T5 or T6 and [†] = maximum ambient temperature +40° C, or 55° C
depending upon power dissipation.**

Approved for issue on behalf of the IECEx
Certification Body:

R S Sinclair

Position:

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

Certificate issued by:

SGS Baseefa Limited
Rockhead Business Park
Staden Lane
Buxton, Derbyshire, SK17 9RZ
United Kingdom





IECEx Certificate of Conformity

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Date of Issue: 2017-02-03 Page 2 of 3

Manufacturer: **Emerson Hazardous Electrical Equipment (Shanghai) Co. Ltd.**
Zone A, 1st Floor, Building 5,
No. 758 RongLe Dong Road,
Songjiang,
Shanghai, 20
China

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

IEC 60079-7 : 2006-07 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:4

*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:

[GB/BAS/ExTR16.0394/00](#)

Quality Assessment Report:

[NO/PRE/QAR15.0039/00](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Type ASSE Series of Junction Boxes comprise stainless steel enclosures with rail mounted terminals

The range of seventy eight enclosures may be fitted with a variety of different rail mounted terminal arrangements; optional gland plates, and are provided with M6, M8, M10 or M12 earth assemblies. The cover may be bolted, bolted and hinged or with a hinge and locks.

All terminals are covered by their own component certificates. The terminals permitted are listed on the certification documents.

See annex for full description.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. The maximum voltage, current and dissipated power shown on the rating label must not be exceeded.
2. All terminal screws, used and unused, shall be fully tightened down by the end user.
3. No more than one single or multi-stranded lead shall be connected to either side of any terminal unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated bootlace ferrule, or any method indicated on the terminal certificate.
4. Terminals shall be installed in such a manner that the creepage and clearance distances between the terminal and adjacent components, enclosure walls and covers comply with the requirements of EN 60079-7 for the rated voltage of the equipment.
5. All terminals, and accessories such as cross-connectors, shall be installed in accordance with the terminal manufacturer's instructions. The manufacturer is to supply the relevant terminal manufacturer's instructions with each junction box covered by this certificate.
6. Precautions shall be taken to prevent a build-up of dust on the enclosure.
7. When connecting conductors of cross section below the maximum allowed for the particular terminal then the maximum amps per pole must be reduced in line with the maximum amps permitted for a terminal equivalent to the conductor size fitted.
8. Increased safety (Exe) or flameproof (Exd) cable glands must only be used and must be provided with a seal to maintain the ingress protection of the enclosure.
- 9 Cable suitable for the temperature shall be provided for the terminals boxes marked T6 when the ambient temperature is above 30°C, or when marked T5 when the ambient temperature is above 15°C.

Annex:

[IECEx BAS 16.0123X Annex.pdf](#)

The Type ASSE Series of Junction Boxes comprise stainless steel enclosures with rail mounted terminals

The range of seventy eight enclosures may be fitted with a variety of different rail mounted terminal arrangements; optional gland plates, and are provided with M6, M8, M10 or M12 earth assemblies. The cover may be bolted, bolted and hinged or with a hinge and locks.

All terminals are covered by their own component certificates. The terminals permitted are listed on the certification documents.

The maximum dissipated wattage for a 40K and a 25K rise for the junction boxes is as follows:

Catalogue Number	Enclosure size W x H x D (mm)	Maximum Power (W)		Maximum cable length (mm) per terminal (Max box diagonal)
		(Δ 40K) T6 at 40°C T5 at 55°C	(Δ 25K) T6 at 55°C	
		W	W	
ASSE121295	120x120 x 95	8.64	5.17	194
ASSE121895	120 x180 x 95	11.65	6.96	236
ASSE181295	180 x 120 x 95	11.65	6.96	236
ASSE121215	120 x 120 x 150	11.72	7.00	226
ASSE121815	120 x 180 x 150	15.49	9.25	263
ASSE181215	180 x 120 x 150	15.49	9.25	263
ASSE181895	180 x 180 x 95	15.49	9.25	272
ASSE182295	180 x 220 x 95	18.06	10.78	300
ASSE221895	220 x180 x 95	18.06	10.78	300
ASSE181815	180 x 180 x 150	20.11	12.00	295
ASSE182215	180 x 220 x 150	23.20	13.83	321
ASSE221815	220 x 180 x 150	23.20	13.83	321
ASSE222215	220 x 220 x 150	26.66	15.89	345
ASSE222615	220 x 260 x 150	30.13	17.94	372
ASSE262215	260 x 220 x 150	30.13	17.94	372
ASSE222220	220 x 220 x 200	31.82	18.94	370
ASSE262615	260 x 260 x 150	33.97	20.22	397
ASSE222620	220 x 260 x 200	35.76	21.27	395
ASSE262220	260 x 220 x 200	35.76	21.27	395
ASSE223715	220 x 370 x 150	39.68	23.59	456
ASSE372215	370 x 220 x 150	39.68	23.59	456
ASSE262620	260 x 260 x 200	40.08	23.82	419
ASSE222230	220 x 220 x 300	42.15	25.04	432
ASSE263715	260 x 370 x 150	44.58	26.47	476
ASSE372615	370 x 260 x 150	44.58	26.47	476
ASSE223720	220 x 370 x 200	46.63	27.68	475
ASSE372220	370 x 220 x 200	46.63	27.68	475
ASSE222630	220 x 260 x 300	47.05	27.93	454
ASSE262230	260 x 220 x 300	47.05	27.93	454
ASSE263720	260 x 370 x 200	52.00	30.84	494
ASSE372620	370 x 260 x 200	52.00	30.84	494
ASSE262630	260 x 260 x 300	52.33	31.03	475
ASSE373715	370 x 370 x 150	58.08	34.40	544

Catalogue Number	Enclosure size W x H x D (mm)	Maximum wattage and maximum % of certified rated current		Maximum cable length (mm) per terminal (Max box diagonal)
		(Δ 40K) T6 at 40°C T5 at 55°C	(Δ 25K) T6 at 55°C	
		W	W	
ASSE223730	220 x 370 x 300	60.56	35.85	525
ASSE372230	370 x 220 x 300	60.56	35.85	525
ASSE265615	260 x 560 x 150	62.98	37.26	635
ASSE562615	560 x 260 x 150	62.98	37.26	635
ASSE373720	370 x 370 x 200	66.84	39.52	560
ASSE263730	260 x 370 x 300	66.91	39.56	543
ASSE372630	370 x 260 x 300	66.91	39.56	543
ASSE265620	260 x 560 x 200	72.71	42.94	649
ASSE562620	560 x 260 x 200	72.71	42.94	649
ASSE267515	260 x 750 x 150	81.49	48.04	808
ASSE752615	750 x 260 x 150	81.49	48.04	808
ASSE375615	370 x 560 x 150	81.54	48.07	688
ASSE563715	560 x 370 x 150	81.54	48.07	688
ASSE373730	370 x 370 x 300	84.44	49.76	603
ASSE265630	260 x 560 x 300	92.26	54.28	686
ASSE562630	560 x 260 x 300	92.26	54.28	686
ASSE375620	370 x 560 x 200	92.64	54.50	700
ASSE563720	560 x 370 x 200	92.64	54.50	700
ASSE267520	260 x 750 x 200	93.55	55.02	819
ASSE752620	750 x 260 x 200	93.55	55.02	819
ASSE377515	370 x 750 x 150	105.17	61.72	850
ASSE753715	750 x 370 x 150	105.17	61.72	850
ASSE565615	560x x560 x 150	113.86	66.71	806
ASSE375630	370 x 560 x 300	114.96	67.34	735
ASSE563730	560 x 370 x 300	114.96	67.34	735
ASSE267530	260 x 750 x 300	117.81	68.97	849
ASSE752630	750 x 260 x 300	117.81	68.97	849
ASSE377520	370 x 750 x 200	118.65	69.45	860
ASSE753720	750 x 370 x 200	118.65	69.45	860
ASSE565620	560 x 560 x 200	127.37	74.43	817
ASSE377530	370 x 750 x 300	145.78	84.89	888
ASSE753730	750 x 370 x 300	145.78	84.89	888
ASSE567515	560 x 750 x 150	146.51	85.31	948
ASSE755615	750 x 560 x 150	146.51	85.31	948
ASSE565630	560 x 560 x 300	154.57	89.86	847
ASSE567520	560 x 750 x 200	162.48	94.32	957
ASSE755620	750 x 560 x 200	162.48	94.32	957
ASSE567530	560 x 750 x 300	194.67	112.33	983
ASSE755630	750 x 560 x 300	194.67	112.33	983
ASSE108025	1000 x 800 x 250	304.31	172.16	1305
ASSE108030	1000 x 800 x 300	327.33	184.43	1315
ASSE108035	1000 x 800 x 350	350.49	196.68	1328
ASSE129730	1200 x 970 x 300	451.26	248.92	1572
ASSE129735	1200 x 970 x 350	480.14	263.59	1582
ASSE129740	1200 x 970 x 400	509.25	278.24	1594

The maximum number of terminals that may be fitted into each enclosure is calculated using the following formula:

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ANNEX to IECEx BAS 16.0123X

Issue No. 0

Date: 03/02/2017

Power = $I^2 \times N(R_t + R_c)$ Watts

Where:

I = Actual current through the conductor up to the maximum percentage certified current for each terminal type as specified in the instructions. (Amps)

N = Number of terminals

R_t = Terminal resistance (Ohms @ 20 °C)

R_c = Resistance of one solid copper conductor (ohms @ 20 °C) when using the maximum box diagonal